

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**AMENDMENT NO. 5  
TO  
FORM S-1  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**vTv Therapeutics Inc.**  
*(Exact Name of Registrant as Specified in Its Charter)*

**Delaware**  
*(State or other jurisdiction of  
incorporation or organization)*

**2834**  
*(Primary Standard Industrial  
Classification Code Number)*  
**4170 Mendenhall Oaks Pkwy  
High Point, NC 27265  
(336) 841-0300**

**47-3916571**  
*(IRS Employer  
Identification Number)*

*(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)*

**Stephen L. Holcombe**  
**President and Chief Executive Officer**  
**4170 Mendenhall Oaks Pkwy  
High Point, NC 27265  
(336) 841-0300**

*(Name, address, including zip code, and telephone number, including area code, of agent for service)*

**With copies to:**

**Lawrence G. Wee, Esq.**  
**Paul, Weiss, Rifkind, Wharton & Garrison LLP**  
**1285 Avenue of the Americas  
New York, NY 10019-6064  
(212) 373-3000**

**Marc D. Jaffe, Esq.**  
**Senet S. Bischoff, Esq.**  
**Latham & Watkins LLP**  
**885 Third Avenue  
New York, NY 10022  
(212) 906-1200**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, please check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated  
filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

*(Do not check if a smaller reporting company)*

**CALCULATION OF REGISTRATION FEE**

Title of each Class of Securities to be Registered	Amount to be Registered <sup>(1)(2)</sup>	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price <sup>(1)(2)</sup>	Amount of Registration Fee
Class A Common Stock, par value \$0.01 per share	8,984,375	\$ 17.00	\$ 152,734,375	\$ 17,748 <sup>(3)</sup>

<sup>(1)</sup>Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.

<sup>(2)</sup>Includes 1,171,875 shares that the underwriters have the option to purchase to cover over-allotments, if any.

<sup>(3)</sup>Previously paid.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.



#### **EXPLANATORY NOTE**

This Amendment No. 5 ("Amendment No. 5") to the Registration Statement on Form S-1 (File No. 333-204951) of vTv Therapeutics Inc. (the "Registration Statement") is being filed solely for the purpose of filing certain exhibits as indicated in Part II of this Amendment No. 5. This Amendment No. 5 does not modify any provision of the prospectus that forms a part of the Registration Statement. Accordingly, a preliminary prospectus has been omitted.

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**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 13. Other Expenses of Issuance and Distribution.**

Set forth below is a table of the registration fee for the Securities and Exchange Commission and estimates of all other expenses to be paid by the registrant in connection with the issuance and distribution of the securities described in the registration statement:

SEC registration fee	\$	17,748
NASDAQ listing fee		125,000
Financial Industry Regulatory Authority filing fee		26,725
Printing expenses		325,000
Legal fees and expenses		1,800,000
Accounting fees and expenses		2,000,000
Transfer agent and registrar fees		5,000
Miscellaneous		500,527
Total	\$	<u>4,800,000</u>

**Item 14. Indemnification of Directors and Officers.**

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify directors and officers as well as other employees and individuals against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any threatened, pending or completed actions, suits or proceedings in which such person is made a party by reason of such person being or having been a director, officer, employee or agent to the Registrant. The Delaware General Corporation Law provides that Section 145 is not exclusive of other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise. The Registrant's amended and restated certificate of incorporation will provide for indemnification by the Registrant of its directors, officers and employees to the fullest extent permitted by the Delaware General Corporation Law.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) for unlawful payments of dividends or unlawful stock repurchases, redemptions or other distributions, or (iv) for any transaction from which the director derived an improper personal benefit. The Registrant's amended and restated certificate of incorporation will provide for such limitation of liability.

The Registrant maintains standard policies of insurance under which coverage is provided (a) to its directors and officers against loss rising from claims made by reason of breach of duty or other wrongful act, and (b) to the Registrant with respect to payments which may be made by the Registrant to such officers and directors pursuant to the above indemnification provision or otherwise as a matter of law.

The proposed form of Underwriting Agreement filed as Exhibit 1.1 to this Registration Statement provides for indemnification of directors and officers of the Registrant by the underwriters against certain liabilities.

We expect to enter into customary indemnification agreements with our executive officers and directors that provide them, in general, with customary indemnification in connection with their service to us or on our behalf.

**Item 15. Recent Sales of Unregistered Securities**

**Recent Sales of Unregistered Securities by our Predecessors**

On August 9, 2013, in connection with a refinancing of an existing unsecured note, the Predecessors of the registrant closed a rights offering (the "Rights Offering") made to their shareholders or members, as

applicable, consisting of the right to purchase their pro rata portion of (i) in the case of TransTech Pharma, Inc., a predecessor of vTvx Holdings I (“Predecessor vTvx Holdings I”), Series F Preferred Stock of Predecessor vTvx Holdings I (“Series F Stock”) and new promissory notes issued pursuant to a Note and Equity Issuance Agreement (the “TTP Notes”) and (ii) in the case of vTvx Holdings II, Series B redeemable convertible preferred units of vTvx Holdings II (“Series B Units”) and new promissory notes issued pursuant to the Note and Equity Issuance Agreement (the “HPP Notes”). As a result of the Rights Offering, Predecessor vTvx Holdings I issued to its stockholders electing to participate in the Rights Offering (a) 853,185,967 shares of Series F Stock in the aggregate and (b) TTP Notes with an aggregate initial principal amount of \$75.3 million plus commitments to make up to \$9.8 million in additional aggregate advances to Predecessor vTvx Holdings I. The consideration paid by the stockholders was an amount in cash equal to the principal amount of the TTP Notes plus the commitment to make the aforementioned additional advances. As a result of the Rights Offering, vTvx Holdings II issued to its members electing to participate in the Rights Offering (a) 439,585,861 Series B Units in the aggregate and (iv) HPP Notes with an aggregate initial principal amount of \$18.8 million plus commitments to make up to \$2.5 in additional aggregate advances to vTvx Holdings II. The consideration paid by the members was an amount in cash equal to the principal amount of the HPP Notes plus the commitment to make the aforementioned additional advances. The Series F Stock and the Series B Units described above were issued in the 2013 Rights Offering in reliance on the exemption contained in Section 4(a)(2) of the Securities Act on the basis that the transaction did not involve a public offering. A total of four investors, who made customary representations as to investment intent, experience, sophistication and access to information, among other things, participated in the Rights Offering.

The Series F Stock became Series F Redeemable Convertible Preferred Units of vTvx Holdings I (“Series F Units”) when Predecessor vTvx Holdings I became a limited liability company, vTvx Holdings I, on November 12, 2013.

On March 28, 2014, vTvx Holdings I issued 292,722,844 Series F Units to the holders of the TTP Notes in connection with the conversion of \$91.9 million aggregate principal and accrued interest of such TTP Notes into Series F Units at a rate of one Series F Unit for each \$0.3137 principal amount outstanding under the TTP Notes. Also on March 28, 2014, vTvx Holdings II issued 155,219,376 Series B Units to the holders of the HPP Notes in connection with the conversion of \$24.4 million aggregate principal amount of such HPP Notes into Series B Units at a rate of one Series B Units for each \$0.1569 principal amount outstanding under the HPP Notes. The Series F Units and the Series B Units described above were issued in reliance on the exemption contained in Section 4(a)(2) of the Securities Act on the basis that the transactions did not involve a public offering. A total of four investors, who made customary representations as to investment intent, experience, sophistication and access to information, among other things, participated in the above-described conversion transactions.

On December 30, 2014, vTvx Holdings I issued Perpetual Securities having an aggregate principal amount of \$6.0 million to Dr. Adnan Mjalli (the “Former Officer”), the founder of the Predecessors, in exchange for 18,730,276 Series F Units owned by the Former Officer that were pledged as collateral by the Former Officer to secure his obligations under a promissory note issued by the Former Officer to vTvx Holdings I (the “2007 Note”). On that same date, vTvx Holdings II issued Perpetual Securities having an aggregate principal amount of \$0.5 million to the Former Officer in exchange for 9,363,128 Series B Units owned by the Former Officer that were pledged as collateral by the Former Officer to secure his obligations under the 2007 Note. The Series F Units and the Series B Units described above were issued in reliance on the exemption contained in Section 4(a)(2) of the Securities Act on the basis that the transactions did not involve a public offering.

#### **Recent Sales of Unregistered Securities by the Registrant**

In connection with the Reorganization Transactions described under “Prospectus Summary—The Reorganization Transactions” in the accompanying prospectus, the Registrant will issue an aggregate of 25,000,000 shares of its Class B common stock to vTv Therapeutics Holdings. The shares of Class B common stock described above will be issued in reliance on the exemption contained in Section 4(a)(2) of the Securities Act of 1933, as amended, on the basis that the transaction will not involve a public offering. No underwriters will be involved in the transaction.

**Item 16. Exhibits and Financial Statement Schedules.****(a) Exhibits**

<b>Exhibit Number</b>	<b>Exhibit Description</b>
1.1	Form of Underwriting Agreement.
3.1	Form of Amended and Restated Articles of Incorporation of vTv Therapeutics Inc. to be in effect at the closing of the initial public offering.
3.2	Form of Amended and Restated Bylaws of vTv Therapeutics Inc. to be in effect at the closing of the initial public offering.
5.1	Opinion of Paul, Weiss, Rifkind, Wharton & Garrison LLP as to the validity of the securities being offered.
10.1	Form of Reorganization Agreement.
10.2	Form of Investor Rights Agreement.
10.3	Form of Amended and Restated vTv Therapeutics LLC Operating Agreement.
10.4	Form of Exchange Agreement.
10.5	Form of Tax Receivable Agreement.
10.6	Reimbursement of Fees and Expenses Letter Agreement, dated July 16, 2015, by and between vTv Therapeutics Inc. and MacAndrews & Forbes Group, LLC.
10.7	Form of Indemnification Agreement.
10.8 <sup>†</sup>	Agreement Concerning Glucokinase Activator Project, dated as of February 20, 2007, by and between Novo Nordisk A/S and TransTech Pharma, Inc.
10.9 <sup>†</sup>	New Exclusive License Agreement, dated May 14, 2015, by and between The Trustees of Columbia University in the City of New York and TransTech Pharma, LLC.
10.10 <sup>†</sup>	License and Research Agreement, dated as of March 5, 2015, by and between Calithera Biosciences, Inc. and High Point Pharmaceuticals, LLC and TransTech Pharma, LLC.
10.11	vTv Therapeutics Inc. 2015 Omnibus Equity Incentive Plan.
10.12	vTv Therapeutics Inc. Form of Nonqualified Option Award Agreement.
10.13 <sup>^</sup>	Executive Chairman Agreement, dated as of July 16, 2015, by and between vTv Therapeutics Inc. and Jeff Kindler.
10.14 <sup>^</sup>	Employment Agreement, dated as of July 16, 2015, by and between vTv Therapeutics LLC and Stephen Holcombe, and for certain limited purposes specified therein, vTv Therapeutics Inc.
10.15 <sup>^</sup>	Employment Agreement, dated as of July 16, 2015, by and between vTv Therapeutics LLC and Rudy Howard, and for certain limited purposes specified therein, vTv Therapeutics Inc.
21.1	List of subsidiaries of the registrant.
23.1 <sup>^</sup>	Consent of Ernst & Young LLP, independent registered public accounting firm.
23.2 <sup>^</sup>	Consent of Ernst & Young LLP, independent registered public accounting firm.
23.3	Consent of Paul, Weiss, Rifkind, Wharton & Garrison LLP (included in Exhibit 5.1 to this Registration Statement).
23.4 <sup>^</sup>	Consent of Steven M. Cohen, Director Nominee.
23.5 <sup>^</sup>	Consent of Paul M. Meister, Director Nominee.
23.6 <sup>^</sup>	Consent of Craig C. Parker, Director Nominee.
23.7 <sup>^</sup>	Consent of Noel J. Spiegel, Director Nominee.
24.1 <sup>^</sup>	Powers of Attorney (included in signature page).

<sup>^</sup> Previously filed.

<sup>†</sup> Confidential treatment requested with respect to portions of this exhibit.



**(b) Financial Statement Schedules**

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the combined consolidated financial statements or the notes thereto.

**Item 17. Undertakings.**

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For purposes of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) Each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (4) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
  - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
  - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;



- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, vTv Therapeutics Inc. has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of High Point, State of North Carolina, on the 23<sup>rd</sup> day of July, 2015.

**VTV THERAPEUTICS INC.**

By: /s/ Stephen L. Holcombe

Stephen L. Holcombe

President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Capacity</u>	<u>Date</u>
<u>*</u> Jeffrey B. Kindler	Executive Chairman	July 23, 2015
<u>/s/ Stephen L. Holcombe</u> Stephen L. Holcombe	President and Chief Executive Officer <i>(Principal Executive Officer)</i>	July 23, 2015
<u>*</u> Rudy C. Howard	Chief Financial Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>	July 23, 2015
<u>*</u> Paul G. Savas	Director	July 23, 2015

\* By: /s/ Stephen L. Holcombe  
Stephen L. Holcombe  
Attorney-in-fact

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## EXHIBIT INDEX

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23.1^	Consent of Ernst & Young LLP, independent registered public accounting firm.
23.2^	Consent of Ernst & Young LLP, independent registered public accounting firm.
23.3	Consent of Paul, Weiss, Rifkind, Wharton & Garrison LLP (included in Exhibit 5.1 to this Registration Statement)
23.4^	Consent of Steven M. Cohen, Director Nominee.
23.5^	Consent of Paul M. Meister, Director Nominee.
23.6^	Consent of Craig C. Parker, Director Nominee.
23.7^	Consent of Noel J. Spiegel, Director Nominee.
24.1^	Powers of Attorney (included in signature page).

^ Previously filed.

† Confidential treatment requested with respect to portions of this exhibit.



[    ] Shares

vTv Therapeutics Inc.

Class A Common Stock

## UNDERWRITING AGREEMENT

[    ], 2015

PIPER JAFFRAY & CO.  
STIFEL, NICOLAUS & COMPANY, INCORPORATED

As Representatives of the several  
Underwriters named in Schedule I hereto

c/o Piper Jaffray & Co.  
800 Nicollet Mall  
Minneapolis, Minnesota 55402

c/o Stifel, Nicolaus & Company, Incorporated  
787 7<sup>th</sup> Avenue, 11<sup>th</sup> Floor  
New York, NY 10019

Ladies and Gentlemen:

vTv Therapeutics Inc., a Delaware corporation (the “**Company**”), proposes to sell to the several Underwriters named in Schedule I hereto (the “**Underwriters**”) an aggregate of [    ] shares (the “**Firm Shares**”) of Class A Common Stock, \$[    ] par value per share (the “**Class A Common Stock**”), of the Company. The Firm Shares consist of [    ] authorized but unissued shares of Class A Common Stock to be issued and sold by the Company. The Company has also granted to the several Underwriters an option to purchase up to [    ] additional shares of Class A Common Stock on the terms and for the purposes set forth in Section 3 hereof (the “**Option Shares**”). The Firm Shares and any Option Shares purchased pursuant to this Underwriting Agreement are herein collectively called the “**Securities**.”

As part of the offering contemplated by this Agreement, [    ] (the “**Designated Underwriter**”) has agreed to reserve out of the Firm Shares purchased by it under this Agreement, up to [    ] shares for sale to the Company’s directors, employees and other parties associated with the Company (collectively, the “**Directed Stock Participants**”), as set forth in the Prospectus (as defined herein) under the heading “Underwriting” (the “**Directed Stock Program**”) and subject to the applicable rules, regulations and interpretations of the Financial Industry Regulatory Authority, Inc. (“**FINRA**”). The Firm Shares to be sold by the Designated Underwriter pursuant to the Directed Stock Program (the “**Directed Stock**”) will be sold by the Designated Underwriter pursuant to this Agreement at the public offering price. Any Directed Stock not subscribed for by the end of the business day on which this Agreement is executed will be offered to the public by the Underwriters as set forth in the Prospectus.

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The Company hereby confirms its agreement with respect to the sale of the Securities to the several Underwriters, for whom Piper Jaffray & Co. (“**Piper Jaffray**”) and Stifel, Nicolaus & Company, Incorporated (“**Stifel**”) are acting as representatives (the “**Representatives**”).

In connection with the offering contemplated by this Agreement, the “Reorganization Transactions” (as such term is defined in the Registration Statement and the Time of Sale Disclosure Package (each as defined below) under the caption “Prospectus Summary—The Reorganization Transactions”) were or will be effected, pursuant to which the Company will become the voting managing member of vTv Therapeutics LLC (“**vTv LLC**”), a Delaware limited liability company.

1. *Registration Statement and Prospectus.* A registration statement on Form S-1 (File No. 333-204951) with respect to the Securities, including a preliminary form of prospectus, has been prepared by the Company in conformity with the requirements of the Securities Act of 1933, as amended (the “**Act**”), and the rules and regulations (“**Rules and Regulations**”) of the Securities and Exchange Commission (the “**Commission**”) thereunder and has been filed with the Commission. Such registration statement, including the amendments, exhibits and schedules thereto, as of the time it became effective, including the Rule 430A Information (as defined below), is referred to herein at the “**Registration Statement**”. The Company will prepare and file a prospectus pursuant to Rule 424(b) of the Rules and Regulations that discloses the information previously omitted from the prospectus in the Registration Statement in reliance upon Rule 430A of the Rules and Regulations, which information will be deemed retroactively to be a part of the Registration Statement in accordance with Rule 430A of the Rules and Regulations (“**Rule 430A Information**”). If the Company has elected to rely upon Rule 462(b) of the Rules and Regulations to increase the size of the offering registered under the Act, the Company will prepare and file with the Commission a registration statement with respect to such increase pursuant to Rule 462(b) of the Rules and Regulations (such registration statement, including the contents of the Registration Statement incorporated by reference therein is the “**Rule 462(b) Registration Statement**”). References herein to the “**Registration Statement**” will be deemed to include the Rule 462(b) Registration Statement at and after the time of filing of the Rule 462(b) Registration Statement. “**Preliminary Prospectus**” means any prospectus included in the Registration Statement prior to the effective time of the Registration Statement, any prospectus filed with the Commission pursuant to Rule 424(a) under the Rules and Regulations and each prospectus that omits Rule 430A Information used after the effective time of the Registration Statement. “**Prospectus**” means the prospectus that discloses the public offering price and other final terms of the Securities and the offering and otherwise satisfies Section 10(a) of the Act. All references in this Agreement to the Registration Statement, any Preliminary Prospectus, the Prospectus or any amendment or supplement to any of the foregoing, is deemed to include the copy filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System or any successor system thereto (“**EDGAR**”).

2. *Representations and Warranties of the Company and vTv LLC*

(a) *Representations and Warranties of the Company and vTv LLC*. The Company and vTv LLC, jointly and severally, represent and warrant to the several Underwriters as follows:

(i) *Registration Statement and Prospectuses*. The Registration Statement and any post-effective amendment thereto has become effective under the Act. No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued, and no proceeding for that purpose has been initiated or, to the Company's or vTv LLC's knowledge, threatened by the Commission. No order preventing or suspending the use of any Preliminary Prospectus or the Prospectus (or any supplement thereto) has been issued by the Commission and no proceeding for that purpose has been initiated or, to the Company's or vTv LLC's knowledge, threatened by the Commission. As of the time each part of the Registration Statement (or any post-effective amendment thereto) became or becomes effective, such part conformed or will conform in all material respects to the requirements of the Act and the Rules and Regulations. Upon the filing or first use within the meaning of the Rules and Regulations, each Preliminary Prospectus and the Prospectus (or any supplement to either) conformed or will conform in all material respects to the requirements of the Act and the Rules and Regulations. The representations and warranties in this Section 2(a)(i) shall not apply to statements in or omissions from any Preliminary Prospectus, the Registration Statement (or any amendment thereto), the Time of Sale Disclosure Package or the Prospectus (or any supplement thereto) made in reliance upon, and in conformity with, written information furnished to the Company by the Representatives, or by any Underwriter through the Representatives, specifically for use in the preparation of such document, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 6(e).

(ii) *Accurate Disclosure*. Each Preliminary Prospectus, at the time of filing thereof or the time of first use within the meaning of the Rules and Regulations, did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. Neither the Registration Statement nor any amendment thereto, at the effective time of each part thereof, at the First Closing Date (as defined below) or at any Second Closing Date (as defined below), contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. As of the Time of Sale (as defined below), neither (A) the Time of Sale Disclosure Package (as defined below) nor (B) any issuer free writing prospectus (as defined below), when considered together with the Time of Sale Disclosure Package, included an untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. Neither the Prospectus nor any supplement thereto, as of its issue date, at the time of any filing with the Commission pursuant to Rule 424(b) of the Rules and Regulations, at the First Closing Date or at any Second Closing, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The representations and warranties in this Section 2(a)(ii) shall not apply to statements in or omissions from any Preliminary Prospectus, the Registration Statement (or any amendment thereto), the Time of Sale Disclosure Package or the Prospectus (or any supplement thereto) made in reliance upon, and in conformity with, written information furnished to the Company by you, or by any Underwriter through you, specifically for use in the preparation of such document, it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 6(e).

Each reference to an “**issuer free writing prospectus**” herein means an issuer free writing prospectus as defined in Rule 433 of the Rules and Regulations.

“**Time of Sale Disclosure Package**” means the Preliminary Prospectus dated [ X ], 2015, any free writing prospectus set forth on Schedule III and the information on Schedule IV, all considered together.

Each reference to a “**free writing prospectus**” herein means a free writing prospectus as defined in Rule 405 of the Rules and Regulations.

“**Time of Sale**” means [ X ]:00 **[a/p]**m (Eastern time) on the date of this Agreement.

(iii) Issuer Free Writing Prospectuses.

(A) Each issuer free writing prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Securities or until any earlier date that the Company notified or notifies the Representatives as described in Section 4(c)(ii), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, any Preliminary Prospectus or the Prospectus. The foregoing sentence does not apply to statements in or omissions from any issuer free writing prospectus based upon and in conformity with written information furnished to the Company by you or by any Underwriter through you specifically for use therein; it being understood and agreed that the only such information furnished by any Underwriter consists of the information described as such in Section 6(e).

(B) At the time of filing the Registration Statement and any post-effective amendment thereto, and at the date hereof, the Company was not and is not an “ineligible issuer,” as defined in Rule 405 of the Rules and Regulations, without taking account of any determination by the Commission pursuant to Rule 405 of the Rules and Regulations that it is not necessary that the Company be considered an ineligible issuer.

(C) Each issuer free writing prospectus satisfied, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Securities, all other conditions to use thereof as set forth in Rules 164 and 433 under the Act.

(iv) Emerging Growth Company. From the time of initial confidential submission of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged directly or through any person authorized to act on its behalf in any Testing-the-Waters Communication (as defined below)) through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the Act (an “**Emerging Growth Company**”). “**Testing-the-Waters Communication**” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Act.



(v) Testing-the-Waters Materials. The Company (A) has not alone engaged in any Testing-the-Waters Communications, other than Testing-the-Waters Communications with the prior consent of the Representatives with entities that are qualified institutional buyers within the meaning of Rule 144A under the Act or institutions that are accredited investors within the meaning of Rule 501 under the Act and (B) has not authorized anyone other than the Representatives to engage in Testing-the-Waters Communications. The Company reconfirms that the Representatives have been authorized to act on its behalf in undertaking Testing-the-Waters Communications in accordance with the letter, dated May 14, 2015, from the Company to the Representatives. The Company has not distributed any Written Testing-the-Waters Communications (as defined below) other than those attached in Schedule V hereto. “**Written Testing-the-Waters Communication**” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Act. Any individual Written Testing-the-Waters Communication does not conflict with the information contained in the Registration Statement or the Time of Sale Disclosure Package, complied in all material respects with the Act, and when taken together with the Time of Sale Disclosure Package as of the Applicable Time, did not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(vi) No Other Offering Materials. The Company has not distributed and will not distribute any prospectus or other offering material in connection with the offering and sale of the Securities other than any Preliminary Prospectus, the Time of Sale Disclosure Package or the Prospectus or other materials permitted by the Act to be distributed by the Company (it being understood that Testing-the-Waters Communications are not covered by the foregoing representation); *provided, however*, that, except as set forth on Schedule III, the Company has not made and will not make any offer relating to the Securities that would constitute a free writing prospectus, except in accordance with the provisions of Section 4(m) of this Agreement. In addition, except as attached in Schedule V, the Company has not made and will not make any communication relating to the Securities that would constitute a Testing-the-Waters Communication, except in accordance with the provisions of Section 2(a)(v) of this Agreement.

(vii) Financial Statements. The financial statements of the “Predecessors” (as defined in the Registration Statement) and the Company, together with the related notes, set forth in the Registration Statement, the Time of Sale Disclosure Package and Prospectus comply in all material respects with the requirements of the Act and fairly present the financial condition of the Predecessors, the Company and their respective consolidated subsidiaries as of the dates indicated and the results of operations and changes in cash flows for the periods therein specified in conformity with generally accepted accounting principles in the United States consistently applied throughout the periods involved; the financial statements of the Company, together with the related notes, set forth in the Registration Statement, the Time of Sale Disclosure Package and Prospectus comply in all material respects with the requirements of the Act and fairly present the financial condition of the Company and its consolidated subsidiaries as of the dates indicated and the results of operations and changes in cash flows for the periods therein specified in conformity with generally accepted accounting principles in the United States consistently applied throughout the periods involved; the supporting schedules included in the Registration Statement present fairly the information required to be stated therein; all non-GAAP financial information included in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus complies in all material respects with the requirements of Item 10 of Regulation S-K under the Act; and, except as disclosed in the Time of Sale Disclosure Package and the Prospectus, there are no material off-balance sheet arrangements (as defined in Regulation S-K under the Act, Item 303(a)(4)(ii)) or any other relationships with unconsolidated entities or other persons, that may have a material current or, to the Company’s or vTv LLC’s knowledge, material future effect on the Company’s or vTv LLC’s financial condition, results of operations, liquidity, capital expenditures, capital resources or significant components of revenue or expenses. Ernst & Young LLP, which has expressed its opinion with respect to the financial statements and schedules filed as a part of the Registration Statement and included in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, is (A) an independent public accounting firm within the meaning of the Act and the Rules and Regulations, (B) a registered public accounting firm (as defined in Section 2(a)(12) of the Sarbanes-Oxley Act of 2002 (the “**Sarbanes-Oxley Act**”)) and (C) not in violation of the auditor independence requirements of the Sarbanes-Oxley Act.

(viii) Organization and Good Standing. Each of the Company, vTv LLC and any subsidiary of the Company or vTv LLC (collectively, the “**vTv Parties**”) has been duly formed or organized, as applicable, and is validly existing and in good standing under the laws of its jurisdiction of formation or incorporation, as applicable. Each of the vTv Parties has full corporate or other power and authority to own its properties and conduct its business as currently being carried on and as described in the Registration Statement, the Time of Sale Disclosure Package and Prospectus, and is duly qualified to do business as a foreign corporation or limited liability company in good standing in each jurisdiction in which it owns or leases real property or in which the conduct of its business makes such qualification necessary and in which the failure to so qualify would reasonably be expected to have a material adverse effect upon the business, prospects, management, properties, operations, condition (financial or otherwise) or results of operations of the vTv Parties, taken as a whole (“**Material Adverse Effect**”).

(ix) Absence of Certain Events. Except as contemplated in the Time of Sale Disclosure Package and in the Prospectus, subsequent to the respective dates as of which information is given in the Time of Sale Disclosure Package, (A) none of the vTv Parties has incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock or membership interests, as applicable, and (B) there has not been any change in the capital stock or membership interests, as applicable (other than a change in the number of outstanding shares of Class A Common Stock due to the issuance of shares upon the exercise of outstanding options or warrants or conversion of convertible securities), or any material change in the short-term or long-term debt (other than as a result of the conversion of convertible securities), or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock or membership interests, as applicable, of any of the vTv Parties, or any material adverse change in the general affairs, condition (financial or otherwise), business, prospects, management, properties, operations or results of operations of the vTv Parties, taken as a whole (“**Material Adverse Change**”) or any development which could reasonably be expected to result in any Material Adverse Change.

(x) Absence of Proceedings. Except as set forth in the Time of Sale Disclosure Package and in the Prospectus, there is not pending or, to the knowledge of the Company or vTv LLC, threatened or contemplated, any action, suit or proceeding (A) to which any of the vTv Parties is a party or (B) which has as the subject thereof any officer or director of any of the vTv Parties, any employee benefit plan sponsored by any of the vTv Parties or any property or assets owned or leased by any of the vTv Parties before or by any court or Governmental Authority (as defined below), or any arbitrator, which, individually or in the aggregate, would reasonably be expected to result in any Material Adverse Change, or would materially and adversely affect the ability of the Company or vTv LLC to perform its obligations under this Agreement or which are otherwise material in the context of the sale of the Securities. There are no current or, to the knowledge of the Company or vTv LLC, pending, legal, governmental or regulatory actions, suits or proceedings (A) to which any of the vTv Parties is subject or (B) which has as the subject thereof any officer or director of any of the vTv Parties, any employee plan sponsored by any of the vTv Parties or any property or assets owned or leased by any of the vTv Parties, that are required to be described in the Registration Statement, Time of Sale Disclosure Package and Prospectus by the Act or by the Rules and Regulations and that have not been so described.

(xi) Authorization; No Conflicts; Authority. This Agreement has been duly authorized, executed and delivered by the Company and vTv LLC, and constitutes a valid, legal and binding obligation of each of the Company and vTv LLC, enforceable in accordance with its terms, except as rights to indemnity hereunder may be limited by federal or state securities laws and except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting the rights of creditors generally and subject to general principles of equity. The execution, delivery and performance of this Agreement and the consummation of the transactions herein contemplated will not (A) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of any of the vTv Parties pursuant to any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which any of the vTv Parties is a party or by which any of the vTv Parties is bound or to which any of the property or assets of any of the vTv Parties is subject, (B) result in any violation of the provisions of the Company's charter or by-laws or the certificate of formation or limited liability company of vTv LLC or (C) result in the violation of any law or statute or any judgment, order, rule, regulation or decree of any court or arbitrator or federal, state, local or foreign governmental agency or regulatory authority having jurisdiction over any of the vTv Parties or any of their properties or assets (each, a "**Governmental Authority**"), except in the case of clause (A) or (C) as would not reasonably be expected to result in a Material Adverse Effect. No consent, approval, authorization or order of, or registration or filing with any Governmental Authority is required for the execution, delivery and performance of this Agreement or for the consummation of the transactions contemplated hereby, including the issuance or sale of the Securities by the Company, except such as may be required under the Act, the rules of the Financial Industry Regulatory Authority ("**FINRA**") or state securities or blue sky laws; and the Company and vTv LLC each has full power and authority to enter into this Agreement and to consummate the transactions contemplated hereby, including the authorization, issuance and sale of the Securities as contemplated by this Agreement.

(xii) Capitalization; the Securities; Registration Rights. As of March 31, 2015, the Predecessors had an authorized capitalization as set forth in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus and, after giving effect to the Reorganization Transactions and the issuance of the Firm Shares and the use of the net proceeds therefrom as described in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus, the Company would have an authorized capitalization as set forth under the pro forma column of the capitalization table in the section of the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus entitled “Capitalization;” following the filing of the Company’s amended and restated certificate of incorporation with the State of Delaware Secretary of State, all of the issued shares of capital stock of the Company prior to the issuance of the Securities will have been duly and validly authorized and, when issued and delivered against payment of the consideration (as authorized by the board of directors of the Company), will be validly issued, fully paid and non-assessable and will conform, as of the Closing Date, in all material respects to the description of capital stock contained in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus; and, upon the effectiveness of the amended and restated limited liability company agreement of vTv LLC and after giving effect to the Reorganization Transactions, all of the issued equity interests of vTv LLC and its subsidiaries will have been duly authorized and issued and, except as described in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus or as would not reasonably be expected to result in a Material Adverse Effect, all of the issued equity interests of each subsidiary of vTv LLC are owned directly or indirectly by vTv LLC, free and clear of all liens, encumbrances, equities or claims. Except as otherwise stated in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus, (A) there will not be any preemptive rights or other rights to subscribe for or to purchase, or any restriction upon the voting or transfer of, any shares of Class A Common Stock pursuant to the Company’s charter, by-laws or any agreement or other instrument to which the any of the vTv Parties is a party or by which any of the vTv Parties is bound, (B) neither the filing of the Registration Statement nor the offering or sale of the Securities as contemplated by this Agreement gives rise to any rights for or relating to the registration of any shares of Class A Common Stock or other securities of the Company or vTv LLC (collectively “**Registration Rights**”) and (C) any person to whom the Company or vTv LLC has granted Registration Rights has agreed not to exercise such rights until after expiration of the Lock-Up Period (as defined below).

(xiii) Stock Options. Except as described in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus, there are no options, warrants, agreements, contracts or other rights in existence to purchase or acquire from any of the vTv Parties any shares of the capital stock or membership interests, as applicable, of the vTv Parties. Each grant of an Option (A) was duly authorized no later than the date on which the grant of such Option was by its terms to be effective by all necessary corporate action, including, as applicable, approval by the board of directors of the Company (or a duly constituted and authorized committee thereof), and any required stockholder approval by the necessary number of votes or written consents, and the award agreement governing such grant (if any) was duly executed and delivered by each party thereto and (B) was made in accordance with the terms of the applicable stock option, stock bonus and other stock plans or arrangements ("**Stock Plans**"), and all applicable laws and regulatory rules or requirements, including all applicable federal securities laws.

(xiv) Compliance with Laws. Each of the vTv Parties holds, and is operating in compliance with, all franchises, grants, authorizations, licenses, permits, easements, consents, certificates and orders of any Governmental Authority or self-regulatory body required for the conduct of its business, except as would not reasonably be expected to have a Material Adverse Effect, and all such franchises, grants, authorizations, licenses, permits, easements, consents, certifications and orders are valid and in full force and effect; and none of the vTv Parties has received notice of any revocation or modification of any such franchise, grant, authorization, license, permit, easement, consent, certification or order or has reason to believe that any such franchise, grant, authorization, license, permit, easement, consent, certification or order will not be renewed in the ordinary course; and each of the vTv Parties is in compliance with all applicable federal, state, local and foreign laws, regulations, orders and decrees, except as would not reasonably be expected to have a Material Adverse Effect.

(xv) Ownership of Assets. Each of the vTv Parties has good and marketable title to all property (whether real or personal) described in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus as being owned by it, in each case free and clear of all liens, claims, security interests, other encumbrances or defects except such as are described in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus or except as would not reasonably be expected to have a Material Adverse Effect. The property held under lease by each of the vTv Parties is held by them under valid, subsisting and enforceable leases with only such exceptions with respect to any particular lease as do not interfere with the conduct of the business of the Company or its subsidiaries, except as would not reasonably be expected to have a Material Adverse Effect.

(xvi) **Intellectual Property.** Each of the vTv Parties owns, possesses, uses pursuant to a license agreement, otherwise has the right to use or can acquire on reasonable terms, all Intellectual Property necessary for the conduct of the vTv Parties' business as now conducted or as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, except as such failure to own, possess, license or acquire such rights would not result in a Material Adverse Effect. Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, there are no liens or security interests which have been filed against any such Intellectual Property and there are no third parties who have rights to any such Intellectual Property, except for customary reversionary rights, reservation of rights (e.g., for internal research purposes) and rights for use outside of the licensed field of use of third party licensors with respect to the Intellectual Property that is disclosed in the Registration Statement as licensed by the vTv Parties. Furthermore, (A) to the knowledge of the Company and vTv LLC, there is no infringement, misappropriation or violation by third parties of any such Intellectual Property, except as such infringement, misappropriation or violation would not result in a Material Adverse Effect; (B) there is no pending or, to the knowledge of the Company and vTv LLC, threatened, action, suit, proceeding or claim by others challenging the vTv Parties' rights in or to any such Intellectual Property, and the Company and vTv LLC are unaware of any facts which would form a reasonable basis for any such claim; (C) the Intellectual Property owned by the vTv Parties, and to the knowledge of the Company and vTv LLC, the Intellectual Property licensed to the vTv Parties, has not been adjudged invalid or unenforceable, in whole or in part, and there is no pending or, to the knowledge of the Company and vTv LLC, threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property, and the Company and vTv LLC are unaware of any facts which would form a reasonable basis for any such claim; (D) there is no pending or, to the knowledge of the Company and vTv LLC, threatened action, suit, proceeding or claim by others that the any of the vTv Parties infringes, misappropriates or otherwise violates any Intellectual Property or other proprietary rights of others; none of the vTv Parties has received any written notice of such claim and the Company and vTv LLC are unaware of any other fact which would form a reasonable basis for any such claim; (E) to the knowledge of the Company and vTv LLC, the commercialization of any product described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus as under development (as such product is described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus), would not infringe, misappropriate or otherwise violate any Intellectual Property or other proprietary rights of others; and (F) to the Company's and vTv LLC's knowledge, no employee of any of the vTv Parties is in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the vTv Parties or actions undertaken by the employee while employed with the vTv Parties, except as such violation would not reasonably be expected to result in a Material Adverse Effect. Except as would not reasonably be expected to have a Material Adverse Effect, to the Company's and vTv LLC's knowledge, (X) all information material to patentability under 37 C.F.R. § 1.56(b) of the claimed inventions described in the patents and patent applications of the Company and vTv LLC ("**Patent Matters**") known to individuals under 37 C.F.R. § 1.56(c) associated with the filing and prosecution of the U.S. patents and U.S. patent applications described in the Patent Matters has been disclosed to the U.S. Patent and Trademark Office (the "**USPTO**") in accordance with 37 C.F.R. § 1.56; and (Y) no individual under 37 C.F.R. § 1.56(c) associated with the filing or prosecution of a U.S. patent or U.S. patent application described in the Patent Matters has (i) concealed any information material to patentability of a claimed invention from or (ii) made any misrepresentation to the USPTO during the prosecution of such U.S. patents or U.S. patent applications, in violation of 37 C.F.R. § 1.56. "**Intellectual Property**" shall mean all patents, patent applications, trade and service marks, trade and service mark registrations, trade names, copyrights, inventions, trade secrets, domain names, technology, know-how and other intellectual property.

(xvii) No Violations or Defaults. None of the vTv Parties is (A) in violation of its respective charter, by-laws or other organizational documents, or (B) in breach of or otherwise in default, and no event has occurred which, with notice or lapse of time or both, would constitute such a default in the performance of any obligation, agreement or condition contained in any bond, debenture, note, indenture, loan agreement or any other contract, lease or other instrument to which it is subject or by which any of them may be bound, or to which any of the property or assets of any of the vTv Parties is subject, except, in the case of clause (B), for such defaults or violations as would not reasonably be expected to have a Material Adverse Effect.

(xviii) Taxes. The vTv Parties have timely filed all federal and all material state, local and foreign income and franchise tax returns required to be filed and are not in default in the payment of any taxes, other than any which the vTv Parties are contesting in good faith subject to adequate reserves or except where the failure to make such payments would not reasonably be expected to have a Material Adverse Effect. There is no pending dispute with any taxing authority relating to any of such returns, and neither the Company nor vTv LLC has any knowledge of any proposed liability for any tax to be imposed upon the properties or assets of any of the vTv Parties for which there is not an adequate reserve reflected in the Company's or vTv LLC's financial statements included in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, except where such liability would not reasonably be expected to have a Material Adverse Effect.

(xix) Exchange Listing and Exchange Act Registration. The Securities have been approved for listing on the NASDAQ Capital Market upon official notice of issuance and, on the date the Registration Statement became effective, the Company's Registration Statement on Form 8-A or other applicable form under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), became effective. Except as previously disclosed to counsel for the Underwriters or as set forth in the Time of Sale Disclosure Package and the Prospectus, there are no affiliations with members of FINRA among the Company's or vTv LLC's officers or directors or, to the knowledge of the Company and vTv LLC, any five percent or greater stockholders of the Company or any beneficial owner of the Company's unregistered equity securities that were acquired during the 180-day period immediately preceding the initial filing date of the Registration Statement.

(xx) Ownership of Other Entities. Other than the subsidiaries of the Company listed in Exhibit 21 to the Registration Statement, the Company, directly or indirectly, owns no capital stock or other equity or ownership or proprietary interest in any corporation, partnership, association, trust or other entity.

(xxi) Internal Controls. The Company and its subsidiaries maintain a system of “internal control over financial reporting” (as such term is defined in Rule 13a-15(f) under the Exchange Act) that complies with the requirements of the Exchange Act. Except as disclosed in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus, the Company’s internal control over financial reporting is effective and none of the Company, its board of directors and audit committee is aware of any “significant deficiencies” or “material weaknesses” (each as defined by the Public Company Accounting Oversight Board) in its internal control over financial reporting, or any fraud, whether or not material, that involves management or other employees of the Company or its subsidiaries who have a significant role in the Company’s internal controls; and since the end of the latest audited fiscal year, there has been no change in the Company’s internal control over financial reporting (whether or not remediated) that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting. The Company’s board of directors has, subject to the exceptions, cure periods and the phase-in periods specified in the applicable stock exchange rules (“**Exchange Rules**”), validly appointed an audit committee to oversee internal accounting controls whose composition satisfies the applicable requirements of the Exchange Rules and the Company’s board of directors and/or the audit committee has adopted a charter that satisfies the requirements of the Exchange Rules.

(xxii) No Brokers or Finders. Other than as contemplated by this Agreement, the vTv Parties have not incurred and will not incur any liability for any finder’s or broker’s fee or agent’s commission in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby.

(xxiii) Insurance. Each of the vTv Parties carries, or is covered by, insurance from reputable insurers in such amounts and covering such risks as such vTv Party reasonably considers adequate for the conduct of its business and the value of its properties and the properties of its subsidiaries and as is customary for companies engaged in similar businesses in similar industries except where the failure to main such insurance would not reasonably be expected to have a Material Adverse Effect; all policies of insurance and any fidelity or surety bonds insuring the each of the vTv Parties or its business, assets, employees, officers and directors are in full force and effect except where the failure to maintain such insurance would not reasonably be expected to have a Material Adverse Effect; the vTv Parties are in compliance with the terms of such policies and instruments except where failure to be in compliance would not reasonably be expected to have a Material Adverse Effect; there are no claims by any of the vTv Parties under any such policy or instrument as to which any insurance company is denying liability or defending under a reservation of rights clause except as would not reasonably be expected to have a Material Adverse Effect; none of the vTv Parties has been refused any insurance coverage sought or applied for; and none of the vTv Parties has reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not reasonably be expected to have a Material Adverse Effect.



(xxiv) Investment Company Act. Neither the Company nor vTv LLC is and, after giving effect to the offering and sale of the Securities and application of the proceeds therefrom as described in the Time of Sale Disclosure Package and the Prospectus, will be required to register as an “investment company,” as such term is defined in the Investment Company Act of 1940, as amended.

(xxv) Sarbanes-Oxley Act. The Company is in compliance in all material respects with all applicable provisions of the Sarbanes-Oxley Act and the rules and regulations of the Commission thereunder.

(xxvi) Disclosure Controls. The Company has established and maintains disclosure controls and procedures (as defined in Rules 13a-14 and 15d-14 under the Exchange Act) and such controls and procedures are effective in ensuring that material information relating to the Company, including its subsidiaries, is made known to the principal executive officer and the principal financial officer. The Company has utilized such controls and procedures in preparing and evaluating the disclosures in the Registration Statement, in the Time of Sale Disclosure Package and in the Prospectus.

(xxvii) Anti-Bribery and Anti-Money Laundering Laws. None of the vTv Parties, their affiliates and any of their respective officers, directors, supervisors, managers, agents, or employees, has violated, their participation in the offering will not violate, and each of the vTv Parties has instituted and maintains policies and procedures designed to ensure continued compliance with, each of the following laws: (A) anti-bribery laws, including but not limited to, any applicable law, rule, or regulation of any locality, including but not limited to any law, rule, or regulation promulgated to implement the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, signed December 17, 1997, including the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.K. Bribery Act 2010, or any other law, rule or regulation of similar purposes and scope or (B) anti-money laundering laws, including but not limited to, applicable federal, state, international, foreign or other laws, regulations or government guidance regarding anti-money laundering, including, without limitation, Title 18 US. Code section 1956 and 1957, the Patriot Act, the Bank Secrecy Act, and international anti-money laundering principles or procedures by an intergovernmental group or organization, such as the Financial Action Task Force on Money Laundering, of which the United States is a member and with which designation the United States representative to the group or organization continues to concur, all as amended, and any Executive order, directive, or regulation pursuant to the authority of any of the foregoing, or any orders or licenses issued thereunder.

(xxviii) OFAC.

(A) None of the vTv Parties, nor any of their directors, officers or employees, nor, to the Company's or vTv LLC's knowledge, any agent, affiliate or representative of any of the vTv Parties, is an individual or entity that is, or is owned or controlled by an individual or entity that is:

(1) the subject of any sanctions administered or enforced by the U.S. Department of Treasury's Office of Foreign Assets Control, the United Nations Security Council, the European Union, Her Majesty's Treasury, or other relevant sanctions authority (collectively, "**Sanctions**"); nor

(2) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Burma/Myanmar, Cuba, Iran, Libya, North Korea, Sudan and Syria).

(B) None of the vTv Parties will, directly or indirectly, use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other individual or entity:

(1) to fund or facilitate any activities or business of or with any individual or entity or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions; or

(2) in any other manner that will result in a violation of Sanctions by any individual or entity (including any individual or entity participating in the offering, whether as underwriter, advisor, investor or otherwise).

(C) For the past five years, none of the vTv Parties has knowingly engaged in, and is not now knowingly engaged in, any dealings or transactions with any individual or entity, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(xxix) Compliance with Environmental Laws. Except as disclosed in the Time of Disclosure Package and the Prospectus, none of the vTv Parties is in violation of any statute, any rule, regulation, decision or order of any Governmental Authority or any court, domestic or foreign, relating to the use, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, "**Environmental Laws**"), owns or operates any real property contaminated with any substance that is subject to any Environmental Laws, is liable for any off-site disposal or contamination pursuant to any Environmental Laws, or is subject to any claim relating to any Environmental Laws, which violation, contamination, liability or claim would individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and neither the Company nor vTv LLC is aware of any pending investigation which might lead to such a claim. None of the vTv Parties anticipates incurring any material capital expenditures relating to compliance with Environmental Laws.

(xxx) *ERISA and Employee Benefits Matters.* Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus, (A) at no time in the six years preceding the date of this Agreement has any vTv Party maintained, sponsored, participated in or contributed to any Employee Benefit Plan subject to Title IV of ERISA or Section 412 of the Code, including any multiple employer plan that any vTv Party could have liability for under Section 4063 or Section 4064 of ERISA, or any “multiemployer plan” as defined in Section 3(37) of ERISA; (B) no Employee Benefit Plan provides or promises, or has at any time in the six years preceding the date of this Agreement provided or promised, retiree health, life insurance, or other retiree welfare benefits except as may be required by the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, or similar state law; and (C) no Employee Benefit Plan is a Foreign Benefit Plan. Except as would not reasonably be expected to have a Material Adverse Effect, (A) each Employee Benefit Plan is and has been operated in compliance with its terms and all applicable laws, including but not limited to ERISA and the Code; (B) no event has occurred (including a “reportable event” as such term is defined in Section 4043 of ERISA) and no condition exists that would reasonably be expected to result in the failure of any Employee Benefit Plan to so comply; (C) no “prohibited transaction” as defined under Section 406 of ERISA or Section 4975 of the Code and not exempt under ERISA Section 408 and the regulations and published interpretations thereunder has occurred with respect to any Employee Benefit Plan; (D) each Employee Benefit Plan intended to be qualified under Code Section 401(a) is so qualified and has a favorable determination or opinion letter from the IRS upon which it can rely, and any such determination or opinion letter remains in effect and has not been revoked; (E) since the date of any determination or opinion letter referred to in clause (D), nothing has occurred that is reasonably likely to adversely affect qualification under Section 401(a) as contemplated by clause (D); (F) no event has occurred or condition exists with respect to any Employee Benefit Plan that is expected to result in any tax, fine, lien, penalty or liability imposed by ERISA, the Code or other applicable law; and (G) no event has occurred or condition exists that is expected to subject any vTv Party to any tax, fine, lien, penalty or liability imposed by ERISA, the Code or other applicable law, as a result of such vTv Party’s relationship with any of its ERISA Affiliates. None of the vTv Parties has any obligations under any collective bargaining agreement with any union. Except as would not reasonably be expected to have a Material Adverse Effect, no organization efforts are underway with respect to employees of any vTv Party. As used in this Agreement, “**Code**” means the Internal Revenue Code of 1986, as amended; “**Employee Benefit Plan**” means any “employee benefit plan” within the meaning of Section 3(3) of ERISA, including, without limitation, all stock purchase, stock option, stock-based severance, employment, change-in-control, medical, disability, fringe benefit, bonus, incentive, deferred compensation, employee loan and all other employee benefit plans, agreements, programs, policies or other arrangements, whether or not subject to ERISA, under which any current or former employee, director or independent contractor of any of the vTv Parties has any present or future right to benefits and which are contributed to, sponsored by or maintained any of the vTv Parties; “**ERISA**” means the Employee Retirement Income Security Act of 1974, as amended; “**ERISA Affiliate**” means, with respect to any person, as of the applicable date of reference, any member of such person’s controlled group as defined in Code Section 414(b), (c), (m) or (o); and “**Foreign Benefit Plan**” means any Employee Benefit Plan established, maintained or contributed to outside of the United States of America or which covers any employee working or residing outside of the United States of America.

(xxxi) Business Arrangements. Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, none of the vTv Parties has granted rights to develop, manufacture, produce, assemble, distribute, license, market or sell its products to any other person and is not bound by any agreement that materially and adversely affects the exclusive right of any of the vTv Parties to develop, manufacture, produce, assemble, distribute, license, market or sell its products.

(xxxii) Labor Matters. No labor problem or dispute with the employees of the vTv Parties exists or is threatened or imminent, and the Company and vTv LLC are not aware of any existing or imminent labor disturbance by the employees of any of its or its subsidiaries' principal suppliers, contractors or customers, in each case, that would reasonably be expected to have a Material Adverse Effect.

(xxxiii) Restrictions on Subsidiary Payments to the Company. No subsidiary of the Company is currently prohibited, directly or indirectly, from paying any dividends to the Company, from making any other distribution on such subsidiary's capital stock, from repaying to the Company any loans or advances to such subsidiary from the Company or from transferring any of such subsidiary's property or assets to the Company or any other subsidiary of the Company, except as described in or contemplated by the Time of Sale Disclosure Package and the Prospectus.

(xxxiv) DSP Compliance. Except with notice to the Representatives and compliance with applicable laws, none of the Directed Stock distributed in connection with the Directed Stock Program will be offered or sold outside of the United States.

(xxxv) Statistical Information. Any third-party statistical and market-related data included in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus are based on or derived from sources that the Company and vTv LLC believe to be reliable and accurate in all material respects.

(xxxvi) Forward-looking Statements. No forward-looking statement (within the meaning of Section 27A of the Act and Section 21E of the Exchange Act) contained in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(xxxvii) Transaction Documents. Each of (A) the Amended and Restated Limited Liability Company Agreement of vTv LLC (the "**vTv LLC Agreement**"), (B) the Tax Receivable Agreement among the Company, vTv Therapeutics Holdings LLC ("Holdings") and the other parties thereto (the "**Tax Receivable Agreement**"), (C) the Exchange Agreement among the Company, Holdings, certain members of the Company's management and board of directors and the other parties thereto (the "**Exchange Agreement**") and (D) the Investor Rights Agreement among the Company and Holdings (the "**Investor Rights Agreement**" and, together with the vTv LLC Agreement, the Tax Receivable Agreement and the Exchange Agreement, the "**Transaction Documents**"), has been duly authorized, and will be duly executed and delivered on or prior to the Closing Date, by each vTv Party party thereto and constitutes or will constitute a valid and legally binding agreement of each such vTv Party, enforceable against it in accordance with its terms, except in the case of each such Transaction Document, as enforceability may be limited by applicable bankruptcy, insolvency or similar laws affecting creditors' rights generally or by equitable principles relating to enforceability. Each such Transaction Document conforms in all material respects to the description thereof contained in the Time of Sale Disclosure Package and the Registration Statement.

(xxxviii) *Disclosure.* The statements set forth in the Time of Sale Prospectus, the Prospectus and the Registration Statement under the caption “Description of Capital Stock,” insofar as they purport to constitute a summary of the terms of the Shares, under the caption “Certain Relationships and Related Party Transactions—Tax Receivable Agreement,” insofar as they purport to constitute a summary of the terms of the Tax Receivable Agreement, and under the caption “Material U.S. Federal Income Tax Considerations for Non-U.S. Holders of Class A Common Stock,” to the extent that they constitute summaries of United States federal law or regulation or legal conclusions, fairly summarize the matters described under such headings in all material respects.

(xxxix) *Regulatory Compliance.* Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus and except as would not reasonably be expected to have a Material Adverse Effect, each of the vTv Parties: (A) has not received any unresolved Form 483, notice of adverse filing, warning letter, untitled letter or other correspondence or notice from the U.S. Food and Drug Administration (“*FDA*”), or any other court or arbitrator or federal, state, local or foreign governmental or regulatory authority, alleging or asserting noncompliance with the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.); (B) is and has been in compliance with applicable health care laws, including without limitation, the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.), as amended by the Health Care and Education Reconciliation Act of 2010, and the regulations promulgated pursuant to such laws, and comparable state laws, and all other local, state, federal, national, supranational and foreign laws, manual provisions, policies and administrative guidance relating to the regulation of the vTv Parties (collectively, “*Health Care Laws*”), and has not engaged in activities which are, as applicable, reasonable cause for civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other state health care program or federal health care program; (C) possesses all licenses, certificates, approvals, clearances, authorizations, registrations, exemptions, permits and supplements or amendments thereto required by any such Health Care Laws and/or to carry on its businesses as now or proposed to be conducted (“*Authorizations*”) and such Authorizations are valid and in full force and effect and none of the vTv Parties is in violation of any term of any such Authorizations; (D) has not received written notice of any ongoing claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any Governmental Authority or third party alleging that any product operation or activity is in violation of any Health Care Laws or Authorizations and has no knowledge that any such Governmental Authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) has not received written notice that any Governmental Authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and has no knowledge that any such Governmental Authority is considering such action; (F) has filed, obtained, maintained or submitted all reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments thereto as required by any Health Care Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete, correct and not misleading on the date filed (or were corrected or supplemented by a subsequent submission); (G) is not a party to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, or similar agreements, or has any reporting obligations pursuant to any such agreement, plan or correction or other remedial measure entered into with any Governmental Authority; and (H) has not been or currently is, and their respective officers, directors or employees or, to the Company’s knowledge, their agents or contractors, have not been or are currently, excluded from participation in the Medicare and Medicaid programs or any other state or federal health care program.

(xl) Clinical Studies. The studies, tests and preclinical and clinical trials conducted by or on behalf of, or sponsored by, the vTv Parties were and, if still pending, are being, conducted in all material respects in accordance with the applicable experimental protocols, procedures and controls pursuant to accepted professional scientific standards and all applicable laws and Authorizations, including, without limitation, the Federal Food, Drug and Cosmetic Act and the rules and regulations promulgated thereunder; except to the extent disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, the Company is not aware of any studies, tests or trials the results of which the Company and vTv LLC believe reasonably call into question the study, test, or trial results described or referred to in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus when viewed in the context in which such results are described and the clinical state of development; and none of the vTv Parties has received any notices or correspondence from any Governmental Authority requiring the termination, suspension or material modification of any studies, tests or preclinical or clinical trials conducted by or on behalf of the Company.

(b) Effect of Certificates. Any certificate signed by any officer of the Company or vTv LLC and delivered to you or to counsel for the Underwriters shall be deemed a representation and warranty by the Company or vTv LLC, as applicable, to each Underwriter as to the matters covered thereby.

3. Purchase, Sale and Delivery of Securities.

(a) Firm Shares. On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell [      ] Firm Shares to the several Underwriters, and each Underwriter agrees, severally and not jointly, to purchase from the Company the number of Firm Shares set forth opposite the name of such Underwriter in Schedule I hereto. The purchase price for each Firm Share shall be \$[      ] per share. The obligation of each Underwriter to the Company shall be to purchase from the Company that number of Firm Shares set forth opposite the name of such Underwriter in Schedule I hereto. In making this Agreement, each Underwriter is contracting severally and not jointly; except as provided in paragraph (d) of this Section 3 and in Section 8 hereof, the agreement of each Underwriter is to purchase only the respective number of Firm Shares specified in Schedule I.

(b) Option Shares. On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company, with respect to [      ] of the Option Shares, hereby grants to the several Underwriters an option to purchase all or any portion of the Option Shares at the same purchase price as the Firm Shares, for use solely in covering any over-allotments made by the Underwriters in the sale and distribution of the Firm Shares. The option granted hereunder may be exercised in whole or in part at any time (but not more than once) within 30 days after the effective date of this Agreement upon notice in writing by the Representatives to the Company setting forth the aggregate number of Option Shares as to which the several Underwriters are exercising the option and the date and time, as determined by you, when the Option Shares are to be delivered, but in no event earlier than the First Closing Date (as defined below) nor earlier than the second business day or later than the tenth business day after the date on which the option shall have been exercised. The number of Option Shares to be purchased by each Underwriter shall be the same percentage of the total number of Option Shares to be purchased by the several Underwriters as the number of Firm Shares to be purchased by such Underwriter is of the total number of Firm Shares to be purchased by the several Underwriters, as adjusted by the Representatives in such manner as the Representatives deem advisable to avoid fractional shares. No Option Shares shall be sold and delivered unless the Firm Shares previously have been, or simultaneously are, sold and delivered.

(c) Payment and Delivery.

(i) The Securities to be purchased by each Underwriter hereunder, in book-entry form in such authorized denominations and registered in such names the Representatives may request upon at least forty-eight hours' prior notice to the Company, shall be delivered by or on behalf of the Company to the Representatives, through the facilities of the Depository Trust Company ("**DTC**"), for the account of such Underwriter, with any transfer taxes payable in connection with the transfer of the Securities to the Underwriters duly paid, against payment by or on behalf of such Underwriter of the purchase price therefor by wire transfer of Federal (same-day) funds to the account specified by the Company to the Representatives at least forty-eight hours in advance. The time and date of such delivery and payment shall be, with respect to the Firm Shares, 9:30 a.m., New York City time, on [      ], 2015 or such other time and date as the Representatives and the Company may agree upon in writing, and, with respect to the Option Shares, 9:30 a.m., New York City time, on the date specified by the Representatives in each written notice given by the Representatives of the Underwriters' election to purchase such Option Shares, or such other time and date as the Representatives and the Company may agree upon in writing. Such time and date for delivery of the Firm Shares is herein called the "**First Closing Date**", each such time and date for delivery of the Option Shares, if not the First Closing Date, is herein called a "**Second Closing Date**", and each such time and date for delivery is herein called a "**Closing**" or "**Closing Date**".

(ii) The documents to be delivered at each Closing by or on behalf of the parties hereto pursuant to Section 5 hereof, including the cross receipt for the Securities and any additional documents requested by the Underwriters pursuant to Section 5(l) hereof, will be delivered at the offices of Latham & Watkins LLP, 885 Third Avenue, New York NY 10022 (the “**Closing Location**”), and the Securities will be delivered to the Representatives, through the facilities of the DTC, for the account of such Underwriter, all at such Closing. A meeting will be held at the Closing Location at 5:00 p.m., New York City time, on the New York Business Day next preceding such Closing, at which meeting the final drafts of the documents to be delivered pursuant to the preceding sentence will be available for review by the parties hereto. For the purposes of this Section 3, “**New York Business Day**” shall mean each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York City are generally authorized or obligated by law or executive order to close.

(d) Purchase by Representatives on Behalf of Underwriters. It is understood that you, individually and not as Representatives of the several Underwriters, may (but shall not be obligated to) make payment to the Company, on behalf of any Underwriter for the Securities to be purchased by such Underwriter. Any such payment by you shall not relieve any such Underwriter of any of its obligations hereunder. Nothing herein contained shall constitute any of the Underwriters an unincorporated association or partner with the Company.

4. Covenants of the Company. The Company covenants and agrees with the several Underwriters as follows:

(a) Required Filings. The Company will prepare and file a Prospectus with the Commission containing the Rule 430A Information omitted from the Preliminary Prospectus within the time period required by, and otherwise in accordance with the provisions of, Rules 424(b) and 430A of the Rules and Regulations. If the Company has elected to rely upon Rule 462(b) of the Rules and Regulations to increase the size of the offering registered under the Act and the Rule 462(b) Registration Statement has not yet been filed and become effective, the Company will prepare and file the Rule 462 Registration Statement with the Commission within the time period required by, and otherwise in accordance with the provisions of, Rule 462(b) and the Act. The Company will prepare and file with the Commission, promptly upon your request, any amendments or supplements to the Registration Statement or Prospectus that, in your opinion with the advice of counsel, may be necessary or advisable in connection with the distribution of the Securities by the Underwriters; and the Company will furnish the Representatives and counsel for the Underwriters a copy of any proposed amendment or supplement to the Registration Statement or Prospectus and will not file any amendment or supplement to the Registration Statement or Prospectus to which you shall reasonably object by written notice to the Company after having been furnished a copy a reasonable time prior to the filing.



(b) Notification of Certain Commission Actions. The Company will advise you, promptly after it shall receive notice or obtain knowledge thereof, of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, or any post-effective amendment thereto or preventing or suspending the use of any Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus or any issuer free writing prospectus, of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceeding for any such purpose; and the Company will promptly use its best efforts to prevent the issuance of any stop order or to obtain its withdrawal if such a stop order should be issued.

(c) Continued Compliance with Securities Laws.

(i) Within the time during which a prospectus (assuming the absence of Rule 172) relating to the Securities is required to be delivered under the Act by any Underwriter or dealer, the Company will comply with all requirements imposed upon it by the Act, as now and hereafter amended, and by the Rules and Regulations, as from time to time in force, so far as necessary to permit the continuance of sales of or dealings in the Securities as contemplated by the provisions hereof, the Time of Sale Disclosure Package and the Prospectus. If during such period any event occurs as a result of which the Prospectus (or if the Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend the Registration Statement or supplement the Prospectus (or if the Prospectus is not yet available to prospective investors, the Time of Sale Disclosure Package) to comply with the Act, the Company will (A) notify you promptly of such untrue statement or omission, (B) amend the Registration Statement or supplement the Prospectus (or, if the Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) (at the expense of the Company), as promptly as practicable, so as to correct such statement or omission or effect such compliance and (C) notify you when any amendment to the Registration Statement is filed or becomes effective or when any supplement to the Prospectus (or, if the Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) is filed.

(ii) If at any time following issuance of an issuer free writing prospectus or Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such issuer free writing prospectus or Written Testing-the-Waters Communication conflicted or would conflict with the information contained in the Registration Statement, any Preliminary Prospectus or the Prospectus relating to the Securities or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at that subsequent time, not misleading, the Company (A) has promptly notified or promptly will notify the Representatives of such conflict, untrue statement or omission, (B) has, as promptly as practicable, amended or will, as promptly as practicable, amend or supplement, at its own expense, such issuer free writing prospectus or Written Testing-the-Waters Communication to eliminate or correct such conflict, untrue statement or omission and (C) has notified or promptly will notify you when such amendment or supplement was or is filed with the Commission to the extent required to be filed by the Rules and Regulations.

(d) Blue Sky Qualifications. The Company shall take or cause to be taken all necessary action to qualify the Securities for sale under the securities laws of such domestic United States or foreign jurisdictions as you reasonably designate or as is necessary to effect the distribution of the Directed Stock and to continue such qualifications in effect so long as required for the distribution of the Securities, except that the Company shall not be required in connection therewith to qualify as a foreign corporation or to execute a general consent to service of process in any state.

(e) Provision of Documents. The Company will furnish, at its own expense, to the Underwriters and counsel for the Underwriters copies of the Registration Statement (three of which will be signed and will include all consents and exhibits filed therewith), and to the Underwriters and any dealer each Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus, any issuer free writing prospectus and all amendments and supplements to such documents, in each case as soon as available and in such quantities as you may from time to time reasonably request.

(f) Rule 158. The Company will make generally available to its security holders as soon as practicable, but in no event later than 15 months after the end of the Company's current fiscal quarter, an earnings statement (which need not be audited) covering a 12-month period beginning after the effective date of the Registration Statement (which, for purposes of this paragraph, will be deemed to be the effective date of the Rule 462(b) Registration Statement, if applicable) that shall satisfy the provisions of Section 11(a) of the Act and Rule 158 of the Rules and Regulations.

(g) Payment and Reimbursement of Expenses. The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, will pay or cause to be paid (A) all expenses (including transfer taxes allocated to the respective transferees) incurred in connection with the delivery to the Underwriters of the Securities, (B) all expenses and fees (including, without limitation, fees and expenses of the Company's accountants and counsel but, except as otherwise provided below, not including fees of the Underwriters' counsel) in connection with the preparation, printing, filing, delivery, and shipping of the Registration Statement (including the financial statements therein and all amendments, schedules, and exhibits thereto), the Securities, each Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus, any issuer free writing prospectus and any amendment thereof or supplement thereto, and the printing, delivery, and shipping of this Agreement and other underwriting documents, including Blue Sky Memoranda (covering the states and other applicable jurisdictions), (C) all filing fees and reasonable and documented fees and disbursements of the Underwriters' counsel incurred in connection with the qualification of the Securities for offering and sale by the Underwriters or by dealers under the securities or blue sky laws of the states and other jurisdictions which you shall designate, (D) the fees and expenses of the Custodian and any transfer agent or registrar, (E) the filing fees and reasonable and documented fees and disbursements of Underwriters' counsel incident to any required review and approval by FINRA of the terms of the sale of the Securities, (F) listing fees, if any, (G) the cost and expenses of the Company relating to investor presentations or any "road show" undertaken in connection with marketing of the Securities, including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations with the prior approval of the Company, and travel and lodging expenses of the representatives and officers of the Company and any such consultants (and 50% of the cost of the chartering of airplanes), but excluding the travel expenses of the Representatives' officers and employees in connection with the road show, which shall be borne by the Underwriters, (H) all reasonable and documented fees and disbursements of counsel incurred by the Underwriters in connection with the Directed Stock Program and stamp duties, similar taxes or duties or other taxes, if any, incurred by the Underwriters in connection with the Directed Stock Program and (I) all other costs and expenses of the Company incident to the performance of its obligations hereunder that are not otherwise specifically provided for herein; *provided* that in the case of clauses (C) and (E) hereof the Company shall not be required to reimburse fees and expenses of counsel for the Underwriters in excess of \$7,500 and \$42,500, respectively. If this Agreement is terminated by the Representatives pursuant to Section 9 hereof or if the sale of the Securities provided for herein is not consummated by reason of any failure, refusal or inability on the part of the Company to perform any agreement on its part to be performed, or because any other condition of the Underwriters' obligations hereunder required to be fulfilled by the Company is not fulfilled, the Company will reimburse the several Underwriters for all reasonable and documented out-of-pocket disbursements (including but not limited to reasonable and documented fees and disbursements of counsel, printing expenses, travel expenses, postage, facsimile and telephone charges) incurred by the Underwriters in connection with their investigation, preparing to market and marketing the Securities or in contemplation of performing their obligations hereunder. It is understood, however, that, except as provided in this Section 4(g), and Sections 6 and 9 hereof, the Underwriters will pay all of their own costs and expenses, including the fees and disbursements of their counsel, and any advertising expenses connected with any offers they may make.

(h) Use of Proceeds. The Company will apply the net proceeds from the sale of the Securities to be sold by it hereunder, and will cause vTv LLC to apply the net proceeds it receives from the Company, for the purposes set forth in the Time of Sale Disclosure Package and in the Prospectus and the Company will file such reports with the Commission with respect to the sale of the Securities and the application of the proceeds therefrom as may be required in accordance with Rule 463 of the Rules and Regulations.

(i) Company Lock Up. The Company will not, without the prior written consent of each of Piper Jaffray and Stifel, from the date of execution of this Agreement and continuing to and including the date 180 days after the date of the Prospectus (the “**Lock-Up Period**”), (A) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of, directly or indirectly, any shares of Class A Common Stock, Class B common stock, par value \$0.01 per share of the Company (“**Class B Common Stock**”), or limited liability interests in vTv LLC (the “**LLC Interests**”) or any securities convertible into or exercisable or exchangeable for or that represent the right to receive Class A Common Stock, Class B Common Stock or LLC Interests or (B) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Class A Common Stock, Class B Common Stock or LLC Interest, whether any such transaction described in clause (A) or (B) above is to be settled by delivery of Class A Common Stock, Class B Common Stock, LLC Interests or such other securities, in cash or otherwise, except to the Underwriters pursuant to this Agreement. The Company agrees not to accelerate the vesting of any option or warrant or the lapse of any repurchase right prior to the expiration of the Lock-Up Period. Notwithstanding the foregoing, this Section 4(i) shall not prohibit (i) the issuance or transfer of shares of Class B Common Stock and LLC Interests pursuant to the Reorganization Transactions, (ii) the issuance by the Company of shares of Class A Common Stock upon the conversion or exchange of Class B Common Stock and LLC Interests outstanding as of the date of this Agreement, (iii) the issuance by the Company of options to purchase shares of Class A Common Stock and other equity incentive compensation, including restricted stock or restricted stock units, under existing stock option or similar plans described in the Time of Sale Disclosure Package and in the Prospectus, (iv) the issuance of shares of Class B Common Stock or LLC Interests to any of the individuals or entities listed on Schedule II hereto who are current holders of Class B Common Stock or LLC Interest or their affiliates, as applicable, (v) any shares of Class A Common Stock issued upon the exercise of options granted under such existing stock option or similar plans described in the Time of Sale Disclosure Package and in the Prospectus, (vi) the filing by the Company of any registration statement on Form S-8 with the Commission relating to the offering of securities pursuant to the terms of such existing stock option or similar plans, and (vii) the issuance by the Company of Class A Common Stock or securities convertible into Class A Common Stock in connection with an acquisition or business combination (including the filing of a registration statement on Form S-4 or other appropriate form with respect thereto); *provided* that (x) the aggregate number of shares issued pursuant to clause (vii) shall not exceed five percent (5%) of the total number of outstanding shares of Class A Common Stock immediately following the issuance and sale of the Securities pursuant hereto, and (y) any recipient of such Class A Common Stock or securities convertible into Class A Common Stock, as applicable, pursuant to clauses (ii), (iv) and (vii) shall execute and deliver to the Representatives a letter, in the form of Exhibit A hereto (the “**Lock-Up Agreement**”).

(j) Stockholder Lock-Ups. The Company has caused to be delivered to you prior to the date of this Agreement a Lock-Up Agreement, from each individual or entity listed on Schedule II. The Company will enforce the terms of each Lock-Up Agreement and issue stop-transfer instructions to its transfer agent and registrar for the Common Stock with respect to any transaction or contemplated transaction that would constitute a breach of or default under the applicable Lock-Up Agreement. If each of the Representatives, in their sole discretion, agree to release or waive the restrictions of any Lock-Up Agreement between an officer or director of the Company and the Representatives and provides the Company with notice of the impending release or waiver at least three business days before the effective date of such release or waiver, the Company agrees to announce the impending release or waiver by means of a press release substantially in the form of Exhibit B hereto, issued through a major news service, at least two business days before the effective date of the release or waiver.

(k) No Market Stabilization or Manipulation. The Company has not taken and will not take, directly or indirectly, any action designed to or which might reasonably be expected to cause or result in, or which has constituted, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities, and has not effected any sales of Common Stock which are required to be disclosed in response to Item 701 of Regulation S-K under the Act which have not been so disclosed in the Registration Statement.

(l) SEC Reports. The Company will file on a timely basis with the Commission such periodic and special reports as required by the Rules and Regulations for so long as the delivery of a prospectus is required in connection with the offering and sale of the Securities.

(m) Free Writing Prospectuses. The Company represents and agrees that, unless it obtains the prior written consent of the Representatives, and each Underwriter severally represents and agrees that, unless it obtains the prior written consent of the Company and the Representatives, it has not made and will not make any offer relating to the Securities that would constitute an issuer free writing prospectus or that would otherwise constitute a free writing prospectus required to be filed with the Commission; provided that the prior written consent of the parties hereto shall be deemed to have been given in respect of the free writing prospectuses included in Schedule III. Any such free writing prospectus consented to by the Company and the Representatives is hereinafter referred to as a “**Permitted Free Writing Prospectus**.” The Company represents that it has treated or agrees that it will treat each Permitted Free Writing Prospectus as an issuer free writing prospectus, and has complied and will comply with the requirements of Rules 164 and 433 of the Rules and Regulations applicable to any Permitted Free Writing Prospectus. The Company represents that it has satisfied and agrees that it will satisfy the conditions in Rule 433 to avoid a requirement to file with the Commission any electronic road show. Each Underwriter severally represents and agrees that, (A) unless it obtains the prior written consent of the Company and the Representatives, it has not distributed, and will not distribute any Written Testing-the-Waters Communication other than those listed on Schedule V, and (B) any Testing-the-Waters Communication undertaken by it was with entities that are qualified institutional buyers with the meaning of Rule 144A under the Act or institutions that are accredited investors within the meaning of Rule 501 under the Act.

(n) Emerging Growth Company. The Company will promptly notify the Representatives if the Company ceases to be an Emerging Growth Company at any time prior to the later of (A) completion of the distribution of Securities within the meaning of the Act and (B) completion of the 180-day restricted period referenced to in Section 4(i) hereof.

5. Conditions of Underwriters’ Obligations. The obligations of the several Underwriters hereunder are subject to the accuracy, as of the date hereof and at each of the First Closing Date and each Second Closing Date (as if made at such Closing Date), of and compliance with all representations, warranties and agreements of the Company and vTv LLC contained herein, to the performance by each of the Company and vTv LLC of its obligations hereunder and to the following additional conditions:

(a) Required Filings; Absence of Certain Commission Actions. All filings required by Rules 424, 430A and 433 of the Rules and Regulations shall have been timely made (without reliance on Rule 424(b)(8) or Rule 164(b)); no stop order suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereof, nor suspending or preventing the use of the Time of Sale Disclosure Package, the Prospectus or any issuer free writing prospectus shall have been issued; no proceedings for the issuance of such an order shall have been initiated or threatened; and any request of the Commission for additional information (to be included in the Registration Statement, the Time of Sale Disclosure Package, the Prospectus, any issuer free writing prospectus or otherwise) shall have been complied with to your satisfaction.

(b) Continued Compliance with Securities Laws. No Underwriter shall have advised the Company, after consulting with their counsel, that (i) the Registration Statement or any amendment thereof or supplement thereto contains an untrue statement of a material fact which, in your opinion, is material or omits to state a material fact which, in your opinion, is required to be stated therein or necessary to make the statements therein not misleading, or (ii) the Time of Sale Disclosure Package or the Prospectus, or any amendment thereof or supplement thereto, or any issuer free writing prospectus contains an untrue statement of fact which, in your opinion, is material, or omits to state a fact which, in your opinion, is material and is required to be stated therein, or necessary to make the statements therein, in light of the circumstances under which they are made, not misleading.

(c) Absence of Certain Events. Except as contemplated in the Time of Sale Disclosure Package and in the Prospectus, subsequent to the respective dates as of which information is given in the Time of Sale Disclosure Package and the Prospectus, none of the vTv Parties shall have incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock or membership interests, as applicable; and there shall not have been any change in the capital stock of the Company (other than a change in the number of outstanding shares of Class A Common Stock due to the issuance of shares upon the exercise of outstanding options or warrants or conversion of convertible securities), or any material change in the short-term or long-term debt of any of the vTv Parties (other than as a result of the conversion of convertible securities), or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock or membership interests of any of the vTv Parties, as applicable, or any Material Adverse Change or any development involving a prospective Material Adverse Change (whether or not arising in the ordinary course of business), that, in your judgment, makes it impractical or inadvisable to offer or deliver the Securities on the terms and in the manner contemplated in the Time of Sale Disclosure Package and in the Prospectus.

(d) No Downgrade. On or after the Time of Sale (i) no downgrading shall have occurred in the rating accorded the Company's debt securities or preferred stock by any "nationally recognized statistical organization," as that term is defined by the Commission for purposes of Rule 436(g)(2) under the Act, and (ii) no such organization shall have publicly announced that it has under surveillance or review, with possible negative implications, its rating of any of the Company's debt securities or preferred stock.

(e) Opinion of Company Counsel. On each Closing Date, there shall have been furnished to you, as Representatives of the several Underwriters, the opinion of Paul, Weiss, Rifkind, Wharton & Garrison LLP, counsel for the Company, dated such Closing Date and addressed to you in form and substance satisfactory to the Representatives and previously agreed upon with counsel to the Representatives.

(f) Opinion of Regulatory Counsel for the Company. On each Closing Date, there shall have been furnished to you, as Representatives of the several Underwriters, the opinion of Kleinfeld, Kaplan & Becker, LLP, Regulatory counsel for the Company with respect to regulatory matters, dated such Closing Date and addressed to you in form and substance satisfactory to the Representatives and previously agreed upon with counsel to the Representatives.

(g) Opinion of Intellectual Property Counsel for the Company. On each Closing Date, there shall have been furnished to you, as Representatives of the several Underwriters, the opinion of Samuel B. Rollins, Vice President, Intellectual Property of vTv LLC, Intellectual Property counsel for the Company with respect to intellectual property matters, dated such Closing Date and addressed to you in form and substance satisfactory to the Representatives and previously agreed upon with counsel to the Representatives.

(h) Opinion of Underwriters' Counsel. On each Closing Date, there shall have been furnished to you, as Representatives of the several Underwriters, such opinion or opinions from Latham & Watkins LLP, counsel for the several Underwriters, dated such Closing Date and addressed to you, with respect to the formation of the Company, the validity of the Securities, the Registration Statement, the Time of Sale Disclosure Package or the Prospectus and other related matters as you reasonably may request, and such counsel shall have received such papers and information as they request to enable them to pass upon such matters.

(i) Comfort Letter. On the date hereof, on the effective date of any post-effective amendment to the Registration Statement filed after the date hereof and on each Closing Date you, as Representatives of the several Underwriters, shall have received a letter of Ernst & Young LLP, dated such date and addressed to you, in form and substance satisfactory to you.

(j) Officers' Certificate. On each Closing Date, there shall have been furnished to you, as Representatives of the Underwriters, a certificate, dated such Closing Date and addressed to you, signed by the chief executive officer and by the chief financial officer of the Company and vTv LLC, to the effect that:

(i) The representations and warranties of the Company and vTv LLC in this Agreement are true and correct as if made at and as of such Closing Date, and each of the Company and vTv LLC has complied with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to such Closing Date; and

(ii) No stop order or other order suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereof or the qualification of the Securities for offering or sale, nor suspending or preventing the use of the Time of Sale Disclosure Package, the Prospectus or any issuer free writing prospectus, has been issued, and no proceeding for that purpose has been instituted or, to the best of their knowledge, is contemplated by the Commission or any state or regulatory body.

(k) Lock-Up Agreement. The Underwriters shall have received all of the Lock-Up Agreements referenced in Section 4 and the Lock-Up Agreements shall remain in full force and effect.

(l) Other Documents. The Company and vTv LLC shall have furnished to you and counsel for the Underwriters such additional documents, certificates and evidence as you or they may have reasonably requested.

(m) FINRA No Objections. FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(n) Exchange Listing. The Securities to be delivered on such Closing Date will have been approved for listing on the NASDAQ Capital Market, subject to official notice of issuance.

All such opinions, certificates, letters and other documents will be in compliance with the provisions hereof only if they are reasonably satisfactory in form and substance to you and counsel for the Underwriters. The Company will furnish you with such conformed copies of such opinions, certificates, letters and other documents as you shall reasonably request.

6. Indemnification and Contribution.

(a) Indemnification by the Company and vTv LLC. The Company and vTv LLC, jointly and severally, agree to indemnify and hold harmless each Underwriter, its affiliates, directors and officers and each person, if any, who controls such Underwriter within the meaning of Section 15 of the Act or Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities, joint or several, to which such Underwriter may become subject, under the Act or otherwise (including in settlement of any litigation if such settlement is effected with the written consent of the Company), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) (i) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, including the 430A Information and any other information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to the Rules and Regulations, if applicable, any Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus, or any amendment or supplement thereto, any issuer free writing prospectus, any issuer information that the Company has filed or is required to file pursuant to Rule 433(d) of the Rules and Regulations, or any Written Testing-the-Waters Communication, any road show as defined in Rule 433(h) under the Act (a "**road show**"), or any communications made by the Company or its representatives (including, but not limited to, Dr. Marwan Sabbagh) at the Alzheimer's Association International Conference in Washington D.C. in July 2015, or (ii) arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse each Underwriter for any documented legal or other expenses reasonably incurred by it in connection with investigating or defending against such loss, claim, damage, liability or action as such expenses are incurred; *provided, however*, that the Company and vTv LLC will not be liable in any such case to the extent that any such loss, claim, damage, liability or action arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with written information furnished to the Company or vTv LLC by you, or by any Underwriter through you, specifically for use in the preparation thereof; it being understood and agreed that the only information furnished by an Underwriter consists of the information described as such in Section 6(e).



The Company and vTv LLC, jointly and severally, agree to indemnify and hold harmless the Designated Underwriter and each person, if any, who controls the Designated Underwriter within the meaning of either Section 15 of the Act or Section 20 of the Exchange Act (the “*Designated Entities*”), from and against any and all losses, claims, damages and liabilities (including, without limitation, any legal or other expenses reasonably incurred in connection with defending or investigating any such action or claim) (i) caused by any untrue statement or alleged untrue statement of a material fact contained in any material prepared by or with the consent of the Company for distribution to Directed Stock Participants in connection with the Directed Stock Program or caused by any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; (ii) caused by the failure of any Directed Stock Participant to pay for and accept delivery of Directed Stock that the Directed Stock Participant agreed to purchase; or (iii) related to, arising out of, or in connection with the Directed Stock Program, other than losses, claims, damages or liabilities (or expenses relating thereto) that are finally judicially determined to have resulted from the bad faith or gross negligence of the Designated Entities.

(b) *Indemnification by the Underwriters.* Each Underwriter will, severally and not jointly, indemnify and hold harmless the Company, vTv LLC, the affiliates, directors and officers of each of the Company and vTv LLC and each person, if any, who controls the Company and vTv LLC within the meaning of Section 15 of the Act and Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities to which the Company and vTv LLC may become subject, under the Act or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Underwriter), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) (i) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus, or any amendment or supplement thereto, any issuer free writing prospectus, any issuer information that the Company has filed or is required to file pursuant to Rule 433(d) of the Rules and Regulations, or any Written Testing-the-Waters Communication, or any road show, or (ii) arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in conformity with written information furnished to the Company by you, or by such Underwriter through you, specifically for use in the preparation thereof (it being understood and agreed that the only information furnished by an Underwriter consists of the information described as such in Section 6(f)), and will reimburse the Company and vTv LLC for any legal or other expenses reasonably incurred by the Company and vTv LLC in connection with investigating or defending against any such loss, claim, damage, liability or action as such expenses are incurred.

(c) Notice and Procedures. Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission so to notify the indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party except to the extent such indemnifying party has been materially prejudiced by such failure (through the forfeiture of substantive rights or defenses). In case any such action shall be brought against any indemnified party, and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel reasonably satisfactory to such indemnified party (which may be counsel to the Company), and after notice from the indemnifying party to such indemnified party of the indemnifying party's election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation; *provided, however*, that if, in the sole judgment of the Representatives, it is advisable for the Underwriters to be represented as a group by separate counsel, the Representatives shall have the right to employ a single counsel (in addition to local counsel) to represent the Representatives and all Underwriters who may be subject to liability arising from any claim in respect of which indemnity may be sought by the Underwriters under subsection (a) of this Section 6, in which event the reasonable and documented fees and expenses of such separate counsel shall be borne by the indemnifying party or parties and reimbursed to the Underwriters as incurred. Notwithstanding anything contained herein to the contrary, if indemnity may be sought pursuant to the last paragraph in Section 6(a) hereof in respect of such action or proceeding, then in addition to such separate firm for the indemnified parties, the indemnifying party shall be liable for the reasonable and documented fees and expenses of not more than one separate firm (in addition to any local counsel) for the Designated Entities for the defense of any losses, claims, damages and liabilities arising out of the Directed Stock Program if representation of the Underwriters and the Designated Entities by the same counsel would be inappropriate due to actual or potential differing interests between them. An indemnifying party shall not be obligated under any settlement agreement relating to any action under this Section 6 to which it has not agreed in writing. In addition, no indemnifying party shall, without the prior written consent of the indemnified party (which consent shall not be unreasonably withheld or delayed) effect any settlement of any pending or threatened proceeding unless such settlement includes an unconditional release of such indemnified party for all liability on claims that are the subject matter of such proceeding and does not include a statement as to, or an admission of, fault, culpability or a failure to act by or on behalf of an indemnified party. Notwithstanding the foregoing, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel pursuant to this Section 6(c), such indemnifying party agrees that it shall be liable for any settlement effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request and (ii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

(d) Contribution; Limitations on Liability; Non-Exclusive Remedy. If the indemnification provided for in this Section 6 is unavailable or insufficient to hold harmless an indemnified party under subsection (a) or (b) above, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in subsection (a) or (b) above, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Securities or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company or vTv LLC on the one hand and the Underwriters on the other in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company or vTv LLC on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company, vTv LLC and the Underwriters agree that it would not be just and equitable if contributions pursuant to this subsection (d) were to be determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to in the first sentence of this subsection (d). The amount paid by an indemnified party as a result of the losses, claims, damages or liabilities referred to in the first sentence of this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending against any action or claim which is the subject of this subsection (d). Notwithstanding the provisions of this subsection (d), no Underwriter shall be required to contribute any amount in excess of the amount by which the total underwriting discounts and commissions received by such Underwriter with respect to the Securities exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this subsection (d) to contribute are several in proportion to their respective underwriting obligations and not joint. The remedies provided for in this Section 6 are not exclusive and shall not limit any rights or remedies that might otherwise be available to any indemnified party at law or in equity.

(e) Information Provided by the Underwriters. The Underwriters severally confirm and the Company and vTv LLC acknowledge that the statements with respect to the public offering of the Securities by the Underwriters set forth [  ] under the caption "Underwriting" in the Time of Sale Disclosure Package and in the Prospectus are correct and constitute the only information concerning such Underwriters furnished in writing to the Company by or on behalf of the Underwriters specifically for inclusion in the Registration Statement, any Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus or any issuer free writing prospectus.

7. *Representations and Agreements to Survive Delivery.* All representations, warranties, and agreements of the Company and vTv LLC herein or in certificates delivered pursuant hereto, and the agreements of the several Underwriters and the Company and vTv LLC contained in Section 6 hereof, shall remain operative and in full force and effect regardless of any investigation made by or on behalf of any Underwriter or any controlling person thereof, or the Company, vTv LLC or any of their officers, directors, or controlling persons, and shall survive delivery of, and payment for, the Securities to and by the Underwriters hereunder and any termination of this Agreement.

8. *Substitution of Underwriters.*

(a) *Obligation to Purchase Under Certain Circumstances.* If any Underwriter or Underwriters shall fail to take up and pay for the amount of Firm Shares agreed by such Underwriter or Underwriters to be purchased hereunder, upon tender of such Firm Shares in accordance with the terms hereof, and the amount of Firm Shares not purchased does not aggregate to more than 10% of the total amount of Firm Shares set forth in Schedule I hereto, the remaining Underwriters shall be obligated to take up and pay for (in proportion to their respective underwriting obligations hereunder as set forth in Schedule I hereto except as may otherwise be determined by you) the Firm Shares that the withdrawing or defaulting Underwriters agreed but failed to purchase.

(b) *Termination Under Certain Circumstances.* If any Underwriter or Underwriters shall fail to take up and pay for the amount of Firm Shares agreed by such Underwriter or Underwriters to be purchased hereunder, upon tender of such Firm Shares in accordance with the terms hereof, and the amount of Firm Shares not purchased aggregates more than 10% of the total amount of Firm Shares set forth in Schedule I hereto, and arrangements satisfactory to you for the purchase of such Firm Shares by other persons are not made within 36 hours thereafter, this Agreement shall terminate. In the event of any such termination the Company shall not be under any liability to any Underwriter (except to the extent provided in Section 4(g) and Section 6 hereof) nor shall any Underwriter (other than an Underwriter who shall have failed, otherwise than for some reason permitted under this Agreement, to purchase the amount of Firm Shares agreed by such Underwriter to be purchased hereunder) be under any liability to the Company (except to the extent provided in Section 6 hereof).

(c) *Postponement of Closing.* If Firm Shares to which a default relates are to be purchased by the non-defaulting Underwriters or by any other party or parties, the Representatives or the Company shall have the right to postpone the First Closing Date for not more than seven business days in order that the necessary changes in the Registration Statement, in the Time of Sale Disclosure Package, in the Prospectus or in any other documents, as well as any other arrangements, may be effected. As used herein, the term "Underwriter" includes any person substituted for an Underwriter under this Section 8.

(d) *No Relief from Liability.* No action taken pursuant to this Section shall relieve any defaulting Underwriter from liability, if any, in respect of such default.

9. *Termination.*

(a) Right to Terminate. You, as Representatives of the several Underwriters, shall have the right to terminate this Agreement by giving notice as hereinafter specified at any time at or prior to the First Closing Date, and the option referred to in Section 3(b), if exercised, may be cancelled at any time prior to the Second Closing Date, if (i) the Company or vTv LLC shall have failed, refused or been unable, at or prior to such Closing Date, to perform any agreement on its part to be performed hereunder, (ii) any other condition of the Underwriters' obligations hereunder is not fulfilled, (iii) trading on the NASDAQ Stock Market or New York Stock Exchange shall have been wholly suspended, (iv) minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required, on the NASDAQ Stock Market or New York Stock Exchange, by such Exchange or by order of the Commission or any other Governmental Authority, (v) a banking moratorium shall have been declared by federal or state authorities, or (vi) there shall have occurred any outbreak or escalation of hostilities or any change in financial markets or any calamity or crisis that, in your judgment, is material and adverse and makes it impractical or inadvisable to proceed with the completion of the sale of and payment for the Securities. Any such termination shall be without liability of any party to any other party except that the provisions of Section 4(g) and Section 6 hereof shall at all times be effective.

(b) Notice of Termination. If you elect to terminate this Agreement as provided in this Section, the Company shall be notified promptly by you by telephone, confirmed by letter.

10. *Default by the Company.*

(a) Default by the Company. If the Company shall fail at the First Closing Date to sell and deliver the number of Securities which it is obligated to sell hereunder, then this Agreement shall terminate without any liability on the part of any Underwriter or, except as provided in Section 4(g) and Section 6 hereof, any non-defaulting party.

(b) No Relief from Liability. No action taken pursuant to this Section shall relieve the Company from liability, if any, in respect of such default.

11. Notices. Except as otherwise provided herein, all communications hereunder shall be in writing and, (i) if to the Underwriters, shall be mailed via overnight delivery service or hand delivered via courier, to the Representatives c/o Piper Jaffray & Co., 800 Nicollet Mall, Minneapolis, Minnesota 55402, to the attention of Equity Capital Markets and, separately, General Counsel, and c/o Stifel, Nicolaus & Company, Incorporated, 787 7<sup>th</sup> Avenue, 11<sup>th</sup> Floor, New York, New York 10019, to the attention of [ ~ ]; and (ii) if to the Company, shall be mailed or delivered to it at 4170 Mendenhall Oaks Pkwy, High Point, North Carolina 27265, to the attention of Stephen L. Holcombe, with a copy (which shall not constitute notice) to Paul, Weiss, Rifkind, Wharton & Garrison LLP, 1285 Avenue of the Americas, New York, NY 10019-6064, Attn: Lawrence G. Wee, Esq. Any party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose.

12. *Persons Entitled to Benefit of Agreement.* This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns and the controlling persons, officers and directors referred to in Section 6. Nothing in this Agreement is intended or shall be construed to give to any other person, firm or corporation any legal or equitable remedy or claim under or in respect of this Agreement or any provision herein contained. The term “successors and assigns” as herein used shall not include any purchaser, as such purchaser, of any of the Securities from any of the several Underwriters.

13. *Absence of Fiduciary Relationship.* Each of the Company and vTv LLC acknowledges and agrees that: (a) the Representatives have been retained solely to act as an underwriter in connection with the sale of the Securities and that no fiduciary, advisory or agency relationship between the Company and vTv LLC and the Representatives has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Representatives have advised or are advising the Company or vTv LLC on other matters; (b) the price and other terms of the Securities set forth in this Agreement were established by the Company following discussions and arms-length negotiations with the Representatives and the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (c) it has been advised that the Representatives and their affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and vTv LLC and that the Representatives have no obligation to disclose such interest and transactions to the Company or vTv LLC by virtue of any fiduciary, advisory or agency relationship; (d) it has been advised that the Representatives are acting, in respect of the transactions contemplated by this Agreement, solely for the benefit of the Representatives and the other Underwriters, and not on behalf of the Company and vTv LLC; (e) the Company and vTv LLC waive to the fullest extent permitted by law, any claims it may have against the Representatives for breach of fiduciary duty or alleged breach of fiduciary duty in respect of any of the transactions contemplated by this Agreement and agree that the Representatives shall have no liability (whether direct or indirect) to the Company and vTv LLC in respect of such a fiduciary duty claim on behalf of or in right of the Company or vTv LLC, including stockholders, employees or creditors of the Company or vTv LLC.

14. *Governing Law; Waiver of Jury Trial.* This Agreement shall be governed by and construed in accordance with the laws of the State of New York. The Company, vTv LLC (in each case on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

15. *Counterparts.* This Agreement may be executed in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original and all such counterparts shall together constitute one and the same instrument.

16. *General Provisions.* This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The Section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

**[Signature Page Follows]**

Very truly yours,

**vTv Therapeutics Inc.**

By

\_\_\_\_\_

[Title]

**vTv Therapeutics LLC**

By

\_\_\_\_\_

[Title]





Confirmed as of the date first above mentioned, on behalf of themselves and the other several Underwriters named in Schedule I hereto.

PIPER JAFFRAY & CO.

By \_\_\_\_\_  
Managing Director

STIFEL, NICOLAUS & COMPANY, INCORPORATED

By \_\_\_\_\_  
[Title]

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**SCHEDULE I**

Underwriter	Number of Firm Shares <sup>(1)</sup>
Piper Jaffray & Co	
Stifel, Nicolaus & Company, Incorporated	
Canaccord Genuity Inc.	
Janney Montgomery Scott LLC	
Total	

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(1) The Underwriters may purchase up to an additional [    ] Option Shares, to the extent the option described in Section 3(b) of the Agreement is exercised, in the proportions and in the manner described in the Agreement.

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## SCHEDULE II

### List of Individuals and Entities Executing Lock-Up Agreements

#### Officers

Jeffrey B. Kindler  
Stephen L. Holcombe  
Rudy C. Howard

#### Directors

Paul G. Savas  
Steven M. Cohen  
Paul M. Meister  
Craig C. Parker  
Noel J. Spiegel

#### Stockholders

Ronald O. Perelman  
vTv Therapeutics Holdings LLC

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**SCHEDULE III**

**Certain Permitted Free Writing Prospectuses**

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**SCHEDULE IV**

**Pricing Information**

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**SCHEDULE V**

**Written Testing-the-Waters Communications**

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EXHIBIT A

Form of Lock-Up Agreement

[ ¨ ], 2015

Piper Jaffray & Co.  
Stifel, Nicolaus & Company, Incorporated  
As representatives of the underwriters named  
in Schedule I to the Underwriting Agreement  
referred to below

c/o Piper Jaffray & Co.  
800 Nicollet Mall, Suite 800  
Minneapolis, MN 55402

c/o Stifel, Nicolaus & Company, Incorporated  
787 7<sup>th</sup> Avenue, 11<sup>th</sup> Floor  
New York, NY 10019

Dear Sirs:

As an inducement to the underwriters (the “**Underwriters**”) to execute an Underwriting Agreement (the “**Underwriting Agreement**”) with vTv Therapeutics Inc., a Delaware corporation (the “**Company**”) and vTv Therapeutics LLC, a Delaware limited liability company (“**vTv LLC**”), providing for a public offering (the “**Offering**”) of shares of Class A common stock, par value \$0.01 per share (the “**Class A Common Stock**”), of the Company, the undersigned hereby agrees that without, in each case, the prior written consent of each of Piper Jaffray & Co. (“**Piper Jaffray**”) and Stifel, Nicolaus & Company, Incorporated (“**Stifel**”) and, together with Piper Jaffray, the “**Representatives**”) during the period specified in the second succeeding paragraph (the “**Lock-Up Period**”), the undersigned will not: (1) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, any shares of Class A Common Stock or Class B common stock, par value \$0.01 per share, of the Company (“**Class B Common Stock**” and together with the Class A Common Stock, the “**Common Stock**”) and units of membership interest in vTv LLC (the “**LLC Units**” and together with the Common Stock, the “**Securities**”) or any securities convertible into, exercisable or exchangeable for or that represent the right to receive Securities (including without limitation, Securities which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the Securities and Exchange Commission and securities which may be issued upon exercise of a stock option or warrant) whether now owned or hereafter acquired (the “**Undersigned’s Securities**”); (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Undersigned’s Securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock, LLC Units or such other securities, in cash or otherwise; (3) make any demand for or exercise any right with respect to, the registration of any Securities or any security convertible into or exercisable or exchangeable for Securities; or (4) publicly disclose the intention to do any of the foregoing. Capitalized terms used but not defined herein shall have the meanings given to them in the Underwriting Agreement.

The undersigned agrees that the foregoing restrictions preclude the undersigned from engaging in any hedging or other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of the Undersigned's Securities even if such Securities would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any of the Undersigned's Securities or with respect to any security that includes, relates to, or derives any significant part of its value from such Securities.

The Lock-Up Period will commence on the date of this Agreement and continue and include the date 180 days after the date of the final prospectus used to sell Class A Common Stock in the Offering pursuant to the Underwriting Agreement, to which you are or expect to become parties.

If the undersigned is an officer or director of the Company, (i) each of the Representatives agrees that, at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a transfer of shares of Securities, the Representatives will notify the Company of the impending release or waiver, and (ii) the Company has agreed in the Underwriting Agreement to announce the impending release or waiver by issuing a press release through a major news service at least two business days before the effective date of the release or waiver. Any release or waiver granted by the Representatives hereunder to any such officer or director shall only be effective two business days after the publication date of such press release. The provisions of this paragraph will not apply if both (a) the release or waiver is effected solely to permit a transfer not for consideration, and (b) the transferee has agreed in writing to be bound by the same terms described in this letter that are applicable to the transferor, to the extent and for the duration that such terms remain in effect at the time of the transfer. The undersigned further agrees that the foregoing provisions shall be equally applicable to any Class A Common Stock that the undersigned may purchase from the underwriters in the offering.



Notwithstanding the foregoing, the undersigned may (i) transfer the Undersigned's Securities as a *bona fide* gift or gifts, (ii) transfer the Undersigned's Securities to any immediate family member, any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned or any of their successors upon death or any partnership or limited liability company the partners or members of which consist of the undersigned and one or more members of the undersigned's immediately family (for purposes hereof, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin), (iii) make distributions or transfers of the Undersigned's Securities to limited or general partners, members, stockholders or to direct or indirect affiliates (as defined in Rule 405 promulgated under the Securities Act of 1933, as amended) of the undersigned[, including funds or other entities under common control or management with the undersigned or founders of the Predecessors (as defined in the Registration Statement)]<sup>[1]</sup>, (iv) if the undersigned is a trust, transfer the Undersigned's Securities to the beneficiary of such trust, (v) transfer the Undersigned's Securities by testate succession or intestate succession, (vi) convert or exchange the Undersigned's Class B Common Stock and LLC Units outstanding as of the date of the Underwriting Agreement for Class A Common Stock, (vii) bona fide pledges of the Undersigned's Securities by the undersigned pursuant to customary financing transactions entered into in the ordinary course of business, (viii) transfer the Undersigned's Securities pursuant to the Underwriting Agreement, (ix) transfer the Undersigned's Securities in the case of the transfer or redemption of LLC Units pursuant to the Reorganization Transactions or (x) transfer the Undersigned's Securities to the Company for the primary purposes of satisfying any tax withholding obligation with respect to the Undersigned's Securities issued upon the exercise of an option or warrant (or upon the exchange of another security or securities) pursuant to an existing employee equity or benefit plan of the Company described in the Registration Statement; *provided* that, in each case, (a) such transfers are not required to be reported in any public report or filing with the Securities and Exchange Commission or otherwise (including, but not limited to, any filing on Form 4 under Section 16(a) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**")) (other than, [(A) any such filings made on Form 4 solely in connection with transfers described in clause (iii), or (B)]<sup>[2]</sup> with respect to transfers described in clause (x), such filings made on Form 4 under transaction code "F" that the disposition of Securities was made back to the Company in connection with the cashless exercise of options) and (b) the undersigned does not otherwise voluntarily effect any public announcement or filing regarding such transfers, in each case during the Lock-Up Period; *provided further*, that (I) in the case of a transfer or distribution pursuant to clauses (i) through (v), each transferee or distributee (if not already party to a lock-up agreement similar to this Agreement) shall agree in writing with the Underwriters to be bound by the terms of this Agreement, (II) in the case of any pledge of the Undersigned's Securities pursuant to clause (vii), the pledgee shall, if such pledge is in existence, agree in writing with the Underwriters to be bound by the terms of this Agreement upon receipt of such of the Undersigned's Securities, and if such pledge occurs in the future, shall agree in writing with the Underwriters to be bound by the terms of this Agreement at the time such pledge is granted, and (III) in the case of a transfer or distribution pursuant to clauses (i) through (vi), such transfer or distribution shall not involve a disposition for value. For the avoidance of doubt, this Agreement shall not apply to any sale or other transfer by the undersigned of shares of Common Stock, acquired by the undersigned in open market purchases following the consummation of the Offering so long as (i) such sales or transfers are not required to be reported in any public report or filing with the Securities and Exchange Commission or otherwise and (ii) the undersigned does not otherwise voluntarily effect any public announcement or filing regarding such sales or transfers, in each case during the Lock-Up Period.

In addition, the foregoing restrictions shall not apply to (i) transfers, sales, tenders or other dispositions pursuant to a *bona fide* third party tender offer for securities of the Company, merger, consolidation or other similar transaction made to all holders of the Company's capital stock involving a change of control of the Company that is approved by the Company's board of directors (including, without limitation, entering into any lock-up, voting or similar agreement pursuant to which the undersigned may agree to transfer, sell, tender or otherwise dispose of the Undersigned's Securities in connection with any such transaction, or vote any of the Undersigned's Securities in favor of any such transaction); *provided*, that all of the Undersigned's Securities subject to this Agreement that are not so transferred, sold, tendered or otherwise disposed of remain subject to this Agreement; and *provided, further*, that it shall be a condition of transfer, sale, tender or other disposition that if such tender offer or other transaction is not completed, any of the Undersigned's Securities subject to this Agreement shall remain subject to the restrictions herein, (ii) the exercise of stock options granted pursuant to the Company's equity incentive plans; *provided* that it shall apply to any of the Undersigned's Securities issued upon such exercise, or (iii) the establishment of any contract, instruction or plan (a "**Plan**") that satisfies all of the requirements of Rule 10b5-1(c)(1)(i)(B) under the Exchange Act; *provided* that no sales of the Undersigned's Securities shall be made pursuant to such a Plan prior to the expiration of the Lock-Up Period, and such a Plan may only be established if no public announcement of the establishment or existence thereof and no filing with the Securities and Exchange Commission or other regulatory authority in respect thereof or transactions thereunder or contemplated thereby, by the undersigned, the Company or any other person, shall be required, and no such announcement or filing is made voluntarily, by the undersigned, the Company or any other person, prior to the expiration of the Lock-Up Period.

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1 NB: Only in MacAndrews lock-up agreement.

2 NB: Only in MacAndrews lock-up agreement.

In furtherance of the foregoing, the Company and its transfer agent and registrar are hereby authorized to decline to make any transfer of Securities if such transfer would constitute a violation or breach of this Agreement.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Agreement and that upon request, the undersigned will execute and additional documents necessary to ensure the validity or enforcement of this Agreement. All authority herein conferred or agreed to be conferred and any obligations of the undersigned shall be binding upon the successors, assigns, heirs or personal representatives of the undersigned.

The undersigned understands that the undersigned shall be released from all obligations under this Agreement and this Agreement shall be terminated automatically and without further action on the part of any of the parties hereto if (i) the Company notifies the Underwriters that it does not intend to proceed with the Offering, (ii) the Underwriting Agreement does not become effective, or if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Class A Common Stock to be sold thereunder, (iii) the Company files an application with the Securities and Exchange Commission to withdraw the registration statement relating to the Offering or (iv) the Offering is not completed by December 31, 2015.

For avoidance of doubt, this Agreement does not prohibit or restrict any of the Reorganization Transactions.

The undersigned understands that the Underwriters are entering into the Underwriting Agreement and proceeding with the Offering in reliance upon this Agreement. This Agreement may only be modified, supplemented or terminated (other than in accordance with its terms) in a writing executed by the undersigned and the Representatives.

This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.

Very truly yours,

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Printed Name of Holder

By:

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Signature

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Printed Name of Person Signing (and indicate capacity of person signing if signing as custodian, trustee, or on behalf of an entity)

**EXHIBIT B**

**Form of Company Press Release for Waivers or Releases  
of Officer/Director Lock-Up Agreements**

vTv Therapeutics Inc.

[ ¨ ], 2015

vTv Therapeutics Inc. (the “Company”) announced today that Piper Jaffray and Stifel, as the representatives of the underwriters, are [waiving] [releasing] [a] lock-up restriction[s] with respect to an aggregate of \*\*[# of common shares] held by certain [officers] [directors] of the Company. These [officers] [directors] entered into lock-up agreements with the representatives in connection with the Company’s initial public offering.

This [waiver] [release] will take effect on \*\*[date that is at least 2 business days following date of this press release].

**This press release is not an offer for sale of the securities in the United States or in any other jurisdiction where such offer is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended.**

AMENDED AND RESTATED  
CERTIFICATE OF INCORPORATION

of

VTV THERAPEUTICS INC.

(Pursuant to Sections 242 and 245 of  
the General Corporation Law of the State of Delaware)

vTv Therapeutics Inc., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), hereby certifies as follows:

FIRST: The name of the Corporation is vTv Therapeutics Inc. The date of filing of its original certificate of incorporation (the "Original Certificate of Incorporation") with the Secretary of State of the State of Delaware was April 2, 2015.

SECOND: This Amended and Restated Certificate of Incorporation (this "Amended Certificate of Incorporation") amends and restates in its entirety the Corporation's certificate of incorporation as currently in effect and has been duly adopted in accordance with the provisions of Sections 242 and 245 of the General Corporation Law of the State of Delaware (as from time to time in effect, the "General Corporation Law"), by written consent of the holders of all of the outstanding stock entitled to vote thereon in accordance with the provisions of Section 228 of the General Corporation Law.

THIRD: This Amended Certificate of Incorporation amends and restates in its entirety the Original Certificate of Incorporation of the Corporation to read as follows:

1. Name. The name of the Corporation is vTv Therapeutics Inc.

2. Address; Registered Office and Agent. The address of the Corporation's registered office in the State of Delaware is Corporation Service Company, 2711 Centerville Road, Suite 400, in the City of Wilmington, County of New Castle, State of Delaware 19808; and the name of its registered agent at such address is Corporation Service Company.

3. Purposes. The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

4. Number of Shares.

4.1 The total number of shares of all classes of stock that the Corporation shall have authority to issue is 250,000,000 shares, consisting of: (i) 200,000,000 shares of common stock, divided into (a) 100,000,000 shares of Class A common stock, with the par value of \$0.01 per share (the "Class A Common Stock") and (b) 100,000,000 shares of Class B common stock, with the par value of \$0.01 per share (the "Class B Common Stock") and, together with Class A Common Stock, the "Common Stock"; and (ii) 50,000,000 shares of preferred stock, with the par value of \$0.01 per share (the "Preferred Stock").

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4.2 Subject to the rights of the holders of any one or more series of Preferred Stock then outstanding, the number of authorized shares of any class of the Common Stock or the Preferred Stock may be increased or decreased, in each case by the affirmative vote of the holders of a majority of the total voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon, voting together as a single class, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law, and no vote of the holders of any class of the Common Stock or the Preferred Stock voting separately as a class will be required therefor. Notwithstanding the immediately preceding sentence, the number of authorized shares of any particular class may not be decreased below the number of shares of such class then outstanding, plus:

(i) in the case of Class A Common Stock, the number of shares of Class A Common Stock issuable in connection with (x) the exchange of all outstanding shares of Class B Common Stock and all shares of Class B Common Stock issuable as described in clause (ii) below, together with the corresponding Nonvoting Common Units constituting the remainder of any Paired Interests in which such shares are included, pursuant to Section 2.01 of the Exchange Agreement and (y) the exercise of outstanding options, warrants, exchange rights, conversion rights or similar rights for Class A Common Stock; and

(ii) in the case of Class B Common Stock, the number of shares of Class B Common Stock issuable in connection with the exercise of outstanding options, warrants, exchange rights, conversion rights or similar rights for Class B Common Stock.

5. Classes of Shares. The designation, relative rights, preferences and limitations of the shares of each class of stock are as follows:

5.1 Common Stock.

(i) Voting Rights.

(1) Each holder of Class A Common Stock will be entitled to one vote for each share of Class A Common Stock held of record by such holder on all matters on which stockholders generally are entitled to vote, and each holder of Class B Common Stock will be entitled to one vote for each share of Class B Common Stock held of record by such holder on all matters on which stockholders generally are entitled to vote.

(2) The holders of the outstanding shares of Class A Common Stock and Class B Common Stock shall each be entitled to vote separately upon any amendment to this Amended Certificate of Incorporation (including by merger, consolidation, reorganization or similar event) that would alter or change the powers, preferences, or special rights of the shares of such class of Common Stock in a manner that affects them adversely.

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(3) Except as otherwise required in this Amended Certificate of Incorporation or by applicable law, the holders of Common Stock will vote together as a single class on all matters (or, if any holders of Preferred Stock are entitled to vote together with the holders of Common Stock, as a single class with the holders of Preferred Stock).

(ii) Dividends; Stock Splits or Combinations.

(1) Subject to applicable law and the rights, if any, of the holders of any outstanding series of Preferred Stock or any class or series of stock having a preference senior to or the right to participate with the Class A Common Stock with respect to the payment of dividends, dividends of cash or property may be declared and paid on the Class A Common Stock out of the assets of the Corporation that are by law available therefor, at the times and in the amounts as the board of directors of the Corporation (the "Board") in its discretion may determine.

(2) Except as provided in Section 5.1(ii)(3) with respect to stock dividends, dividends of cash or property may not be declared or paid on the Class B Common Stock.

(3) In no event will any stock dividend, stock split, reverse stock split, combination of stock, reclassification or recapitalization be declared or made on any class of Common Stock (each, a "Stock Adjustment") unless (a) a corresponding Stock Adjustment for all other classes of Common Stock not so adjusted at the time outstanding is made in the same proportion and the same manner and (b) the Stock Adjustment has been reflected in the same economically equivalent manner on all Nonvoting Common Units. Stock dividends with respect to each class of Common Stock may only be paid with shares of stock of the same class of Common Stock.

(iii) Liquidation. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Corporation, after payment or provision for payment of the debts and other liabilities of the Corporation and of the preferential and other amounts, if any, to which the holders of Preferred Stock are entitled, if any, the holders of all outstanding shares of Common Stock will be entitled to receive, *pari passu*, an amount per share equal to the par value thereof, and thereafter the holders of all outstanding shares of Class A Common Stock will be entitled to receive the remaining assets of the Corporation available for distribution ratably in proportion to the number of shares of Class A Common Stock. Without limiting the rights of the holders of Class B Common Stock to exchange their shares of Class B Common Stock, together with the corresponding Nonvoting Common Units constituting the remainder of any Paired Interests in which such shares are included, for shares of Class A Common Stock in accordance with Section 2.01 of the Exchange Agreement (or for the consideration payable in respect of shares of Class A Common Stock in such voluntary or involuntary liquidation, dissolution or winding up), the holders of shares of Class B Common Stock, as such, will not be entitled to receive, with respect to such shares, any assets of the Corporation in excess of the par value thereof, in the event of any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Corporation.

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5.2 Preferred Stock. Shares of Preferred Stock may be issued from time to time in one or more series of any number of shares, provided that the aggregate number of shares issued and not retired of any and all such series shall not exceed the total number of shares of Preferred Stock hereinabove authorized, and with such powers, including voting powers, if any, and the designations, preferences and relative, participating, optional or other special rights, if any, and any qualifications, limitations or restrictions thereof, all as shall hereafter be stated and expressed in the resolution or resolutions providing for the designation and issue of such shares of Preferred Stock from time to time adopted by the Board pursuant to authority so to do which is hereby expressly vested in the Board. The powers, including voting powers, if any, preferences and relative, participating, optional and other special rights of each series of Preferred Stock, and the qualifications, limitations or restrictions thereof, if any, may differ from those of any and all other series at any time outstanding. Each series of shares of Preferred Stock: (i) may have such voting rights or powers, full or limited, if any; (ii) may be subject to redemption at such time or times and at such prices, if any; (iii) may be entitled to receive dividends (which may be cumulative or non-cumulative) at such rate or rates, on such conditions and at such times, and payable in preference to, or in such relation to, the dividends payable on any other class or classes or series of stock, if any; (iv) may have such rights upon the voluntary or involuntary liquidation, winding up or dissolution of, upon any distribution of the assets of, or in the event of any merger, sale or consolidation of, the Corporation, if any; (v) may be made convertible into or exchangeable for, shares of any other class or classes or of any other series of the same or any other class or classes of stock of the Corporation (or any other securities of the Corporation or any other Person) at such price or prices or at such rates of exchange and with such adjustments, if any; (vi) may be entitled to the benefit of a sinking fund to be applied to the purchase or redemption of shares of such series in such amount or amounts, if any; (vii) may be entitled to the benefit of conditions and restrictions upon the creation of indebtedness of the Corporation or any subsidiary, upon the issue of any additional shares (including additional shares of such series or of any other series) and upon the payment of dividends or the making of other distributions on, and the purchase, redemption or other acquisition by the Corporation or any subsidiary of, any outstanding shares of the Corporation, if any; (viii) may be subject to restrictions on transfer or registration of transfer, or on the amount of shares that may be owned by any Person or group of Persons; and (ix) may have such other relative, participating, optional or other special rights, qualifications, limitations or restrictions thereof, if any; all as shall be stated in said resolution or resolutions of the Board providing for the designation and issue of such shares of Preferred Stock.

6. Exchange of Shares.

6.1 Exchange of Class B Common Stock. Shares of Class B Common Stock may be exchanged, together with the corresponding Nonvoting Common Units constituting the remainder of any Paired Interests in which such shares are included, as applicable, at any time and from time to time for shares of Class A Common Stock, in accordance with Section 2.01 of the Exchange Agreement.

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6.2 Taxes. The issuance of shares of Class A Common Stock upon the exercise by holders of shares of Class B Common Stock of their right under Section 2.01 of the Exchange Agreement to exchange Paired Interests will be made without charge to the holders of the shares of Class B Common Stock for any transfer taxes, stamp taxes or duties or other similar tax in respect of the issuance; provided, however, that if any such shares of Class A Common Stock are to be issued in a name other than that of the then record holder of the shares of Class B Common Stock being exchanged (or The Depository Trust Company or its nominee for the account of a participant of The Depository Trust Company that will hold the shares for the account of such holder), then such holder and/or the Person in whose name such shares are to be delivered, shall pay to the Corporation the amount of any tax that may be payable in respect of any transfer involved in the issuance or shall establish to the reasonable satisfaction of the Corporation that the tax has been paid or is not payable.

7. Meetings of Stockholders.

7.1 Action by Written Consent. From and after the Triggering Event, any action required or permitted to be taken by the stockholders of the Corporation may be effected only at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders. Prior to the Triggering Event, any action required or permitted to be taken by the stockholders of the Corporation may be effected by the consent in writing of the holders of a majority of the total voting power of the Corporation entitled to vote thereon, voting together as a single class in lieu of a duly called annual or special meeting of stockholders.

7.2 Election of Directors by Written Ballot. Unless and except to the extent that the Amended and Restated By-laws of the Corporation (as such By-laws may be amended from time to time, the "By-laws") shall so require, the election of the directors of the Corporation (the "Directors") need not be by written ballot.

8. Business Combinations.

8.1 Section 203 of the General Corporation Law. The Corporation will not be subject to the provisions of Section 203 of the General Corporation Law.

8.2 Limitations on Business Combinations. Notwithstanding Section 8.1, the Corporation shall not engage in any business combination (as defined below), at any point in time at which the Corporation's Class A Common Stock is registered under Section 12(b) or 12(g) of the Exchange Act, with any interested stockholder (as defined below) for a period of three years following the time that such stockholder became an interested stockholder, unless:

(i) prior to such time, the Board approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder, or

(ii) upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least eighty-five (85)% of the voting stock (as defined below) of the Corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned by (i) persons who are Directors and also officers or (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer, or

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(iii) at or subsequent to such time, the business combination is approved by the Board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two thirds of the outstanding voting stock of the Corporation which is not owned by the interested stockholder.

8.3 Definitions. For purposes of this Article 8:

(i) “affiliate” means a person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, another person.

(ii) “associate,” when used to indicate a relationship with any person, means: (i) any corporation, partnership, unincorporated association or other entity of which such person is a director, officer or partner or is, directly or indirectly, the owner of 20% or more of any class of voting stock; (ii) any trust or other estate in which such person has at least a 20% beneficial interest or as to which such person serves as trustee or in a similar fiduciary capacity; and (iii) any relative or spouse of such person, or any relative of such spouse, who has the same residence as such person.

(iii) “business combination,” when used in reference to the Corporation and any interested stockholder, means:

(1) any merger or consolidation of the Corporation or any direct or indirect majority-owned subsidiary of the Corporation (a) with the interested stockholder, or (b) with any other corporation, partnership, unincorporated association or other entity if the merger or consolidation is caused by the interested stockholder and as a result of such merger or consolidation Section 8.2 is not applicable to the surviving entity;

(2) any sale, lease, exchange, mortgage, pledge, transfer or other disposition (in one transaction or a series of transactions), except proportionately as a stockholder of the Corporation, to or with the interested stockholder, whether as part of a dissolution or otherwise, of assets of the Corporation or of any direct or indirect majority-owned subsidiary of the Corporation which assets have an aggregate market value equal to 10% or more of either the aggregate market value of all the assets of the Corporation determined on a consolidated basis or the aggregate market value of all the outstanding stock of the Corporation;

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(3) any transaction which results in the issuance or transfer by the Corporation or by any direct or indirect majority-owned subsidiary of the Corporation of any stock of the Corporation or of such subsidiary to the interested stockholder, except: (a) pursuant to the exercise, exchange or conversion of securities exercisable for, exchangeable for or convertible into stock of the Corporation or any such subsidiary which securities were outstanding prior to the time that the interested stockholder became such; (b) pursuant to a merger under Section 251(g) of the General Corporation Law; (c) pursuant to a dividend or distribution paid or made, or the exercise, exchange or conversion of securities exercisable for, exchangeable for or convertible into stock of the Corporation or any such subsidiary which security is distributed, pro rata to all holders of a class or series of stock of the Corporation subsequent to the time the interested stockholder became such; (d) pursuant to an exchange offer by the Corporation to purchase stock made on the same terms to all holders of said stock; or (e) any issuance or transfer of stock by the Corporation; provided, however, that in no case under items (c)-(e) of this subsection (3) shall there be an increase in the interested stockholder's proportionate share of the stock of any class or series of the Corporation or of the voting stock of the Corporation (except as a result of immaterial changes due to fractional share adjustments);

(4) any transaction involving the Corporation or any direct or indirect majority-owned subsidiary of the Corporation which has the effect, directly or indirectly, of increasing the proportionate share of the stock of any class or series, or securities convertible into the stock of any class or series, of the Corporation or of any such subsidiary which is owned by the interested stockholder, except as a result of immaterial changes due to fractional share adjustments or as a result of any purchase or redemption of any shares of stock not caused, directly or indirectly, by the interested stockholder; or

(5) any receipt by the interested stockholder of the benefit, directly or indirectly (except proportionately as a stockholder of the Corporation), of any loans, advances, guarantees, pledges, or other financial benefits (other than those expressly permitted in subsections (1)-(4) above) provided by or through the Corporation or any direct or indirect majority-owned subsidiary.

(iv) "control," including the terms "controlling," "controlled by," and "under common control with," means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting stock, by contract, or otherwise. A person who is the owner of 20% or more of the outstanding voting stock of the Corporation, partnership, unincorporated association or other entity shall be presumed to have control of such entity, in the absence of proof by a preponderance of the evidence to the contrary. Notwithstanding the foregoing, a presumption of control shall not apply where such person holds voting stock, in good faith and not for the purpose of circumventing this Article 8, as an agent, bank, broker, nominee, custodian or trustee for one or more owners who do not individually or as a group have control of such entity.

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(v) “interested stockholder” means any person (other than the Corporation or any direct or indirect majority-owned subsidiary of the Corporation) that (i) is the owner of 15% or more of the outstanding voting stock of the Corporation, or (ii) is an affiliate or associate of the Corporation and was the owner of 15% or more of the outstanding voting stock of the Corporation at any time within the three year period immediately prior to the date on which it is sought to be determined whether such person is an interested stockholder, and the affiliates and associates of such person; provided, however, that the term “interested stockholder” shall not include (a) the Principal Stockholders or Principal Stockholder transferees, or any affiliates of any of the foregoing, or (b) any person whose ownership of shares in excess of the 15% limitation set forth herein is the result of any action taken solely by the Corporation; provided that such person specified in this clause (b) shall be an interested stockholder if thereafter such person acquires additional shares of voting stock of the Corporation, except as a result of further corporate action not caused, directly or indirectly, by such person. For the purpose of determining whether a person is an interested stockholder, the voting stock of the Corporation deemed to be outstanding shall include stock deemed to be owned by the person through application of the definition of “owner” below but shall not include any other unissued stock of the Corporation which may be issuable pursuant to any agreement, arrangement or understanding, or upon exercise of conversion rights, warrants or options, or otherwise.

(vi) “owner,” including the terms “own” and “owned,” when used with respect to any stock, means a person that individually or with or through any of its affiliates or associates:

(1) beneficially owns such stock, directly or indirectly; or

(2) has (a) the right to acquire such stock (whether such right is exercisable immediately or only after the passage of time) pursuant to any agreement, arrangement or understanding, or upon the exercise of conversion rights, exchange rights, warrants or options, or otherwise; provided, however, that a person shall not be deemed the owner of stock tendered pursuant to a tender or exchange offer made by such person or any of such person’s affiliates or associates until such tendered stock is accepted for purchase or exchange; or (b) the right to vote such stock pursuant to any agreement, arrangement or understanding; provided, however, that a person shall not be deemed the owner of any stock because of such person’s right to vote such stock if the agreement, arrangement or understanding to vote such stock arises solely from a revocable proxy or consent given in response to a proxy or consent solicitation made to ten or more persons; or

(3) has any agreement, arrangement or understanding for the purpose of acquiring, holding, voting (except voting pursuant to a revocable proxy or consent as described in item (b) of subsection (2) above), or disposing of such stock with any other person that beneficially owns, or whose affiliates or associates beneficially own, directly or indirectly, such stock.

(vii) “person” means any individual, corporation, partnership, unincorporated association or other entity.

(viii) “stock” means, with respect to any corporation, capital stock and, with respect to any other entity, any equity interest.

(ix) “Principal Stockholder transferee” means any Person who acquires voting stock of the Corporation from a Principal Stockholder (other than in connection with a public offering) and who is designated in writing by such Principal Stockholder as a “Principal Stockholder transferee.”

(x) “voting stock” means stock of any class or series entitled to vote generally in the election of directors.

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9. Corporate Opportunities.

9.1 Certain Acknowledgement. In recognition and anticipation that, subject to certain contractual commitments entered into with the Corporation and/or its subsidiaries, (i) certain directors, principals, officers, employees and/or other representatives of investment funds or vehicles affiliated with the Principal Stockholders and their respective Affiliates may serve as directors, officers or agents of the Corporation or any of its subsidiaries, (ii) the Principal Stockholders and their Affiliates may now engage and may continue to engage in the same or similar activities or related lines of business as those in which the Corporation, directly or indirectly, may engage and/or other business activities that overlap with or compete with those in which the Corporation, directly or indirectly, may engage, and (iii) certain members of the Board who are not officers or employees of the Corporation and/or any of its subsidiaries, but including consultants to the Principal Stockholders ("Non-Employee Directors") and their respective Affiliates may now engage and may continue to engage in the same or similar activities or related lines of business as those in which the Corporation, directly or indirectly, may engage and/or other business activities that overlap with or compete with those in which the Corporation, directly or indirectly, may engage, the provisions of this Article 9 are set forth to regulate and define the conduct of certain affairs of the Corporation with respect to certain classes or categories of business opportunities as they may involve any of the Principal Stockholders, certain of the Non-Employee Directors or their respective Affiliates and the powers, rights, duties and liabilities of the Corporation and its Directors, officers and stockholders in connection therewith.

9.2 Scope. The Corporation waives, to the maximum extent permitted by law, the application of the doctrine of corporate opportunity, or any other analogous doctrine, with respect to the Corporation, to the Principal Stockholders, any Non-Employee Directors or any of their respective Affiliates; provided that, for the avoidance of doubt, the foregoing waiver shall not apply to Directors who are officers or employees of the Corporation but shall apply to Directors who are consultants to the Principal Stockholders (each Person entitled such waiver, an "Exempted Person"). To the maximum extent permitted by law, except to the extent otherwise provided in any agreement between an Exempted Person and the Corporation and/or any of its subsidiaries, no Exempted Person shall have any obligation to refrain from (i) engaging in the same or similar activities or lines of business as the Corporation or any of its Affiliates or developing or marketing any products or services that compete, directly or indirectly, with those of the Corporation or any of its Affiliates today or in which the Corporation or any of its Affiliates proposes to engage or develop, (ii) investing or owning any interest publicly or privately in, or developing a business relationship with, any Person engaged in the same or similar activities or lines of business as, or otherwise in competition with, the Corporation or any of its Affiliates or (iii) doing business with any client or customer of the Corporation or any of its Affiliates (each of the activities referred to in clauses (i)-(iii) above, a "Specified Activity"). The Corporation renounces any interest or expectancy in, or in being offered an opportunity to participate in, any Specified Activity that may be presented to or become known to any Exempted Person. Notwithstanding anything to the contrary in this Article 9, no Exempted Person shall be liable to the Corporation or its stockholders or to any Affiliate of the Corporation for breach of any fiduciary duty solely by reason of the fact that such Exempted Person engages in any of the Specified Activities. To the fullest extent permitted by law, the Corporation hereby renounces any interest or expectancy in, or right to be offered an opportunity to participate in, any business opportunity which may be a corporate opportunity for an Exempted Person and the Corporation or any of its Affiliates, except as provided in Section 9.3 hereof. Subject to Section 9.3, in the event that any Exempted Person acquires knowledge of a potential transaction or other business opportunity which may be a corporate opportunity for itself, herself or himself and the Corporation or any of its Affiliates, such Exempted Person shall, to the fullest extent permitted by law, have no duty to communicate or offer such transaction or other business opportunity to the Corporation or any of its Affiliates and, to the fullest extent permitted by law, shall not be liable to the Corporation or its stockholders or to any Affiliate of the Corporation for breach of any fiduciary duty as a stockholder, director or officer of the Corporation solely by reason of the fact that such Exempted Person pursues or acquires such corporate opportunity for itself, herself or himself, or offers or directs such corporate opportunity to another Person.

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9.3 Allocation of Corporate Opportunities. Notwithstanding anything in Section 9.2 to the contrary, the Corporation does not renounce its interest in any corporate opportunity offered to any Director who serves as an officer of the Corporation.

9.4 Certain Matters Deemed Not Corporate Opportunities. In addition to and notwithstanding the foregoing provisions of this Article 9, a corporate opportunity shall not be deemed to belong to the Corporation if it is a business opportunity that the Corporation is not financially able or contractually permitted or legally able to undertake, or that is, from its nature, not in the line of the Corporation's business or is of no practical advantage to it or that is one in which the Corporation has no interest or reasonable expectancy.

9.5 Amendment of this Article. No amendment or repeal of this Article 9 in accordance with the provisions of Article 13 shall apply to or have any effect on the liability or alleged liability of any Exempted Person for or with respect to any activities or opportunities of which such Exempted Person becomes aware or otherwise relies on the protection afforded to such Exempted Person prior to such amendment or repeal. This Article 9 shall not limit any protections or defenses available to, or indemnification or advancement rights of, any Director or officer of the Corporation under this Amended Certificate of Incorporation, the By-laws or applicable law.

9.6 Notice of this Article. To the fullest extent permitted by law, any Person purchasing or otherwise acquiring any interest in any shares of capital stock of the Corporation shall be deemed to have notice of and to have consented to the provisions of this Article 9.

9.7 Certain Definitions. For purposes of this Article 9:

(i) "Corporation" means the Corporation, any of its subsidiaries (including vTv Therapeutics LLC and its subsidiaries) and/or any of its Affiliates; and

(ii) "Affiliate" means (a) in respect of the Principal Stockholders, any Person that, directly or indirectly, is controlled by the Principal Stockholders, controls the Principal Stockholders or is under common control with the Principal Stockholders and shall include any principal, member, director, partner, stockholder, officer, employee or other representative of any of the foregoing (other than the Corporation and any entity that is controlled by the Corporation), (b) in respect of a Non-Employee Director, any Person that, directly or indirectly, is controlled by such Non-Employee Director (other than the Corporation and any entity that is controlled by the Corporation) and (c) in respect of the Corporation, any Person that, directly or indirectly, is controlled by the Corporation.

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10. Limitation of Liability.

10.1 To the fullest extent permitted under the General Corporation Law, as amended from time to time, no Director shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a Director.

10.2 Any amendment or repeal of Section 10.1 shall not adversely affect any right or protection of a Director hereunder in respect of any act or omission occurring prior to the time of such amendment or repeal.

11. Indemnification.

11.1 Right to Indemnification. The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any Person (a "Covered Person") who was or is a party or is threatened to be made a party to or otherwise involved any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding"), by reason of the fact that he or she, or a Person for whom he or she is the legal representative, is or was a Director or officer of the Corporation or, while a Director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee, agent or trustee of another entity or enterprise, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including, without limitation, attorneys' fees and expenses, judgments, fines, excise taxes or penalties under the Employee Retirement Income Security Act of 1974, as amended, and amounts paid or to be paid in settlement) reasonably incurred by such Covered Person. Notwithstanding the preceding sentence, except as otherwise provided in Section 11.3, the Corporation shall be required to indemnify a Covered Person in connection with a Proceeding (or part thereof) commenced by such Covered Person only if the commencement of such Proceeding (or part thereof) by the Covered Person was authorized by the Board.

11.2 Prepayment of Expenses. To the extent not prohibited by applicable law, the Corporation shall pay the expenses (including attorneys' fees) incurred by a Covered Person in defending any Proceeding in advance of its final disposition; provided, however, that to the extent required by applicable law, such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the Covered Person to repay all amounts advanced if it should be ultimately determined that the Covered Person is not entitled to be indemnified under this Article 11 or otherwise.

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11.3 Claims. If a claim for indemnification or advancement of expenses under this Article 11 is not paid in full within thirty days after a written claim therefor by the Covered Person has been received by the Corporation, the Covered Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In (i) any suit brought by a Covered Person to enforce a right to indemnification hereunder (but not in a suit brought by a Covered Person to enforce a right to an advancement of expenses) it shall be a defense that, and (ii) any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that, such Person has not met any applicable standard for indemnification set forth in the General Corporation Law. Neither the failure of the Corporation (including by its Directors who are not parties to such action, a committee of such Directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the Covered Person is proper in the circumstances because the Covered Person has met the applicable standard of conduct set forth in the General Corporation Law, nor an actual determination by the Corporation (including by its Directors who are not parties to such action, a committee of such Directors, independent legal counsel, or its stockholders) that the Covered Person has not met such applicable standard of conduct, shall create a presumption that such Person has not met the applicable standard of conduct or, in the case of such a suit brought by the Covered Person, be a defense to such suit.

11.4 Nonexclusivity of Rights. The rights conferred on any Covered Person by this Article 11 shall not be exclusive of any other rights that such Covered Person may have or hereafter acquire under any statute, provision of this Amended Certificate of Incorporation, the By-laws, agreement, vote of stockholders or disinterested Directors or otherwise.

11.5 Other Sources. Subject to Section 11.6, the Corporation's obligation, if any, to indemnify or to advance expenses to any Covered Person who was or is serving at its request as a director, officer, employee or agent of another entity or enterprise shall be reduced by any amount such Covered Person may collect as indemnification or advancement of expenses from such other entity or enterprise.

11.6 Indemnitor of First Resort. In all events, (i) the Corporation hereby agrees that it is the indemnitor of first resort (i.e. its obligation to a Covered Person to provide advancement and/or indemnification to such Covered Person are primary and any obligation of any Principal Stockholder (including any Affiliate thereof other than the Corporation) to provide advancement or indemnification hereunder or under any other indemnification agreement (whether pursuant to contract, by-laws or charter), or any obligation of any insurer of any Principal Stockholder to provide insurance coverage, for the same expenses, liabilities, judgments, penalties, fines and amounts paid in settlement (including all interest, assessments and other charges paid or payable in connection with or in respect of such expenses, liabilities, judgments, penalties, fines and amounts paid in settlement) incurred by such Covered Person are secondary and (ii) if any Principal Stockholder (or any Affiliate thereof, other than the Corporation) pays or causes to be paid, for any reason, any amounts otherwise indemnifiable hereunder or under any other indemnification agreement (whether pursuant to contract, by-laws or charter) with such Covered Person, then (x) such Principal Stockholder (or such Affiliate, as the case may be), as the case may be, shall be fully subrogated to all rights of such Covered Person with respect to such payment and (y) the Corporation shall fully indemnify, reimburse and hold harmless such Principal Stockholder (or such other Affiliate), as the case may be, for all such payments actually made by such Principal Stockholder (or such other Affiliate).

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11.7 Amendment or Repeal. Any amendment or repeal of the foregoing provisions of this Article 11 shall not adversely affect any right or protection hereunder of any Covered Person in respect of any act or omission occurring prior to the time of such amendment or repeal.

11.8 Other Indemnification and Prepayment of Expenses. This Article 11 shall not limit the right of the Corporation, to the extent and in the manner permitted by applicable law, to indemnify and to advance expenses to Persons other than Covered Persons when and as authorized by appropriate corporate action.

11.9 Reliance. Covered Persons who after the date of the adoption of this provision become or remain a Covered Person described in Article 11 will be conclusively presumed to have relied on the rights to indemnity, advance of expenses and other rights contained in this Article 11 in entering into or continuing the service. The rights to indemnification and to the advance of expenses conferred in this Article 11 will apply to claims made against any Covered Person described in Article 11 arising out of acts or omissions in respect of the Corporation or one of its subsidiaries that occurred or occur both prior and subsequent to the adoption hereof. The rights conferred upon Covered Persons in this Article 11 shall be contract rights and such rights shall continue as to a Covered Person who has ceased to be a Director or officer and shall inure to the benefit of the Covered Person's heirs, executors and administrators. Any amendment, alteration or repeal of this Article 11 that adversely affects any right of a Covered Person or its successors shall be prospective only and shall not limit, eliminate, or impair any such right with respect to any proceeding involving any occurrence or alleged occurrence of any action or omission to act that took place prior to such amendment or repeal.

11.10 Insurance. The Corporation may purchase and maintain insurance, at its expense, to protect itself and any Director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the General Corporation Law.

12. Adoption, Amendment or Repeal of By-Laws. In furtherance and not in limitation of the powers conferred by law, the Board is expressly authorized to make, alter, amend or repeal the By-laws subject to the power of the stockholders of the Corporation entitled to vote with respect thereto to make, alter, amend or repeal the By-laws.

13. Adoption, Amendment and Repeal of Certificate. Subject to Article 5, the Corporation reserves the right to amend, alter, change or repeal any provision contained in this Amended Certificate of Incorporation, in the manner now or hereafter prescribed by the General Corporate Law, and all rights, preferences and privileges of whatsoever nature conferred upon stockholders, Directors or any other Persons whomsoever by and pursuant to this Amended Certificate of Incorporation in its present form or as hereafter amended, are granted and held subject to this reservation.

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14. Forum for Adjudication of Disputes. Unless the Corporation consents in writing to the selection of an alternative forum, the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law or the Certificate of Incorporation or these By-laws (as either may be amended from time to time, or (iv) any action asserting a claim governed by the internal affairs doctrine shall be the Court of Chancery in the State of Delaware (or if the Court of Chancery does not have jurisdiction, the federal district court for the District of Delaware). If any action the subject matter of which is within the scope of the preceding sentence is filed in a court other than a court located within the State of Delaware (a "Foreign Action") in the name of any stockholder, such stockholder shall be deemed to have consented to (i) the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce the preceding sentence and (ii) having service of process made upon such stockholder in any such action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder.

15. Severability. If any provision or provisions of this Amended Certificate of Incorporation shall be held to be invalid, illegal or unenforceable as applied to any circumstance for any reason whatsoever: (i) the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Amended Certificate of Incorporation (including, without limitation, each portion of any paragraph of this Amended Certificate of Incorporation containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and (ii) to the fullest extent possible, the provisions of this Amended Certificate of Incorporation (including, without limitation, each such portion of any paragraph of this Amended Certificate of Incorporation containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to permit the Corporation to protect its Directors, officers, employees and agents from personal liability in respect of their good faith service to or for the benefit of the Corporation to the fullest extent permitted by law.

16. Definitions. As used in this Amended Certificate of Incorporation, unless the context otherwise requires or as set forth in another Article or Section of this Amended Certificate of Incorporation, the term:

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(a) “Affiliate” means, with respect to any Person, any other Person directly or indirectly controlling, controlled by, or under common control with such Person; provided, that (i) neither the Corporation nor any of its subsidiaries will be deemed an Affiliate of any stockholder of the Corporation or any of such stockholders’ Affiliates and (ii) no stockholder of the Corporation will be deemed an Affiliate of any other stockholder of the Corporation, in each case, solely by reason of any investment in the Corporation or any rights conferred on such stockholder pursuant to the Investor Rights Agreement (including any representatives of such stockholder serving on the Board).

(b) “Amended Certificate of Incorporation” is defined in the recitals.

(c) “Board” is defined in Section 5.1(ii)(1).

(d) “Business Day” means any day that is not a Saturday, a Sunday or other day on which banks are required or authorized by Law to be closed in the City of New York.

(e) “By-laws” is defined in Section 7.2.

(f) “Chairman” means the Chairman of the Board.

(g) “Chief Executive Officer” means the Chief Executive Officer of the Corporation.

(h) “Class A Common Stock” is defined in Section 4.1.

(i) “Class B Common Stock” is defined in Section 4.1.

(j) “Common Stock” is defined in Section 4.1.

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- (k) “control” (including the terms “controlling” and “controlled”), with respect to the relationship between or among two or more Persons, means the possession, directly or indirectly, of the power to direct or cause the direction of the affairs or management of such subject Person, whether through the ownership of voting securities, as trustee or executor, by contract or otherwise.
- (l) “Corporation” means vTv Therapeutics Inc.
- (m) “Covered Person” is defined in Section 11.1.
- (n) “Director” is defined in Section 7.2.
- (o) “Exchange Act” means the Securities Exchange Act of 1934, as amended, and any successor law or statute, together with the rules and regulations promulgated thereunder.
- (p) “Exchange Agreement” means the Exchange Agreement, dated as of [\_\_\_\_], 2015, by and among vTv Therapeutics LLC, the Corporation and vTv Therapeutics Holdings LLC (and its successors and assigns), as the same may be amended, restated, supplemented and/or otherwise modified, from time to time.
- (q) “Exempted Person” is defined in Section 9.2.
- (r) “Family Member” shall mean with respect to any natural person, the spouse, parents, grandparents, lineal descendants, siblings of such person or such person's spouse, and lineal descendants of siblings of such person or such person's spouse. Lineal descendants shall include adopted persons, but only so long as they are adopted during minority.
- (s) “Foreign Action” is defined in Section 14.
- (t) “General Corporation Law” is defined in the recitals.
- (u) “Investor Rights Agreement” means that certain Investor Rights Agreement, dated as of [\_\_\_\_], 2015, by and between the Corporation and vTv Therapeutics Holdings LLC (and its successors and assigns), as the same may be amended, restated, supplemented and/or otherwise modified, from time to time.
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(v) “Nonvoting Common Unit” means a Nonvoting Common Unit of vTv Therapeutics LLC.

(w) “Paired Interest” means one Nonvoting Common Unit together with one share of Class B Common Stock, subject to adjustment pursuant to Section 2.03(a) of the Exchange Agreement.

(x) “Person” means any individual, partnership, firm, corporation, limited liability company, association, trust, unincorporated organization or other entity.

(y) “Preferred Stock” is defined in Section 4.1.

(z) “Principal Stockholders” means vTv Therapeutics Holdings LLC (and its successors and assigns), vTvx I Holdings LLC, vTvx II Holdings LLC, M&F TTP Holdings LLC and any other Affiliates thereof or of MacAndrews & Forbes Incorporated.

(aa) “Proceeding” is defined in Section 11.1.

(bb) “Specified Activity” is defined in Section 9.2.

(cc) “Stock Adjustment” is defined in Section 5.1(ii)(3).

(dd) “Triggering Event” means the first date on which the Principal Stockholders cease to beneficially own (as such term is defined in Rule 13d-3 and Rule 13d-5 under the Exchange Act) shares representing at least 50% of the issued and outstanding shares of Common Stock.

(ee) “Vice Chairman” means the Vice Chairman of the Board.

*[Remainder of page intentionally left blank.]*

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IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation of vTv Therapeutics Inc. has been duly executed by the authorized officer below this \_\_\_\_ day of \_\_\_\_\_ 2015.

By: \_\_\_\_\_  
Name:  
Title:

*[Signature Page to Amended and Restated Certificate of Incorporation]*

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AMENDED AND RESTATED BY-LAWS

of

VTV THERAPEUTICS INC.

(A Delaware Corporation)

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ARTICLE 1

DEFINITIONS

As used in these By-laws, unless the context otherwise requires, the term:

1.1 “Assistant Secretary” means an Assistant Secretary of the Corporation.

1.2 “Assistant Treasurer” means an Assistant Treasurer of the Corporation.

1.3 “Board” means the Board of Directors of the Corporation.

1.4 “By-laws” means the By-laws of the Corporation, as amended and restated.

1.5 “Certificate of Incorporation” means the Certificate of Incorporation of the Corporation, as amended and restated.

1.6 “Chairman” means the Chairman of the Board and includes any Executive Chairman.

1.7 “Chief Executive Officer” means the Chief Executive Officer of the Corporation.

1.8 “control” (including the terms “controlling” and “controlled”), with respect to the relationship between or among two or more persons, means the possession, directly or indirectly, of the power to direct or cause the direction of the affairs or management of such subject person, whether through the ownership of voting securities, as trustee or executor, by contract or otherwise.

1.9 “Corporation” means vTv Therapeutics Inc.

1.10 “Derivative” is defined in Section 2.2(D)(iii).

1.11 “Directors” means the directors of the Corporation.

1.12 “Exchange Act” means the Securities Exchange Act of 1934, as amended, and any successor law or statute, and the rules and regulations promulgated thereunder.

1.13 “Executive Chairman” means the Executive Chairman of the Board.

1.14 “General Corporation Law” means the General Corporation Law of the State of Delaware, as amended.

1.15 “Investor Rights Agreement” means that certain Investor Rights Agreement, dated as of [\_\_\_\_\_], 2015, by and between the Corporation and vTv Therapeutics Holdings LLC (and its successors and assigns), as the same may be amended, restated, supplemented and/or otherwise modified, from time to time.

- 1.16 “law” means any U.S. or non-U.S., federal, state or local law (statutory, common or otherwise), constitution, treaty, convention, ordinance, code, rule, regulation, order, injunction, judgment, decree, ruling or other similar requirement enacted, adopted, promulgated or applied by a governmental authority (including any department, court, agency or official, or non-governmental self-regulatory organization, agency or authority and any political subdivision or instrumentality thereof).
- 1.17 “Nominating Stockholder” is defined in Section 3.3(B).
- 1.18 “Notice of Business” is defined in Section 2.2(C).
- 1.19 “Notice of Nomination” is defined in Section 3.3(C).
- 1.20 “Notice Record Date” is defined in Section 2.4(A).
- 1.21 “Office of the Corporation” means the principal executive offices of the Corporation, anything in Section 131 of the General Corporation Law to the contrary notwithstanding.
- 1.22 “President” means the President of the Corporation.
- 1.23 “Proponent” is defined in Section 2.2(D)(i).
- 1.24 “Public Disclosure” is defined in Section 2.2(I).
- 1.25 “Qualifying Shares” is defined in Section 3.4.
- 1.26 “SEC” means the Securities and Exchange Commission.
- 1.27 “Secretary” means the Secretary of the Corporation.
- 1.28 “Stockholder Associated Person” is defined in Section 2.2(J).
- 1.29 “Stockholder Business” is defined in Section 2.2(B).
- 1.30 “Stockholder Information” is defined in Section 2.2(D)(iii).
- 1.31 “Stockholder Nominees” is defined in Section 3.3(B).
- 1.32 “Stockholders” means the stockholders of the Corporation.
- 1.33 “Treasurer” means the Treasurer of the Corporation.
- 1.34 “Triggering Event” means shall have the meaning set forth in the Certificate of Incorporation.

- 1.35 “Vice Chairman” means the Vice Chairman of the Board.
- 1.36 “Vice President” means a Vice President of the Corporation.
- 1.37 “Voting Commitment” is defined in Section 3.4.
- 1.38 “Voting Record Date” is defined in Section 2.4(A).

## ARTICLE 2

### STOCKHOLDERS

2.1 Place of Meetings. Meetings of Stockholders may be held within or without the State of Delaware, at such place or solely by means of remote communication or otherwise, as may be designated by the Board from time to time.

2.2 Annual Meetings; Stockholder Proposals.

(A) A meeting of Stockholders for the election of Directors and other business shall be held annually at such date and time as may be designated by the Board from time to time.

(B) At an annual meeting of the Stockholders, only business (other than business relating to the nomination or election of Directors, which is governed by Section 3.3) that has been properly brought before the Stockholder meeting in accordance with the procedures set forth in this Section 2.2 shall be conducted. To be properly brought before a meeting of Stockholders, such business must be brought before the meeting (i) by or at the direction of the Board or any committee thereof or (ii) by a Stockholder who (a) was a Stockholder of record of the Corporation when the notice required by this Section 2.2 is delivered to the Secretary and at the time of the meeting, (b) is entitled to vote at the meeting and (c) complies with the notice and other provisions of this Section 2.2. Subject to Section 2.2(K), and except with respect to nominations or elections of Directors, which are governed by Section 3.3, Section 2.2(B)(ii) is the exclusive means by which a Stockholder may bring business before a meeting of Stockholders; provided that if Rule 14a-8 of the Exchange Act (or any successor rule) is applicable, a Stockholder may not bring business before any meeting if the Stockholder fails to meet the requirements of such rule. Any business brought before a meeting in accordance with Section 2.2(B)(ii) is referred to as “Stockholder Business.”

(C) Subject to Section 2.2(K), at any annual meeting of Stockholders, all proposals of Stockholder Business must be made by timely written notice given by or on behalf of a Stockholder of record of the Corporation (the “Notice of Business”) and must otherwise be a proper matter for Stockholder action. To be timely, the Notice of Business must be delivered personally or mailed to, and received at the Office of the Corporation, addressed to the Secretary, by no earlier than 120 days and no later than 90 days before the first anniversary of the date of the prior year’s annual meeting of Stockholders; provided, however, that if (i) the annual meeting of Stockholders is advanced by more than 30 days, or delayed by more than 60 days, from the first anniversary of the prior year’s annual meeting of Stockholders, (ii) no annual meeting was held during the prior year or (iii) in the case of the Corporation’s first annual meeting of Stockholders as a corporation with a class of equity securities registered under the Exchange Act, the notice by the Stockholder to be timely must be received (a) no earlier than 120 days before such annual meeting and (b) no later than the later of 90 days before such annual meeting and the tenth day after the day on which the notice of such annual meeting was made by mail or Public Disclosure. In no event shall an adjournment, postponement or deferral, or Public Disclosure of an adjournment, postponement or deferral, of a Stockholder meeting commence a new time period (or extend any time period) for the giving of the Notice of Business.

(D) The Notice of Business must set forth:

(i) the name and record address of each Stockholder proposing Stockholder Business (the “Proponent”), as they appear on the Corporation’s books;

(ii) the name and address of any Stockholder Associated Person;

(iii) as to each Proponent and any Stockholder Associated Person, (a) the class or series and number of shares of stock directly or indirectly held of record and beneficially by the Proponent or Stockholder Associated Person, (b) the date such shares of stock were acquired, (c) a description of any agreement, arrangement or understanding, direct or indirect, with respect to such Stockholder Business between or among the Proponent, any Stockholder Associated Person or any others (including their names) acting in concert with any of the foregoing, (d) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, options, hedging transactions, warrant, convertible security, stock appreciation right or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class of securities and/or borrowed or loaned shares) that has been entered into, directly or indirectly, as of the date of the Proponent’s notice by, or on behalf of, the Proponent or any Stockholder Associated Person, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of the Proponent or any Stockholder Associated Person with respect to shares of stock of the Corporation or with a value derived in whole or in part from the value or decrease in value of any class or series of stock of the Corporation, whether or not such instrument or right shall be subject to settlement in the underlying class or series of stock of the Corporation or otherwise (a “Derivative”), (e) a description in reasonable detail of any proxy (including revocable proxies), contract, arrangement, understanding or other relationship pursuant to which the Proponent or Stockholder Associated Person has a right to vote any shares of stock of the Corporation, (f) any rights to dividends on the stock of the Corporation owned beneficially by the Proponent or Stockholder Associated Person that are separated or separable from the underlying stock of the Corporation, (g) any proportionate interest in stock of the Corporation or Derivatives held, directly or indirectly, by a general or limited partnership in which the Proponent or Stockholder Associated Person is a general partner or, directly or indirectly, beneficially owns an interest in a general partner and (h) any performance-related fees (other than an asset-based fee) that the Proponent or Stockholder Associated Person is entitled to based on any increase or decrease in the value of stock of the Corporation or Derivatives thereof, if any, as of the date of such notice. The information specified in Section 2.2(D)(i) to (iii) is referred to herein as “Stockholder Information”;

(iv) Stockholder Information with respect to any stock or other interests of the Corporation held by members of the Proponent's or Stockholder Associated Person's immediate family sharing the same household;

(v) a representation to the Corporation that each Proponent is a holder of record of stock of the Corporation entitled to vote at the meeting and intends to appear in person or by proxy at the meeting to propose such Stockholder Business;

(vi) a brief description of the Stockholder Business desired to be brought before the annual meeting, the text of the proposal (including the text of any resolutions proposed for consideration and, if such business includes a proposal to amend the By-laws, the language of the proposed amendment) and the reasons for conducting such Stockholder Business at the meeting;

(vii) any material interest of each Proponent and any Stockholder Associated Person in such Stockholder Business;

(viii) a representation to the Corporation as to whether the Proponent intends (a) to deliver a proxy statement and form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt such Stockholder Business or (b) otherwise to solicit proxies from the Stockholders in support of such Stockholder Business;

(ix) all other information that would be required to be filed with the SEC if the Proponents or Stockholder Associated Persons were participants in a solicitation subject to Section 14 of the Exchange Act; and

(x) a representation and covenant for the benefit of the Corporation that the Proponents shall provide any other information reasonably requested by the Corporation.

(E) The Proponents shall also provide any other information reasonably requested by the Corporation within ten business days after such request.

(F) In addition, the Proponent shall further update and supplement the information provided to the Corporation in the Notice of Business or upon the Corporation's request pursuant to Section 2.2(E) as needed, so that such information shall be true and correct as of the record date for the meeting and as of the date that is the later of ten business days before the meeting or any adjournment or postponement thereof. Such update and supplement must be delivered personally or mailed to, and received at the Office of the Corporation, addressed to the Secretary, by no later than five business days after the record date for the meeting (in the case of the update and supplement required to be made as of the record date), and not later than seven business days before the date for the meeting (in the case of the update and supplement required to be made as of ten business days before the meeting or any adjournment or postponement thereof).

(G) The person presiding over the meeting shall, if the facts warrant, determine and declare to the meeting that business was not properly brought before the meeting in accordance with the procedures set forth in this Section 2.2, and if he or she should so determine, he or she shall so declare to the meeting and any such business not properly brought before the meeting shall not be transacted.

(H) If the Proponent (or a qualified representative of the Proponent) does not appear at the meeting of Stockholders to present the Stockholder Business, such business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 2.2, to be considered a qualified representative of the Stockholder, a person must be a duly authorized officer, manager or partner of such Stockholder or must be authorized by a writing executed by such Stockholder or an electronic transmission delivered by such Stockholder to act for such Stockholder as proxy at the meeting of Stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of Stockholders.

(I) “Public Disclosure” of any date or other information means disclosure thereof by a press release reported by the Dow Jones News Services, Associated Press or comparable U.S. national news service or in a document publicly filed by the Corporation with, or furnished by the Corporation to, the SEC pursuant to Sections 13, 14 or 15(d) of the Exchange Act.

(J) “Stockholder Associated Person” means, with respect to any Stockholder, (i) any other beneficial owner of stock of the Corporation that is owned by such Stockholder and (ii) any person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, the Stockholder or such beneficial owner.

(K) The notice requirements of this Section 2.2 shall be deemed satisfied with respect to Stockholder proposals that have been properly brought under Rule 14a-8 of the Exchange Act and that are included in a proxy statement that has been prepared by the Corporation to solicit proxies for such annual meeting. Further, nothing in this Section 2.2 shall be deemed to affect any rights of the holders of any series of preferred stock of the Corporation pursuant to any applicable provision of the Certificate of Incorporation.

2.3 Special Meetings. Subject to any special rights of the holders of any series of preferred stock of the Corporation, and to the requirements of applicable law, special meetings of the stockholders of the Corporation may be called only (i) by or at the direction of the Board pursuant to a written resolution adopted by a majority of the total number of Directors that the Corporation would have if there were no vacancies or (ii) by or at the direction of the Chairman, the Vice Chairman or the Chief Executive officer. In addition, prior to a Triggering Event, special meeting of stockholders of the Corporation may be called by the Secretary of the Corporation at the request of the holders of a majority of the total voting power of the outstanding shares of capital stock of the Corporation entitled to vote generally in the election of Directors, voting together as a single class. Notice of every special meeting of the Stockholders shall state the purpose or purposes of such meeting. Except as otherwise required by law, the business conducted at a special meeting of Stockholders shall be limited exclusively to the business set forth in the Corporation’s notice of meeting, and the individual or group calling such meeting shall have exclusive authority to determine the business included in such notice.

2.4 Record Date.

(A) For the purpose of determining the Stockholders entitled to notice of any meeting of Stockholders or any adjournment thereof, unless otherwise required by the Certificate of Incorporation or applicable law, the Board may fix a record date (the "Notice Record Date"), which record date shall not precede the date on which the resolution fixing the record date was adopted by the Board and shall not be more than 60 or less than ten days before the date of such meeting. The Notice Record Date shall also be the record date for determining the Stockholders entitled to vote at such meeting unless the Board determines, at the time it fixes such Notice Record Date, that a later date on or before the date of the meeting shall be the date for making such determination (the "Voting Record Date"). For the purposes of determining the Stockholders entitled to express consent to corporate action in writing without a meeting, unless otherwise required by the Certificate of Incorporation or applicable law, the Board may fix a record date, which record date shall not precede the date on which the resolution fixing the record date was adopted by the Board and shall not be more than ten days after the date on which the record date was fixed by the Board. For the purposes of determining the Stockholders entitled to (i) receive payment of any dividend or other distribution or allotment of any rights, (ii) exercise any rights in respect of any change, conversion or exchange of stock or (iii) take any other lawful action, unless otherwise required by the Certificate of Incorporation or applicable law, the Board may fix a record date, which record date shall not precede the date on which the resolution fixing the record date was adopted by the Board and shall not be more than 60 days prior to such action.

(B) If no such record date is fixed:

(i) the record date for determining Stockholders entitled to notice of and to vote at a meeting of Stockholders shall be at the close of business on the day next preceding the day on which notice is given or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held;

(ii) the record date for determining Stockholders entitled to express consent to corporate action in writing without a meeting (unless otherwise provided in the Certificate of Incorporation), when no prior action by the Board is required by applicable law, shall be the first day on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the Corporation in accordance with applicable law; and when prior action by the Board is required by applicable law, the record date for determining Stockholders entitled to express consent to corporate action in writing without a meeting shall be at the close of business on the date on which the Board takes such prior action; and

(iii) when a determination of Stockholders of record entitled to notice of or to vote at any meeting of Stockholders has been made as provided in this Section 2.4, such determination shall apply to any adjournment thereof, unless the Board fixes a new Voting Record Date for the adjourned meeting, in which case the Board shall also fix such Voting Record Date or a date earlier than such date as the new Notice Record Date for the adjourned meeting.

2.5 Notice of Meetings of Stockholders. Whenever, under the provisions of applicable law, the Certificate of Incorporation or these By-laws, Stockholders are required or permitted to take any action at a meeting, notice shall be given stating the place, if any, date and hour of the meeting, the means of remote communication, if any, by which Stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the Voting Record Date, if such date is different from the Notice Record Date, and, in the case of a special meeting, the purposes for which the meeting is called. Unless otherwise provided by these By-laws or applicable law, notice of any meeting shall be given, not less than ten nor more than 60 days before the date of the meeting, to each Stockholder entitled to vote at such meeting as of the Notice Record Date. If mailed, such notice shall be deemed to be given when deposited in the U.S. mail, with postage prepaid, and directed to the Stockholder at his or her address as it appears on the records of the Corporation. An affidavit of the Secretary, an Assistant Secretary or the transfer agent of the Corporation that the notice required by this Section 2.5 has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein. If a meeting is adjourned to another time or place, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. Any business that might have been transacted at the meeting as originally called may be transacted at the adjourned meeting. If, however, the adjournment is for more than 30 days, a notice of the adjourned meeting shall be given to each Stockholder of record entitled to vote at the meeting. If, after the adjournment, a new Voting Record Date is fixed for the adjourned meeting, the Board shall fix a new Notice Record Date in accordance with Section 2.4(B)(iii) hereof and shall give notice of such adjourned meeting to each Stockholder entitled to vote at such meeting as of the Notice Record Date.

2.6 Waivers of Notice. Whenever the giving of any notice to Stockholders is required by applicable law, the Certificate of Incorporation or these By-laws, a waiver thereof, given by the person entitled to said notice, whether before or after the event as to which such notice is required, shall be deemed equivalent to notice. Attendance by a Stockholder at a meeting shall constitute a waiver of notice of such meeting except when the Stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business on the ground that the meeting has not been lawfully called or convened. Neither the business to be transacted at, nor the purposes of, any regular or special meeting of the Stockholders need be specified in any waiver of notice.

2.7 List of Stockholders. The Secretary shall prepare and make, at least ten days before every meeting of Stockholders, a complete, alphabetical list of the Stockholders entitled to vote at the meeting, and showing the address of each Stockholder and the number of shares registered in the name of each Stockholder. Such list may be examined by any Stockholder, the Stockholder's agent, or attorney, at the Stockholder's expense, for any purpose germane to the meeting, for a period of at least ten days prior to the meeting, during ordinary business hours at the principal place of business of the Corporation or on a reasonably accessible electronic network as provided by applicable law. If the meeting is to be held at a place, the list shall also be produced and kept at the time and place of the meeting during the whole time thereof and may be inspected by any Stockholder who is present. If the meeting is held solely by means of remote communication, the list shall also be open for inspection as provided by applicable law. Except as provided by applicable law, the stock ledger shall be the only evidence as to who are the Stockholders entitled to examine the list of Stockholders or to vote in person or by proxy at any meeting of Stockholders.



2.8 Quorum of Stockholders; Adjournment. Except as otherwise provided by these By-laws, at each meeting of Stockholders, the presence in person or by proxy of the holders of a majority of the voting power of all outstanding shares of stock entitled to vote at the meeting of Stockholders shall constitute a quorum for the transaction of any business at such meeting, except that, where a separate vote by a class or series of classes of shares is required, a quorum shall consist of no less than a majority of the voting power of all outstanding shares of stock of such class or series of classes, as applicable. In the absence of a quorum, the holders of a majority in voting power of the shares of stock present in person or represented by proxy at any meeting of Stockholders, including an adjourned meeting, may adjourn such meeting to another time and place. Shares of its own stock belonging to the Corporation or to another corporation, if a majority of the shares entitled to vote in the election of Directors of such other corporation is held, directly or indirectly, by the Corporation, shall neither be entitled to vote nor be counted for quorum purposes; provided, however, that the foregoing shall not limit the right of the Corporation to vote stock, including but not limited to its own stock, held by it in a fiduciary capacity.

2.9 Voting; Proxies. Unless otherwise provided by the General Corporation Law or in the Certificate of Incorporation, every Stockholder entitled to vote at any meeting of Stockholders shall be entitled to one vote for each share of stock held by such Stockholder which has voting power upon the matter in question. At any meeting of Stockholders, all matters other than the election of Directors, except as otherwise provided by the Certificate of Incorporation, these By-laws or any applicable law, shall be decided by the affirmative vote of a majority in voting power of shares of stock present in person or represented by proxy and entitled to vote thereon. At all meetings of Stockholders for the election of Directors, a plurality of the votes cast shall be sufficient to elect Directors. Each Stockholder entitled to vote at a meeting of Stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for such Stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy expressly provides for a longer period. A proxy shall be irrevocable if it states that it is irrevocable and if, and only so long as, it is coupled with an interest sufficient in law to support an irrevocable power. A Stockholder may revoke any proxy that is not irrevocable by attending the meeting and voting in person or by delivering to the Secretary a revocation of the proxy or by delivering a new proxy bearing a later date.

2.10 Voting Procedures and Inspectors at Meetings of Stockholders. The Board, in advance of any meeting of Stockholders, shall appoint one or more inspectors, who may be employees of the Corporation, to act at the meeting and make a written report thereof. The Board may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability. The inspectors shall (A) ascertain the number of shares outstanding and the voting power of each, (B) determine the shares represented at the meeting and the validity of proxies and ballots, (C) count all votes and ballots, (D) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors and (E) certify their determination of the number of shares represented at the meeting and their count of all votes and ballots. The inspectors may appoint or retain other persons or entities to assist the inspectors in the performance of their duties. Unless otherwise provided by the Board, the date and time of the opening and the closing of the polls for each matter upon which the Stockholders will vote at a meeting shall be determined by the person presiding at the meeting and shall be announced at the meeting. No ballot, proxies, votes or any revocation thereof or change thereto, shall be accepted by the inspectors after the closing of the polls unless the Court of Chancery of the State of Delaware upon application by a Stockholder shall determine otherwise. In determining the validity and counting of proxies and ballots cast at any meeting of Stockholders, the inspectors may consider such information as is permitted by applicable law. No person who is a candidate for office at an election may serve as an inspector at such election.

2.11 Conduct of Meetings; Adjournment. The Board may adopt such rules and procedures for the conduct of Stockholder meetings as it deems appropriate. At each meeting of Stockholders, the Chairman or, in the absence of the Chairman, the Vice Chairman or, in the absence of or if there is no Vice Chairman, the Chief Executive Officer or, in the absence of the Chairman, the Vice Chairman and the Chief Executive Officer, the President or, if there is no Chairman, Vice Chairman, Chief Executive Officer or President or if they are absent, a Vice President and, in case more than one Vice President shall be present, that Vice President designated by the Board (or in the absence of any such designation, the most senior Vice President present), shall preside over the meeting. Except to the extent inconsistent with the rules and procedures as adopted by the Board, the person presiding over the meeting of Stockholders shall have the right and authority to convene, adjourn and reconvene the meeting from time to time, to prescribe such additional rules and procedures and to do all such acts as, in the judgment of such person, are appropriate for the proper conduct of the meeting. Such rules and procedures, whether adopted by the Board or prescribed by the person presiding over the meeting, may include, (A) the establishment of an agenda or order of business for the meeting, (B) rules and procedures for maintaining order at the meeting and the safety of those present, (C) limitations on attendance at or participation in the meeting to Stockholders of record of the Corporation, their duly authorized and constituted proxies or such other persons as the person presiding over the meeting shall determine, (D) restrictions on entry to the meeting after the time fixed for the commencement thereof and (E) limitations on the time allotted to questions or comments by participants. The person presiding over any meeting of Stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, may determine and declare to the meeting that a matter or business was not properly brought before the meeting and if such presiding person should so determine, he or she shall so declare to the meeting and any such matter or business not properly brought before the meeting shall not be transacted or considered. Unless and to the extent determined by the Board or the person presiding over the meeting, meetings of Stockholders shall not be required to be held in accordance with the rules of parliamentary procedure. The Secretary or, in his or her absence, one of the Assistant Secretaries, shall act as secretary of the meeting. If none of the officers above designated to act as the person presiding over the meeting or as secretary of the meeting shall be present, a person presiding over the meeting or a secretary of the meeting, as the case may be, shall be designated by the Board and, if the Board has not so acted, in the case of the designation of a person to act as secretary of the meeting, designated by the person presiding over the meeting.

2.12 Order of Business. The order of business at all meetings of Stockholders shall be as determined by the person presiding over the meeting.

2.13 Written Consent of Stockholders Without a Meeting. If, and only if, the Certificate of Incorporation expressly permits action to be taken at any annual or special meeting of Stockholders without a meeting, without prior notice and without a vote, then a consent or consents in writing, setting forth the action to be so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted and shall be delivered (by hand or by certified or registered mail, return receipt requested) to the Corporation by delivery to its registered office in the State of Delaware, the Office of the Corporation or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of Stockholders are recorded. Every written consent shall bear the date of signature of each Stockholder who signs the consent, and no written consent shall be effective to take the corporate action referred to therein unless, within 60 days of the earliest dated consent delivered in the manner required by this Section 2.13, written consents signed by a sufficient number of holders to take action are delivered to the Corporation as aforesaid. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall, to the extent required by applicable law, be given to those Stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the Corporation.

## ARTICLE 3

### DIRECTORS

3.1 General Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board. The Board may adopt such rules and procedures, not inconsistent with the Certificate of Incorporation, these By-laws or applicable law, as it may deem proper for the conduct of its meetings and the management of the Corporation.

3.2 Number; Term of Office. The Board shall consist of three to 20 members, with the then-authorized number being fixed from time to time by the Board. As of the date of these By-laws, the number of Directors shall be six. Subject to obtaining any required stockholder votes or consents under the Investor Rights Agreement (as long as such agreement is in effect), each Director shall hold office until a successor is duly elected and qualified or until the Director's earlier death, resignation, disqualification or removal. During any period when the holders of any series of preferred stock of the Corporation have the right to elect one or more Directors in accordance with the Board's designation for such series of preferred stock set forth in the Certificate of Incorporation, upon the commencement, and for the duration, of the period during which such right continues: (i) the then total authorized number of Directors shall automatically be increased by such specified number of Directors to which any series of preferred stock of the Corporation is then entitled to elect, and the holders of the related series of preferred stock shall be entitled to elect such Directors pursuant to the provisions of the Board's designation for such series of preferred stock, and (ii) each such Director elected by holders of preferred stock shall serve until such Director's successor shall have been duly elected and qualified, or until such Director's right to hold such office terminates pursuant to such provision, whichever occurs earlier, subject to his or her earlier death, disqualification, resignation or removal. Except as otherwise provided by the Board in the resolution or resolutions establishing such series, whenever the holders of any series of preferred stock of the Corporation having such right to elect Directors are divested of such right pursuant to the provisions of such stock, the terms of office of all such Directors elected by the holders of such preferred stock, or elected to fill any vacancies resulting from death, resignation, disqualification or removal of such Directors, shall forthwith terminate and the total and authorized number of Directors shall be reduced accordingly.

3.3 Nominations of Directors.

(A) Subject to Section 3.3(K) and obtaining any required stockholder votes or consents under the Investor Rights Agreement and except as otherwise provided by the Investor Rights Agreement, only persons who are nominated in accordance with the procedures set forth in this Section 3.3 are eligible for election as Directors.

(B) Nominations of persons for election to the Board may only be made at a meeting properly called for the election of Directors and only (i) by or at the direction of the Board or any committee thereof or (ii) by a Stockholder who (a) was a Stockholder of record of the Corporation when the notice required by this Section 3.3 is delivered to the Secretary and at the time of the meeting, (b) is entitled to vote for the election of Directors at the meeting and (c) complies with the notice and other provisions of this Section 3.3. Subject to Section 3.3(K) and obtaining any required stockholder votes or consents under the Investor Rights Agreement, Section 3.3(B)(ii) is the exclusive means by which a Stockholder may nominate a person for election to the Board. Persons nominated in accordance with Section 3.3(B)(ii) are referred to as "Stockholder Nominees." A Stockholder nominating persons for election to the Board is referred to as the "Nominating Stockholder."

(C) Subject to Section 3.3(K) and obtaining any required stockholder votes or consents under the Investor Rights Agreement, all nominations of Stockholder Nominees must be made by timely written notice given by or on behalf of a Stockholder of record of the Corporation (the “Notice of Nomination”). To be timely, the Notice of Nomination must be delivered personally or mailed to and received at the Office of the Corporation, addressed to the attention of the Secretary, by the following dates:

(i) in the case of the nomination of a Stockholder Nominee for election to the Board at an annual meeting of Stockholders, no earlier than 120 days and no later than 90 days before the first anniversary of the date of the prior year’s annual meeting of Stockholders; provided, however, that if (a) the annual meeting of Stockholders is advanced by more than 30 days, or delayed by more than 60 days, from the first anniversary of the prior year’s annual meeting of Stockholders, (b) no annual meeting was held during the prior year or (c) in the case of the Corporation’s first annual meeting of Stockholders as a corporation with a class of equity security registered under the Exchange Act, the notice by the Stockholder to be timely must be received (1) no earlier than 120 days before such annual meeting and (2) no later than the later of 90 days before such annual meeting and the tenth day after the day on which the notice of such annual meeting was made by mail or Public Disclosure; and

(ii) in the case of the nomination of a Stockholder Nominee for election to the Board at a special meeting of Stockholders, no earlier than 120 days before and no later than the later of 90 days before such special meeting and the tenth day after the day on which the notice of such special meeting was made by mail or Public Disclosure.

(D) Notwithstanding anything to the contrary, if the number of Directors to be elected to the Board at a meeting of Stockholders is increased and there is no Public Disclosure by the Corporation naming the nominees for the additional directorships at least 100 days before the first anniversary of the preceding year’s annual meeting, a Notice of Nomination shall also be considered timely, but only with respect to nominees for the additional directorships, if it shall be delivered personally and received at the Office of the Corporation, addressed to the attention of the Secretary, no later than the close of business on the tenth day following the day on which such Public Disclosure is first made by the Corporation.

(E) In no event shall an adjournment, postponement or deferral, or Public Disclosure of an adjournment, postponement or deferral, of an annual or special meeting commence a new time period (or extend any time period) for the giving of the Notice of Nomination.

(F) The Notice of Nomination shall set forth:

(i) the Stockholder Information with respect to each Nominating Stockholder and Stockholder Associated Person;

(ii) a representation to the Corporation that each Nominating Stockholder is a holder of record of stock of the Corporation entitled to vote at the meeting and intends to appear in person or by proxy at the meeting to propose such nomination;

(iii) all information regarding each Stockholder Nominee and Stockholder Associated Person that would be required to be disclosed in a solicitation of proxies subject to Section 14 of the Exchange Act, the written consent of each Stockholder Nominee to being named in a proxy statement as a nominee and to serve if elected and a completed signed questionnaire, representation and agreement required by Section 3.4;

(iv) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three years, and any other material relationships, between or among a Nominating Stockholder, Stockholder Associated Person or their respective associates, or others acting in concert therewith, including all information that would be required to be disclosed pursuant to Rule 404 promulgated under Regulation S-K if the Nominating Stockholder, Stockholder Associated Person or any person acting in concert therewith were the “registrant” for purposes of such rule and the Stockholder Nominee were a director or executive of such registrant;

(v) Stockholder Information with respect to any stock or other interests of the Corporation held by members of the Nominating Stockholder’s or its Stockholder Associated Person’s immediate family sharing the same household;

(vi) a representation to the Corporation as to whether each Nominating Stockholder intends (a) to deliver a proxy statement and form of proxy to holders of at least the percentage of the Corporation’s outstanding capital stock required to approve the nomination or (b) otherwise to solicit proxies from Stockholders in support of such nomination;

(vii) all other information that would be required to be filed with the SEC if the Nominating Stockholders and Stockholder Associated Persons were participants in a solicitation subject to Section 14 of the Exchange Act; and

(viii) a representation and covenant for the benefit of the Corporation that the Nominating Stockholders shall provide any other information reasonably requested by the Corporation.

(G) The Nominating Stockholders shall also provide any other information reasonably requested by the Corporation within ten business days after such request.

(H) In addition, the Nominating Stockholders shall further update and supplement the information provided to the Corporation in the Notice of Nomination or upon the Corporation’s request pursuant to Section 3.3(G) as needed, so that such information shall be true and correct as of the record date for the meeting and as of the date that is ten business days before the meeting or any adjournment or postponement thereof. Such update and supplement must be delivered personally or mailed to, and received at the Office of the Corporation, addressed to the Secretary, by no later than five business days after the record date for the meeting (in the case of the update and supplement required to be made as of the record date), and not later than seven business days before the date for the meeting (in the case of the update and supplement required to be made as of ten business days before the meeting or any adjournment or postponement thereof).

(I) The person presiding over the meeting shall, if the facts warrant, determine and declare to the meeting, that the nomination was not made in accordance with the procedures set forth in this Section 3.3, and, if he or she should so determine, he or she shall so declare to the meeting and the defective nomination shall be disregarded.

(J) If the Stockholder (or a qualified representative of the Stockholder) does not appear at the applicable Stockholder meeting to nominate the Stockholder Nominees, such nomination shall be disregarded and such business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 3.3, to be considered a qualified representative of the Stockholder, a person must be a duly authorized officer, manager or partner of such Stockholder or must be authorized by a writing executed by such Stockholder or an electronic transmission delivered by such Stockholder to act for such Stockholder as proxy at the meeting of Stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of Stockholders.

(K) Nothing in this Section 3.3 shall be deemed to affect any rights of the holders of any series of preferred stock of the Corporation pursuant to any applicable provision of the Certificate of Incorporation.

3.4 Nominee and Director Qualifications. Unless the Board determines otherwise or the Investor Rights Agreement provides otherwise (as long as such agreement is in effect), to be eligible to be a nominee for election or reelection as a Director, a person must deliver (in accordance with the time periods prescribed for delivery of notice by the Board) to the Secretary at the Office of the Corporation a written questionnaire with respect to the background and qualification of such person and the background of any other person or entity on whose behalf the nomination is being made (which questionnaire shall be provided by the Secretary upon written request) and a written representation and agreement (in the form provided by the Secretary upon written request) that such person (A) is not and will not become a party to (i) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity as to how such person will act or vote as a Director on any issue or question (a “Voting Commitment”) that has not been disclosed to the Corporation or (ii) any Voting Commitment that could limit or interfere with such person’s ability to comply with such person’s fiduciary duties as a Director under applicable law, (B) is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a Director that has not been disclosed therein, (C) beneficially owns, or agrees to purchase within 90 days if elected as a Director, not less than 1,000 shares (including options to purchase shares, restricted shares and similar interests) of Class A common stock, par value \$0.01 per share, of the Corporation (the “Qualifying Shares”) (subject to adjustment for any stock splits or stock dividends occurring after the date of such representation or agreement), will not dispose of such minimum number of shares so long as such person is a Director and has disclosed therein whether all or any portion of the Qualifying Shares were purchased with any financial assistance provided by any other person and whether any other person has any interest in the Qualifying Shares and (D) in such person’s individual capacity and on behalf of any person or entity on whose behalf the nomination is being made, would be in compliance, and will comply with all applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock ownership and trading and other policies and guidelines of the Corporation that are applicable to Directors; provided, however, that notwithstanding anything in these By-laws to the contrary, unless the Investor Rights Agreement provides otherwise (as long as such agreement is in effect), the provisions of this Section 3.4 shall not apply to any Director nominated by Holdings (as such term is defined in the Investors Rights Agreement) pursuant to the terms of the Investor Rights Agreement.

3.5 Resignation. Any Director may resign at any time by notice given in writing or by electronic transmission to the Corporation. Such resignation shall take effect at the date of receipt of such notice or at such later time as is therein specified, and, unless otherwise specified in such resignation, the acceptance of such resignation shall not be necessary to make it effective.

3.6 Vacancies and Newly Created Directorships. Subject to the rights of the holders of any one or more series of preferred stock of the Corporation then outstanding and subject to obtaining any required stockholder votes or consents under the Investor Rights Agreement, newly created directorships resulting from any increase in the authorized number of Directors or any vacancies on the Board resulting from death, resignation, retirement, disqualification, removal from office or other cause shall be filled by the affirmative vote of a majority of the remaining Directors then in office, even if less than a quorum of the Board or by the affirmative vote of the holders of a majority of the total voting power of the outstanding shares of capital stock of the Corporation entitled to vote generally in the election of Directors, voting together as a single class. Any Director so chosen shall hold office until the next election of the class for which such Director shall have been chosen and until his or her successor shall be duly elected and qualified or until such Director's earlier death, disqualification, resignation or removal. No decrease in the number of Directors shall shorten the term of any Director then in office.

3.7 Removal of Directors. Except for Directors elected by the holders of a series of preferred stock of the Corporation, and subject to obtaining any required stockholder votes or consents under the Investor Rights Agreement, any Director or the entire Board may be removed from office at any time, with or without cause, by the affirmative vote of the holders of a majority of the outstanding shares of capital stock of the Corporation entitled to vote generally in the election of Directors, voting together as a single class.

3.8 Compensation. Each Director, in consideration of his or her service as such, shall be entitled to receive from the Corporation such amount per annum or such fees (payable in cash or equity) for attendance at Directors' meetings, or both, as the Board may from time to time determine, together with reimbursement for the reasonable out-of-pocket expenses, if any, incurred by such Director in connection with the performance of his or her duties. Each Director who shall serve as a member of any committee of Directors in consideration of serving as such shall be entitled to such additional amount per annum or such fees for attendance at committee meetings, or both, as the Board may from time to time determine, together with reimbursement for the reasonable out-of-pocket expenses, if any, incurred by such Director in the performance of his or her duties. Nothing contained in this Section 3.8 shall preclude any Director from serving the Corporation or its subsidiaries in any other capacity and receiving proper compensation therefor.

3.9 Regular Meetings. Regular meetings of the Board may be held without notice at such times and at such places within or without the State of Delaware as may be determined from time to time by the Board or its Chairman.

3.10 Special Meetings. Special meetings of the Board may be held at such times and at such places within or without the State of Delaware as may be determined by the Chairman, the Vice Chairman or the Chief Executive Officer on at least 24 hours' notice to each Director given by one of the means specified in Section 3.13 hereof other than by mail, or on at least three days' notice if given by mail. Special meetings shall be called by the Chairman, the Vice Chairman, the Chief Executive Officer, the President or the Secretary in like manner and on like notice on the written request of any two or more Directors.

3.11 Telephone Meetings. Board or Board committee meetings may be held by means of telephone conference or other communications equipment by means of which all persons participating in the meeting can hear each other. Participation by a Director in a meeting pursuant to this Section 3.11 shall constitute presence in person at such meeting.

3.12 Adjourned Meetings. A majority of the Directors present at any meeting of the Board, including an adjourned meeting, whether or not a quorum is present, may adjourn and reconvene such meeting to another time and place. At least 24 hours' notice of any adjourned meeting of the Board shall be given to each Director whether or not present at the time of the adjournment, if such notice shall be given by one of the means specified in Section 3.13 hereof other than by mail, or at least three days' notice if by mail. Any business may be transacted at an adjourned meeting that might have been transacted at the meeting as originally called.

3.13 Notice Procedure. Subject to Sections 3.10 and 3.14 hereof, whenever notice is required to be given to any Director by applicable law, the Certificate of Incorporation or these By-laws, such notice shall be deemed given effectively if given in person or by telephone, mail or electronic mail addressed to such Director at such Director's address or email address, as applicable, as it appears on the records of the Corporation, facsimile or by other means of electronic transmission.

3.14 Waiver of Notice. Whenever the giving of any notice to Directors is required by applicable law, the Certificate of Incorporation or these By-laws, a waiver thereof, in writing signed by the Director entitled to the notice, whether before or after such notice is required, shall be deemed equivalent to notice. Attendance by a Director at a meeting shall constitute a waiver of notice of such meeting except when the Director attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business on the ground that the meeting was not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special Board or committee meeting need be specified in any waiver of notice.

3.15 Organization. At each meeting of the Board, the Chairman or, in the absence of the Chairman, the Vice Chairman or, in the absence of or if there is no Vice Chairman, the Chief Executive Officer or, in the absence of the Chairman, the Vice Chairman and the Chief Executive Officer, another Director selected by the Board shall preside. The Secretary shall act as secretary at each meeting of the Board. If the Secretary is absent from any meeting of the Board, an Assistant Secretary shall perform the duties of secretary at such meeting; and in the absence from any such meeting of the Secretary and all Assistant Secretaries, the person presiding at the meeting may appoint any person to act as secretary of the meeting.



3.16 Quorum of Directors. The presence in person of a majority of the total members of the Board shall be necessary and sufficient to constitute a quorum for the transaction of business at any meeting of the Board.

3.17 Action by Majority Vote. Except as otherwise expressly required by these By-laws, or the Certificate of Incorporation, the vote of a majority of the Directors present at a meeting at which a quorum is present shall be the act of the Board; provided, that to the extent one or more Directors recuses himself or herself from an act, the act of a majority of the remaining Directors then in office shall be the act of the Board.

3.18 Action Without Meeting. Unless otherwise restricted by these By-laws, any action required or permitted to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting if all Directors or members of such committee, as the case may be, consent thereto in writing or by electronic transmission, and the writings or electronic transmissions are filed with the minutes of proceedings of the Board or committee.

#### ARTICLE 4

##### COMMITTEES OF THE BOARD

The Board may, by resolution, designate one or more committees, each committee to consist of one or more of the Directors of the Corporation. The Board may, by resolution, adopt charters for one or more of such committees. The Board may designate one or more Directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of such committee. If a member of a committee shall be absent from any meeting, or disqualified from voting thereat, the remaining member or members present at the meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may, by a unanimous vote, appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent permitted by applicable law, and to the extent provided in the resolution of the Board designating such committee or the charter for such committee, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation and may authorize the seal of the Corporation to be affixed to all papers that may require it to the extent so authorized by the Board. The Board may remove any Director from any committee at any time, with or without cause. Unless the Board provides otherwise, at all meetings of such committee, a majority of the then authorized members of the committee shall constitute a quorum for the transaction of business, and the vote of a majority of the members of the committee present at any meeting at which there is a quorum shall be the act of the committee. Each committee shall keep regular minutes of its meetings. Unless the Board provides otherwise, each committee designated by the Board may make, alter and repeal rules and procedures for the conduct of its business. In the absence of such rules and procedures each committee shall conduct its business in the same manner as the Board conducts its business pursuant to Article 3.

ARTICLE 5

OFFICERS

5.1 Positions; Election. The officers of the Corporation shall be a Chairman, Vice Chairman, Executive Chairman, Chief Executive Officer, President, Vice Presidents, Secretary, Treasurer and any other officers as the Board may elect from time to time, who shall exercise such powers and perform such duties as shall be determined by the Board from time to time. Any number of offices may be held by the same person.

5.2 Term of Office. Each officer of the Corporation shall hold office until such officer's successor is elected and qualifies or until such officer's earlier death, resignation or removal. Any officer may resign at any time upon written notice to the Corporation. Such resignation shall take effect at the date of receipt of such notice or at such later time as is therein specified, and, unless otherwise specified, the acceptance of such resignation shall not be necessary to make it effective. The resignation of an officer shall be without prejudice to the contract rights of the Corporation, if any. Any officer may be removed at any time with or without cause by the Board. Any vacancy occurring in any office of the Corporation may be filled by the Board. The election or appointment of an officer shall not of itself create contract rights.

5.3 Chairman. The Chairman shall preside at all meetings of the Stockholders and at all meetings of the Board and shall exercise such powers and perform such other duties as shall be determined from time to time by the Board. In addition to the responsibilities, powers and duties of the Chairman, an Executive Chairman (if there be one) shall exercise such powers and perform such other duties as shall be determined from time to time by the Board and may sign and execute in the name of the Corporation deeds, mortgages, bonds, contracts and other instruments, except in cases in which the signing and execution thereof shall be expressly delegated by resolution of the Board or by these By-laws to some other officer or agent of the Corporation, or shall be required by applicable law otherwise to be signed or executed.

5.4 Vice Chairman. The Vice Chairman (if there be one) shall preside at all meetings of the Stockholders and at all meetings of the Board at which the Chairman is not present and shall exercise such powers and perform such other duties as shall be determined from time to time by the Board.

5.5 Chief Executive Officer. The Chief Executive Officer shall have general supervision over, and direction of, the business and affairs of the Corporation, subject, however, to the control of the Board and of any duly authorized committee of the Board. The Chief Executive Officer shall preside at all meetings of the Stockholders and at all meetings of the Board at which the Chairman and the Vice Chairman (if there be one) are not present. The Chief Executive Officer may sign and execute in the name of the Corporation deeds, mortgages, bonds, contracts and other instruments, except in cases in which the signing and execution thereof shall be expressly delegated by resolution of the Board or by these By-laws to some other officer or agent of the Corporation, or shall be required by applicable law otherwise to be signed or executed and, in general, the Chief Executive Officer shall perform all duties incident to the office of Chief Executive Officer of a corporation and such other duties as may be determined from time to time by the Board.

5.6 President. The President shall have duties incident to the office of President, and any other duties as may from time to time be assigned to the President by the Chief Executive Officer (if the President and Chief Executive Officer are not the same person) or the Board and subject to the control of the Chief Executive Officer (if the President and Chief Executive Officer are not the same person) and the Board in each case. The President shall preside at all meetings of the Stockholders at which the Chairman, the Vice Chairman (if there be one) and the Chief Executive Officer are not present. The President may sign and execute in the name of the Corporation deeds, mortgages, bonds, contracts and other instruments, except in cases in which the signing and execution thereof shall be expressly delegated by the Board or by these By-laws to some other officer or agent of the Corporation, or shall be required by applicable law otherwise to be signed or executed.

5.7 Vice Presidents. Vice Presidents shall have the duties incident to the office of Vice President and any other duties that may from time to time be assigned to the Vice President by the Chief Executive Officer, the President or the Board. A Vice President shall preside at all meetings of the Stockholders at which the Chairman, the Vice Chairman (if there be one), the Chief Executive Officer and the President are not present. Any Vice President may sign and execute in the name of the Corporation deeds, mortgages, bonds, contracts or other instruments, except in cases in which the signing and execution thereof shall be expressly delegated by the Board or by these By-laws to some other officer or agent of the Corporation, or shall be required by applicable law otherwise to be signed or executed.

5.8 Secretary. The Secretary shall attend all meetings of the Board and of the Stockholders, record all the proceedings of the meetings of the Board and of the Stockholders in a book to be kept for that purpose and perform like duties for committees of the Board, when required. The Secretary shall give, or cause to be given, notice of all special meetings of the Board and of the Stockholders and perform such other duties as may be prescribed by the Board, the Chief Executive Officer or the President. The Secretary shall have custody of the corporate seal of the Corporation and the Secretary or an Assistant Secretary shall have authority to affix the same on any instrument that may require it, and when so affixed, the seal may be attested by the signature of the Secretary or by the signature of such Assistant Secretary. The Board may give general authority to any other officer to affix the seal of the Corporation and to attest the same by such officer's signature. The Secretary or an Assistant Secretary may also attest all instruments signed by the Executive Chairman, Chief Executive Officer, President or any Vice President. The Secretary shall have charge of all the books, records and papers of the Corporation relating to its organization and management, see that the reports, statements and other documents required by applicable law are properly kept and filed and, in general, perform all duties incident to the office of secretary of a corporation and such other duties as may from time to time be assigned to the Secretary by the Board, the Chief Executive Officer or the President.

5.9 Treasurer. The Treasurer shall have charge and custody of, and be responsible for, all funds, securities and notes of the Corporation, receive and give receipts for moneys due and payable to the Corporation from any sources whatsoever; deposit all such moneys and valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the Board, against proper vouchers, cause such funds to be disbursed by checks or drafts on the authorized depositories of the Corporation signed in such manner as shall be determined by the Board and be responsible for the accuracy of the amounts of all moneys so disbursed, regularly enter or cause to be entered in books or other records maintained for the purpose full and adequate account of all moneys received or paid for the account of the Corporation, have the right to require from time to time reports or statements giving such information as the Treasurer may desire with respect to any and all financial transactions of the Corporation from the officers or agents transacting the same, render to the Chief Executive Officer, the President or the Board, whenever the Chief Executive Officer, the President or the Board shall require the Treasurer so to do, an account of the financial condition of the Corporation and of all financial transactions of the Corporation, disburse the funds of the Corporation as ordered by the Board and, in general, perform all duties incident to the office of Treasurer of a corporation and such other duties as may from time to time be assigned to the Treasurer by the Board, the Chief Executive Officer or the President.

5.10 Assistant Secretaries and Assistant Treasurers. Assistant Secretaries and Assistant Treasurers shall perform such duties as shall be assigned to them by the Secretary or by the Treasurer, respectively, or by the Board, the Chief Executive Officer or the President.

5.11 Chairman and Vice Chairman Titles. If the Board so elects, it may use the title "Chair," "Chairperson" or "Chairwoman" instead of "Chairman," and references to the "Chairman" herein shall be deemed to be references to such "Chair," "Chairperson" or "Chairwoman." If the Board so elects, it may also use the title "Vice-Chair," "Vice-Chairperson" or "Vice-Chairwoman" instead of "Vice-Chairman," and references to such "Vice-Chairman" herein shall be deemed to be references to such "Vice-Chair," "Vice-Chairperson" or "Vice-Chairwoman."

## ARTICLE 6

### GENERAL PROVISIONS

6.1 Certificates Representing Shares. The shares of stock of the Corporation shall be represented by certificates or all of such shares shall be uncertificated shares that may be evidenced by a book-entry system maintained by the registrar of such stock, or a combination of both. If shares are represented by certificates (if any) such certificates shall be in the form approved by the Board. The certificates representing shares of stock of each class shall be signed by, or in the name of, the Corporation by the Chairman, the Chief Executive Officer, the President or any Vice President, and by the Secretary, any Assistant Secretary, the Treasurer or any Assistant Treasurer. Any or all such signatures may be facsimiles. Although any officer, transfer agent or registrar whose manual or facsimile signature is affixed to such a certificate ceases to be such officer, transfer agent or registrar before such certificate has been issued, it may nevertheless be issued by the Corporation with the same effect as if such officer, transfer agent or registrar were still such at the date of its issue.

6.2 Transfer and Registry Agents. The Corporation may from time to time maintain one or more transfer offices or agents and registry offices or agents at such place or places as may be determined from time to time by the Board.

6.3 Lost, Stolen or Destroyed Certificates. The Corporation may issue a new certificate of stock in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate or his legal representative to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate.

6.4 Form of Records. Any records maintained by the Corporation in the regular course of its business, including its stock ledger, books of account and minute books, may be maintained on any information storage device or method; provided that the records so kept can be converted into clearly legible paper form within a reasonable time. The Corporation shall so convert any records so kept upon the request of any person entitled to inspect such records pursuant to applicable law.

6.5 Seal. The corporate seal shall have the name of the Corporation inscribed thereon and shall be in such form as may be approved from time to time by the Board. The seal may be used by causing it or a facsimile thereof to be impressed or affixed or otherwise reproduced.

6.6 Fiscal Year. The fiscal year of the Corporation shall be determined by the Board.

6.7 Amendments. These By-laws may be altered, amended or repealed in accordance with the Certificate of Incorporation and the General Corporation Law.

6.8 Conflict with Applicable Law or Certificate of Incorporation. These By-laws are adopted subject to any applicable law and the Certificate of Incorporation. Whenever these By-laws may conflict with any applicable law or the Certificate of Incorporation, such conflict shall be resolved in favor of such law or the Certificate of Incorporation.

Paul, Weiss, Rifkind, Wharton & Garrison LLP  
1285 Avenue of the Americas  
New York, New York 10019-6064

212-373-3000

212-757-3990

July 22, 2015

vTv Therapeutics Inc.  
4170 Mendenhall Oaks Pkwy  
High Point, NC 27265

Registration Statement on Form S-1  
(Registration No. 333-204951)

Ladies and Gentlemen:

We have acted as special counsel to vTv Therapeutics Inc., a Delaware corporation (the "Company"), in connection with the Registration Statement on Form S-1, as amended (the "Registration Statement"), of the Company, filed with the Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended (the "Act"), and the rules and regulations thereunder (the "Rules"). You have asked us to furnish our opinion as to the legality of the securities being registered under the Registration Statement. The Registration Statement relates to the registration under the Act of up to 8,984,375 shares (the "Shares") of the Company's Class A common stock, par value \$0.01 per share (the "Common Stock"), that may be offered by the Company (including shares issuable by the Company upon exercise of the underwriters' over-allotment option).

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In connection with the furnishing of this opinion, we have examined originals, or copies certified or otherwise identified to our satisfaction, of the following documents (collectively, the “Documents”):

1. the Registration Statement;
2. the form of the Underwriting Agreement (the “Underwriting Agreement”), included as Exhibit 1.1 to the Registration Statement;
3. the form of the Amended and Restated Certificate of Incorporation of the Company, included as Exhibit 3.1 to the Registration Statement; and
4. the form of the Amended and Restated By-laws of the Company, included as Exhibit 3.2 to the Registration Statement.

In addition, we have examined (i) such corporate records of the Company that we have considered appropriate, including a copy of the certificate of incorporation, as amended, and by-laws, as amended, of the Company, certified by the Company as in effect on the date of this letter, and copies of resolutions of the board of directors of the Company relating to the issuance of the Shares, certified by the Company, and (ii) such other certificates, agreements and documents that we deemed relevant and necessary as a basis for the opinions expressed below. We have also relied upon the factual matters contained in the representations and warranties of the Company made in the Documents and upon certificates of public officials and the officers of the Company.

In our examination of the documents referred to above, we have assumed, without independent investigation, the genuineness of all signatures, the legal capacity of all individuals who have executed any of the documents reviewed by us, the authenticity of all documents submitted to us as originals, the conformity to the originals of all documents submitted to us as certified, photostatic, reproduced or conformed copies of valid existing agreements or other documents, the authenticity of all the latter documents and that the statements regarding matters of fact in the certificates, records, agreements, instruments and documents that we have examined are accurate and complete.

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Based upon the above, and subject to the stated assumptions, exceptions and qualifications, we are of the opinion that the Shares have been duly authorized by all necessary corporate action on the part of the Company and, when issued, delivered and paid for as contemplated in the Registration Statement and in accordance with the terms of the Underwriting Agreement, the Shares will be validly issued, fully paid and non-assessable.

The opinion expressed above is limited to the General Corporation Law of the State of Delaware. Our opinion is rendered only with respect to the laws, and the rules, regulations and orders under those laws, that are currently in effect.

We hereby consent to use of this opinion as an exhibit to the Registration Statement and to the use of our name under the heading "Legal Matters" contained in the prospectus included in the Registration Statement. In giving this consent, we do not thereby admit that we come within the category of persons whose consent is required by the Act or the Rules.

Very truly yours,

/s/ Paul, Weiss, Rifkind, Wharton & Garrison LLP

PAUL, WEISS, RIFKIND, WHARTON & GARRISON LLP

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**REORGANIZATION AGREEMENT**

**Dated as of [\_\_\_\_\_] 2015**

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## REORGANIZATION AGREEMENT

THIS REORGANIZATION AGREEMENT (this "Agreement"), dated as of [\_\_\_\_\_] 2015, by and among vTv Therapeutics Inc., a Delaware corporation ("Pubco"), vTv Therapeutics LLC, a Delaware limited liability company (the "Company"), vTvx Holdings I LLC, a Delaware limited liability company ("vTvx I"), vTvx Holdings II LLC, a Delaware limited liability company ("vTvx II"), and vTv Therapeutics Holdings LLC, a Delaware limited liability company ("Holdings").

### RECITALS

WHEREAS, the Board of Directors of Pubco (the "Board") has determined to effect an underwritten initial public offering (the "IPO") of Pubco's Class A Common Stock (as defined below);

WHEREAS, the parties hereto desire to effect the Transactions (as defined below), including the Reorganization Transactions (as defined below), in contemplation of the IPO; and

WHEREAS, in connection with the IPO, the applicable parties hereto intend to enter into the Transactions.

NOW, THEREFORE, in consideration of the foregoing recitals and of the mutual promises hereinafter set forth, the parties hereto hereby agree as follows:

### ARTICLE I

#### DEFINITIONS

1.1 Certain Defined Terms. As used herein, the following terms shall have the following meanings:

"Business Day" means a day, other than Saturday, Sunday or other day on which commercial banks in New York, New York are authorized or required by applicable law to close.

"Class A Common Stock" shall mean Class A Common Stock, par value \$0.01 per share, of Pubco, having the rights set forth in the Amended and Restated Certificate of Incorporation.

"Class B Common Stock" shall mean Class B Common Stock, par value \$0.01 per share, of Pubco, having the rights set forth in the Amended and Restated Certificate of Incorporation.

"Class M Common Unit" shall mean the Class M Common Unit of the Company, having the rights set forth in the Amended and Restated Company LLC Agreement.

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“Effective Time” means the date and time on which the Registration Statement becomes effective.

“Exchange Act” means the Securities Exchange Act of 1934, as amended.

“Existing Certificate of Incorporation” means the Certificate of Incorporation of Pubco, as filed with the Secretary of State of the State of Delaware on April 2, 2015.

“Existing Company LLC Agreement” means the Operating Agreement of the Company, dated as of April 15, 2015, by Holdings as the sole member.

“IPO Closing” means the initial closing of the sale of the Class A Common Stock in the IPO.

“IPO Price Per Share” means the per share public offering price for the Class A Common Stock.

“Nonvoting Common Units” shall mean Nonvoting Common Units of the Company, having the rights set forth in the Amended and Restated Company LLC Agreement.

“Person” means any individual, firm, corporation, partnership, limited liability company, trust, estate, joint venture, governmental authority or other entity.

“Pricing” means such date and time as the Board or the pricing committee thereof determines to price the IPO.

“Registration Statement” means the registration statement on Form S-1 (File No. 333-204951) filed by Pubco under the Securities Act with the SEC to register the IPO.

“Reorganization Documents” means the Amended and Restated Certificate of Incorporation, the Amended and Restated By-laws, the Amended and Restated Company LLC Agreement, the Exchange Agreement, the Investor Rights Agreement, the Tax Receivable Agreement, the 2015 Omnibus Incentive Plan and all other agreements and documents entered into in connection with the Transactions.

“SEC” means the Securities and Exchange Commission.

“Securities Act” means the Securities Act of 1933, as amended.

1.2 Terms Defined Elsewhere in this Agreement(a). Each of the following terms is defined in the Section set forth opposite such term:

<b>Term</b>	<b>Section</b>
2015 Omnibus Incentive Plan Agreement	2.2(d)
Amended and Restated Certificate of Incorporation	Preamble
Amended and Restated Company LLC Agreement	2.1(a)
Board	2.1(c)
Company	Recitals
Contributed Assets	Preamble
e-mail	2.1(d)(i)
Employee Transfer	4.3
Exchange Agreement	2.1(d)(ii)
Holdings	2.2(a)
Holdings Membership Interests	Preamble
Investor Rights Agreement	2.1(d)(iii)
IPO	2.2(b)
Proceeds	Recitals
Pubco	2.2(f)
Reorganization Transaction	Preamble
Reorganization Transactions	2.1
Tax Receivable Agreement	2.1
Transaction	2.2(c)
Transactions	2.2
vTvx I	2.2
vTvx II	Preamble
	Preamble

1.3 Other Definitional and Interpretative Provisions. The words “hereof”, “herein” and “hereunder” and words of like import used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The captions herein are included for convenience of reference only and shall be ignored in the construction or interpretation hereof. References to Articles, Sections, and Schedules are to Articles, Sections, and Schedules of this Agreement unless otherwise specified. All Schedules annexed hereto or referred to herein are hereby incorporated in and made a part of this Agreement as if set forth in full herein. The Reorganization Documents referred to herein are hereby incorporated in and made a part of this Agreement as if set forth in full herein. Any capitalized terms used in any Schedule but not otherwise defined therein, shall have the meaning as defined in this Agreement. Any singular term in this Agreement shall be deemed to include the plural, and any plural term the singular. Whenever the words “include”, “includes” or “including” are used in this Agreement, they shall be deemed to be followed by the words “without limitation”, whether or not they are in fact followed by those words or words of like import. “Writing”, “written” and comparable terms refer to printing, typing and other means of reproducing words (including electronic media) in a visible form. References to any statute shall be deemed to refer to such statute as amended from time to time and to any rules or regulations promulgated thereunder. References to any agreement or contract are to that agreement or contract as amended, modified or supplemented from time to time in accordance with the terms hereof and thereof. References to any Person include the successors and permitted assigns of that Person. References from or through any date mean, unless otherwise specified, from and including or through and including, respectively.

## ARTICLE II

### THE REORGANIZATION

2.1 Reorganization Transactions. Subject to the terms and conditions hereinafter set forth, and on the basis of and in reliance upon the representations, warranties, covenants and agreements set forth herein, the parties hereto shall take the actions described in this Section 2.1 (each, a "Reorganization Transaction" and, collectively, the "Reorganization Transactions"), which shall be effective as of immediately after the Effective Time:

(a) Filing of Amended and Restated Certificate of Incorporation. Pubco shall adopt and file with the Secretary of State of the State of Delaware an amended and restated certificate of incorporation of Pubco, substantially in the form filed as Exhibit 3.1 to the Registration Statement (the "Amended and Restated Certificate of Incorporation").

(b) Adoption of Amended and Restated By-laws. The Board shall adopt amended and restated by-laws of Pubco, substantially in the form filed as Exhibit 3.2 to the Registration Statement (the "Amended and Restated By-laws").

(c) Adoption of Amended and Restated Company LLC Agreement. The Company shall adopt the amended and restated limited liability company agreement of the Company, substantially in the form filed as Exhibit 10.3 to the Registration Statement (the "Amended and Restated Company LLC Agreement").

(d) Contribution of Contributed Assets and Employee Transfer. Immediately following the Reorganization Transactions described in Sections 2.1(a) through (c):

(i) vTvx I and vTvx II hereby contribute, assign, transfer and convey to Holdings all of the respective right, title, interest and obligations of vTvx I and vTvx II in their respective tangible and intangible assets set forth on Schedule 1 hereof, free and clear of all liens (other than those liens to be released pursuant to Section 2.2(e)), including all goodwill related to such assets and all goodwill of the businesses of vTvx I and vTvx II (such contributed assets, the "Contributed Assets").

(ii) vTvx I and vTvx II hereby assign and transfer to Holdings the employment of all employees of vTvx I and vTvx II and (A) all employment-related rights and obligations, including each employment agreement between vTvx I or vTvx II, on the one hand, and each employee thereof, on the other hand, (B) noncompetition, nonsolicitation and nondisclosure agreements with respect to the employees and former employees of vTvx I and vTvx II and (C) all employee benefit plans set forth on Schedule 1 hereof (collectively, the "Employee Transfer").

(iii) In consideration for the Contributed Assets and the Employee Transfer, Holdings hereby issues [ ] of its membership interests ("Holdings Membership Interests") to vTvx I and [ ] Holdings Membership Interests to vTvx II.

(iv) Holdings hereby acknowledges its right to receive the Contributed Assets from vTvx I and vTvx II and, for administrative convenience, hereby irrevocably directs vTvx I and vTvx II to contribute, assign, transfer and convey the Contributed Assets directly to the Company for and on behalf of Holdings in lieu of the Contributed Assets being contributed, assigned, transferred and conveyed to Holdings.

(v) Holdings acknowledges its rights to receive the Employee Transfer from vTvx I and vTvx II and, for administrative convenience, hereby irrevocably directs vTvx I and vTvx II to contribute, assign, transfer and convey the Employee Transfer directly to the Company for and on behalf of Holdings in lieu of the Employee Transfer being contributed, assigned, transferred and conveyed to Holdings. vTvx I, vTvx II and the Company acknowledge and agree that if the Company determines that in connection with the Employee Transfer, a transition service period not to exceed four months is necessary or desirable, then such employees shall be permitted to continue their participation in the employee benefit plans of vTvx I and vTvx II as set forth on Schedule 2 during such period and the Company, vTvx I and vTvx II will enter into a customary transition services agreement.

(vi) The Company hereby accepts and acquires the Contributed Assets and the Employee Transfer and all of the respective right, title, interest and obligations of vTvx I and vTvx II in the Contributed Assets and the Employee Transfer. In consideration for its receipt of the Contributed Assets and the Employee Transfer, the Company hereby: (A) issues (x) to Holdings [ ] Nonvoting Common Units and (B) to Pubco, a wholly owned subsidiary of Holdings, one Class M Common Unit; (B) assumes all liabilities of vTvx I and vTvx II with respect to the Contributed Assets and the Employee Transfer; (C) covenants and agrees to discharge, perform and comply with and to be bound by all the terms, conditions, provisions, obligations, covenants and duties of vTvx I and vTvx II under all contracts and agreements included in the Contributed Assets and the Employee Transfer as if the Company were an original party thereto; and (D) agrees to indemnify and hold harmless vTvx I and vTvx II for any and all liabilities of vTvx I or vTvx II, known or unknown, that currently exist or may arise in the future with respect to the Contributed Assets and the Employee Transfer.

(e) Issuance of Class B Common Stock to Holdings. In connection with the filing of the Amended and Restated Certificate of Incorporation, Pubco hereby issues to Holdings [ ] shares of Class B Common Stock and all of the issued and outstanding common stock of Pubco held by MacAndrews & Forbes Incorporated pursuant to the Existing Certificate of Incorporation shall be cancelled.

2.2 Other Transactions. In connection with the Reorganization Transactions set forth above, the parties hereto shall, in connection therewith, take the following actions described in this Section 2.2 (together with the Reorganization Transactions, the “Transactions” and each a “Transaction”):

(a) Exchange Agreement. In connection with the issuance of Class B Common Stock and Nonvoting Common Units to Holdings as provided in Section 2.1, Holdings, the Company and Pubco hereby enter into that certain Exchange Agreement, substantially in the form filed as Exhibit 10.4 to the Registration Statement (the “Exchange Agreement”).

(b) Investor Rights Agreement. In connection with the issuance of Class B Common Stock and Nonvoting Common Units to Holdings as provided in Section 2.1, Holdings, Pubco, and the Company shall enter into an Investor Rights Agreement, substantially in the form filed as Exhibit 10.2 to the Registration Statement (the “Investor Rights Agreement”).

(c) Tax Receivable Agreement. In connection with the issuance of Class B Common Stock and Nonvoting Common Units to Holdings as provided in Section 2.1, Pubco and Holdings shall enter into a Tax Receivable Agreement, substantially in the form filed as Exhibit 10.5 to the Registration Statement (the “Tax Receivable Agreement”).

(d) 2015 Omnibus Incentive Plan. Pubco hereby enters into the 2015 Omnibus Equity Incentive Plan, substantially in the form filed as Exhibit 10.11 to the Registration Statement (the “2015 Omnibus Incentive Plan”).

(e) Intellectual Property Assignment Agreements and Lien Releases. Following the date hereof, vTvx I, vTvx II and the Company shall take all such steps and actions, and provide such cooperation and assistance to each such party and its respective successors, assigns and legal representatives, including the execution and delivery of any affidavits, declarations, oaths, exhibits, assignments, agreements, lien releases, powers of attorney, or other documents, as may be necessary to (i) release and terminate any and all liens and security interests filed against the patents, trademarks, copyrights, domain names (and any registrations or applications thereof) and any other intellectual property that is a Contributed Asset, or (ii) effect, evidence or perfect the transfer and assignment of the patents, trademarks, copyrights, domain names (and any registrations or applications thereof) and any other intellectual property that is a Contributed Asset from each of vTvx I and vTvx II to the Company or any assignee or successor thereto, including by executing and filing short-form intellectual property lien releases and/or short-form intellectual property assignment agreements in the United States Patent and Trademark Office, the United States Copyright Office and any applicable foreign intellectual property or equivalent office.



(f) Issuance of Nonvoting Common Units to Pubco. Immediately following the IPO Closing, Pubco shall use the net proceeds (after payment of all fees and expenses in connection with the IPO) from the IPO (the “Proceeds”) to purchase from the Company a number of Nonvoting Common Units equal to the number of shares of Class A Common Stock issued in the IPO. Upon receipt of the Proceeds from Pubco, the Company shall issue to Pubco the number of Nonvoting Common Units set forth in the immediately preceding sentence.

2.3 Consent to Transactions.

(a) Each of the parties hereto hereby acknowledges, agrees and consents to all of the Transactions. Each of the parties hereto shall take all reasonable action necessary or appropriate in order to effect, or cause to be effected, to the extent within its control, each of the Transactions and the IPO.

(b) The parties hereto shall deliver to each other, as applicable, prior to or at the Effective Time, each of the Reorganization Documents to which it is a party, together with any other documents and instruments necessary or appropriate to be delivered in connection with the Transactions.

2.4 No Liabilities in Event of Termination; Certain Covenants.

(a) In the event that the IPO is abandoned or, unless the Board, the Company and Holdings otherwise agree, the IPO Closing has not occurred by September 30, 2015, (a) this Agreement shall automatically terminate and be of no further force or effect except for this Section 2.4 and Sections 4.1, 4.2, 4.3, 4.6, 4.7, 4.8, 4.9, 4.10, 4.11 and 4.12 and (b) there shall be no liability on the part of any of the parties hereto, except that such termination shall not preclude any party from pursuing judicial remedies for damages and/or other relief as a result of the breach by the other parties of any representation, warranty, covenant or agreement contained herein prior to such termination.

(b) In the event that this Agreement is terminated for any reason after the consummation of any Transaction, but prior to the consummation of all of the Transactions, the parties agree, as applicable, to cooperate and work in good faith to execute and deliver such agreements and consents and amend such documents and to effect such transactions or actions as may be necessary to re-establish the rights, preferences and privileges that the parties hereto had prior to the consummation of the Transactions, or any part thereof, including, without limitation, voting any and all securities owned by such party in favor of any amendment to any organizational document and in favor of any transaction or action necessary to re-establish such rights, powers and privileges and causing to be filed all necessary documents with any governmental authority necessary to reestablish such rights, preferences and privileges.

(c) For the avoidance of doubt, each party hereto acknowledges and agrees that until the consummation of the Transactions: (i) the parties hereto shall not receive or lose any voting, governance or similar rights in connection with this Agreement or the Transactions and (ii) the rights of the parties hereto under the Existing Company LLC Agreement shall not be effected.

### ARTICLE III

#### REPRESENTATIONS AND WARRANTIES

3.1 Representations and Warranties. Each party hereto hereby represents and warrants to all of the other parties hereto as follows:

(a) The execution, delivery and performance by such party of this Agreement and of the applicable Reorganization Documents, to the extent a party thereto, has been or prior to the Effective Time will be duly authorized by all necessary action. If such party is not an individual, such party is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization or incorporation;

(b) Such party has or prior to the Effective Time will have the requisite power, authority, legal right and, if such party is an individual, legal capacity, to execute and deliver this Agreement and each of the Reorganization Documents, to the extent a party thereto, and to consummate the transactions contemplated hereby and thereby, as the case may be;

(c) This Agreement and each of the Reorganization Documents to which it is a party has been (or when executed will be) duly executed and delivered by such party and constitutes the legal, valid and binding obligation of such party, enforceable against such party in accordance with its terms, subject to (i) the effects of bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar laws relating to or affecting creditors' rights generally, (ii) general equitable principles (whether considered in a proceeding in equity or at law) and (iii) an implied covenant of good faith and fair dealing; and

(d) Neither the execution, delivery and performance by such party of this Agreement and the applicable Reorganization Documents, to the extent a party thereto, nor the consummation by such party of the transactions contemplated hereby, nor compliance by such party with the terms and provisions hereof, will, directly or indirectly (with or without notice or lapse of time or both), (i) if such party is not an individual, contravene or conflict with, or result in a breach or termination of, or constitute a default under (or with notice or lapse of time or both, result in the breach or termination of or constitute a default under) the organizational documents of such party, (ii) constitute a violation by such party of any existing requirement of law applicable to such party or any of its properties, rights or assets or (iii) require the consent or approval of any Person, except, in the case of clauses (ii) and (iii), as would not reasonably be expected to result in, individually or in the aggregate, a material adverse effect on the ability of such party to consummate the transactions contemplated by this Agreement.

## ARTICLE IV

### MISCELLANEOUS

4.1 Amendments and Waivers. This Agreement may be modified, amended or waived only with the written approval of Pubco, the Company, and Holdings; provided, however, that any modification, amendment or waiver that would affect any other party hereto in a manner materially and disproportionately adverse to such party shall be effective against such party so materially and adversely affected only with the prior written consent of such party, such consent not to be unreasonably withheld or delayed. The failure of any party to enforce any of the provisions of this Agreement shall in no way be construed as a waiver of such provisions and shall not affect the right of such party thereafter to enforce each and every provision of this Agreement in accordance with its terms. Notwithstanding anything to the contrary in this Section 4.1, nothing in this Section 4.1 shall be deemed to contradict the provisions of Section 2.4 hereof.

4.2 Successors and Assigns. This Agreement shall bind and inure to the benefit of and be enforceable by the parties hereto and their respective successors and permitted assigns. If and to the extent Holdings is dissolved or liquidated, MacAndrews & Forbes Incorporated and M&F TTP Holdings LLC and each of their respective affiliates (other than Pubco and its subsidiaries) holding shares of Pubco shall be the successors of Holdings, and references to "Holdings" herein shall be references to such successors of Holdings, collectively, and the Pubco shall (and shall cause its subsidiaries to) enter into such amendments and supplements hereto to effectuate the intent of this Section 4.2.

4.3 Notices. All notices, requests and other communications to any party hereunder shall be in writing (including facsimile transmission and electronic mail ("e-mail") transmission, so long as a receipt of such e-mail is requested and not received by automated response). All such notices, requests and other communications shall be deemed received on the date of receipt by the recipient thereof if received prior to 5:00 p.m. on a Business Day in the place of receipt. Otherwise, any such notice, request or communication shall be deemed to have been received on the next succeeding Business Day in the place of receipt. All such notices, requests and other communications to any party hereunder shall be given to such party as follows:

If to Pubco or the Company addressed to it at:

Stephen L. Holcombe, President and CEO  
4170 Mendenhall Oaks Parkway  
High Point, NC 27265  
Facsimile: (336) 841-0310  
E-mail: sholcombe@vtvtherapeutics.com

With copies (which shall not constitute notice) to:

Paul, Weiss, Rifkind, Wharton & Garrison LLP  
1285 Avenue of the Americas  
New York, NY 10019-6064  
Facsimile No.: (212) 757-3990  
Attention: Angelo Bonvino  
Lawrence G. Wee  
E-mail: abonvino@paulweiss.com  
lwee@paulweiss.com

If to Holdings, vTvx I or vTvx II addressed to it at:

c/o MacAndrews & Forbes Incorporated  
35 East 62nd Street  
New York, NY 10065  
Attention: Paul G. Savas  
Facsimile: (212) 572-5695

With copies (which shall not constitute notice) to:

Paul, Weiss, Rifkind, Wharton & Garrison LLP  
1285 Avenue of the Americas  
New York, NY 10019-6064  
Facsimile No.: (212) 757-3990  
Attention: Angelo Bonvino  
Lawrence G. Wee  
E-mail: abonvino@paulweiss.com  
lwee@paulweiss.com

4.4 Further Assurances. At any time or from time to time after the date hereof, the parties agree to cooperate with each other, and at the request of any other party, to execute and deliver any further instruments or documents and to take all such further action as the other party may reasonably request in order to evidence or effectuate the consummation of the transactions contemplated hereby and to otherwise carry out the intent of the parties hereunder.

4.5 Entire Agreement. Except as otherwise expressly set forth herein, this Agreement, together with the Reorganization Documents, embodies the complete agreement and understanding among the parties hereto with respect to the subject matter hereof and supersedes and preempts any prior understandings, agreements or representations by or among the parties, written or oral, that may have related to the subject matter hereof in any way.

4.6 Governing Law. This Agreement shall be governed in all respects by the laws of the State of Delaware, without regard to the conflicts of law rules of such State that would result in the application of the laws of any other State.

4.7 Jurisdiction. The parties hereto agree that any suit, action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with, this Agreement or the transactions contemplated hereby (whether brought by any party or any of its affiliates or against any party or any of its affiliates) shall be brought in the Delaware Chancery Court or, if such court shall not have jurisdiction, any federal court located in the State of Delaware or other Delaware state court, and each of the parties hereby irrevocably consents to the jurisdiction of such courts (and of the appropriate appellate courts therefrom) in any such suit, action or proceeding and irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of the venue of any such suit, action or proceeding in any such court or that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. Process in any such suit, action or proceeding may be served on any party anywhere in the world, whether within or without the jurisdiction of any such court. Without limiting the foregoing, each party agrees that service of process on such party as provided in Section 4.3 shall be deemed effective service of process on such party.

4.8 WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

4.9 Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other provision or any other jurisdiction, but this Agreement shall be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

4.10 Enforcement. Each party hereto acknowledges that money damages would not be an adequate remedy in the event that any of the covenants or agreements in this Agreement are not performed in accordance with its terms, and it is therefore agreed that in addition to and without limiting any other remedy or right it may have, the non-breaching party will have the right to an injunction, temporary restraining order or other equitable relief in any court of competent jurisdiction enjoining any such breach and enforcing specifically the terms and provisions hereof.

4.11 Counterparts; Facsimile Signatures. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument. This Agreement may be executed by facsimile, e-mail or .pdf format signature(s).

4.12 Expenses. Unless otherwise provided in the Reorganization Documents, all costs and expenses incurred in connection with the negotiation and execution of this Agreement and the transactions contemplated by this Agreement shall be paid by the party incurring such cost or expense.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

**VTV THERAPEUTICS INC.**

By: \_\_\_\_\_  
Name:  
Title:

**VTV THERAPEUTICS LLC**

By: \_\_\_\_\_  
Name:  
Title:

**VTV THERAPEUTICS HOLDINGS LLC**

By: \_\_\_\_\_  
Name:  
Title:

**VTVX HOLDINGS I LLC**

By: \_\_\_\_\_  
Name:  
Title:

**VTVX HOLDINGS II LLC**

By: \_\_\_\_\_  
Name:  
Title:

[Signature Page to the Reorganization Agreement]

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**Schedule 1**

**Contributed Assets**

(See attached.)

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**Schedule 2**

**Employee Benefit Plans of vTvx I and vTvx II**

[To be determined.]

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CONTRIBUTED ASSETSAssets Transferred from vTvx Holdings I LLC

## INDs and Similar Assets:

Program	Compound	IND / File #	Holder
GK	TTP355	CTA 9727-T1006-24C	vTvx Holdings I LLC
GK	TTP399	IND 78,649	vTvx Holdings I LLC
GK	TTP547	IND 101,790	vTvx Holdings I LLC
GLP	TTP054	IND 107,972; and CTA 9727-T1006-25C	vTvx Holdings I LLC
GLP	TTP273	IND 115,859	vTvx Holdings I LLC
RAGE	TTP488	IND 68,445; and CTA 9427-T1538-21C	vTvx Holdings I LLC
PTP1B	TTP814	CTA 9427-T1006-23C	vTvx Holdings I LLC
RAGE	TTP4000	IND 108,330	vTvx Holdings I LLC
Factor IX	TTP889	IND 62,132; and IND 101,833	vTvx Holdings I LLC
AgRP	TTP435	IND 103,677; and CTA 9427-T1006-24C	vTvx Holdings I LLC

## Trademarks:

Trademark	Applicant	Application No.	Status
TTPREDICT	vTvx Holdings I LLC	76/406,330	Registered
TTP TRANSLATIONAL TECHNOLOGY	vTvx Holdings I LLC	76/406,371	Registered
TTPSPACE	vTvx Holdings I LLC	76/406,372	Registered
TTPPOSTGENE	vTvx Holdings I LLC	76/406,409	Registered
TTPSCREEN	vTvx Holdings I LLC	76/406,412	Registered

## Copyrights:

Author	Title	Copyright Year	Registration Number	Owner
Sawafta et al.	TTPScreen Software Program	2002	TXU1-052-385	vTvx Holdings I LLC
Sawafta et al.	TTPredict Software Program	2002	TXU1-040-852	vTvx Holdings I LLC

**Domain Names:**

Owner	Domain Name	Status
vTvx Holdings I LLC	AZELIRAGON.BIZ	Registered
vTvx Holdings I LLC	AZELIRAGON.COM	Registered
vTvx Holdings I LLC	AZELIRAGON.INFO	Registered
vTvx Holdings I LLC	AZELIRAGON.NET	Registered
vTvx Holdings I LLC	LIVINGSTEADFAST.CO	Registered
vTvx Holdings I LLC	LIVINGSTEADFAST.COM	Registered
vTvx Holdings I LLC	LIVINGSTEADFAST.INFO	Registered
vTvx Holdings I LLC	LIVINGSTEADFAST.NET	Registered
vTvx Holdings I LLC	LIVINGSTEADFAST.ORG	Registered
vTvx Holdings I LLC	LIVINGSTEADFAST.US	Registered
vTvx Holdings I LLC	MYAGATA.COM	Registered
vTvx Holdings I LLC	MYAGATA.INFO	Registered
vTvx Holdings I LLC	MYAGATA.NET	Registered
vTvx Holdings I LLC	MYAGATA.ORG	Registered
vTvx Holdings I LLC	MYAGATA.US	Registered
vTvx Holdings I LLC	STEADFASTALZHEIMERS.CO	Registered
vTvx Holdings I LLC	STEADFASTALZHEIMERS.COM	Registered
vTvx Holdings I LLC	STEADFASTALZHEIMERS.INFO	Registered
vTvx Holdings I LLC	STEADFASTALZHEIMERS.NET	Registered
vTvx Holdings I LLC	STEADFASTALZHEIMERS.ORG	Registered
vTvx Holdings I LLC	STEADFASTALZHEIMERS.US	Registered
vTvx Holdings I LLC	ITPREDICT.XXX	Registered
vTvx Holdings I LLC	ITPSCREEN.XXX	Registered
vTvx Holdings I LLC	ITPSPACE.XXX	Registered
vTvx Holdings I LLC	ITPTRANSLATIONALTECHNOLOGY.XXX	Registered
vTvx Holdings I LLC	VTV.NET	Registered
vTvx Holdings I LLC	VTVTHERA.COM	Registered
vTvx Holdings I LLC	VTVTHERA.NET	Registered
vTvx Holdings I LLC	VTVTHERAPEUTICS.COM	Registered
vTvx Holdings I LLC	VTVTHERAPEUTICS.NET	Registered
vTvx Holdings I LLC	VTVT.NET	Registered

**Patents:**

<b>File No.</b>	<b>Country</b>	<b>Owner</b>	<b>Application No.</b>	<b>Patent No.</b>
2001-04-US-B	United States	vTvx Holdings I LLC	12/901,133	
2002-04-US-A	United States	vTvx Holdings I LLC	10/411,568	7,146,384
0378.204-AU	Australia	vTvx Holdings I LLC	2013262895	
0378.204-BR	Brazil	vTvx Holdings I LLC	BR1120140286221	
0378.204-CA	Canada	vTvx Holdings I LLC	2872021	
0378.204-CN	China	vTvx Holdings I LLC	201380024802.X	
0378.204-EA	Eurasia	vTvx Holdings I LLC	201492109	
0378.204-HK	Hong Kong	vTvx Holdings I LLC	15103235.2	
0378.204-IL	Israel	vTvx Holdings I LLC	235484	
0378.204-IN	India	vTvx Holdings I LLC	9554/DELNP/2014	
0378.204-JP	Japan	vTvx Holdings I LLC	2015-512779	
0378.204-KR	South Korea	vTvx Holdings I LLC	10-2014-7035545	
0378.204-MX	Mexico	vTvx Holdings I LLC	MX/a/2014/013105	
0378.204-NZ	New Zealand	vTvx Holdings I LLC	701802	
0378.204-SG	Singapore	vTvx Holdings I LLC	11201406987U	
0378.204-US	United States	vTvx Holdings I LLC	14/071,976	
0378.204-ZA	South Africa	vTvx Holdings I LLC	2014/07864	
0378.205-EP	Europe	vTvx Holdings I LLC	13726933.8	
0379.204-PCT	PCT Application	vTvx Holdings I LLC	PCT/US2014/019349	
2010-05-AU-A	Australia	vTvx Holdings I LLC	2011258460	2011258460
2010-05-BR-A	Brazil	vTvx Holdings I LLC	BR1120120298445	
2010-05-CA-A	Canada	vTvx Holdings I LLC	2799591	
2010-05-CN-A	China	vTvx Holdings I LLC	201180025744.3	ZL201180025744.3
2010-05-EA-A	Eurasia	vTvx Holdings I LLC	201201617	
2010-05-EP-A	Europe	vTvx Holdings I LLC	11787250.7	
2010-05-GCC-A	Gulf Cooperation Council	vTvx Holdings I LLC	GC 2011-18476	
2010-05-HK-A	Hong Kong	vTvx Holdings I LLC	13108290.5	
2010-05-IL-A	Israel	vTvx Holdings I LLC	223137	
2010-05-IN-A	India	vTvx Holdings I LLC	10658/CHENP/2012	
2010-05-JP-A	Japan	vTvx Holdings I LLC	2013-512164	
2010-05-KR-A	South Korea	vTvx Holdings I LLC	10-2012-7033687	
2010-05-MX-A	Mexico	vTvx Holdings I LLC	MX/a/2012/013617	
2010-05-NZ-A	New Zealand	vTvx Holdings I LLC	603614	603614
2010-05-SG-A	Singapore	vTvx Holdings I LLC	201208508-0	185660
2010-05-TW-A	Taiwan	vTvx Holdings I LLC	100118368	
2010-05-US-A	United States	vTvx Holdings I LLC	13/114,964	
2010-05-ZA-A	South Africa	vTvx Holdings I LLC	2012/08834	
2013-02-PCT	PCT Application	vTvx Holdings I LLC	PCT/US2014/019363	

File No.	Country	Owner	Application No.	Patent No.
6694.214-US	United States	vTvx Holdings I LLC	12/895,761	8,148,413
6808.205-BG	Bulgaria	vTvx Holdings I LLC	5700554.8	1723128
6808.205-CY	Cyprus	vTvx Holdings I LLC	5700554.8	1723128 (CY1113736)
6808.205-EE	Estonia	vTvx Holdings I LLC	5700554.8	1723128
6808.205-HK	Hong Kong	vTvx Holdings I LLC	7107531.4	HK1103074
6808.205-IS	Iceland	vTvx Holdings I LLC	5700554.8	1723128
6808.205-LT	Lithuania	vTvx Holdings I LLC	5700554.8	1723128
6808.205-LU	Luxembourg	vTvx Holdings I LLC	5700554.8	1723128
6808.205-MC	Monaco	vTvx Holdings I LLC	5700554.8	1723128
6808.205-RO	Romania	vTvx Holdings I LLC	5700554.8	1723128
6808.205-SI	Slovenia	vTvx Holdings I LLC	5700554.8	1723128
6808.205-SK	Slovakia	vTvx Holdings I LLC	5700554.8	1723128 (E13998 T3)
6937.204-MX	Mexico	vTvx Holdings I LLC	MX/a/2007/006420	303022
6937.204-US	United States	vTvx Holdings I LLC	11/791,200	8,148,412
7112.204-AU	Australia	vTvx Holdings I LLC	2006268589	2006268589
7112.204-BR	Brazil	vTvx Holdings I LLC	PI0612996-0	
7112.204-CA	Canada	vTvx Holdings I LLC	2615938	2,615,938
7112.204-CN	China	vTvx Holdings I LLC	200680033512.1	ZL200680033512.1
7112.204-IL	Israel	vTvx Holdings I LLC	188244	188244
7112.204-IN	India	vTvx Holdings I LLC	10025/DELNP/2007	
7112.204-KR	South Korea	vTvx Holdings I LLC	10-2008-7002805	10-1446973
7112.204-MX	Mexico	vTvx Holdings I LLC	MX/a/2008/000255	305666
7112.204-RU	Russia	vTvx Holdings I LLC	2007147046	2443691
7112.204-ZA	South Africa	vTvx Holdings I LLC	2008/00341	2008/00341
7112.205-HK	Hong Kong	vTvx Holdings I LLC	8112906	HK1121744
7127.204-US	United States	vTvx Holdings I LLC	12/298,840	8,211,925
7209.204-US	United States	vTvx Holdings I LLC	11/994,728	7,582,769
7563.204-AU	Australia	vTvx Holdings I LLC	2008-204530	2008204530
7563.204-CA	Canada	vTvx Holdings I LLC	2675111	
7563.204-IL	Israel	vTvx Holdings I LLC	199615	
7563.204-IN	India	vTvx Holdings I LLC	4486/DELNP/2009	
2008-03-AU-A	Australia	vTvx Holdings I LLC	2009221722	2009221722
2008-03-BR-A	Brazil	vTvx Holdings I LLC	PI0910282-5	
2008-03-CA-A	Canada	vTvx Holdings I LLC	2716664	
2008-03-CN-A	China	vTvx Holdings I LLC	200980108115.X	ZL200980108115.X
2008-03-EA-A	Eurasia	vTvx Holdings I LLC	201071045	18225
2008-03-EP-A	Europe	vTvx Holdings I LLC	9718287.7	
2008-03-HK-A	Hong Kong	vTvx Holdings I LLC	11102525.7	
2008-03-IL-A	Israel	vTvx Holdings I LLC	207570	207570
2008-03-IN-A	India	vTvx Holdings I LLC	6085/DELNP/2010	

File No.	Country	Owner	Application No.	Patent No.
2008-03-JP-A	Japan	vTvx Holdings I LLC	2010-549910	5382952
2008-03-KR-A	South Korea	vTvx Holdings I LLC	10-2010-7020688	
2008-03-ME-A	Montenegro	vTvx Holdings I LLC	P-2010-143	1018
2008-03-MO-A	Macau	vTvx Holdings I LLC	J/001523	
2008-03-MX-A	Mexico	vTvx Holdings I LLC	MX/a/2010/009752	300256
2008-03-NZ-A	New Zealand	vTvx Holdings I LLC	587343	587343
2008-03-SG-A	Singapore	vTvx Holdings I LLC	201006155-4	164144 [WO 2009/111700]
2008-03-US-A	United States	vTvx Holdings I LLC	12/399,504	7,727,983
2008-03-US-B	United States	vTvx Holdings I LLC	12/759,010	7,790,714
2008-03-US-C	United States	vTvx Holdings I LLC	12/849,225	7,906,507
2008-03-US-D	United States	vTvx Holdings I LLC	12/872,580	8,524,708
2008-03-US-E	United States	vTvx Holdings I LLC	13/956,578	8,703,766
2008-03-US-F	United States	vTvx Holdings I LLC	14/197,771	8,933,222
2008-03-US-G	United States	vTvx Holdings I LLC	14/556,837	
2008-03-ZA-A	South Africa	vTvx Holdings I LLC	2010/06367	2010/06367
2008-06-US-A	United States	vTvx Holdings I LLC	12/936,434	8,718,994
2009-01-AU-A	Australia	vTvx Holdings I LLC	2010232750	
2009-01-BR-A	Brazil	vTvx Holdings I LLC	PI1013579-0	
2009-01-CA-A	Canada	vTvx Holdings I LLC	2757084	
2009-01-CN-A	China	vTvx Holdings I LLC	201080015264.4	ZL201080015264.4
2009-01-EA-A	Eurasia	vTvx Holdings I LLC	201171197	
2009-01-EP-A	Europe	vTvx Holdings I LLC	10779665.8	
2009-01-HK-A	Hong Kong	vTvx Holdings I LLC	12104614.4	
2009-01-IL-A	Israel	vTvx Holdings I LLC	214822	
2009-01-IN-A	India	vTvx Holdings I LLC	6636/DELNP/2011	
2009-01-JP-A	Japan	vTvx Holdings I LLC	2012-503599	
2009-01-KR-A	South Korea	vTvx Holdings I LLC	10-2011-7024153	
2009-01-MO-A	Macau	vTvx Holdings I LLC	J/001320	J/1320
2009-01-MX-A	Mexico	vTvx Holdings I LLC	MX/a/2011/010347	320199
2009-01-SG-A	Singapore	vTvx Holdings I LLC	201106311-2	174205
2009-01-US-A	United States	vTvx Holdings I LLC	12/825,631	8,383,644
2009-01-US-B	United States	vTvx Holdings I LLC	13/707,265	8,987,295
2009-01-US-C	United States	vTvx Holdings I LLC	14/603,556	
2009-01-ZA-A	South Africa	vTvx Holdings I LLC	2011/06441	
2011-01-US-A	United States	vTvx Holdings I LLC	13/934,491	
2012-01-AU-A	Australia	vTvx Holdings I LLC	2013235167	
2012-01-BR-A	Brazil	vTvx Holdings I LLC	BR1120140227438	
2012-01-CA-A	Canada	vTvx Holdings I LLC	2868033	
2012-01-CN-A	China	vTvx Holdings I LLC	201380015508.2	
2012-01-EA-A	Eurasia	vTvx Holdings I LLC	201491749	

File No.	Country	Owner	Application No.	Patent No.
2012-01-EP-A	Europe	vTvx Holdings I LLC	13765015.6	
2012-01-HK-A	Hong Kong	vTvx Holdings I LLC	14112910.6	
2012-01-IL-A	Israel	vTvx Holdings I LLC	234615	
2012-01-IN-A	India	vTvx Holdings I LLC	7867/DELNP/2014	
2012-01-JP-A	Japan	vTvx Holdings I LLC	2015-501876	
2012-01-KR-A	South Korea	vTvx Holdings I LLC	10-2014-7026362	
2012-01-MX-A	Mexico	vTvx Holdings I LLC	MX/a/2014/010366	
2012-01-NZ-A	New Zealand	vTvx Holdings I LLC	629203	
2012-01-SG-A	Singapore	vTvx Holdings I LLC	11201405353V	
2012-01-US-A	United States	vTvx Holdings I LLC	14/489,890	
2012-01-ZA-A	South Africa	vTvx Holdings I LLC	2014/06521	
2013-01-AU-A	Australia	vTvx Holdings I LLC	2014207748	
2013-01-CA-A	Canada	vTvx Holdings I LLC		
2013-01-NZ-A	New Zealand	vTvx Holdings I LLC	709129	
2013-01-SG-A	Singapore	vTvx Holdings I LLC		
2000-02-US-A	United States	vTvx Holdings I LLC	09/799,152	6,908,741
2001-21-US-A	United States	vTvx Holdings I LLC	10/091,759	7,423,177
2002-01-AT-A	Austria	vTvx Holdings I LLC	3713918.5	1482931 (E529110)
2002-01-AU-A	Australia	vTvx Holdings I LLC	2003217943	2003217943
2002-01-AU-B	Australia	vTvx Holdings I LLC	2007202350	2007202350
2002-01-AU-C	Australia	vTvx Holdings I LLC	2009202814	2009202814
2002-01-BE-A	Belgium	vTvx Holdings I LLC	3713918.5	1482931
2002-01-CA-A	Canada	vTvx Holdings I LLC	2476594	2,476,594
2002-01-CH-A	Switzerland	vTvx Holdings I LLC	3713918.5	1482931
2002-01-CN-A	China	vTvx Holdings I LLC	3805204	ZL 03805204.0
2002-01-DE-A	Germany	vTvx Holdings I LLC	3713918.5	1482931 (60338810.8)
2002-01-DK-A	Denmark	vTvx Holdings I LLC	3713918.5	1482931 (DK/EP1482931)
2002-01-EP-A	Europe	vTvx Holdings I LLC	3713918.5	1482931
2002-01-ES-A	Spain	vTvx Holdings I LLC	3713918.5	1482931 (2373875)
2002-01-FR-A	France	vTvx Holdings I LLC	3713918.5	1482931
2002-01-GB-A	United Kingdom	vTvx Holdings I LLC	3713918.5	1482931
2002-01-HK-A	Hong Kong	vTvx Holdings I LLC	5103177.4	HK1069549
2002-01-IE-A	Ireland	vTvx Holdings I LLC	3713918.5	1482931
2002-01-IT-A	Italy	vTvx Holdings I LLC	3713918.5	1482931 (47615 BE/2012)
2002-01-JP-A	Japan	vTvx Holdings I LLC	2003-574195	4481011
2002-01-LU-A	Luxembourg	vTvx Holdings I LLC	3713918.5	1482931
2002-01-MC-A	Monaco	vTvx Holdings I LLC	3713918.5	1482931
2002-01-MO-A	Macau	vTvx Holdings I LLC	J/000383	J/000383
2002-01-NL-A	Netherlands	vTvx Holdings I LLC	3713918.5	1482931

File No.	Country	Owner	Application No.	Patent No.
2002-01-SE-A	Sweden	vTvx Holdings I LLC	3713918.5	1482931
2002-01-US-A	United States	vTvx Holdings I LLC	10/382,203	7,361,678
2002-01-US-B	United States	vTvx Holdings I LLC	11/511,163	7,714,013
2002-01-US-C	United States	vTvx Holdings I LLC	11/800,085	7,737,285
2007-01-CA-A	Canada	vTvx Holdings I LLC	2681864	
2007-01-US-A	United States	vTvx Holdings I LLC	12/046,872	7,884,219
2007-01-US-B	United States	vTvx Holdings I LLC	12/982,775	8,372,988
2009-03-CA-A	Canada	vTvx Holdings I LLC	2772797	
2009-03-CH-A	Switzerland	vTvx Holdings I LLC	10757925.2	2470510
2009-03-DE-A	Germany	vTvx Holdings I LLC	10757925.2	2470510 (602010016110.2)
2009-03-EP-A	Europe	vTvx Holdings I LLC	10757925.2	2470510
2009-03-ES-A	Spain	vTvx Holdings I LLC	10757925.2	2470510
2009-03-FR-A	France	vTvx Holdings I LLC	10757925.2	2470510
2009-03-GB-A	United Kingdom	vTvx Holdings I LLC	10757925.2	2470510
2009-03-IE-A	Ireland	vTvx Holdings I LLC	10757925.2	2470510
2009-03-IT-A	Italy	vTvx Holdings I LLC	10757925.2	2470510 (69561 BE/2014)
2009-03-JP-A	Japan	vTvx Holdings I LLC	2012-532199	
2009-03-TW-A	Taiwan	vTvx Holdings I LLC	99132288	
2009-03-US-A	United States	vTvx Holdings I LLC	12/888,660	8,580,833
2009-03-US-B	United States	vTvx Holdings I LLC	14/049,261	
2010-01-CA-A	Canada	vTvx Holdings I LLC	2788355	
2010-01-CH-A	Switzerland	vTvx Holdings I LLC	11745116.1	
2010-01-DE-A	Germany	vTvx Holdings I LLC	11745116.1	
2010-01-EP-A	Europe	vTvx Holdings I LLC	11745116.1	
2010-01-ES-A	Spain	vTvx Holdings I LLC	11745116.1	
2010-01-FR-A	France	vTvx Holdings I LLC	11745116.1	
2010-01-GB-A	United Kingdom	vTvx Holdings I LLC	11745116.1	
2010-01-IE-A	Ireland	vTvx Holdings I LLC	11745116.1	
2010-01-IT-A	Italy	vTvx Holdings I LLC	11745116.1	
2010-01-JP-A	Japan	vTvx Holdings I LLC	2012-553968	
2010-01-TW-A	Taiwan	vTvx Holdings I LLC	100104976	
2010-01-US-A	United States	vTvx Holdings I LLC	13/028,036	8,431,575
2010-01-US-B	United States	vTvx Holdings I LLC	13/772,685	8,741,900
2010-01-US-C	United States	vTvx Holdings I LLC	14/225,837	9,045,461
2012-02-AU-A	Australia	vTvx Holdings I LLC	2013327450	
2012-02-BR-A	Brazil	vTvx Holdings I LLC	BR1120150076416	
2012-02-CA-A	Canada	vTvx Holdings I LLC	2886785	
2012-02-CN-A	China	vTvx Holdings I LLC	201380051206	
2012-02-EA-A	Eurasia	vTvx Holdings I LLC	201590687	

File No.	Country	Owner	Application No.	Patent No.
2012-02-EP-A	Europe	vTvx Holdings I LLC		
2012-02-IL-A	Israel	vTvx Holdings I LLC	237730	
2012-02-IN-A	India	vTvx Holdings I LLC	3734/DELNP/2015	
2012-02-JP-A	Japan	vTvx Holdings I LLC		
2012-02-KR-A	South Korea	vTvx Holdings I LLC	10-2015-7011366	
2012-02-MX-A	Mexico	vTvx Holdings I LLC	MX/a/2015/003732	
2012-02-NZ-A	New Zealand	vTvx Holdings I LLC	705813	
2012-02-SG-A	Singapore	vTvx Holdings I LLC	11201502210V	
2012-02-US-A	United States	vTvx Holdings I LLC	14/059,529	
2012-02-ZA-A	South Africa	vTvx Holdings I LLC	2015/01834	
2004-02-US-A	United States	vTvx Holdings I LLC	11/110,499	7,820,704
2008-07-US-A	United States	vTvx Holdings I LLC	12/547,018	8,563,742
2003-08-US-A	United States	vTvx Holdings I LLC	10/913,216	7,459,472
2003-07-US-A	United States	vTvx Holdings I LLC	10/913,882	7,501,538
2003-02-US-A	United States	vTvx Holdings I LLC	10/913,168	7,544,699
2001-14/16-US-A	United States	vTvx Holdings I LLC	10/274,546	6,933,303
2006-01-AU-A	Australia	vTvx Holdings I LLC	2007211319	2007211319
2006-01-CA-A	Canada	vTvx Holdings I LLC	2637024	2,637,024
2006-01-CN-A	China	vTvx Holdings I LLC	200780003942.3	ZL200780003942.3
2006-01-EA-A	Eurasia	vTvx Holdings I LLC	200870218	19385
2006-01-EP-A	Europe	vTvx Holdings I LLC	7763040.8	
2006-01-HK-A	Hong Kong	vTvx Holdings I LLC	9104978.9	HK1127342
2006-01-IL-A	Israel	vTvx Holdings I LLC	192557	192557
2006-01-JP-A	Japan	vTvx Holdings I LLC	2008-553332	5180099
2006-01-MO-A	Macau	vTvx Holdings I LLC	J/000800	J/000800
2006-01-MX-A	Mexico	vTvx Holdings I LLC	MX/a/2008/008929	316963
2006-01-NZ-A	New Zealand	vTvx Holdings I LLC	569329	569329
2006-01-SG-A	Singapore	vTvx Holdings I LLC	200804987-6	144278 [WO 2007/089857]
2006-01-US-A	United States	vTvx Holdings I LLC	11/699,780	7,723,369
2006-01-US-B	United States	vTvx Holdings I LLC	12/685,178	8,404,731
2006-01-ZA-A	South Africa	vTvx Holdings I LLC	2008/05648	2008/05648
2004-04-AU-A	Australia	vTvx Holdings I LLC	2005271452	2005271452
2004-04-CA-A	Canada	vTvx Holdings I LLC	2570324	2,570,324
2004-04-CH-A	Switzerland	vTvx Holdings I LLC	5778764	1781700
2004-04-CN-A	China	vTvx Holdings I LLC	200580025947.7	
2004-04-DE-A	Germany	vTvx Holdings I LLC	5778764	1781700 (602005043021.0)
2004-04-EA-A	Eurasia	vTvx Holdings I LLC	200700404	12082
2004-04-EP-A	Europe	vTvx Holdings I LLC	5778764	1781700



File No.	Country	Owner	Application No.	Patent No.
2004-04-ES-A	Spain	vTvx Holdings I LLC	5778764	1781700
2004-04-FR-A	France	vTvx Holdings I LLC	5778764	1781700
2004-04-GB-A	United Kingdom	vTvx Holdings I LLC	5778764	1781700
2004-04-HK-A	Hong Kong	vTvx Holdings I LLC	7108801.5	
2004-04-IE-A	Ireland	vTvx Holdings I LLC	5778764	1781700
2004-04-IL-A	Israel	vTvx Holdings I LLC	180554	180554
2004-04-IN-A	India	vTvx Holdings I LLC	0797/DELNP/2007	257473
2004-04-IT-A	Italy	vTvx Holdings I LLC	5778764	1781700
2004-04-JP-A	Japan	vTvx Holdings I LLC	2007-524978	5188804
2004-04-KR-A	South Korea	vTvx Holdings I LLC	10-2007-7005152	10-1323411
2004-04-MX-A	Mexico	vTvx Holdings I LLC	MX/a/2007/001559	293182
2004-04-NZ-A	New Zealand	vTvx Holdings I LLC	552128	552128
2004-04-SG-A	Singapore	vTvx Holdings I LLC	200700364-3	129082 [WO 2006/017647]
2004-04-US-A	United States	vTvx Holdings I LLC	11/197,038	7,901,688
2004-04-US-B	United States	vTvx Holdings I LLC	11/629,437	7,981,423
2004-04-US-C	United States	vTvx Holdings I LLC	12/983,604	8,877,192
2004-04-ZA-A	South Africa	vTvx Holdings I LLC	2007/00643	2007/00643
2004-04-ZA-B	South Africa	vTvx Holdings I LLC	2009/06459	2009/06459
2006-07-AU-A	Australia	vTvx Holdings I LLC	2007248784	2007248784
2006-07-CA-A	Canada	vTvx Holdings I LLC	2651348	
2006-07-EA-A	Eurasia	vTvx Holdings I LLC	200870502	17291
2006-07-EP-A	Europe	vTvx Holdings I LLC	7794379.3	
2006-07-JP-A	Japan	vTvx Holdings I LLC	2009-509615	5558810
2006-07-MX-A	Mexico	vTvx Holdings I LLC	MX/a/2008/013863	307987
2006-07-NZ-A	New Zealand	vTvx Holdings I LLC	571692	571692
2006-07-US-A	United States	vTvx Holdings I LLC	11/789,637	7,981,424
2006-07-US-B	United States	vTvx Holdings I LLC	13/158,748	8,344,120
2006-07-ZA-A	South Africa	vTvx Holdings I LLC	2008/09394	2008/09394
2009-04-CA-A	Canada	vTvx Holdings I LLC	2757079	2,757,079
2009-04-EP-A	Europe	vTvx Holdings I LLC	10718284.2	
2009-04-JP-A	Japan	vTvx Holdings I LLC	2010-95600	
2009-04-US-A	United States	vTvx Holdings I LLC	13/265,132	9,034,341
2009-04-US-B	United States	vTvx Holdings I LLC	14/686,352	
2010-02-CA-A	Canada	vTvx Holdings I LLC	2789244	
2010-02-EP-A	Europe	vTvx Holdings I LLC	10773766	
2010-02-JP-A	Japan	vTvx Holdings I LLC	2012-553874	
2010-02-US-A	United States	vTvx Holdings I LLC	13/062,395	
77456-A	United States	Jointly owned by vTvx Holdings I LLC and The Trustees of Columbia University in the City of New York, each with a 1/2 undivided interest.	11/197,644	

**Commercial Lease Transferred from vTvx Holdings I LLC:**

- Lease Agreement, dated as of September 20, 1999, by and between Liberty Property Limited Partnership and TransTech Pharma, Inc., as amended by that certain First Amendment thereto dated as of March 6, 2000, that certain Second Amendment thereto dated as of March 22, 2000, that certain Third Amendment thereto dated as of December 5, 2001, that certain Fourth Amendment thereto dated as of March 18, 2004, and that certain Fifth Amendment thereto dated as of May 30, 2013, which Lease Agreement, as amended, relates to 4170 Mendenhall Oaks Pkwy, High Point, NC.

**License Agreements and other Contracts Transferred from vTvx Holdings I LLC:**

- New Exclusive License Agreement, dated May 14, 2015, by and between The Trustees of Columbia University in the City of New York and vTvx I Holdings LLC.
- Agreement Concerning Glucokinase Activator Project, dated February 20, 2007, by and between Novo Nordisk A/S and vTvx I Holdings LLC.
- License and Research Agreement, dated as of March 5, 2015, by and among Calithera Biosciences Inc., vTvx I Holdings LLC, and vTvx II Holdings LLC.
- Biological Program Termination Agreement, dated as of May 8, 2009, by and between Pfizer, Inc. and vTvx I Holdings LLC.
- Assignment of Patent Applications, dated as of July 17, 2013, by and between Pfizer, Inc. and vTvx I Holdings LLC.
- All other valid and ongoing licenses, contracts and other agreements entered into by vTvx Holdings I LLC, but excluding the agreements set forth or referenced in the Excluded Assets section below.

**Personal Property Transferred from vTvx Holdings I LLC:**

- All personal property owned by vTvx Holdings I LLC, including (without limitation) the following:
    - o Laboratory equipment
    - o Leasehold improvements
    - o Computers and hardware
    - o Software
    - o Furniture and office equipment
-

**Transferred Employee Assets of vTv Holdings I LLC:**

- TransTech Pharma, LLC Retirement Plan
    - o Directed Trustee Agreement by and between TransTech Pharma, LLC and Mid Atlantic Trust Company, dated as of November 26, 2013
    - o Investment Management Agreement by and between High Point Bank and Trust Company and TransTech Pharma, LLC & PharmaCore, Inc., dated as of November 26, 2013
    - o Recordkeeping and Investment Account Services Agreement by and between EPIC Advisors, Inc. and TransTech Pharma, LLC, dated as of November 26, 2013
  - BlueOptions Medical Plan (BlueCross BlueShield of North Carolina)
  - Delta Dental PPO Plus Premier (Dental Plan)
  - COBRA Administration Arrangement with Flores & Associates, LLC
  - Wingspan Cafeteria Plan (AFLAC supplemental insurance)
  - Group Term Life Insurance (USable Life)
  - Group Voluntary Life Insurance (USable Life)
  - Group Accidental Death and Dismemberment Insurance (USable Life)
  - Group Long Term Disability Insurance (USable Life)
  - Group Short Term Disability Insurance (administered by USable Life)
-

**Assets Transferred from vTvx Holdings II LLC**

**INDs and Similar Assets:**

<b>Program</b>	<b>Compound</b>	<b>IND / File #</b>	<b>Holder</b>
BACH1	HPP971	IND 119,328	vTvx Holdings II LLC
PDE4	HPP737	IND 116,186	vTvx Holdings II LLC
PPAR	HPP593	IND 122,225; and IND 107,545	vTvx Holdings II LLC
11-Beta	HPP851	IND 110,923	vTvx Holdings II LLC
PPAR	HPP5920	IND 73,189	vTvx Holdings II LLC
BACE	HPP854	IND 105,195	vTvx Holdings II LLC
H3	HPP404	IND 103,863	vTvx Holdings II LLC

**Patents:**

<b>File No.</b>	<b>Country</b>	<b>Owner</b>	<b>Application No.</b>	<b>Patent No.</b>
3009.200-GCC	Gulf Cooperation Council	vTvx Holdings II LLC	GC 2011-17799	
3009.200-JO	Jordan	vTvx Holdings II LLC	47/2011	
3009.200-LB	Lebanon	vTvx Holdings II LLC	1193	9286
3009.200-TW	Taiwan	vTvx Holdings II LLC	100105506	
3009.200-US	United States	vTvx Holdings II LLC	13/028,406	8,759,535
3009.204-AU	Australia	vTvx Holdings II LLC	2011218316	
3009.204-BR	Brazil	vTvx Holdings II LLC	BR1120120207598	
3009.204-CA	Canada	vTvx Holdings II LLC	2789950	
3009.204-CN	China	vTvx Holdings II LLC	201180009915.3	ZL 201180009915.3
3009.204-HK	Hong Kong	vTvx Holdings II LLC	12112645	
3009.204-IL	Israel	vTvx Holdings II LLC	220906	
3009.204-IN	India	vTvx Holdings II LLC	6692/DELNP/2012	
3009.204-JP	Japan	vTvx Holdings II LLC	2012-553942	
3009.204-KR	South Korea	vTvx Holdings II LLC	10-2012-7023193	
3009.204-MO	Macau	vTvx Holdings II LLC	J/001597	
3009.204-MX	Mexico	vTvx Holdings II LLC	MX/a/2012/009628	
3009.204-NZ	New Zealand	vTvx Holdings II LLC	602395	602395
3009.204-SG	Singapore	vTvx Holdings II LLC	201205373-2	182629
3009.204-ZA	South Africa	vTvx Holdings II LLC	2012/05800	
3009.205-EA	Eurasia	vTvx Holdings II LLC	201290808	
3009.205-EP	Europe	vTvx Holdings II LLC	11745064.3	
3009.210-US	United States	vTvx Holdings II LLC	14/215,873	
3017.204-US	United States	vTvx Holdings II LLC	13/894,922	
3039.000-US	United States	vTvx Holdings II LLC	62/082,706	

File No.	Country	Owner	Application No.	Patent No.
3040.000-US	United States	vTvx Holdings II LLC	62/085,875	
3036.000-US	United States	vTvx Holdings II LLC	62/063,347	
3037.000-US	United States	vTvx Holdings II LLC	62/063,352	
3038.000-US	United States	vTvx Holdings II LLC	62/063,348	
CBH-02560	United States	vTvx Holdings II LLC	62/171,051	
3004.204-AU	Australia	vTvx Holdings II LLC	2009206368	2009206368
3004.204-BR	Brazil	vTvx Holdings II LLC	PI0906809-0	
3004.204-CA	Canada	vTvx Holdings II LLC	2711576	
3004.204-CN	China	vTvx Holdings II LLC	200980102961	ZL200980102961.0
3004.204-HK	Hong Kong	vTvx Holdings II LLC	11102132.2	
3004.204-IL	Israel	vTvx Holdings II LLC	206854	206854
3004.204-IN	India	vTvx Holdings II LLC	5151/DELNP/2010	
3004.204-JP	Japan	vTvx Holdings II LLC	2010-544436	5406215
3004.204-KR	South Korea	vTvx Holdings II LLC	10-2010-7017176	
3004.204-MO	Macau	vTvx Holdings II LLC	J/001596	
3004.204-MX	Mexico	vTvx Holdings II LLC	MX/a/2010/007768	313517
3004.204-NZ	New Zealand	vTvx Holdings II LLC	586695	586695
3004.204-SG	Singapore	vTvx Holdings II LLC	201005095-3	163680 [WO 2009/094528]
3004.204-US	United States	vTvx Holdings II LLC	12/532,861	7,964,608
3004.204-ZA	South Africa	vTvx Holdings II LLC	2010/04818	2010/04818
3004.205-CH	Switzerland	vTvx Holdings II LLC	9704760.9	2244574
3004.205-DE	Germany	vTvx Holdings II LLC	9704760.9	2244574 (DE 60 2009 026 929.1)
3004.205-EA	Eurasia	vTvx Holdings II LLC	201070884	18462
3004.205-EP	Europe	vTvx Holdings II LLC	9704760.9	2244574
3004.205-ES	Spain	vTvx Holdings II LLC	9704760.9	2244574
3004.205-FR	France	vTvx Holdings II LLC	9704760.9	2244574
3004.205-IE	Ireland	vTvx Holdings II LLC	9704760.9	2244574
3004.205-IT	Italy	vTvx Holdings II LLC	9704760.9	2244574 (IT 72239/BE/2014)
3004.205-UK	United Kingdom	vTvx Holdings II LLC	9704760.9	2244574
3004.214-US	United States	vTvx Holdings II LLC	13/040,382	8,853,226
3004.224-US	United States	vTvx Holdings II LLC	13/410,628	8,329,715
3004.234-US	United States	vTvx Holdings II LLC	14/477,302	
3025.200-US	United States	vTvx Holdings II LLC	14/478,594	
3025.204-PCT	PCT Application	vTvx Holdings II LLC	PCT/US2014/054303	
5697.200-US	United States	vTvx Holdings II LLC	09/551,740	6,972,294
6134.210-US	United States	vTvx Holdings II LLC	10/370,856	6,867,218
6310.200-US	United States	vTvx Holdings II LLC	10/201,456	6,869,967
6569.200-US	United States	vTvx Holdings II LLC	10/693,161	7,129,268

File No.	Country	Owner	Application No.	Patent No.
6569.204-AU	Australia	vTvx Holdings II LLC	2003273783	2003273783
6569.204-CN	China	vTvx Holdings II LLC	200380102228.1	ZL200380102228.1
6569.204-IN	India	vTvx Holdings II LLC	1364/DELNP/2005	232024
6569.204-JP	Japan	vTvx Holdings II LLC	2005-501509	4708184
6569.204-MX	Mexico	vTvx Holdings II LLC	PA/a/2005/004402	254995
6569.204-RU	Russia	vTvx Holdings II LLC	2005116243	2349582
6569.204-ZA	South Africa	vTvx Holdings II LLC	2005/02814	2005/02814
6569.205-BE	Belgium	vTvx Holdings II LLC	3757741.8	1558572
6569.205-CH	Switzerland	vTvx Holdings II LLC	3757741.8	1558572
6569.205-DE	Germany	vTvx Holdings II LLC	3757741.8	1558572 (60333211.0)
6569.205-EP	Europe	vTvx Holdings II LLC	3757741.8	1558572
6569.205-ES	Spain	vTvx Holdings II LLC	3757741.8	1558572 (2345882)
6569.205-FR	France	vTvx Holdings II LLC	3757741.8	1558572
6569.205-GB	United Kingdom	vTvx Holdings II LLC	3757741.8	1558572
6569.205-IE	Ireland	vTvx Holdings II LLC	3757741.8	1558572
6569.205-IT	Italy	vTvx Holdings II LLC	3757741.8	1558572 (27102 BE/2010)
7186.200-TW	Taiwan	vTvx Holdings II LLC	95123781	I371446
7186.204-AU	Australia	vTvx Holdings II LLC	2006265172	2006265172
7186.204-BR	Brazil	vTvx Holdings II LLC	PI0612730-4	
7186.204-CA	Canada	vTvx Holdings II LLC	2613365	2,613,365
7186.204-IN	India	vTvx Holdings II LLC	9775/DELNP/2007	
7186.204-JP	Japan	vTvx Holdings II LLC	2008-519909	5052511
7186.204-KR	South Korea	vTvx Holdings II LLC	10-2008-7001795	10-1333101
7186.204-MX	Mexico	vTvx Holdings II LLC	MX/a/2007/016374	289941
7186.204-RU	Russia	vTvx Holdings II LLC	2007147050	2412935
7186.204-US	United States	vTvx Holdings II LLC	11/917,811	7,943,669
7186.205-CH	Switzerland	vTvx Holdings II LLC	6763966.6	1899302
7186.205-DE	Germany	vTvx Holdings II LLC	6763966.6	1899302 (602006025239.0)
7186.205-EP	Europe	vTvx Holdings II LLC	6763966.6	1899302
7186.205-ES	Spain	vTvx Holdings II LLC	6763966.6	1899302 (2372617)
7186.205-FR	France	vTvx Holdings II LLC	6763966.6	1899302
7186.205-GB	United Kingdom	vTvx Holdings II LLC	6763966.6	1899302
7186.205-IE	Ireland	vTvx Holdings II LLC	6763966.6	1899302
7186.205-IT	Italy	vTvx Holdings II LLC	6763966.6	1899302 (32046 BE/2011)
7186.214-MX	Mexico	vTvx Holdings II LLC	MX/a/2011/008185	313342
7186.214-US	United States	vTvx Holdings II LLC	13/080,425	8,217,086
7186.215-CH	Switzerland	vTvx Holdings II LLC	10188181.1	2298742
7186.215-DE	Germany	vTvx Holdings II LLC	10188181.1	2298742 (602006040041.1)

File No.	Country	Owner	Application No.	Patent No.
7186.215-EP	Europe	vTvx Holdings II LLC	10188181.1	2298742
7186.215-ES	Spain	vTvx Holdings II LLC	10188181.1	2298742 (2449618)
7186.215-FR	France	vTvx Holdings II LLC	10188181.1	2298742
7186.215-GB	United Kingdom	vTvx Holdings II LLC	10188181.1	2298742
7186.215-IE	Ireland	vTvx Holdings II LLC	10188181.1	2298742
7186.215-IT	Italy	vTvx Holdings II LLC	10188181.1	2298742 (21081 BE/2014)
7186.224-US	United States	vTvx Holdings II LLC	13/466,191	8,426,473
7253.200-TW	Taiwan	vTvx Holdings II LLC	95148358	1389878
7253.204-AU	Australia	vTvx Holdings II LLC	2006327003	2006327003
7253.204-BR	Brazil	vTvx Holdings II LLC	PI0620468-6	
7253.204-CA	Canada	vTvx Holdings II LLC	2631390	2,631,390
7253.204-IL	Israel	vTvx Holdings II LLC	191655	191655
7253.204-IN	India	vTvx Holdings II LLC	5418/DELNP/2008	
7253.204-JP	Japan	vTvx Holdings II LLC	2008-546470	5054028
7253.204-KR	South Korea	vTvx Holdings II LLC	10-2008-7016288	10-1265078
7253.204-MX	Mexico	vTvx Holdings II LLC	MX/a/2008/008098	294461
7253.204-NZ	New Zealand	vTvx Holdings II LLC	568488	568488
7253.204-US	United States	vTvx Holdings II LLC	12/097,564	7,943,613
7253.204-ZA	South Africa	vTvx Holdings II LLC	2008/04767	2008/04767
7253.205-AT	Austria	vTvx Holdings II LLC	6830789.1	1979311 (E561921)
7253.205-BE	Belgium	vTvx Holdings II LLC	6830789.1	1979311
7253.205-CH	Switzerland	vTvx Holdings II LLC	6830789.1	1979311
7253.205-DE	Germany	vTvx Holdings II LLC	6830789.1	1979311 (602006030230.4)
7253.205-EA	Eurasia	vTvx Holdings II LLC	200870103	15717
7253.205-EP	Europe	vTvx Holdings II LLC	6830789.1	1979311
7253.205-ES	Spain	vTvx Holdings II LLC	6830789.1	1979311 (2386734)
7253.205-FR	France	vTvx Holdings II LLC	6830789.1	1979311
7253.205-GB	United Kingdom	vTvx Holdings II LLC	6830789.1	1979311
7253.205-IE	Ireland	vTvx Holdings II LLC	6830789.1	1979311
7253.205-IT	Italy	vTvx Holdings II LLC	6830789.1	1979311
7253.214-CN	China	vTvx Holdings II LLC	201310097997.2	
7253.214-HK	Hong Kong	vTvx Holdings II LLC	14100388.4	
7253.214-US	United States	vTvx Holdings II LLC	13/079,460	8,362,016
7253.224-US	United States	vTvx Holdings II LLC	13/708,163	8,551,993
7253.234-US	United States	vTvx Holdings II LLC	14/016,442	
3006.204-AU	Australia	vTvx Holdings II LLC	2009316802	2009316802
3006.204-CA	Canada	vTvx Holdings II LLC	2744383	
3006.204-EA	Eurasia	vTvx Holdings II LLC	201170703	20496

File No.	Country	Owner	Application No.	Patent No.
3006.204-IN	India	vTvx Holdings II LLC	3778/DELNP/2011	
3006.204-KR	South Korea	vTvx Holdings II LLC	10-2011-7013921	
3006.204-ME	Montenegro	vTvx Holdings II LLC	P-2011-89	1145
3006.204-MX	Mexico	vTvx Holdings II LLC	MX/a/2011/005037	322321
3006.204-US	United States	vTvx Holdings II LLC	13/128,045	8,927,549
3006.204-ZA	South Africa	vTvx Holdings II LLC	2011/04551	2011/04551
3006.205-EP	Europe	vTvx Holdings II LLC	9828106.6	
3006.214-SG	Singapore	vTvx Holdings II LLC	201308611-1	
3015.200-US	United States	vTvx Holdings II LLC	13/189,640	8,513,430
6620.504-US	United States	vTvx Holdings II LLC	11/254,125	7,501,405
7533.204-US	United States	vTvx Holdings II LLC	12/528,227	8,334,305
7534.204-AU	Australia	vTvx Holdings II LLC	2008219326	2008219326
7534.204-CA	Canada	vTvx Holdings II LLC	2675669	2,675,669
7534.204-CN	China	vTvx Holdings II LLC	200880005896.5	
7534.204-IL	Israel	vTvx Holdings II LLC	199853	
7534.204-JP	Japan	vTvx Holdings II LLC	2009-550278	5243455
7534.204-KR	South Korea	vTvx Holdings II LLC	10-2009-7017160	10-1487813
7534.204-MX	Mexico	vTvx Holdings II LLC	MX/a/2009/008228	310901
7534.204-US	United States	vTvx Holdings II LLC	12/528,229	8,383,820
7534.204-ZA	South Africa	vTvx Holdings II LLC	2009/04916	2009/04916
7534.205-EA	Eurasia	vTvx Holdings II LLC	200970791	16951
7534.205-EP	Europe	vTvx Holdings II LLC	8709090.8	
7534.205-HK	Hong Kong	vTvx Holdings II LLC	10105670.4	
7534.214-US	United States	vTvx Holdings II LLC	13/739,408	8,809,540
7534.224-US	United States	vTvx Holdings II LLC	14/321,884	8,907,096
7545.204-CN	China	vTvx Holdings II LLC	200880019488.5	ZL200880019488.5
7545.204-US	United States	vTvx Holdings II LLC	12/597,129	8,383,683
7545.205-BE	Belgium	vTvx Holdings II LLC	8745501	2150109
7545.205-CH	Switzerland	vTvx Holdings II LLC	8745501	2150109
7545.205-DE	Germany	vTvx Holdings II LLC	8745501	2150109 (602008018859.0)
7545.205-EP	Europe	vTvx Holdings II LLC	8745501	2150109
7545.205-ES	Spain	vTvx Holdings II LLC	8745501	2150109 (2393230)
7545.205-FR	France	vTvx Holdings II LLC	8745501	2150109
7545.205-GB	United Kingdom	vTvx Holdings II LLC	8745501	2150109
7545.205-HK	Hong Kong	vTvx Holdings II LLC	10106495.5	HK1140377
7545.205-IE	Ireland	vTvx Holdings II LLC	8745501	2150109
7545.205-IT	Italy	vTvx Holdings II LLC	8745501	2150109 (52364 BE/2012)
3002.204-AU	Australia	vTvx Holdings II LLC	2006223070	2006223070
3002.204-CA	Canada	vTvx Holdings II LLC	2600570	2,600,570



File No.	Country	Owner	Application No.	Patent No.
3002.204-CN	China	vTvx Holdings II LLC	200680008417.6	ZL200680008417.6
3002.204-IL	Israel	vTvx Holdings II LLC	185541	185541
3002.204-MO	Macau	vTvx Holdings II LLC	J/000923	J/000923
3002.204-MX	Mexico	vTvx Holdings II LLC	MX/a/2007/011234	299183
3002.204-NZ	New Zealand	vTvx Holdings II LLC	561029	561029
3002.204-US	United States	vTvx Holdings II LLC	11/885,096	7,893,267
3002.205-AT	Austria	vTvx Holdings II LLC	6738139.2	1863771 (E582940)
3002.205-BE	Belgium	vTvx Holdings II LLC	6738139.2	1863771
3002.205-CH	Switzerland	vTvx Holdings II LLC	6738139.2	1863771
3002.205-DE	Germany	vTvx Holdings II LLC	6738139.2	1863771 (602006032907.5)
3002.205-EP	Europe	vTvx Holdings II LLC	6738139.2	1863771
3002.205-ES	Spain	vTvx Holdings II LLC	6738139.2	1863771 (2400287)
3002.205-FR	France	vTvx Holdings II LLC	6738139.2	1863771
3002.205-GB	United Kingdom	vTvx Holdings II LLC	6738139.2	1863771
3002.205-HK	Hong Kong	vTvx Holdings II LLC	8105884	
3002.205-IE	Ireland	vTvx Holdings II LLC	6738139.2	1863771
3002.205-IT	Italy	vTvx Holdings II LLC	6738139.2	1863771 (47770 BE/2013)
3002.214-US	United States	vTvx Holdings II LLC	12/950,718	8,598,353
3002.214-ZA	South Africa	vTvx Holdings II LLC	2009/03300	2009/03300
3002.224-US	United States	vTvx Holdings II LLC	14/064,737	8,946,259
3011.204-US	United States	vTvx Holdings II LLC	13/214,434	8,350,039
3013.200-US	United States	vTvx Holdings II LLC	13/052,544	8,450,354
3001.200-US	United States	vTvx Holdings II LLC	11/255,000	7,582,673
5390.200-US	United States	vTvx Holdings II LLC	09/548,081	6,908,926
6327.205-EP	Europe	vTvx Holdings II LLC	2742851.5	1421071
6446.204-MX	Mexico	vTvx Holdings II LLC	PA/a/2004/007416	251269
6483.200-US	United States	vTvx Holdings II LLC	10/453,106	6,906,060
6739.204-AU	Australia	vTvx Holdings II LLC	2004259263	2004259263
6739.204-CA	Canada	vTvx Holdings II LLC	2532236	2,532,236
6739.204-CN	China	vTvx Holdings II LLC	200480021891.3	ZL200480021891.3
6739.204-MX	Mexico	vTvx Holdings II LLC	PA/a/2006/001053	257494
6739.204-US	United States	vTvx Holdings II LLC	11/334,207	7,294,626
6739.205-BE	Belgium	vTvx Holdings II LLC	4738980.4	1651615
6739.205-CH	Switzerland	vTvx Holdings II LLC	4738980.4	1651615
6739.205-DE	Germany	vTvx Holdings II LLC	4738980.4	1651615 (602004026068.1)
6739.205-EP	Europe	vTvx Holdings II LLC	4738980.4	1651615
6739.205-ES	Spain	vTvx Holdings II LLC	4738980.4	1651615 (2342605)
6739.205-FR	France	vTvx Holdings II LLC	4738980.4	1651615

File No.	Country	Owner	Application No.	Patent No.
6739.205-GB	United Kingdom	vTvx Holdings II LLC	4738980.4	1651615
6739.205-IE	Ireland	vTvx Holdings II LLC	4738980.4	1651615
6739.205-IT	Italy	vTvx Holdings II LLC	4738980.4	1651615 (24463 BE/2010)
7213.204-AU	Australia	vTvx Holdings II LLC	2006264966	2006264966
7213.204-CA	Canada	vTvx Holdings II LLC	2614116	
7213.204-JP	Japan	vTvx Holdings II LLC	2008-519917	5121707
7213.204-KR	South Korea	vTvx Holdings II LLC	10-2008-7000240	10-1286569
7213.204-MX	Mexico	vTvx Holdings II LLC	MX/a/2007/015675	295147
7213.204-RU	Russia	vTvx Holdings II LLC	2007147044	2442775
7213.204-US	United States	vTvx Holdings II LLC	11/917,823	8,501,739
7213.214-RU	Russia	vTvx Holdings II LLC	2011142654	2499795
7213.214-US	United States	vTvx Holdings II LLC	13/472,090	8,846,677
7213.215-CH	Switzerland	vTvx Holdings II LLC	10166493.6	2233470
7213.215-DE	Germany	vTvx Holdings II LLC	10166493.6	2233470 (602006026313.9)
7213.215-EP	Europe	vTvx Holdings II LLC	10166493.6	2233470
7213.215-ES	Spain	vTvx Holdings II LLC	10166493.6	2233470 (2375929)
7213.215-FR	France	vTvx Holdings II LLC	10166493.6	2233470
7213.215-GB	United Kingdom	vTvx Holdings II LLC	10166493.6	2233470
7213.215-IE	Ireland	vTvx Holdings II LLC	10166493.6	2233470
7213.215-IT	Italy	vTvx Holdings II LLC	10166493.6	2233470 (19699 BE/2012)
7397.204-AU	Australia	vTvx Holdings II LLC	2007229492	2007229492
7397.204-CN	China	vTvx Holdings II LLC	200780010971.2	ZL200780010971.2
7397.204-KR	South Korea	vTvx Holdings II LLC	10-2008-7023919	10-1280333
7397.204-MO	Macau	vTvx Holdings II LLC	J/000709	J/000709
7397.204-MX	Mexico	vTvx Holdings II LLC	MX/a/2008/011123	288665
7397.204-NZ	New Zealand	vTvx Holdings II LLC	570524	570524
7397.204-US	United States	vTvx Holdings II LLC	12/294,756	8,394,842
7397.204-ZA	South Africa	vTvx Holdings II LLC	2008/06985	2008/06985
7397.205-BE	Belgium	vTvx Holdings II LLC	7727226.8	1999120
7397.205-CH	Switzerland	vTvx Holdings II LLC	7727226.8	1999120
7397.205-DE	Germany	vTvx Holdings II LLC	7727226.8	1999120 (602007023602.9)
7397.205-EA	Eurasia	vTvx Holdings II LLC	200870376	15569
7397.205-EP	Europe	vTvx Holdings II LLC	7727226.8	1999120
7397.205-ES	Spain	vTvx Holdings II LLC	7727226.8	1999120
7397.205-FR	France	vTvx Holdings II LLC	7727226.8	1999120
7397.205-GB	United Kingdom	vTvx Holdings II LLC	7727226.8	1999120
7397.205-HK	Hong Kong	vTvx Holdings II LLC	9107300.1	HK1129102

File No.	Country	Owner	Application No.	Patent No.
7397.205-IE	Ireland	vTvx Holdings II LLC	7727226.8	1999120
7397.205-IT	Italy	vTvx Holdings II LLC	7727226.8	1999120 (28597 BE/2012)
7397.214-US	United States	vTvx Holdings II LLC	13/660,045	8,772,285
7435.204-US	United States	vTvx Holdings II LLC	12/301,919	8,318,927
7461.204-AU	Australia	vTvx Holdings II LLC	2007267197	2007267197
7461.204-CA	Canada	vTvx Holdings II LLC	2659570	
7461.204-EA	Eurasia	vTvx Holdings II LLC	200870586	16026
7461.204-IL	Israel	vTvx Holdings II LLC	194681	194681
7461.204-JP	Japan	vTvx Holdings II LLC	2009-512547	5694661
7461.204-MX	Mexico	vTvx Holdings II LLC	MX/a/2008/014766	297339
7461.204-NZ	New Zealand	vTvx Holdings II LLC	571972	571972
7461.204-US	United States	vTvx Holdings II LLC	12/302,132	8,378,097
7461.204-ZA	South Africa	vTvx Holdings II LLC	2008/08730	2008/08730
7461.205-AL	Albania	vTvx Holdings II LLC	7729379.3	2079732
7461.205-AT	Austria	vTvx Holdings II LLC	7729379.3	2079732 (E538116)
7461.205-BA	Bosnia & Herzegovina	vTvx Holdings II LLC	7729379.3	2079732
7461.205-BE	Belgium	vTvx Holdings II LLC	7729379.3	2079732
7461.205-BG	Bulgaria	vTvx Holdings II LLC	7729379.3	2079732 (BG/EP2079732T3)
7461.205-CH	Switzerland	vTvx Holdings II LLC	7729379.3	2079732
7461.205-CY	Cyprus	vTvx Holdings II LLC	7729379.3	2079732 (CY1112455)
7461.205-CZ	Czech Republic	vTvx Holdings II LLC	7729379.3	2079732
7461.205-DE	Germany	vTvx Holdings II LLC	7729379.3	2079732 (602007019505.5)
7461.205-DK	Denmark	vTvx Holdings II LLC	7729379.3	2079732 (DK/EP2079732)
7461.205-EE	Estonia	vTvx Holdings II LLC	7729379.3	2079732
7461.205-EP	Europe	vTvx Holdings II LLC	7729379.3	2079732
7461.205-ES	Spain	vTvx Holdings II LLC	7729379.3	2079732
7461.205-FI	Finland	vTvx Holdings II LLC	7729379.3	2079732
7461.205-FR	France	vTvx Holdings II LLC	7729379.3	2079732
7461.205-GB	United Kingdom	vTvx Holdings II LLC	7729379.3	2079732
7461.205-GR	Greece	vTvx Holdings II LLC	7729379.3	2079732 (3077337)
7461.205-HR	Croatia	vTvx Holdings II LLC	7729379.3	2079732 (P20120227)
7461.205-HU	Hungary	vTvx Holdings II LLC	7729379.3	2079732 (E012931)
7461.205-IE	Ireland	vTvx Holdings II LLC	7729379.3	2079732
7461.205-IS	Iceland	vTvx Holdings II LLC	7729379.3	2079732
7461.205-IT	Italy	vTvx Holdings II LLC	7729379.3	2079732 (21629 BE/2012)
7461.205-LT	Lithuania	vTvx Holdings II LLC	7729379.3	2079732
7461.205-LU	Luxembourg	vTvx Holdings II LLC	7729379.3	2079732

File No.	Country	Owner	Application No.	Patent No.
7461.205-LV	Latvia	vTvx Holdings II LLC	7729379.3	2079732
7461.205-MC	Monaco	vTvx Holdings II LLC	7729379.3	2079732
7461.205-ME	Montenegro	vTvx Holdings II LLC	7729379.3	1302
7461.205-MK	Macedonia	vTvx Holdings II LLC	7729379.3	2079732 (P-403/11)
7461.205-MT	Malta	vTvx Holdings II LLC	7729379.3	2079732
7461.205-NL	Netherlands	vTvx Holdings II LLC	7729379.3	2079732
7461.205-PL	Poland	vTvx Holdings II LLC	7729379.3	2079732
7461.205-PT	Portugal	vTvx Holdings II LLC	7729379.3	2079732
7461.205-RO	Romania	vTvx Holdings II LLC	7729379.3	2079732
7461.205-RS	Serbia	vTvx Holdings II LLC	7729379.3	2079732 (P-78/12)
7461.205-SE	Sweden	vTvx Holdings II LLC	7729379.3	2079732
7461.205-SI	Slovenia	vTvx Holdings II LLC	7729379.3	2079732
7461.205-SK	Slovakia	vTvx Holdings II LLC	7729379.3	2079732 (E11259 T3)
7461.205-TR	Turkey	vTvx Holdings II LLC	7729379.3	2079732 (TR201201949T4)
7461.214-SG	Singapore	vTvx Holdings II LLC	201004699-3	163547 [WO 2007/137968]
7660.204-US	United States	vTvx Holdings II LLC	12/663,103	8,344,001

**License Agreements and other Contracts Transferred from vTvx Holdings II LLC:**

- License and Research Agreement, dated as of March 5, 2015, by and among Calithera Biosciences Inc., vTvx I Holdings LLC, and vTvx II Holdings LLC.
- All other valid and ongoing licenses, contracts and other agreements entered into by vTvx Holdings II LLC, but excluding the agreements set forth or referenced in the Excluded Assets section below.

**Transferred Employee Assets of vTvx Holdings II LLC:**

[None.]

**Know-How Transferred from both vTvx Holdings I LLC and vTvx Holdings II LLC:**

All know-how associated with any of the foregoing transferred intellectual and other property, including all programs and the “Translational Technology”, including without limitation the following programs:

- RAGE (TTP488) program
- GK (TTP399) program
- GLP (TTP273) program
- PPAR (HPP593) program
- BACH1 (HPP971) program

- HK2 program
  - RAGE (TTP4000) program
  - PDE4 program
  - 11beta program
  - BACE program
  - GalR1 program
  - H3 program
-

EXCLUDED ASSETS

**List of vTvx Holdings I LLC assets that are NOT being assigned or transferred:**

For the avoidance of doubt, the following assets are excluded from assignment or transfer by vTvx Holdings I LLC:

Category	Items
Commercial Lease	Commercial Lease for 4160 Mendenhall Oaks Pkwy Building
Real Property	Lot 6 – 4130 Mendenhall Oaks Pkwy, High Point, NC (3.322 acres) Lot 8 – 4150 Mendenhall Oaks Pkwy, High Point, NC (3.060 acres) Lot 11-A – 4165 Mendenhall Oaks Pkwy, High Point, NC (10.346 acres)
Financial	1) Note receivable from Former Officer plus any accrued interest 2) Note receivable from PharmaCore, Inc. plus any accrued interest 3) Restricted cash to secure letter of credit for 4160 Mendenhall Oaks lease 4) Benefits and obligations described in the Letter Agreement with Former Officer dated December 31, 2014, including, but not limited to, cash payments and perpetual securities. 5) Note payable to M&F TTP Holdings LLC (“Uncommitted Advance Agreement”) plus any accrued interest 6) Note payable to High Point Bank plus any accrued interest 7) Accounts payable invoices to PharmaCore, Inc. prior to January 1, 2015
Domain Names	TRANSTECHPHARMA.BIZ TRANSTECHPHARMA.COM TRANSTECHPHARMA.INFO TRANSTECHPHARMA.NET TRANSTECHPHARMA.ORG TRANSTECHPHARMA.US TRANSTECHPHARMA.XXX TTPHARMA.BIZ TT-PHARMA.BIZ TTPHARMA.COM TTPHARMA.INFO TT-PHARMA.INFO TTPHARMA.NET TT-PHARMA.NET TTPHARMA.ORG TT-PHARMA.ORG TTPHARMA.US TT-PHARMA.US

Trademarks	Trademark	Application No.
	TRANSTECH PHARMA	76/406,577
	TRANSTECH PHARMA & DESIGN	76/406,579
	AT THE FRONTIER OF TRANSLATING INNOVATIVE SCIENCE INTO MEDICINE	76/404,964
	VTV THERAPEUTICS (Class 5)	86/594,084
	VTV THERAPEUTICS (Class 42)	86/594,096
	VTV THERAPEUTICS (Class 44)	86/594,102

**List of vTvx Holdings II LLC assets that are NOT being assigned or transferred:**

For the avoidance of doubt, the following assets are excluded from assignment or transfer by vTvx Holdings II LLC:

Category	Items
Financial	<ol style="list-style-type: none"> <li>1) Benefits and obligations described in the Letter Agreement with Former Officer dated December 31, 2014, including, but not limited to, cash payments and perpetual securities.</li> <li>2) Note payable to M&amp;F TTP Holdings LLC (“Uncommitted Advance Agreement”) plus any accrued interest</li> <li>3) Accounts payable invoices to PharmaCore, Inc. prior to January 1, 2015</li> </ol>
Domain Names	HIGHPOINTPHARMACUTICALS.COM HPPHARMA.COM HPPHARMACEUTICAL.COM HIGHPOINTPHARMA.BIZ HIGHPOINTPHARMA.COM HIGHPOINTPHARMA.INFO HIGHPOINTPHARMA.NET HIGHPOINTPHARMA.ORG HIGHPOINTPHARMA.US HIGHPOINTPHARMACEUTICAL.COM HIGHPOINTPHARMACEUTICALS.BIZ HIGHPOINTPHARMACEUTICALS.COM HIGHPOINTPHARMACEUTICALS.NET HPPHARMACEUTICALS.COM

**INVESTOR RIGHTS AGREEMENT**

**dated as of**

**[\_\_\_\_\_], 2015**

**among**

**VTV THERAPEUTICS INC.**

**and**

**VTV THERAPEUTICS HOLDINGS LLC**

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## INVESTOR RIGHTS AGREEMENT

THIS INVESTOR RIGHTS AGREEMENT dated as of [\_\_\_\_], 2015 (this “**Agreement**”) among (i) vTv Therapeutics Inc., a Delaware corporation (the “**Company**”), (ii) vTv Therapeutics Holdings LLC, a Delaware limited liability company (“**Holdings**”), and (iii) other stockholders party hereto from time to time.

### WITNESSETH:

WHEREAS, in connection with the initial public offering of the Company and the related reorganization transactions, Holdings has received [\_\_\_\_] shares of Class B common stock, par value \$0.01, of the Company; and

WHEREAS, the parties hereto are entering into this Agreement to provide (i) certain registration rights under the Securities Act and applicable state securities laws to each Stockholder (as defined below) with respect to Registrable Securities (as defined below) each may hold and (ii) certain governance rights to Holdings.

NOW, THEREFORE, in consideration of the covenants and agreements contained herein, the parties hereto agree as follows:

#### ARTICLE 1 DEFINITIONS

Section 1.01. *Definitions.* (a) As used herein, the following terms have the following meanings:

“**Affiliate**” means, with respect to any Person, any other Person directly or indirectly controlling, controlled by or under common control with such Person; *provided* that no securityholder of the Company shall be deemed an Affiliate of any other securityholder solely by reason of any investment in the Company. For the purpose of this definition, the term “**control**” (including, with correlative meanings, the terms “**controlling**”, “**controlled by**” and “**under common control with**”), as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise.

“**Applicable Governance Rules**” means applicable federal and state securities laws and the rules of NASDAQ relating to the Board and the corporate governance of the Company, including, without limitation, Rule 10A-3 of the Exchange Act and Rule 5600 of the NASDAQ Stock Market Rules, in each case, subject to applicable phase-in periods.

“**Automatic Shelf Registration Statement**” means an “automatic shelf registration statement” as defined in Rule 405 promulgated under the Securities Act.

“**beneficial ownership**” and “**beneficially own**” and similar terms have the meaning set forth in Rule 13d-3 under the Exchange Act.

“**Board**” means the board of directors of the Company.

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“**Business Day**” means any day except a Saturday, Sunday or other day on which commercial banks in New York City are authorized by law to close.

“**By-laws**” means the Amended and Restated By-laws of the Company, as the same may be amended, supplemented and or restated from time to time.

“**Certificate of Incorporation**” means the Amended and Restated Certificate of Incorporation of the Company, as the same may be amended, modified or restated from time to time.

“**Charter**” means the Amended and Restated Certificate of Incorporation of the Company, as the same may be amended, supplemented and/or restated from time to time.

“**Class A Common Stock**” means the Class A common stock, par value \$0.01 per share, of the Company.

“**Class B Common Stock**” means the Class B common stock, par value \$0.01 per share, of the Company.

“**Company Securities**” means (i) the Class A Common Stock, (ii) any securities of the Company or any successor or assign of the Company into which such Class A Common Stock is reclassified or reconstituted or into which such Class A Common Stock is converted or otherwise exchanged in connection with a split or combination of shares, recapitalization, merger, sale of assets, consolidation or other reorganization or otherwise or (iii) any securities received as a dividend or a distribution in respect of the securities described in clauses (i) or (ii) above.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations of the SEC thereunder.

“**Exchange Agreement**” means the Exchange Agreement, dated as of the date hereof, by and among the Company, vTv Therapeutics LLC, Holdings and any other Person that becomes a “Holder” thereunder.

“**Exchange Securities**” means, together, the Nonvoting Common Units of vTv Therapeutics LLC and shares of Class B Common Stock.

“**FINRA**” means the Financial Industry Regulatory Authority.

“**Free Writing Prospectus**” means any “free writing prospectus” as defined in Rule 405 promulgated under the Securities Act relating to the Registrable Securities included in the applicable Registration Statement.

“**Hedging Counterparty**” means a broker-dealer registered under Section 15(b) of the Exchange Act or an Affiliate thereof.

“**Hedging Transaction**” means any transaction involving a security linked to the Registrable Class Securities or any security that would be deemed to be a “derivative security” (as defined in Rule 16a-1(c) promulgated under the Exchange Act) with respect to the Registrable Class Securities or transaction (even if not a security) which would (were it a security) be considered such a derivative security, or which transfers some or all of the economic risk of ownership of the Registrable Class Securities, including any forward contract, equity swap, put or call, put or call equivalent position, collar, non-recourse loan, sale of exchangeable security or similar transaction. For the avoidance of doubt, the following transactions shall be deemed to be Hedging Transactions:

(i) transactions by a Stockholder in which a Hedging Counterparty engages in short sales of Registrable Class Securities pursuant to a prospectus and may use Registrable Securities to close out its short position;

(ii) transactions pursuant to which a Stockholder sells short Registrable Class Securities pursuant to a prospectus and delivers Registrable Securities to close out its short position;

(iii) transactions by a Stockholder in which the Stockholder delivers, in a transaction exempt from registration under the Securities Act, Registrable Securities to the Hedging Counterparty who will then publicly resell or otherwise transfer such Registrable Securities pursuant to a prospectus or an exemption from registration under the Securities Act; and

(iv) a loan or pledge of Registrable Securities to a Hedging Counterparty who may then become a selling stockholder and sell the loaned shares or, in an event of default in the case of a pledge, sell the pledged shares, in each case, in a public transaction pursuant to a prospectus.

**“Independent Director”** means a director who qualifies as an “independent director” of the Company under the NASDAQ Stock Market Rules.

**“Initial Public Offering”** means the initial underwritten public offering of the Class A Common Stock of the Company on [\_\_\_\_\_], 2015.

**“MacAndrews Party”** means each of Holdings, MacAndrews & Forbes Incorporated and M&F TTP Holdings LLC and each of their respective Affiliates (other than the Company and its Subsidiaries).

**“MacAndrews Stockholder”** means each MacAndrews Party that is a Stockholder.

**“Person”** means an individual, corporation, partnership, limited liability company, association, trust or other entity or organization, including a government or political subdivision or an agency or instrumentality thereof, and shall include any successor (by merger or otherwise) thereto.

**“Public Offering”** means an underwritten public offering of Registrable Securities (or in the case of the Company, Company Securities) pursuant to an effective registration statement under the Securities Act, other than pursuant to a registration statement on Form S-4 or Form S-8 or any similar or successor form under the Securities Act.

**“Registering Stockholder”** means, with respect to any Registration Statement, each Stockholder whose Registrable Securities are or are to be registered pursuant to such Registration Statement.

**“Registrable Class Securities”** means the Registrable Securities and any other securities of the Company that are of the same class as the relevant Registrable Securities.

**“Registrable Securities”** means, at any time, any Company Securities beneficially owned (whether beneficially owned as of the date hereof or hereinafter beneficially owned) by a Stockholder until (i) a registration statement covering such securities has been declared effective by the SEC and such securities have been disposed of pursuant to such effective registration statement, (ii) such securities are sold pursuant to Rule 144 (or any similar provisions then in force) under the Securities Act, (iii) such securities are otherwise transferred, assigned, sold, conveyed or otherwise disposed of and thereafter such securities may be resold without subsequent registration under the Securities Act or (iv) with respect to any such securities held by any single Stockholder (or group of Stockholders that are aggregated for purposes of Rule 144), all of such securities held by any Stockholder or group of Stockholders are able to be sold in a single transaction pursuant to Rule 144 (or any similar provisions then in force) and such securities of such Stockholder (or group of Stockholder) represent no more than 2.5% of the relevant class of Company Securities. Upon written request to the Company, Holdings may, from time to time, designate as additional Registrable Securities an aggregate of up to [\_\_\_\_\_] shares (which number shall be subject to adjustment to take account of any splits, combinations, share dividends or other similar transactions affecting the Company Securities) of Company Securities that have been issued or are issuable upon exchange of Exchange Securities that are beneficially owned by parties other than Stockholders. For the avoidance of doubt, in connection with any designation pursuant to the preceding sentence, parties other than Stockholders will not have any rights, benefits, remedies, obligations, or liabilities under this Agreement.

**“Registration Expenses”** means any and all expenses incident to the performance of or compliance with any registration or marketing of Registrable Securities, regardless of whether such Registration Statement is declared effective, including all (i) registration and filing fees, and all other fees and expenses payable in connection with the listing of securities on any securities exchange or automated interdealer quotation system, (ii) fees and expenses incurred in complying with any securities or “blue sky” laws (including reasonable fees and disbursements of counsel in connection with “blue sky” qualifications of the Registrable Securities as may be set forth in any underwriting agreement), (iii) expenses in connection with the preparation, printing, mailing and delivery of any registration statements, prospectuses and other documents in connection therewith and any amendments or supplements thereto, (iv) security engraving and printing expenses, (v) internal expenses of the Company (including all salaries and expenses of its officers and employees performing legal or accounting duties), (vi) reasonable fees and disbursements of counsel for the Company and customary fees and expenses for independent certified public accountants retained by the Company (including the expenses relating to any comfort letters or costs associated with the delivery by independent certified public accountants of any “comfort” letters requested pursuant to Section 2.04(h) or any special audits incidental to or required by any registration or qualification), (vii) reasonable fees and expenses of any special experts retained by the Company in connection with such registration, (viii) reasonable fees, out-of-pocket costs and expenses of one firm of counsel selected by the holder(s) of a majority of the Registrable Securities covered by each Registration Statement (the **“Holders’ Counsel”**), (ix) fees and expenses in connection with any review by the FINRA of the underwriting arrangements or other terms of the offering, and all fees and expenses of any qualified independent underwriter, including the reasonable fees and expenses of any counsel thereto, (x) fees and disbursements of underwriters customarily paid by issuers or sellers of securities, but excluding any underwriting fees, discounts and commissions attributable to the sale of Registrable Securities, (xi) costs of printing and producing any agreements among underwriters, underwriting agreements, any “blue sky” or legal investment memoranda and any selling agreements and other documents in connection with the offering, sale or delivery of the Registrable Securities, (xii) transfer agents’ and registrars’ fees and expenses and the fees and expenses of any other agent or trustee appointed in connection with such offering, (xiii) expenses relating to any analyst or investor presentations or any “road shows” undertaken in connection with the registration, marketing or selling of the Registrable Securities, (xiv) fees and expenses payable in connection with any ratings of the Registrable Securities, including expenses relating to any presentations to rating agencies, (xv) all out-of-pocket costs and expenses incurred by the Company or its appropriate officers in connection with their compliance with Section 2.04(m) and (xvi) any liability insurance or other premiums for insurance obtained in connection with any Demand Registration, Piggyback Registration or Shelf Registration pursuant to the terms of this Agreement.

**“Registration Statement”** means any registration statement of the Company under the Securities Act that covers any of the Registrable Securities pursuant to the provisions of this Agreement.

**“Requesting Stockholder”** means, with respect to any Demand Registration or Shelf Registration, any Stockholder holding any Registrable Securities initially making the request for such Demand Registration or Shelf Registration.

**“Rule 144”** means Rule 144 promulgated under the Securities Act.

**“SEC”** means the U.S. Securities and Exchange Commission or any successor governmental agency.

**“Securities Act”** means the Securities Act of 1933, as amended, and the rules and regulations of the SEC promulgated thereunder.

**“Shares”** means shares of Common Stock.

**“Shelf Registered Securities”** means any Registrable Securities whose offer and sale is registered pursuant to a Registration Statement filed in connection with a Shelf Registration (including an Automatic Shelf Registration Statement).

**“Specified Period”** means 90 days; *provided* that such period may be extended as may be reasonably requested by the managing or co-managing underwriter of a registered offering required hereunder to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in the FINRA rules or any successor provisions or amendments thereto.

**“Stockholder”** means at any time, (i) each MacAndrews Party beneficially owning Company Securities or Exchange Securities and (ii) any Person (other than the Company) who shall be a party to or bound by this Agreement (including any permitted transferee or assignee of a MacAndrews Party) pursuant to Section 2.12, so long as such Person shall beneficially own any Company Securities.

**“Subsidiary”** means, with respect to any Person, any entity of which securities or other ownership interests having ordinary voting power to elect a majority of the board of directors or other persons performing similar functions at the time are directly or indirectly owned by such Person.

(b) Each of the following terms is defined in the Section set forth opposite such term:

<b><u>Term</u></b>	<b><u>Section</u></b>
Alternative Transaction	2.02(d)
Audit Committee Independent Director	3.01(a)(ii)
Committees	3.01(c)
Company	Preamble
Damages	2.05
Demand Registration	2.01(a)
Determination Date	2.02(f)
Holdings	Preamble
Holdings Nominee	3.01(a)(i)
Holdings' Counsel	1.01(a), Definition of "Registration Expenses"
Indemnified Party	2.07
Indemnifying Party	2.07
Independent Director	3.01(c)(ii)
Inspectors	2.04(g)
Issuer Free Writing Prospectus	2.14
Maximum Offering Size	2.01(e)
Piggyback Registration	2.02(h)(i)
Records	2.04(g)
Registration Actions	2.01(f)
Requested Shelf Registered Securities	2.02(b)
Shelf Public Offering	2.02(b)
Shelf Public Offering Notice	2.02(b)
Shelf Public Offering Request	2.02(b)
Shelf Public Offering Requesting Stockholder	2.02(b)
Shelf Registration	2.02(a)
Stockholder Parties	2.05
Suspension Notice	2.01(f)
Suspension Period	2.01(f)
Well-Known Seasoned Issuer	2.02(f)



Section 1.02. *Other Definitional and Interpretative Provisions.* The words “hereof”, “herein” and “hereunder” and words of like import used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The captions herein are included for convenience of reference only and shall be ignored in the construction or interpretation hereof. References to Articles, Sections, Exhibits and Schedules are to Articles, Sections, Exhibits and Schedules of this Agreement unless otherwise specified. All Exhibits and Schedules annexed hereto or referred to herein are hereby incorporated in and made a part of this Agreement as if set forth in full herein. Any capitalized terms used in any Exhibit or Schedule but not otherwise defined therein, shall have the meaning as defined in this Agreement. Any singular term in this Agreement shall be deemed to include the plural, and any plural term the singular. Whenever the words “include”, “includes” or “including” are used in this Agreement, they shall be deemed to be followed by the words “without limitation”, whether or not they are in fact followed by those words or words of like import. “Writing”, “written” and comparable terms refer to printing, typing and other means of reproducing words (including electronic media) in a visible form. References to any Person include the successors and permitted assigns of that Person. References from or through any date mean, unless otherwise specified, from and including or through and including, respectively. References to laws, rules, regulations and forms shall be deemed to be references to such laws, rules, regulations and forms as amended, succeeded or replaced.

ARTICLE 2  
REGISTRATION RIGHTS

Section 2.01. *Demand Registration.* (a) At any time following the Initial Public Offering, any Stockholder may give a written request to the Company to effect the registration under the Securities Act (other than pursuant to a registration statement on Form S-4 or S-8 or any similar or successor form under the Securities Act) of all or any portion of such Requesting Stockholder’s Registrable Securities, which written request shall specify the number of Registrable Securities to be registered and the intended method of disposition thereof. Such registration may be for the offering of the Stockholder’s Registrable Securities on a delayed or continuous basis under Rule 415 under the Securities Act. At any time the Company is eligible for use of Form S-3ASR, such registration shall occur on such form. Upon the receipt of such written request, the Company shall promptly give notice (via facsimile or electronic transmission) of such requested registration (each such registration shall be referred to herein as a “**Demand Registration**”) at least 10 Business Days prior to the anticipated filing date of the Registration Statement relating to such Demand Registration to any other Stockholders. Thereafter, the Company shall use its commercially reasonable efforts to effect, as soon as possible, the registration under the Securities Act of:

- (i) all Registrable Securities for which the Requesting Stockholder has requested registration under this Section 2.01;
- (ii) all other Registrable Securities of the same class or series as those requested to be registered by the Requesting Stockholder that any other Stockholder have requested the Company to register by request received by the Company within 10 Business Days after such Stockholders receive the Company’s notice of the Demand Registration; and

(iii) any Company Securities to be offered or sold by the Company;

all to the extent necessary to permit the disposition (in accordance with the intended methods thereof as described in the Requesting Stockholder's written request) of the Registrable Securities so to be registered; *provided* that, subject to Section 2.01(d), the Company shall not be obligated to effect (1) any such Demand Registration (i) within the Specified Period after the effective date of any other registration statement of the Company in connection with which Stockholders were given Piggyback Registration rights (other than a registration statement filed in connection with an employee benefit plan or business combination transaction or a registration statement on Form S-4 or S-8) or (ii) in accordance with Section 2.01(f), (2) any Demand Registration if the aggregate proceeds expected to be received from the sale of the Registrable Securities requested to be included in such Demand Registration is less than \$25,000,000 (other than with respect to the registration of the exchange of the Exchange Securities for shares of Class A Common Stock pursuant to the Exchange Agreement) or (3) any Demand Registration requested by a Stockholder other than the MacAndrews Stockholders if the Company has completed three Demand Registrations after the date hereof as a result of requests by Stockholders other than MacAndrews Stockholders pursuant to this Section 2.01(a). A Requesting Stockholder may require any Demand Registration that involves a Public Offering of at least \$25,000,000 to be conducted as an underwritten offering. Notwithstanding the foregoing, a Requesting Stockholder may request that a Demand Registration take the form of a primary offering by the Company of Class A Common Stock, whose net proceeds shall be used by the Company, pursuant to the Exchange Agreement, to pay cash in exchange for the Exchange Securities that underlie the Registrable Securities proposed to be registered pursuant to such Demand Registration, in which case, (i) the Demand Registration shall cover the primary sale of the number of shares of Class A Common Stock requested by the Requesting Stockholder, (ii) the Requesting Holder shall exercise its right, pursuant to Section 2.02 of the Exchange Agreement, to exchange the number of Exchange Securities that is equal to the number of shares of Class A Common Stock sold in such Public Offering, contingent on (among other things) the closing of such Public Offering and receipt by the Company of net proceeds therefrom, (iii) upon receipt of the net proceeds from such Public Offering, the Company shall elect, pursuant to Section 2.01 of the Exchange Agreement, to exchange such net proceeds for the number of Exchange Securities equal to the number of shares of Class A Common Stock sold pursuant to such Public Offering and (iv) except where the context otherwise requires, references to "Registrable Securities" with respect to such Demand Registration shall be to such shares of Class A Common Stock requested to be offered in such Public Offering. In addition, to the extent requested by a Stockholder and agreed by the MacAndrews Stockholders, such Stockholder may request that the Demand Registration cover the exchange of the Exchange Securities for shares of Class A Common Stock pursuant to the Exchange Agreement instead of the resale of the Registrable Securities.

(b) Promptly after the expiration of the 10 Business Day period referred to in Section 2.01(a)(ii), the Company will notify all Registering Stockholders of the identities of the other Registering Stockholders and the number of shares of Registrable Securities requested to be included in the Demand Registration. At any time prior to the effective date of the Registration Statement relating to such Demand Registration, the Requesting Stockholder may upon notice to the Company, revoke such request in whole or in part with respect to the number of shares of Registrable Securities requested to be included in such Registration Statement, without liability to any of the other Registering Stockholders.

(c) The Company shall be liable for and pay all Registration Expenses in connection with any Demand Registration, regardless of whether such Demand Registration becomes effective.

(d) A Demand Registration shall not be deemed to have occurred or have been completed for purposes of Section 2.01(a):

(i) unless the Registration Statement relating thereto (A) has become effective under the Securities Act and (B) has remained continuously effective for a period of at least (x) 180 days (or such shorter period in which all Registrable Securities of the Registering Stockholders included in such registration have actually been sold thereunder) or (y) with respect to a Shelf Registration, until the date set forth in Section 2.04(a); *provided* that such Registration Statement shall not be considered a Demand Registration if, after such Registration Statement becomes effective, (1) such Registration Statement is interfered with by any stop order, injunction or other order or requirement of the SEC or other governmental agency or court and (2) less than 75% of the Registrable Securities included in such Registration Statement have been sold thereunder; or

(ii) if the Maximum Offering Size is reduced in accordance with Section 2.01(e) such that less than 66 <sup>2</sup>/<sub>3</sub>% of the Registrable Securities of the Requesting Stockholder sought to be included in such registration are included.

(e) If a Demand Registration involves a Public Offering and the lead managing underwriter advises the Company and the Requesting Stockholder that, in its view, the number of shares of Registrable Securities requested to be included in such registration (including any securities that the Company proposes to be included that are not Registrable Securities) exceeds the largest number of shares that can be sold without having a material and adverse effect on such offering, including the price at which such shares can be sold (the “**Maximum Offering Size**”), the Company shall include in such registration, in the priority listed below, up to the Maximum Offering Size:

(i) first, all Registrable Securities requested to be registered by the Requesting Stockholder and all other Registering Stockholders (allocated, if necessary for the offering not to exceed the Maximum Offering Size, to give first priority to the inclusion of the Registrable Securities of the Requesting Stockholder and, thereafter, pro rata among the remaining Registering Stockholders on the basis of the relative number of shares of Registrable Securities so requested to be included in such registration by each such Registering Stockholder);

(ii) second, any securities proposed to be registered by the Company; and

(iii) third, any securities proposed to be registered for the account of any other Persons, with such priorities among them as the Company shall determine.

(f) Notwithstanding anything to the contrary contained in this Agreement, but subject to the limitation set forth in the next succeeding paragraph, the Company shall be entitled to suspend its obligation to file (but not the preparation of) any Registration Statement in connection with a Demand Registration and any Shelf Registration, file any amendment to such a Registration Statement, furnish any supplement or amendment to a prospectus included in such a Registration Statement, make any other filing with the SEC, cause such a Registration Statement or other filing with the SEC to become or remain effective or take any similar action (collectively, “**Registration Actions**”) upon (i) the issuance by the SEC of a stop order suspending the effectiveness of any such Registration Statement or the initiation of proceedings with respect to such a Registration Statement under Section 8(d) or 8(e) of the Securities Act, (ii) the Board’s determination, in its good faith judgment, that any such Registration Action should not be taken because it would reasonably be expected to materially interfere with or require the public disclosure of any material corporate development or plan, including any material financing, securities offering, acquisition, disposition, corporate reorganization or merger or other transaction involving the Company or any of its Subsidiaries or (iii) the Company possessing material non-public information the disclosure of which the Board determines, in its good faith judgment, would reasonably be expected to not be in the best interests of the Company. Upon the occurrence of any of the conditions described in (i), (ii) or (iii) above, the Company shall give prompt notice of such suspension (and whether such action is being taken pursuant to (i), (ii) or (iii) above) (a “**Suspension Notice**”) to the Stockholders. Upon the termination of such condition, the Company shall give prompt notice thereof to the Stockholders and shall promptly proceed with all Registration Actions that were suspended pursuant to this paragraph.

The Company may only suspend Registration Actions pursuant to the preceding paragraph on two occasions during any one-year period for a reasonable time specified in the Suspension Notice but not exceeding an aggregate of 90 days (which period may not be extended or renewed) (each such occasion, a “**Suspension Period**”). Each Suspension Period shall be deemed to begin on the date the relevant Suspension Notice is given to the Stockholders and shall be deemed to end on the earlier to occur of (i) the date on which the Company gives the Stockholders a notice that the Suspension Period has terminated and (ii) the date on which the number of days during which a Suspension Period has been in effect exceeds the 90-day period. If the filing of any Demand Registration is suspended pursuant to this [Section 2.01\(f\)](#), once the Suspension Period ends the Requesting Stockholder may request a new Demand Registration. Notwithstanding anything to the contrary in this Agreement, the Company shall not be in breach of, or failed to comply with, any obligation under this Agreement where the Company acts or omits to take any action in order to comply with applicable law, any interpretation of the staff of the SEC or any order or decree of any court or governmental agency.

(g) The Company shall have no obligation to file a Registration Statement under this [Section 2.01](#) or [Section 2.02](#) or proceed with Registration Actions related thereto during any time such filing or Registration Actions are prohibited by any applicable underwriting or lock-up agreement to which the Company is a party relating to the Initial Public Offering or an offering pursuant to a Registration Statement.

Section 2.02. *Shelf and Piggyback Registration.* (a) At any time when (i) the Company is eligible for use of Form S-3 in connection with a secondary public offering of its equity securities and (ii) a Shelf Registration on a Form S-3 registering Registrable Securities for resale is not then effective (subject to any applicable Suspension Period), upon the written request of any Stockholder, the Company shall use its commercially reasonable efforts to register, under the Securities Act on Form S-3 for an offering on a delayed or continuous basis pursuant to Rule 415 promulgated under the Securities Act (a “**Shelf Registration**”), the offer and sale of all or a portion of the Registrable Securities owned by such Requesting Stockholder. Upon the receipt of such written request, the Company shall promptly give notice (via facsimile or electronic transmission) of such requested Shelf Registration at least 10 Business Days prior to the anticipated filing date of such Shelf Registration to the other Stockholders, and such notice shall describe the proposed Shelf Registration, the intended method of disposition of such Registrable Securities and any other information that at the time would be appropriate to include in such notice, and offer such Stockholders the opportunity to register the number of Registrable Securities as each such Stockholder may request in writing to the Company, given within 10 Business Days after such Stockholders receive the Company’s notice of the Shelf Registration. The “Plan of Distribution” section of such Shelf Registration shall permit all lawful means of disposition of Registrable Securities, including firm-commitment underwritten public offerings, block trades, agented transactions, sales directly into the market, purchases or sales by brokers and sales not involving a public offering. With respect to each Shelf Registration, the Company shall, subject to any Suspension Period, (i) as promptly as practicable after the written request of the Requesting Stockholder, file a Registration Statement and (ii) use its commercially reasonable efforts to cause such Registration Statement to be declared effective as promptly as practicable, and remain effective until the date set forth in Section 2.04(a)(ii). No Stockholder shall be entitled to include any of its Registrable Securities in a Shelf Registration unless such Stockholder has complied with Section 2.15. The Company shall not be required to amend a Shelf Registration (or the related prospectus) to add or change the disclosure regarding selling securityholders during any Suspension Period. The obligations set forth in this Section 2.02(a) shall not apply if the Company has a currently effective Automatic Shelf Registration Statement covering all Registrable Securities in accordance with Section 2.02(f) and has otherwise complied with its obligations pursuant to this Agreement.

(b) Upon written request by a Requesting Stockholder holding Shelf Registered Securities (such Stockholder, the “**Shelf Public Offering Requesting Stockholder**”), which request (the “**Shelf Public Offering Request**”) shall specify the class or series and amount of such Shelf Public Offering Requesting Stockholder’s Shelf Registered Securities to be sold (the “**Requested Shelf Registered Securities**”), the Company shall (subject to any Suspension Period) perform its obligations hereunder with respect to the sale of such Requested Shelf Registered Securities in the form of a firm commitment underwritten public offering (unless otherwise consented to by the Shelf Public Offering Requesting Stockholder) (a “**Shelf Public Offering**”) if the aggregate proceeds expected to be received from the sale of the Requested Shelf Registered Securities equals or exceeds \$25,000,000. Promptly upon receipt of a Shelf Public Offering Request, the Company shall provide notice (the “**Shelf Public Offering Notice**”) of such proposed Shelf Public Offering (which notice shall state the material terms of such proposed Shelf Public Offering, to the extent known, as well as the identity of the Shelf Public Offering Requesting Stockholder) to the other Stockholders holding Shelf Registered Securities. Such other Stockholders may, by written request to the Company and the Shelf Public Offering Requesting Stockholder, within two Business Days after receipt of such Shelf Public Offering Notice, include up to all of their Shelf Registered Securities of the same class or series as the Requested Shelf Registered Securities in such proposed Shelf Public Offering; provided, that any such Shelf Registered Securities shall be sold subject to the same terms as are applicable to the Shelf Registered Securities of the Shelf Public Offering Requesting Stockholder. No Stockholder shall be entitled to include any of its Registrable Securities in a Shelf Public Offering unless such Stockholder has complied with Section 2.15. The lead managing underwriter or underwriters selected for such Shelf Public Offering shall be selected in accordance with Section 2.04(f) (i).

(c) In a Shelf Public Offering, if the lead managing underwriter advises the Company and the Shelf Public Offering Requesting Stockholder that, in its view, the number of shares of Registrable Securities requested to be included in such Shelf Public Offering (including any securities that the Company proposes to be included that are not Registrable Securities) exceeds the Maximum Offering Size, the Company shall include in such Shelf Public Offering, in the priority listed below, up to the Maximum Offering Size:

(i) first, all Shelf Registered Securities requested to be included in the Shelf Public Offering by the Shelf Public Offering Requesting Stockholder and all other Stockholders, pro rata on the basis of the relative number of shares of Shelf Registered Securities so requested to be included in the Shelf Public Offering by each such Stockholder;

(ii) second, any securities proposed to be included in the Shelf Public Offering by the Company; and

(iii) third, any securities proposed to be included in the Shelf Public Offering for the account of any other Persons, with such priorities among them as the Company shall determine.

(d) The Company shall use its commercially reasonable efforts to cooperate in a timely manner with any request of the Stockholders in respect of any block trade, hedging transaction or other transaction that is registered pursuant to a Shelf Registration that is not a firm commitment underwritten offering (each, an “**Alternative Transaction**”), including, without limitation, entering into customary agreements with respect to such Alternative Transactions (and providing customary representations, warranties, covenants and indemnities in such agreements) as well as providing other reasonable assistance in respect of such Alternative Transactions of the type applicable to a Public Offering subject to Section 2.04, to the extent customary for such transactions. The Company shall bear all Registration Expenses in connection with any Shelf Registration, any Shelf Public Offering or any other transaction (including any Alternative Transaction) registered under a Shelf Registration pursuant to this Section 2.02, whether or not such Shelf Registration becomes effective or such Shelf Public Offering or other transactions is completed; *provided, however*, that if the Shelf Public Offering Requesting Stockholder revokes its request in whole with respect to a Shelf Public Offering, then the Shelf Public Offering Requesting Stockholder shall reimburse the Company for and/or pay directly all Registration Expenses incurred relating to such Shelf Public Offering.

(e) After the Registration Statement with respect to a Shelf Registration is declared effective but subject to the Suspension Period, upon written request by one or more Stockholders (which written request shall specify the amount of such Stockholders’ Registrable Securities to be registered), the Company shall, as promptly as practicable after receiving such request, (i) if it is eligible for use of Form S-3 in connection with a secondary public offering of its equity securities, or if such Registration Statement is an Automatic Shelf Registration Statement, file a prospectus supplement to include such Stockholders as selling stockholders in such Registration Statement or (ii) if it is not eligible for use of Form S-3 in connection with a secondary public offering of its equity securities, and the Registrable Securities requested to be registered represent more than 5% of the outstanding Registrable Securities and the aggregate proceeds expected to be received from the sale thereof is at least \$10,000,000, file a post-effective amendment to the Registration Statement to include such Stockholders in such Shelf Registration and use commercially reasonable efforts to have such post-effective amendment declared effective.

(f) Upon the Company becoming aware that it is a “Well-Known Seasoned Issuer” (as defined in Rule 405 under the Securities Act), (i) the Company shall give written notice to all of the Stockholders as promptly as practicable but in no event later than 20 Business Days thereafter, and such notice shall describe, in reasonable detail, the basis on which the Company has become a Well-Known Seasoned Issuer, and (ii) the Company shall, as promptly as practicable and subject to any Suspension Period, register, under an Automatic Shelf Registration Statement, the sale of all of the Registrable Securities in accordance with the terms of this Agreement. The Company shall use its commercially reasonable efforts to file such Automatic Shelf Registration Statement as promptly as practicable, but in no event later than 15 Business Days after it becomes a Well-Known Seasoned Issuer, and to cause such Automatic Shelf Registration Statement to remain effective thereafter until the date set forth in Section 2.04(a)(ii). The Company shall give written notice of filing such Registration Statement to all of the Stockholders as promptly as practicable thereafter. The Company shall not be required to include any Stockholder as a selling stockholder in any Registration Statement or prospectus unless such Stockholder has complied with Section 2.15. At any time after the filing of an Automatic Shelf Registration Statement by the Company, if it is reasonably likely that it will no longer be a Well-Known Seasoned Issuer as of a future determination date (the “**Determination Date**”), at least 30 days prior to such Determination Date, the Company shall (A) give written notice thereof to all of the Stockholders as promptly as practicable but in no event later than 10 Business Days prior to such Determination Date and (B) if the Company is eligible to file a Registration Statement on Form S-3 with respect to a secondary public offering of its equity securities, file a Registration Statement on Form S-3 with respect to a Shelf Registration in accordance with Section 2.02(a), treating all selling stockholders identified as such in the Automatic Shelf Registration Statement (and amendments or supplements thereto) as Requesting Stockholders and use all commercially reasonable efforts to have such Registration Statement declared effective prior to the Determination Date. Any registration pursuant to this Section 2.02(f) shall be deemed a Shelf Registration for purposes of this Agreement.

(g) Notwithstanding anything to the contrary, no Shelf Registration pursuant to this Section 2.02 shall be deemed a Demand Registration for purposes of Section 2.01.

(h) *Piggyback Registration.*

(i) If the Company proposes to register any Company Securities under the Securities Act (other than a registration on Form S-8 or S-4 relating to Shares or any other class of Company Securities issuable upon exercise of employee stock options or in connection with any employee benefit or similar plan of the Company or in connection with a direct or indirect acquisition by the Company of another Person) other than in connection with a rights offering, whether or not for sale for its own account, the Company shall each such time give prompt notice (via facsimile or electronic transmission) at least 10 Business Days prior to the anticipated filing date of the registration statement relating to such registration to each Stockholder, which notice shall set forth such Stockholder's rights under this Section 2.02 and shall offer such Stockholder the opportunity to include in such registration statement the number of Registrable Securities of the same class or series as those proposed to be registered as each such Stockholder may request (a "**Piggyback Registration**"), subject to the provisions of Section 2.02(h)(ii). Upon the request of any such Stockholder made within 10 Business Days after the receipt of notice from the Company regarding a Piggyback Registration (which request shall specify the number of Registrable Securities intended to be registered by such Stockholder), the Company shall use its commercially reasonable efforts to effect the registration under the Securities Act of all Registrable Securities that the Company has been so requested to register by all such Requesting Stockholders, to the extent requisite to permit the disposition of the Registrable Securities so to be registered in accordance with the plan of distribution intended by the Company for such registration statement; *provided* that (i) if such registration involves a Public Offering, all such Registering Stockholders requesting to be included in the Company's registration must sell their Registrable Securities to the underwriters selected as provided in Section 2.04(f)(i) on the same terms and conditions as apply to the Company and (ii) if, at any time after giving notice of its intention to register any Company Securities pursuant to this Section 2.02(h) and prior to the effective date of the registration statement filed in connection with such registration, the Company shall determine for any reason not to register such securities, the Company shall give notice to all Registering Stockholders and, thereupon, shall be relieved of its obligation to register any Registrable Securities in connection with such registration. No registration effected under this Section 2.02 shall relieve the Company of its obligations to effect a Demand Registration or Shelf Registration to the extent required by Section 2.01. The Company shall pay all Registration Expenses in connection with each Piggyback Registration.

(ii) If a Piggyback Registration involves a Public Offering (other than any Demand Registration, in which case the provisions with respect to priority of inclusion in such offering set forth in Section 2.01(e) shall apply) and the lead managing underwriter advises the Company that, in its view, the number of Registrable Securities that the Company and such Registering Stockholders intend to include in such registration exceeds the Maximum Offering Size, the Company shall include in such registration, in the following priority, up to the Maximum Offering Size:



(A) first, so much of the Registrable Securities proposed to be registered for the account of the Company as would not cause the offering to exceed the Maximum Offering Size;

(B) second, all Registrable Securities requested to be included in such registration by any Registering Stockholders pursuant to this Section 2.02 (allocated, if necessary for the offering not to exceed the Maximum Offering Size, pro rata among such Stockholders on the basis of the relative number of shares of Registrable Securities so requested to be included in such registration by each such Stockholder); and

(C) third, any securities proposed to be registered for the account of any other Persons with such priorities among them as the Company shall determine.

(i) *Hedging Transactions.*

(i) The Company agrees that, in connection with any proposed Hedging Transaction, if, in the reasonable judgment of Holders' Counsel, it is necessary or desirable to register under the Securities Act such Hedging Transaction or sales or transfers (whether short or long) of Registrable Class Securities in connection therewith, then the Company shall use its commercially reasonable efforts to take such actions (which may include, among other things, the filing of a post-effective amendment to a Registration Statement to include additional or changed information that is material or is otherwise required to be disclosed, including a description of such Hedging Transaction, the name of the Hedging Counterparty, identification of the Hedging Counterparty or its Affiliates as underwriters or potential underwriters, if applicable, or any change to the plan of distribution) as may reasonably be required to register such Hedging Transaction or sales or transfers of Registrable Class Securities in connection therewith under the Securities Act in a manner consistent with the rights and obligations of the Company hereunder with respect to the registration of Registrable Securities. Any information provided by the Stockholders regarding the Hedging Transaction that is included in a Registration Statement, prospectus or Free Writing Prospectus pursuant to this Section 2.02(h), shall be deemed to be information provided by the Registering Stockholders pursuant to such Registration Statement for purposes of Section 2.15.

(ii) All Registration Statements in which Stockholders may include Registrable Securities under this Agreement shall be subject to the provisions of this Section 2.02(h), and the registration of Registrable Class Securities thereunder pursuant to this Section 2.02(h) shall be subject to the provisions of this Agreement applicable to any such Registration Statements; provided, however, that the selection of any Hedging Counterparty shall not be subject to Section 2.04(f), but the Hedging Counterparty shall be selected by the holders of a majority of the Registrable Class Securities subject to the Hedging Transaction that are proposed to be included in such Registration Statement.

(iii) If in connection with a Hedging Transaction, a Hedging Counterparty or any Affiliate thereof is (or may be considered) an underwriter or selling stockholder, then it shall be required to provide customary indemnities to the Company regarding the plan of distribution and like matters.

(iv) The Company further agrees to include, under the caption “Plan of Distribution” (or the equivalent caption), in each Registration Statement, and any related prospectus (to the extent such inclusion is permitted under applicable SEC regulations and is consistent with comments received from the SEC during any SEC review of the Registration Statement), language substantially in the form of Schedule 1 hereto and to include in each prospectus supplement filed in connection with any proposed Hedging Transaction language mutually agreed upon by the Company, the relevant Stockholders and the Hedging Counterparty describing such Hedging Transaction.

Section 2.03. *Lock-Up Agreements.* (a) Each Stockholder hereby agrees that it will not effect any public sale or distribution (including sales pursuant to Rule 144) of Registrable Securities, (i) during (A) the 10 days prior to and the 90-day period beginning on the effective date of the registration of such Registrable Securities in connection with a Public Offering (which period following the effective date may, in each case, be extended as reasonably requested by the underwriters participating in such Public Offering to accommodate regulatory restrictions on (I) the publication or other distribution of research reports and (II) analyst recommendations and opinions, including, but not limited to, the restrictions contained in the FINRA rules or any successor provisions or amendments thereto) or (B) such shorter period as the underwriters participating in such Public Offering may require, and (ii) upon notice from the Company of the commencement of a Public Offering in connection with any Shelf Registration, during (A) 10 days prior to and the 90-day period beginning on the date of commencement of such Public Offering or (B) such shorter period as the underwriters participating in such Public Offering may require, in each case except as part of such Public Offering. Each Stockholder agrees to execute a lock-up agreement in favor of the underwriters in form and substance reasonably acceptable to the Company and the underwriters to such effect and, in any event, that the underwriters in any relevant offering shall be third party beneficiaries of this Section 2.03(a). The lock-up agreement to be executed by each Stockholder pursuant to this Section 2.03(a) shall be no less favorable to such Stockholder than the lock-up agreements (or provisions in any underwriting agreement) executed by the Company or any of the executive officers or directors of the Company pursuant to Section 2.03(b).

(b) The Company shall not effect any public sale or distribution of Registrable Securities (except pursuant to registrations on Form S-8 or Form S-4), (i) with respect to any Public Offering pursuant to a Demand Registration or any Piggyback Registration in which the holders of Registrable Securities are participating, during (A) the 10 days prior to and the 90-day period beginning on the effective date of such registration (which period following the effective date may, in each case, be extended as reasonably requested by the underwriters participating in such Public Offering to accommodate regulatory restrictions on (I) the publication or other distribution of research reports and (II) analyst recommendations and opinions, including, but not limited to, the restrictions contained in the FINRA rules or any successor provisions or amendments thereto) or (B) such shorter period as the underwriters participating in such Public Offering may require, and (ii) upon notice from any holder(s) of Registrable Securities subject to a Shelf Registration that such holder(s) intend to effect a Public Offering of Registrable Securities pursuant to such Shelf Registration (upon receipt of which, the Company will promptly notify all other Stockholders of the date of commencement of such Public Offering), during (A) the 10 days prior to and the 90-day period beginning on the date of commencement of such Public Offering and (B) such shorter period as the underwriters participating in such Public Offering may require), in each case except as part of such Public Offering. To the extent required by any underwriter participating in such Public Offering, the Company shall use commercially reasonable efforts to cause its executive officers and directors to execute customary lock-up agreements in connection with such Public Offering, which lock-up agreements shall not have a duration shorter than that of the lock-up agreement or provisions applicable to the Company.

Section 2.04. *Registration Procedures.* Whenever a Stockholder requests that any Registrable Securities be registered pursuant to Section 2.01 or 2.02, subject to the provisions of such Sections, the Company shall use its commercially reasonable efforts to effect the registration and the sale of such Registrable Securities in accordance with the intended method of disposition thereof as soon as reasonably practicable, and, in connection with any such request:

(a) The Company shall as soon as reasonably practicable prepare and file with the SEC a Registration Statement on any form for which the Company then qualifies or that counsel for the Company shall deem appropriate and which form shall be available for the sale of the Registrable Securities to be registered thereunder in accordance with the intended method of distribution thereof, and use its commercially reasonable efforts to cause such filed Registration Statement to become and remain effective for a period of (i) not less than 180 days (or, if sooner, until all Registrable Securities have been sold under such Registration Statement), or (ii) in the case of a Shelf Registration, until the earlier of the date (x) on which all of the securities covered by such Shelf Registration are no longer Registrable Securities and (y) on which the Company cannot extend the effectiveness of such Shelf Registration because it is no longer eligible for use of Form S-3; subject in each case to any Suspension Period.

(b) Prior to filing a Registration Statement or related prospectus or any amendment or supplement thereto (including any documents incorporated by reference therein), or before using any Free Writing Prospectus, the Company shall provide to each Registering Stockholder, the Holders' Counsel and each underwriter, if any, with an adequate and appropriate opportunity to review and comment on such Registration Statement, each prospectus included therein (and each amendment or supplement thereto) and each Free Writing Prospectus proposed to be filed with the SEC, and thereafter the Company shall furnish to such Registering Stockholder, the Holders' Counsel and underwriter, if any, such number of copies of such Registration Statement, each amendment and supplement thereto filed with the SEC (in each case including all exhibits thereto and documents incorporated by reference therein), the prospectus included in such Registration Statement (including each preliminary prospectus and any summary prospectus) and any other prospectus filed under Rule 424, Rule 430A, Rule 430B or Rule 430C under the Securities Act and such other documents as such Registering Stockholder or underwriter may reasonably request in order to facilitate the disposition of the Registrable Securities owned by such Registering Stockholder; *provided, however*, that in no event shall the Company be required to provide to any Person any materials, information or document required to be filed by the Company pursuant to the Exchange Act prior to its filing other than in connection with a Public Offering. In addition, the Company shall, as expeditiously as practicable, keep Holders' Counsel advised in writing as to the initiation and progress of any registration under Sections 2.01 and 2.02 and provide Holders' Counsel with copies of all correspondence (including any comment letter) with the SEC, any self regulatory organization or other governmental agency in connection with any such Registration Statement. Each Registering Stockholder shall have the right to request that the Company modify any information contained in such Registration Statement, amendment and supplement thereto pertaining to such Registering Stockholder and the Company shall use its commercially reasonable efforts to comply with such request; *provided, however*, that the Company shall not have any obligation so to modify any information if the Company reasonably expects that so doing would cause the prospectus to contain an untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading.

(c) After the filing of the Registration Statement, the Company shall (i) cause the related prospectus to be supplemented by any required prospectus supplement, and, as so supplemented, to be filed pursuant to Rule 424 under the Securities Act, (ii) comply with the provisions of the Securities Act applicable to the Company with respect to the disposition of all Registrable Securities covered by such Registration Statement during the applicable period in accordance with the intended methods of disposition by the Registering Stockholder thereof set forth in such Registration Statement or supplement to such prospectus and (iii) promptly notify each Registering Stockholder holding Registrable Securities covered by such Registration Statement and the Holders' Counsel of any stop order issued or threatened by the SEC or any state securities commission and take all commercially reasonable actions required to prevent the entry of such stop order or to remove it if entered.

(d) The Company shall use its commercially reasonable efforts to (i) register or qualify the Registrable Securities covered by such Registration Statement under such securities or "blue sky" laws of such jurisdictions in the United States as any Registering Stockholder holding such Registrable Securities reasonably (in light of such Registering Stockholder's intended plan of distribution) requests, and continue such registration or qualification in effect in such jurisdiction for the shortest of (A) as long as permissible pursuant to the laws of such jurisdiction, (B) as long as any such Registering Stockholder requests or (C) until all such Registrable Securities are sold and (ii) cause such Registrable Securities to be registered with or approved by such other governmental agencies or authorities as may be necessary by virtue of the business and operations of the Company and do any and all other acts and things that may be reasonably necessary or advisable to enable such Registering Stockholder to consummate the disposition of the Registrable Securities owned by such Registering Stockholder; *provided* that the Company shall not be required to (A) qualify generally to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 2.04(d), (B) subject itself to taxation in any such jurisdiction or (C) consent to general service of process in any such jurisdiction.

(e) The Company shall promptly notify each Registering Stockholder holding such Registrable Securities covered by such Registration Statement (i) at any time when a prospectus relating thereto is required to be delivered under the Securities Act, upon the discovery that, or upon the occurrence of an event as a result of which, the preparation of a supplement or amendment to such prospectus is required so that, as thereafter delivered to the purchasers of such Registrable Securities, such prospectus will not contain an untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading and the Company shall promptly (subject to any applicable Suspension Period) prepare and make available to each Registering Stockholder and file with the SEC any such supplement or amendment, (ii) as soon as the Company becomes aware of any request by the SEC or any Federal or state governmental authority for amendments or supplements to a Registration Statement or related prospectus covering Registrable Securities or for additional information relating thereto, (iii) as soon as the Company becomes aware of the issuance or threatened issuance by the SEC of any stop order suspending or threatening to suspend the effectiveness of a Registration Statement covering the Registrable Securities or (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any Registrable Securities for sale in any jurisdiction, or the initiation or threatening of any proceeding for such purpose.

(f) (i) The Registering Stockholders holding a majority of the Registrable Securities to be included in a Demand Registration or intended to be sold pursuant to a Public Offering pursuant to a “take down” under a Shelf Registration shall have the right to select an underwriter or underwriters in connection with such Public Offering or “take down” (as the case may be) (which underwriter or underwriters may include any Affiliate of any Registering Stockholder so long as including such Affiliate would not require the separate engagement of a qualified independent underwriter with respect to such offering), subject to the Company’s approval (which shall not be unreasonably withheld, conditioned or delayed) and (ii) the Company shall select an underwriter or underwriters in connection with any other Public Offering. In connection with any Public Offering, the Company shall enter into customary agreements (including an underwriting agreement in customary form) and take all other actions as are reasonably required in order to expedite or facilitate the disposition of such Registrable Securities in any such Public Offering, including, if required, the engagement of a “qualified independent underwriter” in connection with the qualification of the underwriting arrangements with the FINRA.

(g) Subject to confidentiality arrangements customarily applicable to underwriters and the Registering Stockholders, the Company shall make available for inspection by any Registering Stockholder and any underwriter participating in any disposition pursuant to a Registration Statement being filed by the Company pursuant to this Section 2.04 and any attorney, accountant or other professional retained by any such Stockholder or underwriter (collectively, the “**Inspectors**”), all financial and other records, pertinent corporate documents and properties of the Company (collectively, the “**Records**”) as shall be reasonably necessary or desirable to enable them to exercise their due diligence responsibility, and cause the Company’s officers, directors and employees to supply all information reasonably requested by any Inspectors in connection with such Registration Statement.

(h) The Company shall furnish to each Registering Stockholder and to each such underwriter, if any, a signed counterpart, addressed to such Registering Stockholder or underwriter, of (i) an opinion or opinions of counsel to the Company and (ii) a comfort letter or comfort letters from the Company’s independent public accountants, each in customary form and covering such matters of the kind customarily covered by opinions or comfort letters, as the case may be, any Registering Stockholder or the lead managing underwriter therefor reasonably requests.

(i) The Company shall otherwise comply with all applicable rules and regulations of the SEC, and make available to its security holders, as soon as reasonably available, an earnings statement or such other document that shall satisfy the provisions of Section 11(a) of the Securities Act and the requirements of Rule 158 thereunder.

(j) The Company may require each Registering Stockholder promptly to furnish in writing to the Company such information regarding the distribution of the Registrable Securities as the Company may from time to time reasonably request and such other information as may be reasonably required in connection with such registration.

(k) Each Registering Stockholder agrees that, upon receipt of any notice from the Company of the happening of any event of the kind described in Section 2.04(e), such Stockholder shall forthwith discontinue disposition of Registrable Securities pursuant to the Registration Statement (including any Shelf Registration) covering such Registrable Securities until such Stockholder's receipt of (i) copies of the supplemented or amended prospectus from the Company or (ii) further notice from the Company that distribution can proceed without an amended or supplemented prospectus, and, in the circumstances described in clause (i), if so directed by the Company, such Stockholder shall deliver to the Company all copies, other than any permanent file copies then in such Stockholder's possession, of the most recent prospectus covering such Registrable Securities at the time of receipt of such notice. If the Company shall give such notice, the Company shall extend the period during which such registration statement shall be maintained effective (including the period referred to in Section 2.04(a)) by the number of days during the period from and including the date of the giving of notice pursuant to Section 2.04(e) to the date when the Company shall (x) make available to such Stockholder a prospectus supplemented or amended to conform with the requirements of Section 2.04(e) or (y) deliver to such Stockholder the notice described in clause (ii).

(l) The Company shall use its commercially reasonable efforts to list all Registrable Securities of any class or series covered by such Registration Statement on any national securities exchange on which any of the Registrable Securities of such class or series are then listed or traded.

(m) Upon written request (which notice shall be given with reasonable advance notice) to the Company by Registering Stockholders holding a majority of the Registrable Securities being sold in such offering, the Company shall have appropriate officers of the Company (i) upon reasonable request and at reasonable times prepare and make presentations at any "road shows" and before analysts and rating agencies, as the case may be, *provided that* officers of the Company shall not be required to participate in "road shows" within 60 days of the completion of a prior Public Offering with a "road show," (ii) take other actions to obtain ratings for any Registrable Securities and (iii) otherwise use its commercially reasonable efforts to cooperate as requested by the underwriters in the offering, marketing or selling of the Registrable Securities.

(n) The Company shall as soon as possible following its actual knowledge thereof, notify each Registering Stockholder: (A) when a prospectus, any prospectus supplement, a Registration Statement or a post-effective amendment to a Registration Statement has been filed with the SEC, and, with respect to a Registration Statement or any post-effective amendment, when the same has become effective; (B) of any request by the SEC or any other federal or state governmental authority for amendments or supplements to a Registration Statement, a related prospectus (including a Free Writing Prospectus) or for any other additional information; or (C) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction or the initiation or threatening of any proceedings for such purpose.

(o) The Company shall reasonably cooperate with each Registering Stockholder and each underwriter participating in the disposition of such Registrable Securities and their respective counsel in connection with any filings required to be made by FINRA.

(p) The Company shall take all other steps reasonably necessary to effect the registration of such Registrable Securities and reasonably cooperate with the holders of such Registrable Securities to facilitate the disposition of such Registrable Securities.

(q) The Company shall, within the deadlines specified by the Securities Act, make all required filings of all prospectuses (including any Free Writing Prospectus) with the SEC and make all required filing fee payments in respect of any Registration Statement or related prospectus used under this Agreement (and any offering covered hereby).

(r) The Company shall, if such registration is pursuant to a Registration Statement on Form S-3 or any similar short-form registration, include in such Registration Statement such additional information for marketing purposes as the managing underwriter with respect to an underwritten public offering reasonably requests.

(s) To the extent a Registering Stockholder wishes to register on a Registration Statement the resale of Registrable Securities to be received upon the exchange of Exchange Securities pursuant to the Exchange Agreement, if required by applicable law, rule or regulation, each such Registering Stockholder shall exchange its Exchange Securities for shares of Class A Common Stock or commit to make such exchange prior to the filing of the relevant Registration Statement (or such later time as may be permitted under applicable law, rule or regulation).

Section 2.05. *Indemnification by the Company.* The Company agrees to indemnify and hold harmless each Registering Stockholder holding Registrable Securities covered by a Registration Statement, its partners, Affiliates, stockholders, members, officers, directors, employees, partners and agents, and each Person, if any, who controls such Registering Stockholder within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (collectively, “**Stockholder Parties**”) from and against any and all losses, claims, damages, liabilities and expenses (including reasonable expenses of investigation and reasonable attorneys’ fees and expenses) (“**Damages**”) caused by or relating to any untrue statement or allegedly untrue statement of a material fact contained in any Registration Statement or prospectus relating to the Registrable Securities (as amended or supplemented if the Company shall have furnished any amendments or supplements thereto) or any preliminary prospectus or Free Writing Prospectus relating to the Registrable Securities (including any information that has been deemed to be a part of any prospectus under Rule 159 under the Securities Act), or caused by or relating to any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; *provided, however,* that the Company shall not be liable to any Stockholder Party for any Damages that are caused by or related to any such untrue statement or omission or alleged untrue statement or omission so made based upon information furnished in writing to the Company by or on behalf of such Registering Stockholder expressly for use therein. The Company also agrees to indemnify and hold harmless any underwriters of the Registrable Securities, their respective officers and directors and each Person who controls any underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act on substantially the same basis as that of the indemnification of the Registering Stockholders provided in this Section 2.05.

Section 2.06. *Indemnification by Registering Stockholders.* Each Registering Stockholder holding Registrable Securities included in any Registration Statement agrees, severally but not jointly, to indemnify and hold harmless (i) the Company, (ii) each Person, if any, who controls the Company within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act, (iii) each other Registering Stockholder participating in any offering of Registrable Securities and (iv) the respective partners, Affiliates, stockholders, members, officers, directors, employees, partners and agents of each of the Persons specified in clauses (i) through (iii) from and against all Damages to the same extent as the foregoing indemnity from the Company to such Registering Stockholder, but only with respect to information furnished in writing by or on behalf of such Registering Stockholder expressly for use in any Registration Statement or prospectus relating to the Registrable Securities, or any amendment or supplement thereto, or any preliminary prospectus or Free Writing Prospectus relating to the Registrable Securities (including any information that has been deemed to be a part of any prospectus under Rule 159 under the Securities Act). Each Registering Stockholder also agrees to indemnify and hold harmless any underwriters of the Registrable Securities, their respective officers and directors and each Person who controls any underwriter within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act on substantially the same basis as that of the indemnification of the Company and the other Registering Stockholders provided in this Section 2.06. As a condition to including Registrable Securities in any Registration Statement filed in accordance with Article 2, the Company may require that it shall have received an undertaking reasonably satisfactory to it from any underwriter to indemnify and hold the Company harmless to the extent customarily provided by underwriters with respect to similar securities and offerings. No Registering Stockholder shall be liable under this Section 2.06 for any Damages in excess of the net proceeds (after deducting the underwriters' discounts and commissions) realized by such Registering Stockholder in the sale of Registrable Securities of such Registering Stockholder to which such Damages relate.

Section 2.07. *Conduct of Indemnification Proceedings.* If any proceeding (including any investigation by any governmental authority) shall be instituted involving any Person in respect of which indemnity may be sought pursuant to Section 2.05 or 2.06, such Person (an "**Indemnified Party**") shall promptly notify the Person against whom such indemnity may be sought (the "**Indemnifying Party**") in writing and the Indemnifying Party shall assume the defense thereof, including the employment of counsel reasonably satisfactory to such Indemnified Party, and shall assume the payment of all reasonable fees and expenses; *provided* that the failure of any Indemnified Party so to notify the Indemnifying Party shall not relieve the Indemnifying Party of its obligations hereunder except to the extent that the Indemnifying Party is materially prejudiced by such failure to notify. In any such proceeding, any Indemnified Party shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party unless (i) the Indemnifying Party and the Indemnified Party shall have mutually agreed to the retention of such counsel; (ii) in the reasonable judgment of such Indemnified Party, representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them; or (iii) the Indemnified Party shall have reasonably concluded (based on the advice of counsel) that there may be legal defenses available to it that are different from or in addition to those available to the Indemnifying Party. It is understood that, in connection with any proceeding or related proceedings in the same jurisdiction, the Indemnifying Party shall not be liable for the fees and expenses of more than one separate firm of attorneys (in addition to any local counsel) at any time for all such Indemnified Parties, and that all such fees and expenses shall be reimbursed promptly after receipt of an invoice setting forth such fees and expenses in reasonable detail. In the case of any such separate firm for the Indemnified Parties, such firm shall be designated in writing by the Indemnified Parties. The Indemnifying Party shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent, or if there be a final judgment for the plaintiff, the Indemnifying Party shall indemnify and hold harmless such Indemnified Parties from and against any Damages (to the extent obligated herein) by reason of such settlement or judgment. Without the prior written consent of the Indemnified Party, no Indemnifying Party shall effect any settlement of any pending or threatened proceeding in respect of which any Indemnified Party is or could have been a party and indemnity could have been sought hereunder by such Indemnified Party, unless such settlement includes an unconditional release of such Indemnified Party from all liability arising out of such proceeding.



Section 2.08. *Contribution.* If the indemnification provided for in Section 2.05 or 2.06 is unavailable to the Indemnified Parties or insufficient in respect of any Damages caused by or relating to any untrue statement or allegedly untrue statement of a material fact contained in any Registration Statement or prospectus relating to the Registrable Securities (as amended or supplemented if the Company shall have furnished any amendments or supplements thereto) or any preliminary prospectus or Free Writing Prospectus relating to the Registrable Securities (including any information that has been deemed to be a part of any prospectus under Rule 159 under the Securities Act), or caused by or relating to any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, then each such Indemnifying Party, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such Damages in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and the Indemnified Parties in connection with such actions which resulted in such Damages, as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and the Indemnified Parties shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact has been made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action.

The parties agree that it would not be just and equitable if contribution pursuant to this Section 2.08 were determined by pro rata allocation or by any other method of allocation that does not take account of the equitable considerations referred to in the immediately preceding paragraph. The amount paid or payable by a party as a result of the Damages referred to in the preceding paragraph shall be deemed to include, subject to the limitations set forth in Sections 2.05 and 2.06, any legal or other expenses reasonably incurred by a party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 2.08, no Registering Stockholder shall be required to contribute any amount in excess of the net proceeds (after deducting the underwriters' discounts and commissions) received by such Registering Stockholder in the offering. No Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation. Each Registering Stockholder's obligation to contribute pursuant to this Section 2.08 is several in the proportion that the net proceeds of the offering received by such Registering Stockholder bears to the net total proceeds of the offering received by all such Registering Stockholders and not joint.

Section 2.09. *Participation in Public Offering.* No Stockholder may participate in any Public Offering hereunder unless such Stockholder (i) agrees to sell such Stockholder's Registrable Securities on the basis provided in any underwriting arrangements approved by the Persons entitled hereunder to approve such arrangements and (ii) completes and executes all questionnaires, powers of attorney, indemnities, underwriting agreements and other documents reasonably required under the terms of such underwriting arrangements and the provisions of this Agreement in respect of registration rights.

Section 2.10. *Other Indemnification.* Indemnification similar to that specified herein (with appropriate modifications) shall be given by the Company and each Registering Stockholder participating therein with respect to any required registration or other qualification of securities under any federal or state law or regulation or governmental authority other than the Securities Act.

Section 2.11. *Cooperation by the Company.* At any time following the Initial Public Offering, if any Stockholder shall transfer, assign, sell, convey or otherwise dispose of any Registrable Securities pursuant to Rule 144, the Company shall reasonably cooperate (subject to the terms and conditions of the Certificate of Incorporation) with such Stockholder, provide to such Stockholder such information as such Stockholder shall reasonably request and make publicly available information necessary to permit sales pursuant to Rule 144 for so long as necessary.

Section 2.12. *Transfer of Registration Rights.* The rights of a Stockholder under this Article 2 may be transferred or assigned in connection with a transfer of Registrable Securities *provided* that all of the following additional conditions are satisfied: (x) such transfer or assignment is effected in accordance with applicable securities laws, (y) the Company is given written notice by such transferor of such transfer or assignment, stating the name and address of the transferee or assignee and identifying the amount of Registrable Securities with respect to which such rights are being transferred or assigned and (z) such transferee or assignee executes and delivers to the Company an agreement to be bound by this Agreement in the form of Exhibit A.

Section 2.13. *Limitations on Subsequent Registration Rights.* The Company agrees that it shall not enter into any agreement with any holder or prospective holder of any securities of the Company (i) that would allow such holder or prospective holder to include such securities in any Demand Registration, Piggyback Registration or Shelf Registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that their inclusion would not be on terms more favorable in the aggregate to such holder or prospective holder than this Agreement. The Company also represents and warrants to each Stockholder that it has not prior to the date of this Agreement entered into any agreement with respect to any of its securities granting any registration rights to any Person.

Section 2.14. *Free Writing Prospectuses.* Except for a prospectus relating to Registrable Securities included in a Registration Statement, an “Issuer Free Writing Prospectus” (as defined in Rule 433 under the Securities Act) or other materials prepared by the Company, each Registering Stockholder represents and agrees that it (i) shall not make any offer relating to the Registrable Securities that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a Free Writing Prospectus, and (ii) has not distributed and will not distribute any written materials in connection with the offer or sale pursuant to a Registration Statement of Registrable Securities without the prior written consent of the Company and, in connection with any Public Offering, the underwriters.

Section 2.15. *Information from Registering Stockholders; Obligations of Registering Stockholders.*

(a) It shall be a condition precedent to the obligations of the Company to include the Registrable Securities of any Registering Stockholder that has requested inclusion of its Registrable Securities in any Registration Statement or related prospectus, as the case may be, that such Registering Stockholder shall take the actions described in this Section 2.15.

(b) Each Registering Stockholder that has requested inclusion of its Registrable Securities in any Registration Statement shall (i) furnish to the Company (as a condition precedent to such Registering Stockholder’s participation in such registration) in writing such information with respect to such Registering Stockholder, its ownership of Company Securities and the intended method of disposition of its Registrable Securities as the Company may reasonably request or as may be required by law or regulations for use in connection with any related Registration Statement or prospectus (or amendment or supplement thereto) and all information required to be disclosed in order to make the information previously furnished to the Company by such Registering Stockholder not contain a material misstatement of fact or necessary to cause such Registration Statement or prospectus (or amendment or supplement thereto) not to omit a material fact with respect to such Registering Stockholder necessary in order to make the statements therein not misleading and (ii) comply with the Securities Act and the Exchange Act and all applicable state securities laws and comply with all applicable regulations in connection with the registration and the disposition of Registrable Securities.

(c) Each Registering Stockholder shall promptly (i) following its actual knowledge thereof, notify the Company of the occurrence of any event that makes any statement made in a Registration Statement, prospectus, Issuer Free Writing Prospectus or other Free Writing Prospectus regarding such Registering Stockholder untrue in any material respect or that requires the making of any changes in a Registration Statement, prospectus or Free Writing Prospectus so that, in such regard, it shall not contain any untrue statement of a material fact or omit any material fact required to be stated therein or necessary to make the statements not misleading and (ii) provide the Company with such information as may be required to enable the Company to prepare a supplement or post-effective amendment to any such Registration Statement or a supplement to such prospectus or Free Writing Prospectus.

(d) Each Registering Stockholder shall use commercially reasonable efforts to cooperate with the Company in preparing the applicable Registration Statement.

(e) Each Stockholder agrees that no Stockholder shall be entitled to sell any Registrable Securities pursuant to a Registration Statement or to receive a prospectus relating thereto unless such Stockholder has furnished the Company with all information required to be included in such Registration Statement by applicable securities laws in connection with the disposition of such Registrable Securities as reasonably requested by the Company.

(f) Notwithstanding anything to the contrary herein, no Registering Stockholder shall be required to make any representations or warranties to or agreements with the Company, the underwriters of any underwritten Public Offering, or any other Person in connection with a disposition of Registrable Securities other than representations, warranties or agreements regarding such Registering Stockholder, such Registering Stockholder's ownership of Registrable Securities and such Registering Stockholder's intended method of distribution of Registrable Securities.

ARTICLE 3  
BOARD OF DIRECTORS

Section 3.01. *Board of Directors.*

(a) *Board Nominees.* Immediately after the consummation of the Initial Public Offering, the Board shall initially consist of six directors. The Board may increase or decrease the number of Directors, subject to the rights of Holdings under this Agreement and Applicable Governance Rules, in accordance with the Charter and By-laws. Immediately after the consummation of the Initial Public Offering, of such six directors:

(i) the number of directors permitted to be designated by Holdings pursuant to Section 3.02 shall be those designated by Holdings (such persons, the "**Holdings Nominees**"); and

(ii) two shall be independent directors permitted by SEC rules to serve on the Company's audit committee after applicable phase-in periods have expired (such persons, the "**Audit Committee Independent Directors**") who shall be designated by the Board and at least one of which shall be an audit committee financial expert under the NASDAQ Stock Market Rules or SEC rules as currently in effect.

In addition, within one year after the date of the initial listing of the Class A Common Stock on NASDAQ for the Initial Public Offering, one additional Audit Committee Independent Director shall be appointed.

(b) *Holdings Nominees.* With respect to any Holdings Nominees after the date of the Initial Public Offering, Holdings shall designate the Holdings Nominees by delivering to the Company its written statement at least (i) 10 days following their receipt of written notice from the Company to the Holdings notifying Holdings of the setting of the date of the first annual meeting after the date of the Initial Public Offering, in the case of the first annual meeting after the date of the Initial Public Offering, and (ii) 60 days prior to the one year anniversary of the preceding annual meeting, in the case of subsequent annual meetings, designating the Holdings Nominees and setting forth such Holdings Nominees' business address, telephone number, facsimile number and e-mail address; provided, that if Holdings shall fail to deliver such written notice, Holdings shall be deemed to have nominated the Holdings Nominees previously designated. The Company hereby agrees that at each annual meeting of stockholders of the Company, subject to any rights of the holders of shares of any class or series of preferred stock of the Company, the Company shall ensure that the directors required to be nominated pursuant to this Article 3 shall be nominated at such annual meeting and shall use its reasonable best efforts to cause the Holdings Nominees to be elected to the Board.

(c) *Committees.* The Board shall have a nominating and corporate governance committee, a compensation committee, an audit committee and such other committees as the Board may determine (collectively, the "**Committees**"). Subject to Section 3.02:

(i) the audit committee shall consist of at least three Audit Committee Independent Directors, subject to the exceptions provided by the applicable transition periods under Rule 10A-3 of the Exchange Act and the NASDAQ Stock Market Rules, and Holdings shall have the right to designate the members thereof; and

(ii) each other Committee shall consist of at least three directors, and Holdings shall have the right to designate the members thereof;

*provided, however,* that: (i) the membership of each Committee shall meet the requirements of Applicable Governance Rules (after giving effect to applicable transition periods, if any), and (ii) each Committee shall have such additional members as the Board may determine, which determination shall be made on the recommendation of the nominating and corporate governance committee. Each Committee shall have such powers and responsibilities as the Board may from time to time authorize.

(d) *Removal and Replacement of Directors.* If a vacancy is created on the Board or a Committee as a result of the death, disability, retirement, resignation or removal of any Holdings Nominee, then Holdings shall have the right to designate such person's replacement. No Holdings Nominee shall be required to resign or be removed from the Board or any committee thereof as a result of a decrease in the size of the Board or any committee thereof, except as required by Applicable Governance Rules.

Section 3.02. *Reduction and Termination of Holdings' Rights.*

(a) *Board Nominees.* Notwithstanding anything to the contrary in this Agreement, after the Initial Public Offering the number of Holdings Nominees that may be designated by Holdings or any Person designated by Holdings pursuant to Section 3.01(a)(i) shall be reduced and the number of other directors shall be increased, based on the percentage of the total Shares of the Company then beneficially owned by the MacAndrews Stockholders so that the Holdings Nominees constitute:

(i) a majority of the directors on the Board (and if the number of directors on the Board is even, one director more than 50% of the number of directors on the Board) if the MacAndrews Stockholders beneficially own greater than 50% of the outstanding Shares of the Company;

(ii) one less than a majority of the directors on the Board (and if the number of directors on the Board is even, 50% of the number of directors on the Board) if the MacAndrews Stockholders beneficially own greater than 25% but less than 50% of the outstanding Shares of the Company;

(iii) one-third of the directors on the Board (rounded down to the nearest whole number) if the MacAndrews Stockholders beneficially own greater than 10% but less than 25% of the outstanding Shares of the Company; and

(iv) no directors if the MacAndrews Stockholders beneficially own less than 10% of the outstanding Shares of the Company.

Holdings shall cause the appropriate number of Holdings Nominees to resign as required to comply with this Section 3.02 upon the earlier to occur of (i) the date on which the current term of the resigning Holdings Nominee ends, and (ii) 12 months from the occurrence of such event. To the extent deemed reasonably necessary by the Board to comply with Applicable Governance Rules (including with respect to composition of committees), Holdings shall designate Independent Directors as Holdings Nominees; *provided* that directors who are affiliated with a MacAndrews Party shall not be automatically deemed not to be Independent Directors.

(b) *Committees.* Notwithstanding anything to the contrary in this Agreement, if the MacAndrews Stockholders beneficially own less than 25% of the outstanding Shares of the Company, Holdings shall cease to have the rights to designate members of Committees pursuant to Section 3.01(c).

#### ARTICLE 4 TERMINATION

Section 4.01. *Termination.* This Agreement shall terminate when the MacAndrews Stockholders beneficially own less than 2.5% of the outstanding Shares; *provided, however,* that any Stockholder that ceases to own beneficially any Registrable Securities shall cease to be bound by the terms hereof other than (i) Sections 2.05, 2.06, 2.07, 2.08 and 2.10 applicable to such Stockholder with respect to any offering of Registrable Securities completed before the date such Stockholder ceased to own any Registrable Securities) and (ii) Sections 5.01, 5.02 and 5.04 through 5.12.

ARTICLE 5  
MISCELLANEOUS

Section 5.01. *Successors and Assigns.* (a) This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, successors, legal representatives and permitted assigns.

(b) Subject to Section 2.12, neither this Agreement nor any right, remedy, obligation or liability arising hereunder or by reason hereof shall be assignable by any party.

(c) Nothing in this Agreement, expressed or implied, is intended to confer on any Person other than the parties hereto, and their respective heirs, successors, legal representatives and permitted assigns, any rights, remedies, obligations or liabilities under or by reason of this Agreement.

(d) if and to the extent Holdings is dissolved or liquidated, the MacAndrews Stockholders holding Shares shall be the successors of Holdings, and references to "Holdings" herein shall be references to such successors of Holdings, collectively, and the Company shall (and shall cause its Subsidiaries to) enter into such amendments and supplements hereto to effectuate the intent of this Section 5.01(d).

Section 5.02. *Notices.* All notices, requests and other communications to any party hereunder shall be in writing (including facsimile or electronic transmission) and shall be given,

if to the Company, to:

vTv Therapeutics Inc.  
4170 Mendenhall Oaks Pkwy  
High Point, NC 27265  
Attention: Stephen L. Holcombe

with a copy to:

Paul, Weiss, Rifkind, Wharton & Garrison LLP  
1285 Avenue of the Americas  
New York, NY 10019  
Facsimile: (212) 492-0052  
Attention: Lawrence G. Wee, Esq.

if to Holdings, to:

c/o MacAndrews & Forbes Incorporated  
35 East 62nd Street  
New York, NY 10065  
Facsimile: (212) 572-5695  
Attention: Paul G. Savas

or such other address or facsimile number as such party may hereafter specify for the purpose by notice to the other parties hereto. All notices, requests and other communications shall be deemed received on the date of receipt by the recipient thereof if received prior to 5:00 p.m. in the place of receipt and such day is a Business Day in the place of receipt. Otherwise, any such notice, request or communication shall be deemed not to have been received until the next succeeding Business Day in the place of receipt. Any Person that becomes a Stockholder shall provide its address and fax number to the Company, which shall promptly provide such information to each other Stockholder.

Section 5.03. *Amendments and Waivers.* Any provision of this Agreement may be amended or waived if, but only if, such amendment or waiver is in writing and is signed by the Company and Stockholders holding more than 50% of the remaining Registrable Securities; provided that any amendment or waiver of the provisions of Article 3, to the extent adverse in any respect to Holdings, shall require the written consent of Holdings. No failure or delay by any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by law.

Section 5.04. *Governing Law.* The corporate law of the State of Delaware shall govern all issues and questions concerning the relative rights of the Company and its stockholders pursuant to Article 3 hereto. All other issues and questions concerning the construction, validity, interpretation and enforcement of this Agreement and the exhibits and schedules hereto shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to the choice of law or conflicts of law provisions that would indicate the applicability of the laws of any other jurisdiction.

Section 5.05. *Jurisdiction.* The parties hereby agree that any suit, action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with, this Agreement or the transactions contemplated hereby shall be brought in the United States District Court for the Southern District of New York or any New York State court sitting in New York City, so long as one of such courts shall have subject matter jurisdiction over such suit, action or proceeding, and that any cause of action arising out of this Agreement shall be deemed to have arisen from a transaction of business in the State of New York, and each of the parties hereby irrevocably consents to the jurisdiction of such courts (and of the appropriate appellate courts therefrom) in any such suit, action or proceeding and irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of the venue of any such suit, action or proceeding in any such court or that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. Process in any such suit, action or proceeding may be served on any party anywhere in the world, whether within or without the jurisdiction of any such court.

Section 5.06. *WAIVER OF JURY TRIAL.* EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.



Section 5.07. *Specific Enforcement.* Each party hereto acknowledges that the remedies at law of the other parties for a breach or threatened breach of this Agreement would be inadequate and, in recognition of this fact, any party to this Agreement, without posting any bond, and in addition to all other remedies that may be available, shall be entitled to obtain equitable relief in the form of specific performance, a temporary restraining order, a temporary or permanent injunction or any other equitable remedy that may then be available.

Section 5.08. *Counterparts; Effectiveness; Third Party Beneficiaries.* This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement shall become effective when each initial party hereto shall have received a counterpart hereof signed by all of the other initial parties hereto. Until and unless each initial party has received a counterpart hereof signed by the other initial parties hereto, this Agreement shall have no effect and no party shall have any right or obligation hereunder (whether by virtue of any other oral or written agreement or other communication). No provision of this Agreement is intended to confer any rights, benefits, remedies, obligations, or liabilities hereunder upon any Person other than the parties hereto and their respective successors and assigns.

Section 5.09. *Entire Agreement.* This Agreement, together with the Schedules and Exhibit hereto and any documents, instruments and writings that are delivered pursuant hereto, constitutes the entire agreement among the parties with respect to the subject matter of this Agreement and supersedes all prior agreements and understandings, both oral and written, among the parties hereto with respect to the subject matter of this Agreement.

Section 5.10. *Severability.* If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction or other authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any party. Upon such a determination, the parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner so that the transactions contemplated hereby be consummated as originally contemplated to the fullest extent possible.

Section 5.11. *Sophisticated Parties; Advice of Counsel.* Each of the parties to this Agreement specifically acknowledges that (i) it is a knowledgeable, informed, sophisticated Person capable of understanding and evaluating the provisions set forth in this Agreement and (ii) it has been fully advised and represented by legal counsel of its own independent selection and has relied wholly upon its independent judgment and the advice of such counsel in negotiating and entering into this Agreement.

Section 5.12. *Certificate of Incorporation Supersedes.* Nothing in this Agreement is intended to conflict with any provision of the Charter or By-laws, each in effect on the date hereof and, in the event of any such conflict, the applicable provisions of the Charter or By-laws shall supersede the conflicting provision of this Agreement. Except as provided in [Article 3](#), nothing in this Agreement is intended to limit or restrict in any manner whatsoever, the rights or powers of the Company under the Charter or By-laws and the exercise of any such right or power by the Company shall not be, and shall not be construed to be, a breach or violation of, or a default under, this Agreement or any provision hereof.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their respective authorized officers as of the day and year first above written.

VTV THERAPEUTICS INC.

By:

\_\_\_\_\_

Name:

Title:

[Signature Page to Investor Rights Agreement]

---

VTV THERAPEUTICS HOLDINGS LLC

By: \_\_\_\_\_  
Name:  
Title:

[Signature Page to Investor Rights Agreement]

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JOINDER TO INVESTOR RIGHTS AGREEMENT

This Joinder Agreement (this “**Joinder Agreement**”) is made as of the date written below by the undersigned (the “**Joining Party**”) in accordance with the Investor Rights Agreement dated as of \_\_\_\_\_, 2015 (the “**Investor Rights Agreement**”) among vTv Therapeutics Inc. and the other parties thereto, as the same may be amended from time to time. Capitalized terms used, but not defined, herein shall have the meaning ascribed to such terms in the Investor Rights Agreement.

The Joining Party hereby acknowledges, agrees and confirms that, by its execution of this Joinder Agreement, the Joining Party shall be deemed to be a party to the Investor Rights Agreement as of the date hereof and shall have all of the rights and obligations of a “Stockholder” thereunder as if it had executed the Investor Rights Agreement. The Joining Party hereby ratifies, as of the date hereof, and agrees to be bound by, all of the terms, provisions and conditions contained in the Investor Rights Agreement.

IN WITNESS WHEREOF, the undersigned has executed this Joinder Agreement as of the date written below.

Date: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

[NAME OF JOINING PARTY]

By: \_\_\_\_\_

Name:

Title:

Address for Notices:

---

**Plan of Distribution**

A selling stockholder may also enter into hedging and/or monetization transactions. For example, a selling stockholder may:

- (a) enter into transactions involving short sales of the shares of Class A common stock by underwriters, brokers, dealers or third parties;
  - (b) itself sell short Class A common stock and deliver the shares to close out any short positions;
  - (c) enter into options, forwards or other transactions that require the selling stockholder to deliver Class A common stock to an underwriter, broker, dealer or other third party who may then resell or otherwise transfer that common stock under this prospectus; or
  - (d) loan or pledge shares of Class A common stock to an underwriter, broker, dealer or other third party who may sell the loaned shares or, in an event of default, sell the pledged shares.
-

**AMENDED AND RESTATED  
LIMITED LIABILITY COMPANY AGREEMENT**

**of**

**VTV THERAPEUTICS LLC**

Dated as of [\_\_\_\_\_], 2015

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AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT (this "Agreement") of vTv Therapeutics LLC, a Delaware limited liability company (the "Company"), dated as of [\_\_\_\_\_], 2015, by and among the Company, vTv Therapeutics Inc., a Delaware corporation ("Pubco"), vTv Therapeutics Holdings LLC, a Delaware limited liability company ("Holdings"), and each other Person admitted as a Member pursuant to Section 3.02(a) hereof.

WITNESSETH:

WHEREAS, the Company has been heretofore formed as a limited liability company under the Delaware Act (as defined below) pursuant to a certificate of formation which was executed and filed with the Secretary of State of the State of Delaware on April 15, 2015;

WHEREAS, Holdings entered into the initial Limited Liability Company Agreement of the Company, dated as of April 15, 2015 (the "Initial LLC Agreement"); and

WHEREAS, pursuant to the terms of the Reorganization Agreement (the "Reorganization Agreement"), dated as of the date hereof, by and among the Company, Pubco and the other Persons listed on the signature pages thereto, the parties thereto have agreed to consummate the reorganization of the Company as contemplated thereby and to take the other actions contemplated in such Reorganization Agreement (collectively, the "Reorganization").

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein made and other good and valuable consideration, the parties hereto hereby agree, to amend and restate the Initial LLC Agreement in its entirety as set forth herein.

ARTICLE I

DEFINITIONS AND USAGE

Section 1.01 Definitions.

(a) The following terms shall have the following meanings for the purposes of this Agreement:

"Additional Member" means any Person admitted as a Member of the Company pursuant to Section 3.02 in connection with the new issuance of Units to such Person.

"Adjusted Capital Account Deficit" means, with respect to any Nonvoting Member, the deficit balance, if any, in such Nonvoting Member's Capital Account as of the end of the relevant Fiscal Year, after giving effect to the following adjustments:

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(i) Credit to such Capital Account any amounts that such Nonvoting Member is deemed to be obligated to restore pursuant to the penultimate sentence in Treasury Regulations Sections 1.704-2(g)(1) and 1.704-2(i)(5); and

(ii) Debit to such Capital Account the items described in Treasury Regulations Sections 1.704-1(b)(2)(ii)(d)(4), 1.704-1(b)(2)(ii)(d)(5) and 1.704-1(b)(2)(ii)(d)(6).

The foregoing definition of Adjusted Capital Account Deficit is intended to comply with the provisions of Treasury Regulations Section 1.704-1(b)(2)(ii)(d) and shall be interpreted consistently therewith.

“Affiliate” means, with respect to any Person, any other Person directly or indirectly controlling, controlled by, or under common control with such Person; provided that no Member nor any Affiliate of any Member shall be deemed to be an Affiliate of any other Member or any of its Affiliates solely by virtue of such Members’ Units.

“Applicable Law” means, with respect to any Person, any federal, state or local law (statutory, common or otherwise), constitution, treaty, convention, ordinance, code, rule, regulation, order, injunction, judgment, decree, ruling or other similar requirement enacted, adopted, promulgated or applied by a Governmental Authority or Regulatory Agency that is binding upon or applicable to such Person or its assets, as amended unless expressly specified otherwise.

“Available Cash Flow” means, for any period, the Company’s consolidated net income determined in accordance with GAAP, adjusted by the Managing Member to exclude non-cash items, extraordinary or one-time items of gain or loss, any compensation expense related to Units or other Equity Securities issued under any management equity plan of Pubco or the Company, and, to the extent not reflected in consolidated net income determined in accordance with GAAP, less any Reserves established during such period (including the amount of any net increase during such period to a Reserve established in a prior period) and plus the amount of any net decrease during such period to a Reserve established by a prior period.

“Business” means the business of engaging in the discovery and development of drug candidates, including (without limitation) orally administered small molecule drug candidates, as well as the licensing, manufacture, commercialization, distribution and sale of any drugs developed, and engaging in such activities as are, in the Managing Member’s determination, necessary, incidental or appropriate in connection therewith, in each case, as conducted by the Company and its Subsidiaries.

“Business Day” means a day, other than Saturday, Sunday or other day on which commercial banks in New York, New York are authorized or required by Applicable Law to close.

“Capital Account” means the capital account established and maintained for each Nonvoting Member pursuant to Section 5.02.

“Capital Contribution” means, with respect to any Member, the amount of money and the initial Carrying Value of any Property (other than money) contributed to the Company.

“Carrying Value” means with respect to any Property (other than money), such Property’s adjusted basis for federal income tax purposes, except as follows:

(i) The initial Carrying Value of any such Property contributed by a Member to the Company shall be the gross fair market value of such Property, as reasonably determined by the Managing Member;

(ii) The Carrying Values of all such Properties shall be adjusted to equal their respective gross fair market values (taking Section 7701(g) of the Code into account), as reasonably determined by the Managing Member, at the time of any Revaluation pursuant to Section 5.02(c);

(iii) The Carrying Value of any item of such Properties distributed to any Member shall be adjusted to equal the gross fair market value (taking Section 7701(g) of the Code into account) of such Property on the date of distribution as reasonably determined by the Managing Member; and

(iv) The Carrying Values of such Properties shall be increased (or decreased) to reflect any adjustments to the adjusted basis of such Properties pursuant to Code Section 734(b) or Code Section 743(b), but only to the extent that such adjustments are taken into account in determining Capital Accounts pursuant to Treasury Regulations Section 1.704-1(b)(2)(iv)(m) and subparagraph (vi) of the definition of “Net Income” and “Net Loss” or Section 5.04(b)(vi); provided, however, that Carrying Values shall not be adjusted pursuant to this subparagraph (iv) to the extent that an adjustment pursuant to subparagraph (ii) is required in connection with a transaction that would otherwise result in an adjustment pursuant to this subparagraph (iv). If the Carrying Value of such Property has been determined or adjusted pursuant to subparagraph (i), (ii) or (iv), such Carrying Value shall thereafter be adjusted by the Depreciation taken into account with respect to such asset, for purposes of computing Net Income and Net Loss.

“Class A Common Stock” means Class A common stock, \$0.01 par value per share, of Pubco.

“Class B Common Stock” means Class B common stock, \$0.01 par value per share, of Pubco.

“Class M Common Units” means the Class M Common Units of the Company, having the rights, privileges and preferences set forth herein.

“Class M Members” means the Members holding Class M Common Units.

“Code” means the Internal Revenue Code of 1986, as amended from time to time.

“Common Unit” means a Class M Common Unit or Nonvoting Common Unit.

“Company Minimum Gain” means “partnership minimum gain,” as defined in Treasury Regulation Sections 1.704-2(b)(2) and 1.704-2(d).

“Control” (including the terms “controlling” and “controlled”), with respect to the relationship between or among two or more Persons, means the possession, directly or indirectly, of the power to direct or cause the direction of the affairs or management of such subject Person, whether through the ownership of voting securities, as trustee or executor, by contract or otherwise.

“Covered Person” means (i) each Equityholder or an Affiliate thereof, in each case in such capacity, (ii) each officer, director, shareholder, member, partner, employee, representative, agent or trustee of a Member or an Affiliate thereof, in all cases in such capacity, and (iii) each officer, director, shareholder (other than any public shareholder of Pubco that is not an Equityholder), member, partner, employee, representative, agent or trustee of the Managing Member, Pubco (in the event Pubco is not the Managing Member), the Company or an Affiliate controlled thereby, in all cases in such capacity.

“Delaware Act” means the Delaware Limited Liability Company Act, 6 Del. C. §§ 18-101 et seq.

“Depreciation” means, for each Fiscal Year, an amount equal to the depreciation, amortization, or other cost recovery deduction allowable with respect to an asset for such Fiscal Year, except that if the Carrying Value of an asset differs from its adjusted basis for federal income tax purposes at the beginning of such Fiscal Year, Depreciation shall be an amount that bears the same ratio to such beginning Carrying Value as the federal income tax depreciation, amortization, or other cost recovery deduction for such Fiscal Year bears to such beginning adjusted tax basis; provided, however, that if the adjusted basis for federal income tax purposes of an asset at the beginning of such Fiscal Year is zero, Depreciation shall be determined with reference to such beginning Carrying Value using any reasonable method selected by the Managing Member.

“DGCL” means the General Corporation Law of the State of Delaware, as amended from time to time.

“Disposition Event” means any merger, consolidation or other business combination of Pubco, whether effectuated through one transaction or a series of related transactions (including a tender offer followed by a merger in which the holders of Class A Common Stock receive the same consideration per share paid in the tender offer), unless, following such transaction, all or substantially all of the holders of the voting power of all outstanding classes of common stock of Pubco and series of preferred stock of Pubco that are generally entitled to vote in the election of directors of Pubco prior to such transaction or series of transactions, continue to hold a majority of the voting power of the surviving entity (or its parent) resulting from such transaction or series of transactions in substantially the same proportions as immediately prior to such transaction or series of transaction.

“Effective Time” shall mean the effectiveness of the Reorganization as set forth in the Reorganization Agreement.

“EIP” means the vTv Therapeutics Inc. 2015 Omnibus Equity Incentive Plan, as the same may be amended from time to time.

“Equity Securities” means, with respect to any Person, any (i) membership interests or shares of capital stock, (ii) equity, ownership, voting, profit or participation interests or (iii) similar rights or securities in such Person or any of its Subsidiaries, or any rights or securities convertible into or exchangeable for, options or other rights to acquire from such Person or any of its Subsidiaries, or obligation on the part of such Person or any of its Subsidiaries to issue, any of the foregoing.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and any successor statute thereto, and the rules and regulations of the SEC promulgated thereunder.

“Exchange Agreement” means the Exchange Agreement, dated as of the date hereof, by and among Pubco, the Company, Holdings and any other Person that becomes a “Holder” thereunder.

“Fiscal Year” means the Company’s fiscal year, which shall initially be the calendar year and which may be changed from time to time as determined by the Managing Member.

“Governmental Authority” means any transnational, domestic or foreign federal, state or local governmental, regulatory or administrative authority, department, court, agency or official, including any political subdivision thereof.

“Indebtedness” means (a) all indebtedness for borrowed money (including capitalized lease obligations, sale-leaseback transactions or other similar transactions, however evidenced), (b) any other indebtedness that is evidenced by a note, bond, debenture, draft or similar instrument, (c) notes payable and (d) lines of credit and any other agreements relating to the borrowing of money or extension of credit.

“Investor Rights Agreement” means the Investor Rights Agreement, dated as of the date hereof, by and between Pubco and Holdings.

“IPO” means the initial underwritten public offering of Pubco.

“Liens” means any pledge, encumbrance, security interest, purchase option, conditional sale agreement, call or similar right.

“Managing Member” means (i) Pubco so long as Pubco has not withdrawn as the Managing Member pursuant to Section 7.02 and (ii) any successor thereof appointed as Managing Member in accordance with Section 7.02. The Managing Member shall hold all outstanding Class M Common Units.

“Member” means any Person named as a Member of the Company on the Member Schedule, as the same may be amended from time to time to reflect any Person admitted as an Additional Member or a Substitute Member, for so long as such Person continues to be a Member of the Company.

“Member Nonrecourse Debt” has the same meaning as the term “partner nonrecourse debt” in Treasury Regulations Section 1.704-2(b)(4).

“Member Nonrecourse Debt Minimum Gain” means an amount with respect to each “partner nonrecourse debt” (as defined in Treasury Regulation Section 1.704-2(b)(4)) equal to the Company Minimum Gain that would result if such partner nonrecourse debt were treated as a nonrecourse liability (as defined in Treasury Regulation Section 1.752-1(a)(2)) determined in accordance with Treasury Regulation Section 1.704-2(i)(3).

“Member Nonrecourse Deductions” has the same meaning as the term “partner nonrecourse deductions” in Treasury Regulations Sections 1.704-2(i)(1) and 1.704-2(i)(2).

“Net Income” and “Net Loss” mean, for each Fiscal Year or other period, an amount equal to the Company’s taxable income or loss for such Fiscal Year or period, determined in accordance with Section 703(a) of the Code (for this purpose, all items of income, gain, loss, or deduction required to be stated separately pursuant to Section 703(a)(1) of the Code shall be included in taxable income or loss), with the following adjustments (without duplication):

(i) Any income of the Company that is exempt from federal income tax and not otherwise taken into account in computing Net Income or Net Loss pursuant to this definition of “Net Income” and “Net Loss” shall be added to such taxable income or loss;

(ii) Any expenditures of the Company described in Section 705(a)(2)(B) of the Code or treated as Section 705(a)(2)(B) of the Code expenditures pursuant to Treasury Regulations Section 1.704-1(b)(2)(iv)(i), and not otherwise taken into account in computing Net Income and Net Loss pursuant to this definition of “Net Income” and “Net Loss,” shall be treated as deductible items;

(iii) In the event the Carrying Value of any Company asset is adjusted pursuant to subparagraphs (ii) or (iii) of the definition of “Carrying Value,” the amount of such adjustment shall be treated as an item of gain (if the adjustment increases the Carrying Value of the asset) or an item of loss (if the adjustment decreases the Carrying Value of the asset) from the disposition of such asset and shall be taken into account, immediately prior to the event giving rise to such adjustment, for purposes of computing Net Income and/or Net Loss;

(iv) Gain or loss resulting from any disposition of Property with respect to which gain or loss is recognized for federal income tax purposes shall be computed by reference to the Carrying Value of the Property disposed of, notwithstanding that the adjusted tax basis of such Property differs from its Carrying Value;

(v) In lieu of the depreciation, amortization, and other cost recovery deductions taken into account in computing such taxable income or loss, there shall be taken into account Depreciation for such Fiscal Year, computed in accordance with the definition of Depreciation;

(vi) To the extent an adjustment to the adjusted tax basis of any Company asset pursuant to Section 734(b) of the Code is required, pursuant to Treasury Regulations Section 1.704-(b)(2)(iv)(m)(4), to be taken into account in determining Capital Accounts as a result of a distribution other than in liquidation of a Member's interest in the Company, the amount of such adjustment shall be treated as an item of gain (if the adjustment increases the basis of the asset) or loss (if the adjustment decreases such basis) from the disposition of such asset and shall be taken into account for purposes of computing Net Income or Net Loss; and

(vii) Notwithstanding any other provision of this definition, any items that are specially allocated pursuant to Section 5.04(b), Section 5.04(c) and Section 5.04(d) shall not be taken into account in computing Net Income and Net Loss.

The amounts of the items of Company income, gain, loss, or deduction available to be specially allocated pursuant to Section 5.04(b), Section 5.04(c) and Section 5.04(d) shall be determined by applying rules analogous to those set forth in subparagraphs (i) through (vi) above.

“Non-Pubco Member” means any Member that is not a Pubco Member.

“Nonrecourse Deductions” has the meaning set forth in Treasury Regulations Sections 1.704-2(b)(1) and 1.704-2(c).

“Nonvoting Common Units” means the Nonvoting Common Units of the Company, having the rights, privileges and preferences set forth herein.

“Nonvoting Members” means the Members holding Nonvoting Common Units.

“Nonvoting Percentage Interest” means, with respect to any Nonvoting Member, a fractional amount, expressed as a percentage: (i) the numerator of which is the aggregate number of Nonvoting Common Units owned of record thereby and (ii) the denominator of which is the aggregate number of Nonvoting Common Units issued and outstanding. The sum of the outstanding Nonvoting Percentage Interests of all Nonvoting Members shall at all times equal 100%.

“Paired Interest” has the meaning set forth in the Exchange Agreement.

“Percentage Interest” means, with respect to any Member, a fractional amount, expressed as a percentage: (i) the numerator of which is the aggregate number of Common Units owned of record thereby and (ii) the denominator of which is the aggregate number of Common Units issued and outstanding. The sum of the outstanding Percentage Interests of all Members shall at all times equal 100%. “Person” means any individual, firm, corporation, partnership, limited liability company, trust, estate, joint venture, governmental authority or other entity.

“Prime Rate” means the rate of interest from time to time identified by JP Morgan Chase, N.A. as being its “prime” or “reference” rate.

“Property” means an interest of any kind in any real, personal or intellectual (or mixed) property, including cash, and any improvements thereto, and shall include both tangible and intangible property.

“Pubco Common Stock” means all classes and series of common stock of Pubco, including the Class A Common Stock and Class B Common Stock.

“Pubco Member” means (i) Pubco and (ii) any Subsidiary of Pubco (other than the Company and its Subsidiaries) that that is a Member.

“Regulatory Agency” means the SEC, FINRA, the Financial Services Authority, any non-U.S. regulatory agency and any other regulatory authority or body (including any state or provincial securities authority and any self-regulatory organization) with jurisdiction over the Company or any of its Subsidiaries.

“Relative Percentage Interest” means, with respect to any Member relative to another Member or Members, a fractional amount, expressed as a percentage, the numerator of which is the Percentage Interest of such Member; and the denominator of which is (x) the Percentage Interest of such Member plus (y) the aggregate Percentage Interest of such other Member or Members.

“Reorganization Date Capital Account Balance” means, with respect to any Nonvoting Member, the positive Capital Account balance of such Member as of immediately following the Reorganization, the amount or deemed value of which is set forth on the Member Schedule.

“Reorganization Documents” means the Reorganization Agreement, this Agreement, the Tax Receivable Agreement, the Exchange Agreement, the Investor Rights Agreement, and the EIP.

“Reserves” means, as of any date of determination, amounts allocated by the Managing Member, in its reasonable judgment, to reserves maintained for working capital of the Company, for contingencies of the Company, for operating expenses and debt reduction of the Company.



“SEC” means the United States Securities and Exchange Commission.

“Subsidiary” means, with respect to any Person, any corporation, partnership, limited liability company, association, joint venture or other business entity of which more than 50% of the total voting power of Equity Securities or other ownership interests entitled (without regard to the occurrence of any contingency) to vote in the election of the Person or Persons (whether directors, managers, trustees or other Persons performing similar functions) having the power to direct or cause the direction of the management and policies thereof is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person or a combination thereof.

“Substitute Member” means any Person admitted as a Member of the Company pursuant to Section 3.02 in connection with the Transfer of then-existing Units to such Person.

“Tax Distribution” means a distribution made by the Company pursuant to Section 5.03(e)(i) or Section 5.03(e)(iii) or a distribution made by the Company pursuant to another provision of Section 5.03 but designated as a Tax Distribution pursuant to Section 5.03(e)(ii).

“Tax Distribution Amount” means, with respect to a Nonvoting Member’s Units, whichever of the following applies with respect to the applicable Tax Distribution, in each case in amount not less than zero:

(i) With respect to a Tax Distribution pursuant to Section 5.03(e)(i), the excess, if any, of (A) such Member’s required annualized income installment for such estimated payment date under Section 6655(e) of the Code, assuming that (w) such Member is a corporation (which assumption, for the avoidance of doubt, shall not affect the determination of the Tax Rate), (x) Section 6655(e)(2)(C)(ii) is in effect, (y) such Member’s only income is from the Company, and (z) the Tax Rate applies, which amount shall be calculated based on the projections believed by the Managing Member in good faith to be, reasonable projections of the net taxable income to be allocated to such Units pursuant to this Agreement and without regard to any adjustments pursuant to Section 704(c) or Section 743(b) of the Code over (B) the aggregate amount of Tax Distributions designated by the Company pursuant to Section 5.03(e)(ii) with respect to such Units since the date of the previous Tax Distribution pursuant to Section 5.03(e)(i) (or if no such Tax Distribution was required to be made, the date such Tax Distribution would have been made pursuant to Section 5.03(e)(i)).

(ii) With respect to the designation of an amount as a Tax Distribution pursuant to Section 5.03(e)(ii), the product of (x) the net taxable income, determined without regard to any adjustments pursuant to Section 704(c) or Section 743(b) of the Code projected, in the good faith belief of the Managing Member, to be allocated to such Units pursuant to this Agreement during the period since the date of the previous Tax Distribution (or, if more recent, the date that the previous Tax Distribution pursuant to Section 5.03(e)(i) would have been made or, in the case of the first distribution pursuant to Section 5.03(b), the date of this Agreement), and (y) the Tax Rate.

(iii) With respect to an entire Fiscal Year to be calculated for purposes of Section 5.03(e)(iii), the excess, if any, of (A) the product of (x) the net taxable income, determined without regard to any adjustments pursuant to Section 704(c) or Section 743(b) of the Code, allocated to such Units pursuant to this Agreement for the relevant Fiscal Year, and (y) the Tax Rate, over (B) the aggregate amount of Tax Distributions (other than Tax Distributions under Section 5.03(e)(iii) with respect to a prior Fiscal Year) with respect to such Units made with respect to such Fiscal Year.

For purposes of this Agreement, in determining the Tax Distribution Amount of a Nonvoting Member, the taxable income allocated to such Member's Units shall be offset by any taxable losses (determined without regard to any adjustments pursuant to Section 704(c) or Section 743(b) of the Code) previously allocated to such Units to the extent such losses were not allocated in the same proportion as the Member's Nonvoting Percentage Interests and have not previously offset taxable income in the determination of the Tax Distribution Amount.

"Tax Rate" means the highest marginal tax rates for an individual or corporation that is resident in New York City applicable to ordinary income, qualified dividend income or capital gains, as appropriate, taking into account the holding period of the assets disposed of and the year in which the taxable net income is recognized by the Company, and taking into account the deductibility of state and local income taxes as applicable at the time for federal income tax purposes and any limitations thereon including pursuant to Section 68 of the Code, which Tax Rate shall be the same for all Members and shall not be less than 45%.

"Tax Receivable Agreement" means the Tax Receivable Agreement, dated as of the date hereof, by and among Pubco and each of the parties identified as Members therein.

"Transfer" means any sale, assignment, transfer, exchange, gift, bequest, pledge, hypothecation or other disposition or encumbrance, direct or indirect, in whole or in part, by operation of law or otherwise, and shall include all matters deemed to constitute a Transfer under Article VIII. The terms "Transferred", "Transferring", "Transferor", "Transferee" and "Transferable" have meanings correlative to the foregoing.

"Treasury Regulations" mean the regulations promulgated under the Code, as amended from time to time.

“Units” means Common Units or any other class of limited liability interests in the Company designated by the Company after the date hereof in accordance with this Agreement; provided that any type, class or series of Units shall have the designations, preferences and/or special rights set forth or referenced in this Agreement, and the membership interests of the Company represented by such type, class or series of Units shall be determined in accordance with such designations, preferences and/or special rights.

(b) Each of the following terms is defined in the Section set forth opposite such term:

<b>Term</b>	<b>Section</b>
Agreement	Preamble
Company	Preamble
Confidential Information	12.11(b)
Controlled Entities	10.02(e)
Dissolution Event	11.01(c)
Economic Pubco Security	4.01(a)
e-mail	12.03
Equityholder Parties	12.11(a)
Equityholders	12.11(a)
Expenses	10.02(e)
GAAP	3.03(b)
Indemnification Sources	10.02(e)
Indemnitee-Related Entities	10.02(e)(i)
Initial LLC Agreement	Recitals
Jointly Indemnifiable Claims	10.02(e)(ii)
Member Schedule	3.01(a)
Officers	7.05(a)
Process Agent	12.05(b)
Pubco	Preamble
Regulatory Allocations	5.04(c)
Reorganization	Recitals
Reorganization Agreement	Recitals
Revaluation	5.02(c)
Tax Matters Partner	6.01
Transferor Member	5.02(b)
Withholding Advances	5.06(b)

Section 1.02 Other Definitional and Interpretative Provisions. The words “hereof”, “herein” and “hereunder” and words of like import used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The captions herein are included for convenience of reference only and shall be ignored in the construction or interpretation hereof. References to Articles, Sections and Schedules are to Articles, Sections and Schedules of this Agreement unless otherwise specified. All Schedules annexed hereto or referred to herein are hereby incorporated in and made a part of this Agreement as if set forth in full herein. Any capitalized terms used in any Schedule but not otherwise defined therein, shall have the meaning as defined in this Agreement. Any singular term in this Agreement shall be deemed to include the plural, and any plural term the singular. Whenever the words “include”, “includes” or “including” are used in this Agreement, they shall be deemed to be followed by the words “without limitation”, whether or not they are in fact followed by those words or words of like import. “Writing”, “written” and comparable terms refer to printing, typing and other means of reproducing words (including electronic media) in a visible form. References to any statute shall be deemed to refer to such statute as amended from time to time and to any rules or regulations promulgated thereunder. References to any agreement or contract are to that agreement or contract as amended, modified or supplemented from time to time in accordance with the terms hereof and thereof. References to any Person include the successors and permitted assigns of that Person. References from or through any date mean, unless otherwise specified, from and including or through and including, respectively. References to “law”, “laws” or to a particular statute or law shall be deemed also to include any Applicable Law. As used in this Agreement, all references to “majority in interest” and phrases of similar import shall be deemed to refer to such percentage or fraction of interest based on the Relative Percentage Interests of the Members subject to such determination. Unless otherwise expressly provided herein, when any approval, consent or other matter requires any action or approval of any group of Members, including any holders of any class of Units, such approval, consent or other matter shall require the approval of a majority in interest of such group of Members. Except to the extent otherwise expressly provided herein, all references to any Member shall be deemed to refer solely to such Person in its capacity as such Member and not in any other capacity.

ARTICLE II

THE COMPANY

Section 2.01 Formation. The Company was formed upon the filing of the certificate of formation of the Company with the Secretary of State of the State of Delaware on April 15, 2015. The authorized officer or representative, as an “authorized person” within the meaning of the Delaware Act, shall file and record any amendments and/or restatements to the certificate of formation of the Company and such other certificates and documents (and any amendments or restatements thereof) as may be required under the laws of the State of Delaware and of any other jurisdiction in which the Company may conduct business. The authorized officer or representative shall, on request, provide any Member with copies of each such document as filed and recorded. The Members hereby agree that the Company and its Subsidiaries shall be governed by the terms and conditions of this Agreement and, except as provided herein, the Delaware Act.

Section 2.02 Name. The name of the Company shall be vTv Therapeutics LLC; provided that the Managing Member may change the name of the Company to such other name as the Managing Member shall determine in its sole discretion, and shall have the authority to execute, acknowledge, deliver, file and record such further certificates, amendments, instruments and documents, and to do all such other acts and things, as may be required by Applicable Law or as, in the reasonable judgment of the Managing Member, may be necessary or advisable to effect such change.

Section 2.03 Term. The Company shall have perpetual existence unless sooner dissolved and its affairs wound up as provided in Article XI.

Section 2.04 Registered Agent and Registered Office. The name of the registered agent of the Company for service of process on the Company in the State of Delaware shall be Corporation Service Company, and the address of such registered agent and the address of the registered office of the Company in the State of Delaware shall be 2711 Centerville Road, Suite 400, Wilmington, New Castle County, Delaware 19808. Such office and such agent may be changed to such place within the State of Delaware and any successor registered agent, respectively, as may be determined from time to time by the Managing Member in accordance with the Delaware Act.

Section 2.05 Purposes. The Company has been formed for the object and purpose of, and the nature of the business to be conducted and promoted by the Company is to engage in the Business and to carry on any other lawful act or activities for which limited liability companies may be organized under the Delaware Act.

Section 2.06 Powers of the Company. The Company shall have the power and authority to take any and all actions necessary, appropriate or advisable to or for the furtherance of the purposes set forth in Section 2.05.

Section 2.07 Partnership Tax Status. The Members intend that the Company shall be treated as a partnership for federal, state and local income tax purposes to the extent such treatment is available, and agree to take (or refrain from taking) such actions as may be necessary to receive and maintain such treatment and refrain from taking any actions inconsistent thereof.

Section 2.08 Regulation of Internal Affairs. The internal affairs of the Company and the conduct of its business shall be regulated by this Agreement, and to the extent not provided for herein, shall be determined by the Managing Member.

Section 2.09 Ownership of Property. Legal title to all Property, conveyed to, or held by the Company or its Subsidiaries shall reside in the Company or its Subsidiaries and shall be conveyed only in the name of the Company or its Subsidiaries and no Member or any other Person, individually, shall have any ownership of such Property.

Section 2.10 Subsidiaries. The Company shall cause the business and affairs of each of the Subsidiaries to be managed by the Managing Member in accordance with and in a manner consistent with this Agreement.

ARTICLE III

UNITS; MEMBERS; BOOKS AND RECORDS; REPORTS

Section 3.01 Units; Admission of Members.

(a) Effective upon the Reorganization, pursuant to the Reorganization Agreement, (i) the Company hereby establishes a new class of Common Units consisting of one Class M Common Unit having the terms set forth herein, and issues such Class M Common Unit to Pubco (as Managing Member) as set forth on Schedule A (the "Member Schedule") and (ii) the Company hereby establishes a new class of Nonvoting Common Units having the terms set forth herein. All Membership Interests (as defined in the Initial LLC Agreement) outstanding as of immediately prior to the Effective Time, all of which are held by Holdings, shall be reclassified into the number of Nonvoting Common Units, in the aggregate, set forth opposite Holdings' name on the Member Schedule. The Member Schedule shall be maintained by the Managing Member on behalf of the Company in accordance with this Agreement and the Managing Member shall promptly deliver a copy of the Member Schedule to any Member that so requests. When any Units or other Equity Securities of the Company are issued, repurchased, redeemed, converted or Transferred in accordance with this Agreement, the Member Schedule shall be amended by the Managing Member to reflect such issuance, repurchase, redemption or Transfer, the admission of additional or substitute Members and the resulting Percentage Interest of each Member. Following the date hereof, no Person shall be admitted as a Member and no additional Units shall be issued except as expressly provided herein.

(b) The Managing Member may cause the Company to authorize and issue from time to time such other Units or other Equity Securities of any type, class or series and having the designations, preferences and/or special rights as may be determined the Managing Member. Such Units or other Equity Securities may be issued pursuant to such agreements as the Managing Member shall approve. When any such other Units or other Equity Securities are authorized and issued, the Member Schedule and this Agreement shall be amended by the Managing Member to reflect such additional issuances and resulting dilution, which shall be borne pro rata by all Members based on their Common Units.

Section 3.02 Substitute Members and Additional Members.

(a) No Transferee of any Units or Person to whom any Units are issued pursuant to this Agreement shall be admitted as a Member hereunder or acquire any rights hereunder, including any class voting rights or the right to receive distributions and allocations in respect of the Transferred or issued Units, as applicable, unless (i) such Units are Transferred or issued in compliance with the provisions of this Agreement (including Article VIII) and (ii) such Transferee or recipient shall have executed and delivered to the Company such instruments as the Managing Member deems necessary or desirable, in its reasonable discretion, to effectuate the admission of such Transferee or recipient as a Member and to confirm the agreement of such Transferee or recipient to be bound by all the terms and provisions of this Agreement. Upon complying with the immediately preceding sentence, without the need for any further action of any Person, a Transferee or recipient shall be deemed admitted to the Company as a Member. A Substitute Member shall enjoy the same rights, and be subject to the same obligations, as the Transferor; provided that such Transferor shall not be relieved of any obligation or liability hereunder arising prior to the consummation of such Transfer but shall be relieved of all future obligations with respect to the Units so Transferred. As promptly as practicable after the admission of any Person as a Member, the books and records of the Company shall be changed to reflect such admission of a Substitute Member or Additional Member. In the event of any admission of a Substitute Member or Additional Member pursuant to this Section 3.02(a), this Agreement shall be deemed amended to reflect such admission, and any formal amendment of this Agreement (including the Member Schedule) in connection therewith shall only require execution by the Company and such Substitute Member or Additional Member, as applicable, to be effective.

(b) If a Member shall Transfer all (but not less than all) its Units, the Member shall thereupon cease to be a Member of the Company.

Section 3.03 Tax and Accounting Information.

(a) Accounting Decisions and Reliance on Others. All decisions as to accounting matters, except as otherwise specifically set forth herein, shall be made by the Managing Member in accordance with Applicable Law and with accounting methods followed for federal income tax purposes. In making such decisions, the Managing Member may rely upon the advice of the independent accountants of the Company.

(b) Records and Accounting Maintained. The books and records of the Company shall be kept, and the financial position and the results of its operations recorded, in all material respects in accordance with United States generally accepted accounting principles as in effect from time to time ("GAAP"). The Fiscal Year of the Company shall be used for financial reporting and for federal income tax purposes.

(c) Financial Reports. The books and records of the Company shall be audited as of the end of each Fiscal Year by the same accounting firm that audits the books and records of Pubco (or, if such firm declines to perform such audit, by an accounting firm selected by the Managing Member).

(d) Tax Returns.

(i) The Company shall timely cause to be prepared by an accounting firm selected by the Managing Member all federal, state, local and foreign tax returns (including information returns) of the Company and its Subsidiaries, which may be required by a jurisdiction in which the Company and its Subsidiaries operate or conduct business for each year or period for which such returns are required to be filed and shall cause such returns to be timely filed. Upon request of any Nonvoting Member, the Company shall furnish to such Nonvoting Member a copy of each such tax return;

(ii) The Company shall furnish to each Member (a) as soon as reasonably practical after the end of each Fiscal Year, all information concerning the Company and its Subsidiaries required for the preparation of tax returns of such Members (or any beneficial owner(s) of such Member), including a report (including Schedule K-1), indicating each Member's share of the Company's taxable income, gain, credits, losses and deductions for such year, in sufficient detail to enable such Member to prepare its federal, state and other tax returns and (b) as soon as reasonably possible after a request by such Member, such other information concerning the Company and its Subsidiaries that is reasonably requested by such Member for compliance with its tax obligations (or the tax obligations of any beneficial owner(s) of such Member) or for tax planning purposes; and

(iii) So long as it holds at least a 5% Nonvoting Percentage Interest, Holdings shall be entitled to review and comment on any tax returns or reports to be prepared pursuant to this Section 3.03(d) at least 60 days prior to the due date for the applicable tax return or report (including extensions). Holdings shall notify the Company no later than 30 days after receipt of a tax return or report of any changes recommended thereby to such return or report. The Company shall consider in good faith all reasonable comments of Holdings to such tax returns or reports. If the Company does not accept any such comment, the Company shall notify Holdings, as applicable, of that fact. If within five (5) days of such notification, Holdings requests in writing a review of a rejected comment, the Company shall cause its regular tax advisors to review the comment and consult with Holdings. The determination of the tax advisors following such review and consultation shall definitively determine the position taken on the Company's tax return or report.

(e) Inconsistent Positions. No Member shall take a position on its income tax return with respect to any item of Company income, gain, deduction, loss or credit that is different from the position taken on the Company's income tax return with respect to such item unless such Member notifies the Company of the different position the Member desires to take and the Company's regular tax advisors, after consulting with the Member, are unable to provide an opinion that (after taking into account all of the relevant facts and circumstances) the arguments in favor of the Company's position outweigh the arguments in favor of the Member's position.

Section 3.04 Books and Records. The Company shall keep full and accurate books of account and other records of the Company at its principal place of business. No Equityholder (other than the Managing Member and, so long as it holds an interest in the Company, Holdings) shall have any right to inspect the books and records of the Company or any of its Subsidiaries.



## ARTICLE IV

### PUBCO OWNERSHIP; RESTRICTIONS ON PUBCO STOCK

#### Section 4.01 Pubco Ownership.

(a) If at any time Pubco issues a share of Class A Common Stock or any other Equity Security of Pubco entitled to any economic rights (including, without limitation, in the IPO or pursuant to equity compensation plans or outstanding options, rights, warrants or other awards thereunder) (an "Economic Pubco Security") with regard thereto (not including, for the avoidance of doubt, the Class B Common Stock or other Equity Security of Pubco not entitled to any economic rights with respect thereto), (i) the Company shall issue to Pubco one Nonvoting Common Unit (if Pubco issues a share of Class A Common Stock) or such other Equity Security of the Company (if Pubco issues an Economic Pubco Security other than Class A Common Stock) corresponding to the Economic Pubco Security, and with substantially the same rights to dividends and distributions (including distributions upon liquidation) and other economic rights as those of such Economic Pubco Security and (ii) the net proceeds received by Pubco with respect to the corresponding Economic Pubco Security, if any, shall be concurrently contributed to the Company; provided, however, that if Pubco issues any Economic Pubco Securities, some or all of the net proceeds of which are to be used to fund expenses or other obligations of Pubco for which Pubco would be permitted a distribution pursuant to Section 5.03(c), then Pubco shall not be required to transfer such net proceeds to the Company which are used or will be used to fund such expenses or obligations, and provided, further, that if Pubco issues any shares of Class A Common Stock in order to purchase or fund the purchase from a Non-Pubco Member of a number of Nonvoting Common Units (and shares of Class B Common Stock) or to purchase or fund the purchase of shares of Class A Common Stock, in each case equal to the number of shares of Class A Common Stock issued (including, in each case, by way of exchange), then the Company shall not issue any new Common Units in connection therewith and Pubco shall not be required to transfer such net proceeds to the Company (it being understood that such net proceeds shall instead be transferred to such Non-Pubco Member as consideration for such purchase).

(b) Notwithstanding Section 4.01(a), this Article IV shall not apply (i) to the issuance and distribution to holders of shares of Pubco Common Stock of rights to purchase Equity Securities of Pubco under a "poison pill" or similar shareholders rights plan (it being understood that upon exchange of Paired Interests for Class A Common Stock pursuant to the Exchange Agreement, such Class A Common Stock will be issued together with a corresponding right) or (ii) to the issuance under the EIP or Pubco's other employee benefit plans of any warrants, options or other rights to acquire Equity Securities of Pubco or rights or property that may be converted into or settled in Equity Securities of Pubco, but shall in each of the foregoing cases apply to the issuance of Equity Securities of Pubco in connection with the exercise or settlement of such rights, warrants, options or other rights or property.

Section 4.02 Restrictions on Pubco Common Stock.

(a) Except as otherwise determined by the Managing Member in accordance with Section 4.02(d), (i) the Company may not issue any additional Nonvoting Common Units to Pubco or any of its Subsidiaries unless substantially simultaneously therewith Pubco or such Subsidiary issues or sells an equal number of shares of Class A Common Stock to another Person and (ii) the Company may not issue any other Equity Securities of the Company to Pubco or any of its Subsidiaries unless substantially simultaneously, Pubco or such Subsidiary issues or sells, to another Person, an equal number of shares of a new class or series of Equity Securities of Pubco or such Subsidiary with substantially the same rights to dividends and distributions (including distributions upon liquidation) and other economic rights as those of such Equity Securities of the Company.

(b) Except as otherwise determined by the Managing Member in accordance with Section 4.02(d), (i) Pubco or any of its Subsidiaries may not redeem, repurchase or otherwise acquire any shares of Class A Common Stock unless substantially simultaneously the Company redeems, repurchases or otherwise acquires from Pubco an equal number of Nonvoting Common Units for the same price per security (or, if Pubco uses funds received from distributions from the Company or other funds available to Pubco that were not provided by the Company or the net proceeds from an issuance of Class A Common Stock to fund such redemption, repurchase or acquisition, then the Company shall cancel an equal number of Nonvoting Common Units for no consideration) and (ii) Pubco or any of its Subsidiaries may not redeem or repurchase any other Equity Securities of Pubco unless substantially simultaneously, the Company redeems or repurchases from Pubco an equal number of Equity Securities of the Company of a corresponding class or series with substantially the same rights to dividends and distributions (including distributions upon liquidation) or other economic rights as those of such Equity Securities of Pubco for the same price per security (or, if Pubco uses funds received from distributions from the Company or the net proceeds from an issuance of Equity Securities other than Class A Common Stock to fund such redemption, repurchase or acquisition, then the Company shall cancel an equal number of its corresponding Equity Securities for no consideration). Except as otherwise determined by the Managing Member in accordance with Section 4.02(d): (x) the Company may not redeem, repurchase or otherwise acquire Nonvoting Common Units from Pubco or any of its Subsidiaries unless substantially simultaneously Pubco or such Subsidiary redeems, repurchases or otherwise acquires an equal number of Class A Common Stock for the same price per security from holders thereof (except that if the Company cancels Nonvoting Common Units for no consideration as described in Section 4.02(b)(i), then the price per security need not be the same) and (y) the Company may not redeem, repurchase or otherwise acquire any other Equity Securities of the Company from Pubco or any of its Subsidiaries unless substantially simultaneously Pubco or such Subsidiary redeems, repurchases or otherwise acquires for the same price per security an equal number of Equity Securities of Pubco of a corresponding class or series with substantially the same rights to dividends and distributions (including dividends and distributions upon liquidation) and other economic rights as those of such Equity Securities of Pubco (except that if the Company cancels Equity Securities for no consideration as described in Section 4.02(b)(ii), then the price per security need not be the same). Notwithstanding the immediately preceding sentence, to the extent that any consideration payable to Pubco in connection with the redemption or repurchase of any shares or other Equity Securities of Pubco or any of its Subsidiaries consists (in whole or in part) of shares or such other Equity Securities (including, for the avoidance of doubt, in connection with the cashless exercise of an option or warrant), then redemption or repurchase of the corresponding Nonvoting Common Units or other Equity Securities of the Company shall be effectuated in an equivalent manner (except if the Company cancels Nonvoting Common Units or other Equity Securities for no consideration as described in this Section 4.02(b)).

(c) The Company shall not in any manner effect any subdivision (by any stock or unit split, stock or unit dividend or distribution, reclassification, reorganization, recapitalization or otherwise) or combination (by reverse stock or unit split, reclassification, reorganization, recapitalization or otherwise) of the outstanding Nonvoting Common Units unless accompanied by a substantively identical subdivision or combination, as applicable, of the outstanding Class A Common Stock, with corresponding changes made with respect to any other exchangeable or convertible securities. Pubco shall not in any manner effect any subdivision (by any stock or unit split, stock or unit dividend or distribution, reclassification, reorganization, recapitalization or otherwise) or combination (by reverse stock or unit split, reclassification, reorganization, recapitalization or otherwise) of the outstanding Class A Common Stock unless accompanied by a substantively identical subdivision or combination of the outstanding Nonvoting Common Units, with corresponding changes made with respect to any other exchangeable or convertible securities.

(d) Notwithstanding anything to the contrary in this Article IV:

(i) if at any time the Managing Member shall determine that any debt instrument of Pubco, the Company or its Subsidiaries shall not permit Pubco or the Company to comply with the provisions of Section 4.02(a) or Section 4.02(b) in connection with the issuance, redemption or repurchase of any shares of Class A Common Stock or Class B Common Stock or other Equity Securities of Pubco or any of its Subsidiaries or any Units or other Equity Securities of the Company, then the Managing Member may in good faith implement an economically equivalent alternative arrangement without complying with such provisions; provided that such arrangement shall also be subject to the prior written consent (not to be unreasonably withheld) of Holdings, so long as it holds at least a 10% Nonvoting Percentage Interest; and

(ii) if (x) Pubco incurs any indebtedness and desires to transfer the proceeds of such indebtedness to the Company and (y) Pubco is unable to lend the proceeds of such indebtedness to the Company on an equivalent basis because of restrictions in any debt instrument of Pubco, the Company or its Subsidiaries, then notwithstanding Section 4.02(a) or Section 4.02(b), the Managing Member may in good faith implement an economically equivalent alternative arrangement in connection with the transfer of proceeds to the Company using non-participating preferred Equity Securities of the Company without complying with such provisions; provided that such arrangement shall also be subject to the prior written consent (not to be unreasonably withheld) of Holdings, so long as it holds at least a 10% Nonvoting Percentage Interest.

ARTICLE V

CAPITAL CONTRIBUTIONS; CAPITAL ACCOUNTS;  
DISTRIBUTIONS; ALLOCATIONS

Section 5.01 Capital Contributions.

(a) From and after the date hereof, no Member shall have any obligation to the Company, to any other Member or to any creditor of the Company to make any further Capital Contribution, except as expressly provided in Section 4.01(a).

(b) Except as expressly provided herein, no Member, in its capacity as a Member, shall have the right to receive any cash or any other property of the Company.

Section 5.02 Capital Accounts.

(a) Maintenance of Capital Accounts. The Company shall maintain a Capital Account for each Nonvoting Member on the books of the Company in accordance with the provisions of Treasury Regulations Section 1.704-1(b)(2)(iv) and, to the extent consistent with such provisions, the following provisions:

(i) Each Nonvoting Member listed on the Member Schedule shall be credited with the Reorganization Date Capital Account Balance set forth on the Member Schedule. The Member Schedule shall be amended by the Managing Member after the closing of the IPO and from time to time to reflect adjustments to the Nonvoting Members' Capital Accounts made in accordance with Sections 5.02(a)(ii), 5.02(a)(iii), 5.02(a)(iv), 5.02(c) or otherwise.

(ii) To each Nonvoting Member's Capital Account there shall be credited: (A) such Nonvoting Member's Capital Contributions, (B) such Member's distributive share of Net Income and any item in the nature of income or gain that is allocated pursuant to Section 5.04 and (C) the amount of any Company liabilities assumed by such Member or that are secured by any Property distributed to such Member.

(iii) To each Nonvoting Member's Capital Account there shall be debited: (A) the amount of money and the Carrying Value of any Property distributed to such Member pursuant to any provision of this Agreement, (B) such Member's distributive share of Net Loss and any items in the nature of expenses or losses that are allocated to such Member pursuant to Section 5.04 and (C) the amount of any liabilities of such Member assumed by the Company or that are secured by any Property contributed by such Member to the Company.

(iv) In determining the amount of any liability for purposes of subparagraphs (ii) and (iii) above there shall be taken into account Section 752(c) of the Code and any other applicable provisions of the Code and the Treasury Regulations.

The foregoing provisions and the other provisions of this Agreement relating to the maintenance of Capital Accounts are intended to comply with Treasury Regulations Section 1.704-1(b) and shall be interpreted and applied in a manner consistent with such Treasury Regulations. In the event that the Managing Member shall reasonably determine that it is prudent to modify the manner in which the Capital Accounts or any debits or credits thereto are maintained (including debits or credits relating to liabilities that are secured by contributed or distributed Property or that are assumed by the Company or the Members), the Managing Member may make such modification so long as such modification will not have any effect on the amounts distributed to any Person pursuant to Article XI upon the dissolution of the Company. The Managing Member also shall (i) make any adjustments that are necessary or appropriate to maintain equality between Capital Accounts of the Members and the amount of capital reflected on the Company's balance sheet, as computed for book purposes, in accordance with Treasury Regulations Section 1.704-1(b)(2)(iv)(g), and (ii) make any appropriate modifications in the event unanticipated events might otherwise cause this Agreement not to comply with Treasury Regulations Section 1.704-1(b).

(b) Succession to Capital Accounts. In the event any Person becomes a Substitute Member in accordance with the provisions of this Agreement, such Substitute Member shall succeed to the Capital Account of the former Member (the "Transferor Member") to the extent such Capital Account relates to the Transferred Units.

(c) Adjustments of Capital Accounts. The Company shall revalue the Capital Accounts of the Members in accordance with Treasury Regulations Section 1.704-1(b)(2)(iv)(f) (a "Revaluation") at the following times: (i) immediately prior to the contribution of more than a *de minimis* amount of money or other property to the Company by a new or existing Member as consideration for one or more Units; (ii) the distribution by the Company to a Member of more than a *de minimis* amount of property in respect of one or more Units; (iii) the issuance by the Company of more than a *de minimis* amount of Units as consideration for the provision of services to or for the benefit of the Company (as described in Treasury Regulations Section 1.704-1(b)(2)(iv)(f)(5)(iii)); and (iv) the liquidation of the Company within the meaning of Treasury Regulations Section 1.704-1(b)(2)(ii)(g) (other than a liquidation pursuant to Section 708(b)(1)(B) of the Code); provided, however, that adjustments pursuant to clauses (i), (ii) and (iii) above shall be made only if the Managing Member reasonably determines that such adjustments are necessary or appropriate to reflect the relative economic interest of the Members.

(d) No Member shall be entitled to withdraw capital or receive distributions except as specifically provided herein. A Member shall have no obligation to the Company, to any other Member or to any creditor of the Company to restore any negative balance in the Capital Account of such Member. Except as expressly provided elsewhere herein, no interest shall be paid on the balance in any Member's Capital Account.

(e) Whenever it is necessary for purposes of this Agreement to determine a Member's Capital Account on a per Unit basis, such amount shall be determined by dividing the Capital Account of such Member attributable to the applicable class of Units held of record by such Member by the number of Units of such class held of record by such Member.

Section 5.03 Amounts and Priority of Distributions.

(a) Distributions Generally. Except as otherwise provided in Section 11.02, distributions shall be made to the Nonvoting Members as set forth in this Section 5.03, at such times and in such amounts as the Managing Member, in its sole discretion, shall determine. For the avoidance of doubt, subject to Section 5.03(c), the Class M Members shall not be entitled to receive any distributions hereunder.

(b) Distributions to the Members. Subject to Sections 5.03(e), at such times and in such amounts as the Managing Member, in its sole discretion, shall determine, distributions shall be made to the Nonvoting Members in proportion to their respective Nonvoting Percentage Interests.

(c) Pubco Distributions. Notwithstanding the provisions of Section 5.03(b), the Managing Member, in its sole discretion, may authorize that (i) cash be paid to Pubco (which payment shall be made without pro rata distributions to the other Members) in exchange for the redemption, repurchase or other acquisition of Nonvoting Common Units held by Pubco to the extent that such cash payment is used to redeem, repurchase or otherwise acquire an equal number of shares of Class A Common Stock in accordance with Section 4.02(b), and (ii) to the extent that the Managing Member determines that expenses or other obligations of Pubco are related to its role as the Managing Member or the business and affairs of Pubco that are conducted through the Company or any of the Company's direct or indirect Subsidiaries, cash (and, for the avoidance of doubt, only cash) distributions may be made to Pubco (which distributions shall be made without pro rata distributions to the other Members) in amounts required for Pubco to pay (w) operating, administrative and other similar costs incurred by Pubco, including payments in respect of Indebtedness and preferred stock, to the extent the proceeds are used or will be used by Pubco to pay expenses or other obligations described in this clause (ii) (in either case only to the extent economically equivalent Indebtedness or Equity Securities of the Company were not issued to Pubco), payments representing interest with respect to payments not made when due under the terms of the Tax Receivable Agreement and payments pursuant to any legal, tax, accounting and other professional fees and expenses (but, for the avoidance of doubt, excluding any tax liabilities of Pubco), (x) any judgments, settlements, penalties, fines or other costs and expenses in respect of any claims against, or any litigation or proceedings involving, Pubco, (y) fees and expenses (including any underwriters discounts and commissions) related to any securities offering, investment or acquisition transaction (whether or not successful) authorized by the board of directors of Pubco and (z) other fees and expenses in connection with the maintenance of the existence of Pubco (including any costs or expenses associated with being a public company listed on a national securities exchange). For the avoidance of doubt, distributions made under this Section 5.03(c) may not be used to pay or facilitate dividends or distributions on the Pubco Common Stock and must be used solely for one of the express purposes set forth under clause (i) or (ii) of the immediately preceding sentence.

(d) Distributions in Kind. Any distributions to the Nonvoting Members in kind shall be made at such times and in such amounts as the Managing Member, in its sole discretion, shall determine based on their fair market value as determined by the Managing Member in the same proportions as if distributed in accordance with Section 5.03(b), with all Nonvoting Members participating in proportion to their respective Nonvoting Percentage Interests. If cash and property are to be distributed in kind simultaneously, the Company shall distribute such cash and property in kind in the same proportion to each Nonvoting Member.

(e) Tax Distributions.

(i) Notwithstanding any other provision of this Section 5.03 to the contrary, to the extent permitted by Applicable Law and consistent with the Company's obligations to its creditors as reasonably determined by the Managing Member, the Company shall make cash distributions by wire transfer of immediately available funds pursuant to this Section 5.03(e)(i) to each Nonvoting Member with respect to its Nonvoting Common Units at least two (2) Business Days prior to the date on which any U.S. federal corporate estimated tax payments are due, in an amount equal to such Nonvoting Member's Tax Distribution Amount, if any; provided that the Managing Member shall have no liability to any Member in connection with any underpayment of estimated taxes, so long as cash distributions are made in accordance with this Section 5.03(e)(i) and the Tax Distribution Amounts are determined as provided in paragraph (i) of the definition of Tax Distribution Amount.

(ii) On any date that the Company makes a distribution to the Members with respect to their Nonvoting Common Units under a provision of Section 5.03 other than this Section 5.03(e), if the Tax Distribution Amount is greater than zero, the Company shall designate all or a portion of such distribution as a Tax Distribution with respect to a Member's Nonvoting Common Units to the extent of the Tax Distribution Amount with respect to such Member's Nonvoting Common Units as of such date (but not to exceed the amount of such distribution). For the avoidance of doubt, such designation shall be performed with respect to all Members with respect to which there is a Tax Distribution Amount as of such date.

(iii) Notwithstanding any other provision of this Section 5.03 to the contrary, if the Tax Distribution Amount for such Fiscal Year is greater than zero, to the extent permitted by Applicable Law and consistent with the Company's obligations to its creditors as reasonably determined by the Managing Member, the Company shall make additional distributions under this Section 5.03(e)(iii) to the extent of such Tax Distribution Amount for such Fiscal Year as soon as reasonably practicable after the end of such Fiscal Year (or as soon as reasonably practicable after any event that subsequently adjusts the taxable income of such Fiscal Year).

(iv) Under no circumstances shall Tax Distributions reduce the amount otherwise distributable to any Member pursuant to this Section 5.03 (other than this Section 5.03(e)) after taking into account the effect of Tax Distributions on the amount of cash or other assets available for distribution by the Company.

(f) Assignment. Holdings shall have the right to assign to any Transferee of Common Units, pursuant to a Transfer made in compliance with this Agreement, the right to receive any portion of the amounts distributable or otherwise payable to Holdings pursuant to Section 5.03(b).

Section 5.04 Allocations.

(a) Net Income and Net Loss. Except as otherwise provided in this Agreement, and after giving effect to the special allocations set forth in Section 5.04(b), Section 5.04(c) and Section 5.04(d), Net Income and Net Loss (and, to the extent necessary, individual items of income, gain, loss, deduction or credit) of the Company shall be allocated among the Nonvoting Members in a manner such that the Capital Account of each Nonvoting Member, immediately after making such allocation, is, as nearly as possible, equal to (i) the distributions that would be made to such Nonvoting Member pursuant to Section 5.03(b) if the Company were dissolved, its affairs wound up and its assets sold for cash equal to their Carrying Value, all Company liabilities were satisfied (limited with respect to each nonrecourse liability to the Carrying Value of the assets securing such liability), and the net assets of the Company were distributed, in accordance with Section 5.03(b), to the Nonvoting Members immediately after making such allocation, minus (ii) such Nonvoting Member's share of Company Minimum Gain and Member Nonrecourse Debt Minimum Gain, computed immediately prior to the hypothetical sale of assets.

(b) Special Allocations. The following special allocations shall be made in the following order:

(i) Minimum Gain Chargeback. Except as otherwise provided in Treasury Regulations Section 1.704-2(f), notwithstanding any other provision of this Article V, if there is a net decrease in Company Minimum Gain during any Fiscal Year, each Nonvoting Member shall be specially allocated items of Company income and gain for such Fiscal Year (and, if necessary, subsequent Fiscal Years) in an amount equal to such Nonvoting Member's share of the net decrease in Company Minimum Gain, determined in accordance with Treasury Regulations Section 1.704-2(g). Allocations pursuant to the immediately preceding sentence shall be made in proportion to the respective amounts required to be allocated to each Nonvoting Member pursuant thereto. The items to be so allocated shall be determined in accordance with Treasury Regulations Section 1.704-2(f)(6) and 1.704-2(j)(2). This Section 5.04(b)(i) is intended to comply with the minimum gain chargeback requirement in Treasury Regulations Section 1.704-2(f) and shall be interpreted consistently therewith.



(ii) Member Minimum Gain Chargeback. Except as otherwise provided in Treasury Regulations Section 1.704-2(i)(4), notwithstanding any other provision of this Article V, if there is a net decrease in Member Nonrecourse Debt Minimum Gain attributable to a Member Nonrecourse Debt during any Fiscal Year, each Nonvoting Member who has a share of the Member Nonrecourse Debt Minimum Gain attributable to such Member Nonrecourse Debt, determined in accordance with Treasury Regulations Section 1.704-2(i)(5), shall be specially allocated items of Company income and gain for such Fiscal Year (and, if necessary, subsequent Fiscal Years) in an amount equal to such Nonvoting Member's share of the net decrease in Member Nonrecourse Debt Minimum Gain attributable to such Member Nonrecourse Debt, determined in accordance with Treasury Regulations Section 1.704-2(i)(4). Allocations pursuant to the previous sentence shall be made in proportion to the respective amounts required to be allocated to each Nonvoting Member pursuant thereto. The items to be so allocated shall be determined in accordance with Treasury Regulations Sections 1.704-2(i)(4) and 1.704-2(j)(2). This Section 5.04(b)(ii) is intended to comply with the minimum gain chargeback requirement in Treasury Regulations Section 1.704-2(i)(4) and shall be interpreted consistently therewith.

(iii) Qualified Income Offset. In the event any Nonvoting Member unexpectedly receives any adjustments, allocations, or distributions described in Treasury Regulations Sections 1.704-1(b)(2)(ii)(d)(4), 1.704-1(b)(2)(ii)(d)(5) or Section 1.704-1(b)(2)(ii)(d)(6), items of Company income and gain shall be specially allocated to such Nonvoting Member in an amount and manner sufficient to eliminate, to the extent required by the Treasury Regulations, the Adjusted Capital Account Deficit of the Nonvoting Member as promptly as possible; provided that an allocation pursuant to this Section 5.04(b)(iii) shall be made only if and to the extent that the Nonvoting Member would have an Adjusted Capital Account Deficit after all other allocations provided for in this Article V have been tentatively made as if this Section 5.04(b)(iii) were not in the Agreement.

(iv) Nonrecourse Deductions. Nonrecourse Deductions for any Fiscal Year shall be specially allocated to the Members in a manner determined by the Managing Member consistent with Treasury Regulations Sections 1.704-2(b) and 1.704-2(c).

(v) Member Nonrecourse Deductions. Any Member Nonrecourse Deductions for any Fiscal Year shall be specially allocated to the Nonvoting Member who bears the economic risk of loss with respect to the Member Nonrecourse Debt to which such Member Nonrecourse Deductions are attributable in accordance with Treasury Regulations Sections 1.704-2(i)(1) and 1.704-2(j)(1).

(vi) Section 754 Adjustments. (A) To the extent an adjustment to the adjusted tax basis of any Company asset pursuant to Sections 734(b) or 743(b) of the Code is required pursuant to Treasury Regulations Section 1.704-1(b)(2)(iv)(m)(4) to be taken into account in determining Capital Accounts as a result of a distribution other than in liquidation of a Nonvoting Member's interest in the Company, the amount of such adjustment shall be treated as an item of gain (if the adjustment increases the basis of such asset) or loss (if the adjustment decreases the basis of such asset) from the disposition of the asset and shall be taken into account for purposes of computing Net Income and Net Loss. (B) To the extent an adjustment to the adjusted tax basis of any Company asset pursuant to Sections 734(b) or 743(b) of the Code is required, pursuant to Treasury Regulations Section 1.704-1(b)(2)(iv)(m)(2) or Section 1.704-1(b)(2)(iv)(m)(4), to be taken into account in determining Capital Accounts as the result of a distribution to a Nonvoting Member in complete liquidation of such Nonvoting Member's interest in the Company, the amount of such adjustment to Capital Accounts shall be treated as an item of gain (if the adjustment increases the basis of the asset) or loss (if the adjustment decreases such basis) and such gain or loss shall be specially allocated to such Nonvoting Members in accordance with their interests in the Company in the event Treasury Regulations Section 1.704-1(b)(2)(iv)(m)(2) applies, or to the Nonvoting Member to whom such distribution was made in the event Treasury Regulations Section 1.704-1(b)(2)(iv)(m)(4) applies.

(c) Curative Allocations. The allocations set forth in Section 5.04(b)(i) through Section 5.04(b)(vi) and Section 5.04(d) (the "Regulatory Allocations") are intended to comply with certain requirements of the Treasury Regulations. It is the intent of the Nonvoting Members that, to the extent possible, all Regulatory Allocations shall be offset either with other Regulatory Allocations or with special allocations of other items of Company income, gain, loss, or deduction pursuant to this Section 5.04(c). Therefore, notwithstanding any other provision of this Article V (other than the Regulatory Allocations), the Managing Member shall make such offsetting special allocations of Company income, gain, loss, or deduction in whatever manner it determines appropriate so that, after such offsetting allocations are made, each Nonvoting Member's Capital Account balance is, to the extent possible, equal to the Capital Account balance such Nonvoting Member would have had if the Regulatory Allocations were not part of the Agreement and all Company items were allocated pursuant to Section 5.04.

(d) Loss Limitation. Net Loss (or individual items of loss or deduction) allocated pursuant to Section 5.04 hereof shall not exceed the maximum amount of Net Loss (or individual items of loss or deduction) that can be allocated without causing any Nonvoting Member to have an Adjusted Capital Account Deficit at the end of any Fiscal Year. In the event some but not all of the Nonvoting Members would have Adjusted Capital Account Deficits as a consequence of an allocation of Net Loss (or individual items of loss or deduction) pursuant to Section 5.04 hereof, the limitation set forth in this Section 5.04(d) shall be applied on a Member by Member basis and Net Loss (or individual items of loss or deduction) not allocable to any Nonvoting Member as a result of such limitation shall be allocated to the other Nonvoting Members in accordance with the positive balances in such Nonvoting Members' Capital Accounts so as to allocate the maximum permissible Net Loss to each Nonvoting Member under Treasury Regulations Section 1.704-1(b)(2)(ii)(d). Any reallocation of Net Loss pursuant to this Section 5.04(d) shall be subject to chargeback pursuant to the curative allocation provision of Section 5.04(c).

Section 5.05 Other Allocation Rules.

(a) Interim Allocations Due to Percentage Adjustment. If a Nonvoting Percentage Interest is the subject of a Transfer or the Nonvoting Members' interests in the Company change pursuant to the terms of the Agreement during any Fiscal Year, the amount of Net Income and Net Loss (or items thereof) to be allocated to the Nonvoting Members for such entire Fiscal Year shall be allocated to the portion of such Fiscal Year which precedes the date of such Transfer or change (and if there shall have been a prior Transfer or change in such Fiscal Year, which commences on the date of such prior Transfer or change) and to the portion of such Fiscal Year which occurs on and after the date of such Transfer or change (and if there shall be a subsequent Transfer or change in such Fiscal Year, which precedes the date of such subsequent Transfer or change) in accordance with Section 706 of the Code and the regulations thereunder as determined by the Managing Member and the amounts of the items so allocated to each such portion shall be credited or charged to the Members in accordance with Section 5.04 as in effect during each such portion of the Fiscal Year in question. As of the date of such Transfer, the Transferee Member shall succeed to the Capital Account of the Transferor Member with respect to the transferred Units.

(b) Tax Allocations: Code Section 704(c). In accordance with Section 704(c) of the Code and the Treasury Regulations thereunder, income, gain, loss, and deduction with respect to any Property contributed to the capital of the Company and with respect to reverse Code Section 704(c) allocations described in Treasury Regulations 1.704-3(a)(6) shall, solely for tax purposes, be allocated among the Members so as to take account of any variation between the adjusted basis of such Property to the Company for federal income tax purposes and its initial Carrying Value or its Carrying Value determined pursuant to Treasury Regulation 1.704-1(b)(2)(iv)(f) (computed in accordance with the definition of Carrying Value) using the traditional allocation method under Treasury Regulation 1.704-3(b). Any elections or other decisions relating to such allocations shall be made by the Managing Member in any manner that reasonably reflects the purpose and intention of this Agreement. Allocations pursuant to this Section 5.05(b), Section 704(c) of the Code (and the principles thereof), and Treasury Regulation 1.704-1(b)(4)(i) are solely for purposes of federal, state, and local taxes and shall not affect, or in any way be taken into account in computing, any Nonvoting Member's Capital Account or share of Net Income, Net Loss, other items, or distributions pursuant to any provision of this Agreement.

Section 5.06 Tax Withholding; Withholding Advances.

(a) Tax Withholding.

(i) If requested by the Managing Member, each Nonvoting Member shall, if able to do so, deliver to the Managing Member: (A) an affidavit in form satisfactory to the Company that the applicable Nonvoting Member (or its partners, as the case may be) is not subject to withholding under the provisions of any federal, state, local, foreign or other law; (B) any certificate that the Company may reasonably request with respect to any such laws; and/or (C) any other form or instrument reasonably requested by the Company relating to any Nonvoting Member's status under such law. In the event that a Nonvoting Member fails or is unable to deliver to the Company an affidavit described in subclause (A) of this clause (i), the Company may withhold amounts from such Nonvoting Member in accordance with Section 5.06(b).

(ii) After receipt of a written request of any Nonvoting Member, the Company shall provide such information to such Nonvoting Member and take such other action as may be reasonably necessary to assist such Nonvoting Member in making any necessary filings, applications or elections to obtain any available exemption from, or any available refund of, any withholding imposed by any foreign taxing authority with respect to amounts distributable or items of income allocable to such Nonvoting Member hereunder to the extent not adverse to the Company or any Member. In addition, the Company shall, at the request of any Nonvoting Member, make or cause to be made (or cause the Company to make) any such filings, applications or elections; provided that any such requesting Nonvoting Member shall cooperate with the Company, with respect to any such filing, application or election to the extent reasonably determined by the Company and that any filing fees, taxes or other out-of-pocket expenses reasonably incurred and related thereto shall be paid and borne by such requesting Nonvoting Member or, if there is more than one requesting Nonvoting Member, by such requesting Nonvoting Members in accordance with their Relative Percentage Interests.

(b) Withholding Advances. To the extent the Company is required by Applicable Law to withhold or to make tax payments on behalf of or with respect to any Nonvoting Member (e.g., backup withholding) ("Withholding Advances"), the Company may withhold such amounts and make such tax payments as so required.

(c) Repayment of Withholding Advances. All Withholding Advances made on behalf of a Nonvoting Member, plus interest thereon at a rate equal to the Prime Rate as of the date of such Withholding Advances plus 2.0% per annum, shall (i) be paid on demand by the Nonvoting Member on whose behalf such Withholding Advances were made (it being understood that no such payment shall increase such Member's Capital Account), or (ii) with the consent of the Managing Member and the affected Member be repaid by reducing the amount of the current or next succeeding distribution or distributions that would otherwise have been made to such Nonvoting Member or, if such distributions are not sufficient for that purpose, by so reducing the proceeds of liquidation otherwise payable to such Nonvoting Member. Whenever repayment of a Withholding Advance by a Nonvoting Member is made as described in clause (ii) of this Section 5.06(c), for all other purposes of this Agreement such Nonvoting Member shall be treated as having received all distributions (whether before or upon any Dissolution Event) unreduced by the amount of such Withholding Advance and interest thereon.

(d) Withholding Advances — Reimbursement of Liabilities. Each Nonvoting Member hereby agrees to reimburse the Company for any liability with respect to Withholding Advances (including interest thereon) required or made on behalf of or with respect to such Nonvoting Member (including penalties imposed with respect thereto).

## ARTICLE VI

### CERTAIN TAX MATTERS

Section 6.01 Tax Matters Partner. The “Tax Matters Partner” (as such term is defined in Section 6231(a)(7) of the Code) of the Company shall be selected by the Managing Member with the initial Tax Matters Partner being Pubco. The Tax Matters Partner shall use its reasonable efforts to comply with the responsibilities outlined in Sections 6221 through 6233 of the Code (including the Treasury Regulations promulgated thereunder) and shall have any powers necessary to perform fully in such capacity. The Tax Matters Partner is authorized to represent the Company before taxing authorities and courts in tax matters affecting the Company and the Members in their capacity as such and shall keep the Members promptly informed of any such administrative and judicial proceedings; provided that Holdings shall be entitled to participate with the Tax Matters Partner in any tax matters that would reasonably be expected to have a materially adverse effect on Holdings (or any beneficial owners of Holdings). The Tax Matters Partner shall be entitled to be reimbursed by the Company for all reasonable third-party costs and expenses incurred by it in connection with any administrative or judicial proceeding affecting tax matters of the Company and the Members in their capacity as such. The Tax Matters Partner shall not bind any Member to any settlement agreement or closing agreement without such Member’s prior written consent. Any Member who enters into a settlement agreement with any tax authority with respect to any Company item shall notify the Tax Matters Partner of such settlement agreement and its terms within thirty (30) days after the date of settlement. This provision shall survive any termination of this Agreement.

Section 6.02 Section 754 Election. The Company shall make a timely election under Section 754 of the Code (and a corresponding election under state and local law) effective starting with the taxable year ended December 31, 2015, and the Managing Member shall not take any action to revoke such election.

## ARTICLE VII

### MANAGEMENT OF THE COMPANY

Section 7.01 Management by the Managing Member. Except as otherwise specifically set forth in this Agreement, the Managing Member shall be deemed to be a “manager” for purposes of applying the Delaware Act. Except as expressly provided in this Agreement or the Delaware Act, the day-to-day business and affairs of the Company and its Subsidiaries shall be managed, operated and controlled by the Managing Member in accordance with the terms of this Agreement and no other Members shall have management authority or rights over the Company or its Subsidiaries. The Managing Member is, to the extent of its rights and powers set forth in this Agreement, an agent of the Company for the purpose of the Company’s and its Subsidiaries’ business, and the actions of the Managing Member taken in accordance with such rights and powers, shall bind the Company (and no other Members shall have such right). Except as expressly provided in this Agreement, the Managing Member shall have all necessary powers to carry out the purposes, business, and objectives of the Company and its Subsidiaries. The Managing Member may delegate to Members, employees, officers or agents of the Company or any Subsidiary in its discretion the authority to sign agreements and other documents on behalf of the Company or any Subsidiary.

Section 7.02 Withdrawal of the Managing Member. Pubco may withdraw as the Managing Member and appoint as its successor at any time upon written notice to the Company (i) any wholly-owned Subsidiary of Pubco, (ii) any Person of which Pubco is a wholly-owned Subsidiary, (iii) any Person into which Pubco is merged or consolidated or (iv) any transferee of all or substantially all of the assets of Pubco, which withdrawal and replacement shall be effective upon the delivery of such notice. No appointment of a Person other than Pubco (or its successor, as applicable) as Managing Member shall be effective unless Pubco (or its successor, as applicable) and the new Managing Member (as applicable) provide all other Members with contractual rights, directly enforceable by such other Members against the new Managing Member, to cause the new Managing Member to comply with all the Managing Member's obligations under this Agreement and the Exchange Agreement.

Section 7.03 Decisions by the Members.

(a) Other than the Managing Member, the Members shall take no part in the management of the Company's business, shall transact no business for the Company and shall have no power to act for or to bind the Company; provided, however, that the Company may engage any Member or principal, partner, member, shareholder or interest holder thereof as an employee, independent contractor or consultant to the Company, in which event the duties and liabilities of such individual or firm with respect to the Company as an employee, independent contractor or consultant shall be governed by the terms of such engagement with the Company.

(b) Except as expressly provided herein (including with respect to any special approval rights granted to Holdings hereunder), no Members (other than Pubco in its capacity as the Class M Member) nor any class of Members (other than the Class M Common Units) shall have any voting rights nor the power or authority to vote, approve or consent to any matter or action taken by the Company. Except as otherwise provided herein, any proposed matter or action subject to the vote, approval or consent of the Members shall require the approval of the Class M Member.

Section 7.04 [Reserved].

Section 7.05 Officers.

(a) Appointment of Officers. The Managing Member may appoint individuals as officers (“Officers”) of the Company, which may include such officers as the Managing Member determines are necessary and appropriate. No Officer need be a Member. An individual may be appointed to more than one office.

(b) Authority of Officers. The Officers shall have the duties, rights, powers and authority as may be prescribed by the Managing Member from time to time.

(c) Removal, Resignation and Filling of Vacancy of Officers. The Managing Member may remove any Officer, for any reason or for no reason, at any time. Any Officer may resign at any time by giving written notice to the Company, and such resignation shall take effect at the date of the receipt of that notice or any later time specified in that notice; provided that, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any such resignation shall be without prejudice to the rights, if any, of the Company or such Officer under this Agreement. A vacancy in any office because of death, resignation, removal or otherwise shall be filled by the Managing Member.

## ARTICLE VIII

### TRANSFERS OF INTERESTS

Section 8.01 Restrictions on Transfers.

(a) Except as expressly permitted by Section 8.02, and subject to Section 8.01(b), Section 8.01(c), and Section 8.01(d), any underwriter lock-up agreement applicable to such Member, and/or any other agreement between such Member and the Company, Pubco or any of their controlled Affiliates, without the prior written approval of the Managing Member, no Member shall directly or indirectly Transfer all or any part of its Units or any right or economic interest pertaining thereto, including the right to vote or consent on any matter or to receive or have any economic interest in distributions or advances from the Company pursuant thereto. Any such Transfer which is not in compliance with the provisions of this Agreement shall be deemed a Transfer by such Member of Units in violation of this Agreement (and a breach of this Agreement by such Member) and shall be null and void *ab initio*. Notwithstanding anything to the contrary in this Article VIII, (i) the Exchange Agreement shall govern the exchange of Paired Interests for shares of Class A Common Stock, and an exchange pursuant to and in accordance with the Exchange Agreement shall not be considered a “Transfer” for purposes of this Agreement, (ii) a Transfer of Registrable Securities (as such term is defined in the Investor Rights Agreement) in accordance with the Investor Rights Agreement shall not be considered a “Transfer” for the purposes of the Agreement, and (iii) any other Transfer of shares of Class A Common Stock shall not be considered a “Transfer” for purposes of this Agreement.

(b) Except as otherwise expressly provided herein, it shall be a condition precedent to any Transfer otherwise permitted or approved pursuant to this Article VIII that:

(i) the Transferor shall have provided to the Company prior notice of such Transfer;

(ii) the Transfer shall comply with all Applicable Laws; and

(iii) with respect to any Transfer of any Nonvoting Common Unit that constitutes a portion of a Paired Interest, concurrently with such Transfer, such Transferor shall also Transfer to such Transferee the number of shares of Class B Common Stock constituting the remainder of such Paired Interest (which, as of the date hereof, would be one share of Class B Common Stock).

(c) Notwithstanding any other provision of this Agreement to the contrary, no Member shall directly or indirectly Transfer all or any part of its Units or any right or economic interest pertaining thereto if such Transfer, in the reasonable discretion of the Managing Member, would cause the Company to be classified as a “publicly traded partnership” as that term is defined in Section 7704 of the Code and Regulations promulgated thereunder.

(d) Any Transfer of Units pursuant to this Agreement, including this Article VIII, shall be subject to the provisions of Section 3.01 and Section 3.02.

Section 8.02 Certain Permitted Transfers. Notwithstanding anything to the contrary herein, the following Transfers shall be permitted:

(a) Any Transfer by any Member of its Units pursuant to a Pubco Offer (as such term is defined in the Exchange Agreement) or Disposition Event; or

(b) At any time, any Transfer by any Member of Units to any Transferee approved in writing by the Managing Member (not to be unreasonably withheld), it being understood that it shall be reasonable for the Managing Member to withhold such consent if the Managing Member reasonably determines that such Transfer would materially increase the risk that (i) the Company would be classified as a “publicly traded partnership” as that term is defined in Section 7704 of the Code and Regulations promulgated thereunder or (ii) the Company would be required to register a class of securities under the Exchange Act.



Section 8.03 Registration of Transfers. When any Units are Transferred in accordance with the terms of this Agreement, the Company shall cause such Transfer to be registered on the books of the Company.

ARTICLE IX

[RESERVED]

ARTICLE X

LIMITATION ON LIABILITY, EXCULPATION  
AND INDEMNIFICATION

Section 10.01 Limitation on Liability. The debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise, shall be solely the debts, obligations and liabilities of the Company, and no Covered Person shall be obligated personally for any such debt, obligation or liability of the Company; provided that the foregoing shall not alter a Member's obligation to return funds wrongfully distributed to it.

Section 10.02 Exculpation and Indemnification.

(a) Neither the Managing Member nor any other Covered Person described in clause (iii) of the definition thereof shall be liable, including under any legal or equitable theory of fiduciary duty or other theory of liability, to the Company or to any other Covered Person for any losses, claims, damages or liabilities incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company. There shall be, and each Covered Person shall be entitled to, a presumption that such Covered Person acted in good faith.

(b) A Covered Person shall be fully protected in relying in good faith upon the records of the Company and upon such information, opinions, reports or statements presented to the Company by any Person as to matters the Covered Person reasonably believes are within such Person's professional or expert competence.

(c) The Company shall indemnify, defend and hold harmless each Covered Person against any losses, claims, damages, liabilities, expenses (including all reasonable out-of-pocket fees and expenses of counsel and other advisors), judgments, fines, settlements and other amounts arising from any and all claims, demands, actions, suits or proceedings, in which such Covered Person may be involved or become subject to, in connection with any matter arising out of or in connection with the Company's business or affairs, or this Agreement or any related document, unless such loss, claim, damage, liability, expense, judgment, fine, settlement or other amount (i) is as a result of a Covered Person not acting in good faith on behalf of the Company or arose as a result of the willful commission by such Covered Person of any act that is dishonest and materially injurious to the Company, (ii) results from its contractual obligations under any Reorganization Document to be performed in a capacity other than as a Covered Person or (iii) results from the breach by any Member (in such capacity) of its contractual obligations under this Agreement. If any Covered Person becomes involved in any capacity in any action, suit, proceeding or investigation in connection with any matter arising out of or in connection with the Company's business or affairs, or this Agreement or any related document (other than any Reorganization Document), other than by reason of any act or omission performed or omitted by such Covered Person that was not in good faith on behalf of the Company or constituted a willful commission by such Covered Person of an act that is dishonest and materially injurious to the Company, the Company shall reimburse such Covered Person for its reasonable legal and other reasonable out-of-pocket expenses (including the cost of any investigation and preparation) as they are incurred in connection therewith; provided that such Covered Person shall promptly repay to the Company the amount of any such reimbursed expenses paid to it if it shall be finally judicially determined that such Covered Person was not entitled to indemnification by, or contribution from, the Company in connection with such action, suit, proceeding or investigation. If for any reason (other than the bad faith of a Covered Person or the willful commission by such Covered Person of an act that is dishonest and materially injurious to the Company) the foregoing indemnification is unavailable to such Covered Person, or insufficient to hold it harmless, then the Company shall contribute to the amount paid or payable by such Covered Person as a result of such loss, claim, damage, liability, expense, judgment, fine, settlement or other amount in such proportion as is appropriate to reflect any relevant equitable considerations. There shall be, and each Covered Person shall be entitled to, a rebuttable presumption that such Covered Person acted in good faith.

(d) The obligations of the Company under Section 10.02(c) shall be satisfied solely out of and to the extent of the Company's assets, and no Covered Person shall have any personal liability on account thereof.

(e) Given that certain Jointly Indemnifiable Claims may arise by reason of the service of a Covered Person to the Company and/or as a director, trustee, officer, partner, member, manager, employee, consultant, fiduciary or agent of other corporations, limited liability companies, partnerships, joint ventures, trusts, employee benefit plans or other enterprises controlled by the Company (collectively, the “Controlled Entities”), or by reason of any action alleged to have been taken or omitted in any such capacity, the Company acknowledges and agrees that the Company shall, and to the extent applicable shall cause the Controlled Entities to, be fully and primarily responsible for the payment to the Covered Person in respect of indemnification or advancement of all out-of-pocket costs of any type or nature whatsoever (including, without limitation, all attorneys’ fees and related disbursements) in each case, actually and reasonably incurred by or on behalf of a Covered Person in connection with either the investigation, defense or appeal of a claim, demand, action, suit or proceeding or establishing or enforcing a right to indemnification under this Agreement or otherwise incurred in connection with a claim that is indemnifiable hereunder (collectively, “Expenses”) in connection with any such Jointly Indemnifiable Claim, pursuant to and in accordance with (as applicable) the terms of (i) the Delaware Act, (ii) this Agreement, (iii) any other agreement between the Company or any Controlled Entity and the Covered Person pursuant to which the Covered Person is indemnified, (iv) the laws of the jurisdiction of incorporation or organization of any Controlled Entity and/or (v) the certificate of incorporation, certificate of organization, bylaws, partnership agreement, operating agreement, certificate of formation, certificate of limited partnership, certificate of qualification or other organizational or governing documents of any Controlled Entity ((i) through (v) collectively, the “Indemnification Sources”), irrespective of any right of recovery the Covered Person may have from the Indemnitee-Related Entities. Under no circumstance shall the Company or any Controlled Entity be entitled to any right of subrogation or contribution by the Indemnitee-Related Entities and no right of advancement or recovery the Covered Person may have from the Indemnitee-Related Entities shall reduce or otherwise alter the rights of the Covered Person or the obligations of the Company or any Controlled Entity under the Indemnification Sources. In the event that any of the Indemnitee-Related Entities shall make any payment to the Covered Person in respect of indemnification or advancement of Expenses with respect to any Jointly Indemnifiable Claim, (i) the Company shall, and to the extent applicable shall cause the Controlled Entities to, reimburse the Indemnitee-Related Entity making such payment to the extent of such payment promptly upon written demand from such Indemnitee-Related Entity, (ii) to the extent not previously and fully reimbursed by the Company and/or any Controlled Entity pursuant to clause (i), the Indemnitee-Related Entity making such payment shall be subrogated to the extent of the outstanding balance of such payment to all of the rights of recovery of the Covered Person against the Company and/or any Controlled Entity, as applicable, and (iii) the Covered Person shall execute all papers reasonably required and shall do all things that may be reasonably necessary to secure such rights, including the execution of such documents as may be necessary to enable the Indemnitee-Related Entities effectively to bring suit to enforce such rights. The Company and the Covered Person agree that each of the Indemnitee-Related Entities shall be third-party beneficiaries with respect to this Section 10.02(e), entitled to enforce this Section 10.02(e) as though each such Indemnitee-Related Entity were a party to this Agreement. The Company shall cause each of the Controlled Entities to perform the terms and obligations of this Section 10.02(e) as though each such Controlled Entity was the “Company” under this Agreement. For purposes of this Section 10.02(e), the following terms shall have the following meanings:

(i) The term “Indemnitee-Related Entities” means any corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise (other than the Company, any Controlled Entity or the insurer under and pursuant to an insurance policy of the Company or any Controlled Entity) from whom a Covered Person may be entitled to indemnification or advancement of Expenses with respect to which, in whole or in part, the Company or any Controlled Entity may also have an indemnification or advancement obligation.

(ii) The term “Jointly Indemnifiable Claims” shall be broadly construed and shall include, without limitation, any claim, demand, action, suit or proceeding for which the Covered Person shall be entitled to indemnification or advancement of Expenses from both (i) the Company and/or any Controlled Entity pursuant to the Indemnification Sources, on the one hand, and (ii) any Indemnitee-Related Entity pursuant to any other agreement between any Indemnitee-Related Entity and the Covered Person pursuant to which the Covered Person is indemnified, the laws of the jurisdiction of incorporation or organization of any Indemnitee-Related Entity and/or the certificate of incorporation, certificate of organization, bylaws, partnership agreement, operating agreement, certificate of formation, certificate of limited partnership or other organizational or governing documents of any Indemnitee-Related Entity, on the other hand.

ARTICLE XI

DISSOLUTION AND TERMINATION

Section 11.01 Dissolution.

Section 3.02. (a) The Company shall not be dissolved by the admission of Additional Members or Substitute Members pursuant to

(b) No Member shall (i) resign from the Company prior to the dissolution and winding up of the Company except in connection with a Transfer of Units pursuant to the terms of this Agreement or (ii) take any action to dissolve, terminate or liquidate the Company or to require apportionment, appraisal or partition of the Company or any of its assets, or to file a bill for an accounting, except as specifically provided in this Agreement, and each Member, to the fullest extent permitted by Applicable Law, hereby waives any rights to take any such actions under Applicable Law, including any right to petition a court for judicial dissolution under Section 18-802 of the Delaware Act.

(c) The Company shall be dissolved and its business wound up only upon the earliest to occur of any one of the following events (each a "Dissolution Event"):

(i) The expiration of forty-five (45) days after the sale or other disposition of all or substantially all the assets of the Company; or

(ii) upon the approval of the Managing Member.

(d) The death, retirement, resignation, expulsion, bankruptcy, insolvency or dissolution of a Member or the occurrence of any other event that terminates the continued membership of a Member of the Company shall not in and of itself cause dissolution of the Company.

Section 11.02 Winding Up of the Company.

(a) The Managing Member shall promptly notify the other Members of any Dissolution Event. Upon dissolution, the Company's business shall be liquidated in an orderly manner. The Managing Member shall appoint a liquidating trustee to wind up the affairs of the Company pursuant to this Agreement. In performing its duties, the liquidating trustee is authorized to sell, distribute, exchange or otherwise dispose of the assets of the Company in accordance with the Delaware Act and in any reasonable manner that the liquidating trustee shall determine to be in the best interest of the Members.

(b) The proceeds of the liquidation of the Company shall be distributed in the following order and priority:

(i) first, to the creditors (including any Members or their respective Affiliates that are creditors) of the Company in satisfaction of all of the Company's liabilities (whether by payment or by making reasonable provision for payment thereof, including the setting up of any reserves which are, in the judgment of the liquidating trustee, reasonably necessary therefor); and

(ii) second, to the Nonvoting Members in the same manner as distributions under Section 5.03(b), subject to Section 5.03(e).

(c) Distribution of Property. In the event it becomes necessary in connection with the liquidation of the Company to make a distribution of Property in-kind, subject to the priority set forth in Section 11.02, the liquidating trustee shall have the right to compel each Nonvoting Member to accept a distribution of any Property in-kind (with such Property, as a percentage of the total liquidating distributions to such Nonvoting Member, corresponding as nearly as possible to such Nonvoting Member's Nonvoting Percentage Interest), with such distribution being based upon the amount of cash that would be distributed to such Members if such Property were sold for an amount of cash equal to the fair market value of such Property, as determined by the liquidating trustee in good faith, subject to the last sentence of Section 5.03(d).

Section 11.03 Termination. The Company shall terminate when all of the assets of the Company, after payment of or reasonable provision for the payment of all debts and liabilities of the Company, shall have been distributed to the Members in the manner provided for in this Article XI, and the certificate of formation of the Company shall have been cancelled in the manner required by the Delaware Act.

Section 11.04 Survival. Termination, dissolution, liquidation or winding up of the Company for any reason shall not release any party from any liability which at the time of such termination, dissolution, liquidation or winding up already had accrued to any other party or which thereafter may accrue in respect to any act or omission prior to such termination, dissolution, liquidation or winding up.

## ARTICLE XII

### MISCELLANEOUS

Section 12.01 Expenses. All costs and expenses incurred in connection with this Agreement and the transactions contemplated hereby shall be paid by the party incurring such cost or expense.

Section 12.02 Further Assurances. Each Member agrees to execute, acknowledge, deliver, file and record such further certificates, amendments, instruments and documents, and to do all such other acts and things, as may be required by Applicable Law or as, in the reasonable judgment of the Managing Member, may be necessary or advisable to carry out the intent and purposes of this Agreement.

Section 12.03 Notices. All notices, requests and other communications to any party hereunder shall be in writing (including facsimile transmission and electronic mail (“e-mail”) transmission, so long as a receipt of such e-mail is requested and received) and shall be given to such party at the address, facsimile number or e-mail address specified for such party on the Member Schedule hereto, or to such other address or facsimile number as such party may hereafter specify for the purpose by notice to the other parties hereto. All such notices, requests and other communications shall be deemed received on the date of receipt by the recipient thereof if received prior to 5:00 p.m. on a Business Day in the place of receipt. Otherwise, any such notice, request or communication shall be deemed to have been received on the next succeeding Business Day in the place of receipt.

Section 12.04 Binding Effect; Benefit; Assignment.

(a) The provisions of this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns. No provision of this Agreement is intended to confer any rights, benefits, remedies, obligations or liabilities hereunder upon any Person other than the parties hereto and their respective successors and assigns.

(b) Except as provided in Article VIII, no Member may assign, delegate or otherwise transfer any of its rights or obligations under this Agreement without the consent of the Managing Member.

Section 12.05 Jurisdiction.

(a) The parties hereto agree that any suit, action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with, this Agreement or the transactions contemplated hereby (whether brought by any party or any of its Affiliates or against any party or any of its Affiliates) shall be brought in the Delaware Court of Chancery or, if such court shall not have jurisdiction, any federal court located in the State of Delaware or other Delaware state court, and each of the parties hereby irrevocably consents to the jurisdiction of such courts (and of the appropriate appellate courts therefrom) in any such suit, action or proceeding and irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of the venue of any such suit, action or proceeding in any such court or that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. Process in any such suit, action or proceeding may be served on any party anywhere in the world, whether within or without the jurisdiction of any such court. Without limiting the foregoing, each party agrees that service of process on such party as provided in Section 12.03 shall be deemed effective service of process on such party.

(b) EACH OF THE COMPANY AND THE MEMBERS HEREBY IRREVOCABLY DESIGNATES CORPORATION SERVICE COMPANY (IN SUCH CAPACITY, THE "PROCESS AGENT"), WITH AN OFFICE AT 2711 CENTERVILLE ROAD, SUITE 400, WILMINGTON, NEW CASTLE COUNTY, DELAWARE 19808, AS ITS DESIGNEE, APPOINTEE AND AGENT TO RECEIVE, FOR AND ON ITS BEHALF SERVICE OF PROCESS IN SUCH JURISDICTION IN ANY LEGAL ACTION OR PROCEEDINGS WITH RESPECT TO THIS AGREEMENT OR ANY OTHER AGREEMENT EXECUTED IN CONNECTION WITH THIS AGREEMENT, AND SUCH SERVICE SHALL BE DEEMED COMPLETE UPON DELIVERY THEREOF TO THE PROCESS AGENT; PROVIDED THAT IN THE CASE OF ANY SUCH SERVICE UPON THE PROCESS AGENT, THE PARTY EFFECTING SUCH SERVICE SHALL ALSO DELIVER A COPY THEREOF TO EACH OTHER SUCH PARTY IN THE MANNER PROVIDED IN SECTION 12.03 OF THIS AGREEMENT. EACH PARTY SHALL TAKE ALL SUCH ACTION AS MAY BE NECESSARY TO CONTINUE SAID APPOINTMENT IN FULL FORCE AND EFFECT OR TO APPOINT ANOTHER AGENT SO THAT SUCH PARTY SHALL AT ALL TIMES HAVE AN AGENT FOR SERVICE OF PROCESS FOR THE ABOVE PURPOSES IN WILMINGTON, DELAWARE. NOTHING HEREIN SHALL AFFECT THE RIGHT OF ANY PARTY TO SERVE PROCESS IN ANY MANNER PERMITTED BY APPLICABLE LAW. EACH PARTY EXPRESSLY ACKNOWLEDGES THAT THE FOREGOING WAIVER IS INTENDED TO BE IRREVOCABLE UNDER THE LAWS OF THE STATE OF DELAWARE AND OF THE UNITED STATES OF AMERICA.

Section 12.06 WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

Section 12.07 Counterparts. This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. Until and unless each party has received a counterpart hereof signed by the other party hereto, this Agreement shall have no effect and no party shall have any right or obligation hereunder (whether by virtue of any other oral or written agreement or other communication).

Section 12.08 Entire Agreement. This Agreement and the Reorganization Documents constitute the entire agreement between the parties with respect to the subject matter of this Agreement and supersede all prior agreements and understandings, both oral and written, between the parties with respect to the subject matter of this Agreement. Nothing in this Agreement shall create any third-party beneficiary rights in favor of any Person or other party, except to the extent provided herein with respect to Indemnitee-Related Entities, each of whom are intended third-party beneficiaries of those provisions that specifically relate to them with the right to enforce such provisions as if they were a party hereto.

Section 12.09 Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction or other Governmental Authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any party. Upon such a determination, the parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner in order that the transactions contemplated hereby are consummated as originally contemplated to the fullest extent possible.

Section 12.10 Amendment.

(a) This Agreement can be amended at any time and from time to time by the Managing Member; provided, in addition to the approval of the Managing Member, no amendment to this Agreement may adversely modify in any material respect the Units (or the rights, preferences or privileges of the Units) then held by any Members in any materially disproportionate manner to those then held by any other Members without the prior written consent of a majority in interest of such disproportionately affected Member or Members.

(b) For the avoidance of doubt: (i) the Managing Member, acting alone, may amend this Agreement, including the Member Schedule, (x) to reflect the admission of new Members or Transfers of Units, each as provided by and in accordance with, the terms of this Agreement, (y) to effect any subdivisions or combinations of Units made in compliance with Section 4.02(c) and (z) to issue additional Nonvoting Common Units or any new class of Units (whether or not pari passu with the Nonvoting Common Units) in accordance with the terms of this Agreement and to provide that the Members being issued such new Units be entitled to the rights provided to Holdings with respect to all or a portion of the provisions applicable thereto hereunder and any other rights that do not diminish or eliminate any of the express rights of Holdings described herein; and (ii) any merger, consolidation or other business combination that constitutes a Disposition Event in which the Non-Pubco Members are required to exchange all of their Paired Interests pursuant to Section 2.03(b) of the Exchange Agreement and receive consideration in such Disposition Event in accordance with the terms of this Agreement and the Exchange Agreement as in effect immediately prior to the consummation of such Disposition Event shall not be deemed an amendment hereof; provided, that such amendment is only effective upon consummation of such Disposition Event.

(c) No waiver of any provision or default under, nor consent to any exception to, the terms of this Agreement or any agreement contemplated hereby shall be effective unless in writing and signed by the party to be bound and then only to the specific purpose, extent and instance so provided.



Section 12.11 Confidentiality.

(a) Holdings, Pubco and each other Member (collectively the “Equityholders”) shall, and shall direct those of its Affiliates and their respective directors, officers, members, stockholders, partners, employees, attorneys, accountants, consultants, trustees and other advisors (the “Equityholder Parties”) who have access to Confidential Information to, keep confidential and not disclose any Confidential Information to any Person other than a Equityholder Party who agrees to keep such Confidential Information confidential in accordance with this Section 12.11, in each case without the express consent, in the case of Confidential Information acquired from the Company, of the Managing Member or, in the case of Confidential Information acquired from another Equityholder, such other Equityholder, unless:

- (i) such disclosure shall be required by Applicable Law;
- (ii) such disclosure is reasonably required in connection with any tax audit involving the Company or any Equityholder or its Affiliates;
- (iii) such disclosure is reasonably required in connection with any litigation against or involving the Company or any Equityholder; or
- (iv) such disclosure is reasonably required in connection with any proposed Transfer of all or any part of such Member’s Units in the Company; provided that with respect to any such use of any Confidential Information referred to in this clause (iv), advance notice must be given to the Managing Member so that it may require any proposed Transferee that is not a Member to enter into a confidentiality agreement with terms substantially similar to the terms of this Section 12.11 (excluding this clause (iv)) prior to the disclosure of such Confidential Information.

(b) “Confidential Information” means any information related to the activities of the Company, the Equityholders and their respective Affiliates that an Equityholder may acquire from the Company or the Equityholders, other than information that (i) is already available through publicly available sources of information (other than as a result of disclosure by such Equityholder), (ii) was available to a Equityholder on a non-confidential basis prior to its disclosure to such Equityholder by the Company, or (iii) becomes available to a Equityholder on a non-confidential basis from a third party, provided such third party is not known by such Equityholder, after reasonable inquiry, to be bound by this Agreement or another confidentiality agreement with the Company. Such Confidential Information may include information that pertains or relates to the business and affairs of any other Equityholder or any other Company matters. Confidential Information may be used by a Equityholder and its Equityholder Parties only in connection with Company matters and in connection with the maintenance of its interest in the Company.

(c) In the event that any Equityholder or any Equityholder Parties of such Equityholder is required to disclose any of the Confidential Information, such Equityholder shall use reasonable efforts to provide the Company with prompt written notice so that the Company may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Agreement, and such Equityholder shall use reasonable efforts to cooperate with the Company in any effort any such Person undertakes to obtain a protective order or other remedy. In the event that such protective order or other remedy is not obtained, or that the Company waives compliance with the provisions of this Section 12.11, such Equityholder and its Equityholder Parties shall furnish only that portion of the Confidential Information that is legally required and shall exercise all reasonable efforts to obtain reasonably reliable assurance that the Confidential Information shall be accorded confidential treatment.

(d) Notwithstanding anything in this Agreement to the contrary, each Equityholder may disclose to any persons the U.S. federal income tax treatment and tax structure of the Company and the transactions set out in the Reorganization Agreement. For this purpose, "tax structure" is limited to any facts relevant to the U.S. federal income tax treatment of the Company and does not include information relating to the identity of the Company or any Equityholder.

Section 12.12 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law rules of such State that would result in the application of the laws of any other State.

**[signature pages follow]**

IN WITNESS WHEREOF, the parties hereto have caused this Second Amended and Restated Limited Liability Company Agreement to be duly executed as of the day and year first written above.

**VTV THERAPEUTICS LLC**

By: \_\_\_\_\_  
Name:  
Title:

**VTV THERAPEUTICS INC.**

By: \_\_\_\_\_  
Name:  
Title:

**VTV THERAPEUTICS HOLDINGS LLC**

By: \_\_\_\_\_  
Name:  
Title:

[Signature Page to the Amended and Restated Limited Liability Company Agreement of vTv Therapeutics LLC]

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**Schedule A**

**Member Schedule**

Member	Address	Class M Common Units	Nonvoting Common Units	Capital Account Balance
<b>Class M Member</b>				
vTv Therapeutics Inc.	4170 Mendenhall Oaks Parkway High Point, NC 27265 Facsimile: (336) 841-0310 E-mail: sholcombe@vtvtherapeutics.com	1	0	--
<b>Nonvoting Members</b>				
vTv Therapeutics Holdings LLC	c/o MacAndrews & Forbes Incorporated 35 East 62nd Street New York, NY 10065 Facsimile: (212) 572-5695 E-mail:	0	[ ]	[\$ ]

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## EXCHANGE AGREEMENT

EXCHANGE AGREEMENT (this "Agreement"), dated as of [\_\_\_\_], 2015, by and among vTv Therapeutics LLC, a Delaware limited liability company (the "Company"), vTv Therapeutics Inc., a Delaware corporation ("Pubco"), and vTv Therapeutics Holdings LLC ("Holdings" and together with any person that executes a joinder as set forth in Section 4.01 hereof, the "Holders" and each, a "Holder").

## WITNESSETH:

WHEREAS, on the date hereof, the Company, Pubco and Holdings entered into the LLC Agreement;

WHEREAS, the parties hereto desire to provide for the exchange of Nonvoting Common Units together with shares of Class B Common Stock for (i) shares of Class A Common Stock (as defined below) or (ii) cash, in any case, on the terms and subject to the conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein made and other good and valuable consideration, the parties hereto hereby agree as set forth herein.

## ARTICLE I

## DEFINITIONS AND USAGE

Section 1.01 Definitions.

(a) The following terms shall have the following meanings for the purposes of this Agreement:

"Affiliate" shall have the meaning set forth in Rule 405 under the Securities Act (as in effect on the date hereof).

"Applicable Law" means, with respect to any Person, any federal, state or local law (statutory, common or otherwise), constitution, treaty, convention, ordinance, code, rule, regulation, order, injunction, judgment, decree, ruling or other similar requirement enacted, adopted, promulgated or applied by a Governmental Authority or Regulatory Agency that is binding upon or applicable to such Person or its assets, as amended unless expressly specified otherwise.

"Business Day" means a day, other than Saturday, Sunday or other day on which commercial banks in New York, New York are authorized or required by Applicable Law to close.

"Class A Common Stock" means Class A common stock, \$0.01 par value per share, of Pubco.

"Class B Common Stock" means Class B common stock, \$0.01 par value per share, of Pubco.

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“Code” means the Internal Revenue Code of 1986, as amended from time to time.

“Deliverable Common Stock” means Class A Common Stock deliverable in connection with the Exchange of a Paired Interest as set forth herein.

“Determination Date” means the third Trading Day prior to the Exchange Date.

“Disposition Event” means any merger, consolidation or other business combination of Pubco, whether effectuated through one transaction or a series of related transactions (including a tender offer followed by a merger in which the holders of Class A Common Stock receive the same consideration per share paid in the tender offer), unless, following such transaction, all or substantially all of the holders of the voting power of all outstanding classes of common stock of Pubco and series of preferred stock of Pubco that are generally entitled to vote in the election of directors of Pubco prior to such transaction or series of transactions, continue to hold a majority of the voting power of the surviving entity (or its parent) resulting from such transaction or series of transactions in substantially the same proportions as immediately prior to such transaction or series of transaction.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Exchange Date” means the date of effectiveness of an Exchange, or, in the case of a Synthetic Secondary Offering, immediately prior to the time which such Synthetic Secondary Offering closes.

“Exchange Rate” means the number of shares of Class A Common Stock for which one Paired Interest is entitled to be Exchanged. On the date of this Agreement, the Exchange Rate shall be one, subject to adjustment pursuant to Section 2.03 of this Agreement.

“Exchanging Holder” means a Holder effecting an Exchange pursuant to this Agreement.

“Fair Market Value” of Class A Common Stock with respect to any Exchange Date shall be determined as follows:

(i) If Class A Common Stock is then traded on a national securities exchange, then such Fair Market Value shall equal the VWAP of such Class A Common Stock;

(ii) If Class A Common Stock is then traded on the over-the-counter system, then such Fair Market Value shall be the average of the closing bid and ask prices of a share of such Class A Common Stock over the prior 20 Trading Days ending on the Determination Date; and

(iii) If there is then no public market for the Class A Common Stock, then such Fair Market Value shall be the highest price per share which could be obtained from a willing buyer (not a current employee or director of the Company or Pubco) for a share of Class A Common Stock sold from authorized but unissued shares, as determined in good faith by the board of directors of Pubco.

Notwithstanding the foregoing, in connection with a Synthetic Secondary Offering, the Fair Market Value per share of Class A Common Stock shall be the amount of proceeds per share of Class A Common Stock, net of underwriting discounts, received by the Company in such Synthetic Secondary Offering.

“Governmental Authority” means any transnational, domestic or foreign federal, state or local governmental, regulatory or administrative authority, department, court, agency or official, including any political subdivision thereof.

“Investor Rights Agreement” means that certain Investor Rights Agreement, dated as of [\_\_\_\_], 2015, by and between Pubco and Holdings (and its successors and assigns), as the same may be amended, restated, supplemented and/or otherwise modified, from time to time.

“LLC Agreement” means the Amended and Restated Limited Liability Company Agreement of the Company, dated on or about the date hereof, as such agreement may be amended from time to time.

“MacAndrews Stockholder” means each of Holdings, MacAndrews & Forbes Incorporated and M&F TTP Holdings LLC and each of their respective Affiliates (other than Pubco and its subsidiaries).

“Market Disruption Event” means a failure by the Principal Market to open for trading during its regular trading session.

“Nonvoting Common Units” means the Nonvoting Common Units of the Company (as such term is defined in the LLC Agreement).

“Paired Interest” means one Nonvoting Common Unit together with one share of Class B Common Stock, subject to adjustment pursuant to Section 2.03(a).

“Person” means any individual, firm, corporation, partnership, limited liability company, trust, estate, joint venture, governmental authority or other entity.

“Principal Market” means (i) NASDAQ, if the Class A Common Stock is listed on NASDAQ, (ii) the principal U.S. national or regional securities exchange on which the Class A Common Stock is listed, if the Class A Common Stock is not listed on NASDAQ or (iii) the principal market on which the Class A Common Stock is then traded, if the Class A Common Stock is not listed on NASDAQ or any other U.S. national or regional securities exchange.

“Pubco Charter” means the Amended and Restated Certificate of Incorporation of Pubco.

“Regulatory Agency” means the United States Securities and Exchange Commission, Financial Industry Regulatory Authority, Inc., the Financial Services Authority, any non-U.S. regulatory agency and any other regulatory authority or body (including any state or provincial securities authority and any self-regulatory organization) with jurisdiction over the Company or any of its Subsidiaries.

“Securities Act” means the United States Securities Act of 1933, as amended, and the rules and regulations thereunder.

“Securities Exchange” means the national securities exchange on which the Class A Common Stock is traded.

“Synthetic Secondary Offering” means an offering by the Company of shares of Class A Common Stock to generate net proceeds to pay cash in an Exchange of Paired Interests pursuant to Section 2.01.

“Tax Receivable Agreement” shall mean that certain Tax Receivable Agreement, dated as of [\_\_\_\_], 2015, by and among Pubco and each of the parties identified as Members therein, including Holdings (and its successors and assigns) for the benefit of M&F TTP Holdings, LLC, as the same may be amended, restated, supplemented and/or otherwise modified, from time to time.

“**Trading Day**” means a day on which (i) trading in securities generally occurs on the Principal Market, (ii) a volume weighted average price for the Class A Common Stock is able to be calculated with respect to the Principal Market and (iii) there is no Market Disruption Event with respect to the Principal Market.

“**VWAP**” means the dollar volume weighted average price for the Class A Common Stock on a national securities exchange for the 20 consecutive Trading Day period ending on the Determination Date as reported by Bloomberg Financial Markets (“**Bloomberg**”), or, if no dollar volume weighted average price is reported for the Class A Common Stock by Bloomberg for such hours, the average of the highest closing bid price and the lowest closing ask price of any of the market makers for such security as reported in the “pink sheets;” provided, however, that the calculation of VWAP for a particular Trading Day shall exclude any block trade of 10,000 shares or greater that is executed on such day.

- (b) Capitalized terms used but not defined herein shall have the meaning ascribed thereto in the LLC Agreement.
- (c) Each of the following terms is defined in the Section set forth opposite such term:

<b>Term</b>	<b>Section</b>
Agreement	Preamble
Company	Preamble
e-mail	4.03
Exchange	2.01
Exchange Agent	2.02(a)
Holder	Preamble
Holdings	Preamble
Notice of Exchange	2.02(a)
Permitted Transferee	4.01
Process Agent	4.05(b)
Pubco	Preamble
Pubco Offer	2.04(a)

Section 1.02 Other Definitional and Interpretative Provisions. The words “hereof”, “herein” and “hereunder” and words of like import used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The captions herein are included for convenience of reference only and shall be ignored in the construction or interpretation hereof. References to Articles and Sections are to Articles and Sections of this Agreement unless otherwise specified. Any singular term in this Agreement shall be deemed to include the plural, and any plural term the singular. Whenever the words “include”, “includes” or “including” are used in this Agreement, they shall be deemed to be followed by the words “without limitation”, whether or not they are in fact followed by those words or words of like import. “Writing”, “written” and comparable terms refer to printing, typing and other means of reproducing words (including electronic media) in a visible form. References to any statute shall be deemed to refer to such statute as amended from time to time and to any rules or regulations promulgated thereunder. References to any agreement or contract are to that agreement or contract as amended, modified or supplemented from time to time in accordance with the terms hereof and thereof. References to any Person include the successors and permitted assigns of that Person. References from or through any date mean, unless otherwise specified, from and including or through and including, respectively. References to “law”, “laws” or to a particular statute or law shall be deemed also to include any Applicable Law. Unless otherwise expressly provided herein, when any approval, consent or other matter requires any action or approval of any group of Holders, including any holders of any class of Paired Interests, such approval, consent or other matter shall require the approval of a majority in interest of such group of Holders. Except to the extent otherwise expressly provided herein, all references to any Holder shall be deemed to refer solely to such Person in its capacity as such Holder and not in any other capacity.



ARTICLE II  
EXCHANGE

Section 2.01 Exchange of Paired Interests for Class A Common Stock. From and after the execution and delivery of this Agreement, each Holder shall be entitled at any time and from time to time upon the terms and subject to the conditions hereof, to surrender Paired Interests to Pubco (subject to adjustment as provided in Section 2.03) in exchange (such exchange, an “Exchange”) for, at the option of Pubco (in its capacity as managing member of the Company) (i) the delivery to such Holder of a number of shares of Class A Common Stock that is equal to the product of the number of Paired Interests surrendered multiplied by the Exchange Rate in effect as of immediately prior to the close of business on the Exchange Date or (ii) cash in an amount equal to the Fair Market Value of the shares of Class A Common Stock such Holder would have otherwise received pursuant to clause (i).

Section 2.02 Exchange Procedures; Notices and Revocations.

(a) A Holder may exercise the right to effect an Exchange as set forth in Section 2.01 by delivering a written notice of exchange in respect of the Paired Interests to be Exchanged substantially in the form of Exhibit A hereto (the “Notice of Exchange”), duly executed by such Holder or such Holder’s duly authorized attorney, to Pubco at least 10 Business Days (or such shorter period of time as may be agreed by Pubco) in advance of the Exchange Date at Pubco’s address set forth in Section 4.03 during normal business hours, or if any agent for the Exchange is duly appointed and acting (the “Exchange Agent”), to the office of the Exchange Agent during normal business hours. The Notice of Exchange must set forth (i) the Exchange Date, which shall be at least 10 Business Days (or such shorter period of time as may be agreed by Pubco) after the date of the Notice of Exchange and (ii) the number of Paired Interests to be surrendered, which number shall not be less than 1,000 unless (x) the number of surrendered Paired Interests constitutes all of such Holder’s Paired Interests, (y) the Company consents to such Exchange or (z) if requested by Holdings or a MacAndrews Stockholder.

(b) *Contingent Notice of Exchange and Revocation by Holders*.

(i) A Notice of Exchange from a Holder may specify that the Exchange is to be contingent (including as to the timing) upon the consummation of a purchase by another Person (whether in a tender or exchange offer, an underwritten offering or otherwise) of shares of Deliverable Common Stock into which the Paired Interests are exchangeable, or contingent (including as to timing) upon the closing of an announced merger, consolidation or other transaction or event in which the Deliverable Common Stock would be exchanged or converted or become exchangeable for or convertible into cash or other securities or property. For the avoidance of doubt, a Notice of Exchange delivered in connection with a Synthetic Secondary Offering (i) may be subject to the condition that a price per share of Class A Common Stock that is acceptable to the Holder in its sole and absolute discretion be received in such Synthetic Secondary Offering and (ii) may be deemed made in part only with respect to the number of Paired Interests that are able to be paid for using the proceeds (net of underwriting discounts) from such Synthetic Secondary Offering pursuant to Section 2.01.

(ii) Notwithstanding anything herein to the contrary, a Holder may withdraw or amend a Notice of Exchange, in whole or in part, prior to the effectiveness of the Exchange, at any time prior to 5:00 p.m. New York City time, on the Business Day immediately preceding the Exchange Date (or any such later time as may be required by Applicable Law) by delivery of a written notice of withdrawal to Pubco or the Exchange Agent, specifying (1) the number of withdrawn Paired Interests, (2) if any, the number of Paired Interests as to which the Notice of Exchange remains in effect and (3) if the Holder so determines, a new Exchange Date or any other new or revised information permitted in the Notice of Exchange.

(c) Each Exchange shall be deemed to be effective immediately prior to the close of business on the Exchange Date, and, from and after that time, (i) the Exchanging Holder (or other Person(s) whose name or names in which the Deliverable Common Stock is to be issued) shall be deemed to be a holder of Deliverable Common Stock, if any, or (ii) such Exchanging Holder's (or other Person's or Persons' whose name or names in which the cash is to be delivered) right to receive cash, if any, shall vest. As promptly as practicable on or after the Exchange Date, Pubco shall deliver or cause to be delivered to the Exchanging Holder (or other Person(s) whose name or names in which the Deliverable Common Stock is to be issued or cash is to be paid) (1) the number of shares of Deliverable Common Stock deliverable upon such Exchange, if any, pursuant to Section 2.01 hereof, registered in the name of such Holder (or other Person(s) whose name or names in which the Deliverable Common Stock is to be issued) or (2) an amount of cash to which such Holder or such other Person(s) is entitled pursuant to Section 2.01 hereof, if any, by wire transfer of immediately available funds to the account or accounts designated by such Holder or such other Person(s) in the Notice of Exchange. To the extent an Exchanging Holder (or other Person(s) to which the Deliverable Common Stock is to be issued) is entitled to receive Deliverable Common Stock pursuant to Section 2.01 hereof, and the Deliverable Common Stock is settled through the facilities of The Depository Trust Company, Pubco will, subject to Section 2.02(d) below, upon the written instruction of an Exchanging Holder, deliver or cause to be delivered the shares of Deliverable Common Stock deliverable to such Holder (or other Person(s) whose name or names in which the Deliverable Common Stock is to be issued), through the facilities of The Depository Trust Company, to the account of the participant of The Depository Trust Company designated by such Holder.

(d) The shares of Deliverable Common Stock issued upon an Exchange, if any, shall bear a legend in substantially the following form:

THE TRANSFER OF THESE SECURITIES HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER THE SECURITIES LAWS OF ANY OTHER JURISDICTION, AND MAY NOT BE SOLD OR TRANSFERRED OTHER THAN IN ACCORDANCE WITH THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT OF 1933, AS AMENDED (OR OTHER APPLICABLE LAW), OR AN EXEMPTION THEREFROM.

(e) If (i) any shares of Deliverable Common Stock may be sold pursuant to a registration statement that has been declared effective by the Securities and Exchange Commission, (ii) all of the applicable conditions of Rule 144 are met, or (iii) the legend (or a portion thereof) otherwise ceases to be applicable, Pubco, as applicable, upon the written request of the Holder thereof shall promptly provide such Holder or its respective transferees, without any expense to such Persons (other than applicable transfer taxes and similar governmental charges, if any) with new certificates (or evidence of book-entry share) for securities of like tenor not bearing the provisions of the legend with respect to which the restriction has terminated. In connection therewith, such Holder shall provide Pubco with such information in its possession as Pubco may reasonably request in connection with the removal of any such legend.

(f) Pubco shall bear all expenses in connection with the consummation of any Exchange, whether or not any such Exchange is ultimately consummated, including any transfer taxes, stamp taxes or duties, or other similar taxes in connection with, or arising by reason of, any Exchange; provided, however, that if any shares of Deliverable Common Stock are to be delivered in a name other than that of the Holder that requested the Exchange (or The Depository Trust Company or its nominee for the account of a participant of The Depository Trust Company that will hold the shares for the account of such Holder), then such Holder and/or the Person in whose name such shares are to be delivered shall pay to Pubco the amount of any transfer taxes, stamp taxes or duties, or other similar taxes in connection with, or arising by reason of, such Exchange or shall establish to the reasonable satisfaction of Pubco that such tax has been paid or is not payable.

(g) Notwithstanding anything to the contrary in this Article II, a Holder shall not be entitled to effect an Exchange, and Pubco and the Company shall have the right to refuse to honor any request to effect an Exchange, at any time or during any period, if Pubco or the Company shall reasonably determine that such Exchange (i) would be prohibited by any Applicable Law (including the unavailability of any requisite registration statement filed under the Securities Act or any exemption from the registration requirements thereunder), or (ii) would not be permitted under (x) the LLC Agreement, (y) other agreements with Pubco, the Company or any of the Company's subsidiaries to which such Exchanging Holder may be party or (z) any written policies of Pubco, the Company or any of the Company's subsidiaries related to unlawful or inappropriate trading applicable to its directors, officers or other personnel. Upon such determination, Pubco or the Company (as applicable) shall notify the Holder requesting the Exchange of such determination, which such notice shall include an explanation in reasonable detail as to the reason that the Exchange has not been honored.

(h) The parties hereto acknowledge and agree that Pubco's determination of the settlement method (issuance of Deliverable Common Stock or payment of cash) for any Exchange shall be made by the entire board of directors of Pubco acting on behalf of Pubco in its capacity as managing member of the Company.

Section 2.03 Adjustment.

(a) The Exchange Rate with respect to Paired Interests shall be adjusted accordingly if there is: (i) any subdivision (by any stock or unit split, stock or unit dividend or distribution, reclassification, reorganization, recapitalization or otherwise) or combination (by reverse stock or unit split, reclassification, reorganization, recapitalization or otherwise) of the shares of Class B Common Stock or Nonvoting Common Units that is not accompanied by a substantively identical subdivision or combination of the Class A Common Stock; or (ii) any subdivision (by any stock split, stock dividend, reclassification, reorganization, recapitalization or otherwise) or combination (by reverse stock split, reclassification, reorganization, recapitalization or otherwise) of the Class A Common Stock that is not accompanied by a substantively identical subdivision or combination of the shares of Class B Common Stock and Nonvoting Common Units. If there is any reclassification, reorganization, recapitalization or other similar transaction in which the Class A Common Stock is converted or changed into another security, securities or other property, then upon any subsequent Exchange, an Exchanging Holder or such other Person(s) shall be entitled to receive the amount of such security, securities or other property that such Exchanging Holder or such other Person(s) would have received if such Exchange had occurred immediately prior to the effective date of such reclassification, reorganization, recapitalization or other similar transaction, taking into account any adjustment as a result of any subdivision (by any split, dividend or distribution, reclassification, reorganization, recapitalization or otherwise) or combination (by reverse split, reclassification, reorganization, recapitalization or otherwise) of such security, securities or other property that occurs after the effective time of such reclassification, reorganization, recapitalization or other similar transaction. For the avoidance of doubt, if there is any reclassification, reorganization, recapitalization or other similar transaction in which the Class A Common Stock is converted or changed into another security, securities or other property, this Section 2.03(a) shall continue to be applicable, *mutatis mutandis*, with respect to such security or other property. This Agreement shall apply to, *mutatis mutandis*, and all references to "Paired Interests" shall be deemed to include, any security, securities or other property of Pubco or the Company which may be issued in respect of, in exchange for or in substitution of shares of Class B Common Stock or Nonvoting Common Units, as applicable, by reason of stock or unit split, reverse stock or unit split, stock or unit dividend or distribution, combination, reclassification, reorganization, recapitalization, merger, exchange (other than an Exchange) or other transaction.

(b) This Agreement shall apply to the Paired Interests held by the Holders and their Permitted Transferees as of the date hereof, as well as any Paired Interests hereafter acquired by a Holder and his or her or its Permitted Transferees.

Section 2.04 Tender Offers and Other Events with Respect to Pubco.

(a) In the event that a tender offer, share exchange offer, issuer bid, take-over bid, recapitalization or similar transaction with respect to Class A Common Stock (a "Pubco Offer") is proposed by Pubco or is proposed to Pubco or its stockholders and approved by the board of directors of Pubco or is otherwise effected or to be effected with the consent or approval of the board of directors of Pubco, the Holders of Paired Interests shall be permitted to participate in such Pubco Offer by delivery of a Notice of Exchange (which Notice of Exchange shall be effective immediately prior to the consummation of such Pubco Offer (and, for the avoidance of doubt, shall be contingent upon such Pubco Offer and not be effective if such Pubco Offer is not consummated)). In the case of a Pubco Offer proposed by Pubco, Pubco will use its reasonable best efforts expeditiously and in good faith to take all such actions and do all such things as are necessary or desirable to enable and permit the Holders of Paired Interests to participate in such Pubco Offer to the same extent or on an economically equivalent basis as the holders of shares of Class A Common Stock without discrimination; provided, that without limiting the generality of this sentence, Pubco will use its reasonable best efforts expeditiously and in good faith to ensure that such Holders may participate in each such Pubco Offer without being required to Exchange Paired Interests. For the avoidance of doubt (but subject to Section 2.04(c)), in no event shall the Holders of Paired Interests be entitled to receive in such Pubco Offer aggregate consideration for each Paired Interest that is greater than the consideration payable in respect of each share of Class A Common Stock in connection with a Pubco Offer.

(b) Notwithstanding any other provision of this Agreement, if a Disposition Event is approved by the board of directors of Pubco and consummated in accordance with Applicable Law, at the request of the Company (or following such Disposition Event, its successor) or Pubco (or following such Disposition Event, its successor), each of the Holders shall be required to exchange with Pubco, at any time and from time to time after, or simultaneously with, the consummation of such Disposition Event, all of such Holder's Paired Interests for aggregate consideration for each Paired Interest that is equivalent to the consideration payable in respect of each share of Class A Common Stock in connection with the Disposition Event, provided, however, that in the event of a Disposition Event intended to qualify as a reorganization within the meaning of Section 368(a) of the Code or as a transfer described in Section 351(a) or Section 721 of the Code, a Holder shall not be required to exchange Paired Interest pursuant to this Section 2.04(b), unless, as a part of such transaction, the Holders are permitted to exchange their Paired Interest for securities in a transaction that is expected to permit such exchange without current recognition of gain or loss, for U.S. and non-U.S. tax purposes, for the direct and indirect holders of Paired Interests (except to the extent that property other than securities is received in such exchange), based on a "should" or "will" level opinion from independent tax counsel of recognized standing and expertise.

(c) Notwithstanding any other provision of this Agreement, in a Disposition Event or other Pubco Offer, payments under or in respect of the Tax Receivable Agreement shall not be considered part of the consideration payable in respect of any Paired Interest or share of Class A Common Stock in connection with such Disposition Event or other Pubco Offer for the purposes of Section 2.04(a) and Section 2.04(b).

Section 2.05 Listing of Deliverable Common Stock. If the Class A Common Stock is listed on a securities exchange, Pubco shall use its reasonable best efforts to cause all Class A Common Stock issued upon an exchange of Paired Interests to be listed on the same securities exchange at the time of such issuance.

Section 2.06 Deliverable Common Stock to be Issued; Class B Common Stock to be Cancelled.

(a) Pubco shall at all times reserve and keep available out of its authorized but unissued Class A Common Stock, solely for the purpose of issuance upon an Exchange, the maximum number of shares of Deliverable Common Stock as shall be deliverable upon Exchange of all then-outstanding Paired Interests; provided, that nothing contained herein shall be construed to preclude Pubco from satisfying its obligations in respect of an Exchange by (i) payment of cash as permitted by the terms of this agreement or (ii) delivery of shares of Deliverable Common Stock that are held in the treasury of Pubco or any of its subsidiaries or by delivery of purchased shares of Deliverable Common Stock (which may or may not be held in the treasury of Pubco or any subsidiary thereof). Pubco covenants that all shares of Deliverable Common Stock issued upon an Exchange, if any, will, upon issuance thereof, be validly issued, fully paid and non-assessable.

(b) When a Paired Interest has been Exchanged in accordance with this Agreement, (i) the share of Class B Common Stock corresponding to such Paired Interest shall be cancelled by Pubco and (ii) the Nonvoting Common Unit corresponding to such Paired Interest shall be deemed transferred from the Exchanging Holder to Pubco and the Company shall cause such transfer to be registered in the books and records of the Company.

(c) Pubco agrees that it has taken all or will take such steps as may be required to cause to qualify for exemption under Rule 16b-3(d) or (e), as applicable, under the Exchange Act, and to be exempt for purposes of Section 16(b) under the Exchange Act, any acquisitions from, or dispositions to, Pubco of equity securities of Pubco (including derivative securities with respect thereto) and any securities that may be deemed to be equity securities or derivative securities of Pubco for such purposes that result from the transactions contemplated by this Agreement, by each officer or director of Pubco, including any director by deputization. The authorizing resolutions shall be approved by either Pubco's board of directors or a committee composed solely of two or more Non-Employee Directors (as defined in Rule 16b-3) of Pubco.

Section 2.07 Distributions. No Exchange shall impair the right of the Exchanging Holder to receive any distributions payable on the Nonvoting Common Units so exchanged in respect of a record date that occurs prior to the Exchange Date for such Exchange. No adjustments in respect of dividends or distributions on any Nonvoting Common Unit will be made on the Exchange of any Paired Interest, and if the Exchange Date with respect to a Nonvoting Common Unit occurs after the record date for the payment of a dividend or other distribution on Nonvoting Common Units but before the date of the payment, then the registered holder of the Nonvoting Common Unit at the close of business on the record date will be entitled to receive the dividend or other distribution payable on the Nonvoting Common Unit on the payment date (without duplication of any distribution to which such holder may be entitled under Section 5.03(e) of the LLC Agreement in respect of taxes) notwithstanding the Exchange of the Paired Interests or a default in payment of the dividend or distribution due on the Exchange Date. For the avoidance of doubt, no Exchanging Holder shall be entitled to receive, in respect of a single record date, distributions or dividends both on Nonvoting Common Units exchanged by such Holder and on shares of Deliverable Common Stock received by such Holder in such Exchange.

ARTICLE III  
REPRESENTATIONS AND WARRANTIES

Section 3.01 Representations and Warranties of Pubco and of the Company. Each of Pubco and the Company represents and warrants that (i) it is a corporation or limited liability company, as applicable, duly incorporated or formed and is existing in good standing under the laws of the State of Delaware, (ii) it has all requisite corporate or limited liability company power and authority to enter into and perform this Agreement and to consummate the transactions contemplated hereby and, in the case of Pubco, to issue the Deliverable Common Stock in accordance with the terms hereof, (iii) the execution and delivery of this Agreement by it and the consummation by it of the transactions contemplated hereby (including, without limitation, in the case of Pubco, the issuance of the Deliverable Common Stock) have been duly authorized by all necessary corporate or limited liability company action on its part and (iv) this Agreement constitutes a legal, valid and binding obligation of it enforceable against it in accordance with its terms, except as enforcement may be limited by equitable principles or by bankruptcy, insolvency, reorganization, moratorium, or similar laws relating to or limiting creditors' rights generally.

Section 3.02 Representations and Warranties of the Holders. Each Holder, as to itself and not to any other Holder, severally and not jointly, represents and warrants that (i) if it is not a natural person, that it is duly incorporated or formed and, the extent such concept exists in its jurisdiction of organization, is in good standing under the laws of such jurisdiction, (ii) it has all requisite legal capacity and authority to enter into and perform this Agreement and to consummate the transactions contemplated hereby, (iii) if it is not a natural person, the execution and delivery of this Agreement by it of the transactions contemplated hereby have been duly authorized by all necessary corporate or other entity action on the part of such Holder and (iv) this Agreement constitutes a legal, valid and binding obligation of such Holder enforceable against it in accordance with its terms, except as enforcement may be limited by equitable principles or by bankruptcy, insolvency, reorganization, moratorium, or similar laws relating to or limiting creditors' rights generally.

ARTICLE IV  
MISCELLANEOUS

Section 4.01 Additional Holders. To the extent a Holder validly transfers any or all of such Holder's Paired Interests to another Person (including by Holdings to any member thereof) in a transaction in accordance with, and not in contravention of, the LLC Agreement or the Investor Rights Agreement, then such transferee (each, a "Permitted Transferee") shall have the right to execute and deliver a joinder to this Agreement, substantially in the form of Exhibit B hereto, whereupon such Permitted Transferee shall become a Holder hereunder. To the extent the Company issues Nonvoting Common Units in the future, then the holder of such Nonvoting Common Units shall have the right to execute and deliver a joinder to this Agreement, substantially in the form of Exhibit B hereto, whereupon such holder shall become a Holder hereunder.

Section 4.02 Further Assurances. Each party hereto agrees to execute, acknowledge, deliver, file and record such further certificates, amendments, instruments and documents, and to do all such other acts and things, as may be required by law or as, in the reasonable judgment of Pubco, may be necessary or advisable to carry out the intent and purposes of this Agreement.

Section 4.03 Notices. All notices, requests and other communications to any party hereunder shall be in writing (including facsimile transmission and electronic mail ("e-mail") transmission, so long as a receipt of such e-mail is requested and received by non-automated response) and shall be given:

- (a) if to Pubco or the Company, to:

Stephen L. Holcombe, President and CEO  
4170 Mendenhall Oaks Parkway  
High Point, NC 27265  
Facsimile: (336) 841-0310  
E-mail: sholcombe@vtvtherapeutics.com

with a copy (which shall not constitute notice) to:

Paul, Weiss, Rifkind, Wharton & Garrison LLP  
1285 Avenue of the Americas  
New York, NY 10019-6064  
Telephone: (212) 373-3000  
Facsimile: (212) 757-3990  
Attention: Angelo Bonvino  
Lawrence G. Wee  
Email: abonvino@paulweiss.com  
lwee@paulweiss.com



if to Holdings, to:

c/o MacAndrews & Forbes Incorporated  
35 East 62nd Street  
New York, NY 10065  
Attention: Paul G. Savas  
Facsimile: (212) 572-5695

with a copy (which shall not constitute notice) to:

Paul, Weiss, Rifkind, Wharton & Garrison LLP  
1285 Avenue of the Americas  
New York, NY 10019-6064  
Telephone: (212) 373-3000  
Facsimile: (212) 757-3990  
Attention: Angelo Bonvino  
Lawrence G. Wee  
Email: abonvino@paulweiss.com  
lwee@paulweiss.com

- (b) if to any Holder (other than Holdings), to the address and other contact information set forth in the records of Pubco or the Company from time to time,

or to such other address or facsimile number as such party may hereafter specify for the purpose by notice to the other parties hereto. All such notices, requests and other communications shall be deemed received on the date of receipt by the recipient thereof if received prior to 5:00 p.m. New York City time on a Business Day in the place of receipt. Otherwise, any such notice, request or communication shall be deemed to have been received on the next succeeding Business Day in the place of receipt.

Section 4.04 Binding Effect; Successors and Assigns. The provisions of this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns. No provision of this Agreement is intended to confer any rights, benefits, remedies, obligations or liabilities hereunder upon any Person other than the parties hereto and their respective successors and assigns. If and to the extent Holdings is dissolved or liquidated, the MacAndrews Stockholders holding Paired Interests shall be the successors of Holdings, and references to "Holdings" herein shall be references to such successors of Holdings, collectively, and the Pubco shall (and shall cause its subsidiaries to) enter into such amendments and supplements hereto to effectuate the intent of this Section 4.04.

Section 4.05 Jurisdiction.

(a) The parties hereto agree that any suit, action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with, this Agreement or the transactions contemplated hereby (whether brought by any party or any of its Affiliates or against any party or any of its Affiliates) shall be brought in the Delaware Court of Chancery or, if such court shall not have jurisdiction, any federal court located in the State of Delaware or other Delaware state court, and each of the parties hereby irrevocably consents to the jurisdiction of such courts (and of the appropriate appellate courts therefrom) in any such suit, action or proceeding and irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of the venue of any such suit, action or proceeding in any such court or that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. Process in any such suit, action or proceeding may be served on any party anywhere in the world, whether within or without the jurisdiction of any such court. Without limiting the foregoing, each party agrees that service of process on such party as provided in Section 4.03 shall be deemed effective service of process on such party.

(b) EACH OF THE PUBCO, COMPANY AND HOLDINGS HEREBY IRREVOCABLY DESIGNATES THE CORPORATION SERVICE COMPANY (IN SUCH CAPACITY, THE “PROCESS AGENT”), WITH AN OFFICE AT 2711 CENTERVILLE ROAD, SUITE 400, WILMINGTON, NEW CASTLE COUNTY, DELAWARE 19808, AS ITS DESIGNEE, APPOINTEE AND AGENT TO RECEIVE, FOR AND ON ITS BEHALF SERVICE OF PROCESS IN SUCH JURISDICTION IN ANY LEGAL ACTION OR PROCEEDINGS WITH RESPECT TO THIS AGREEMENT OR ANY OTHER AGREEMENT EXECUTED IN CONNECTION WITH THIS AGREEMENT, AND SUCH SERVICE SHALL BE DEEMED COMPLETE UPON DELIVERY THEREOF TO THE PROCESS AGENT; PROVIDED THAT IN THE CASE OF ANY SUCH SERVICE UPON THE PROCESS AGENT, THE PARTY EFFECTING SUCH SERVICE SHALL ALSO DELIVER A COPY THEREOF TO EACH OTHER SUCH PARTY IN THE MANNER PROVIDED IN SECTION 4.03 OF THIS AGREEMENT. EACH PARTY SHALL TAKE ALL SUCH ACTION AS MAY BE NECESSARY TO CONTINUE SAID APPOINTMENT IN FULL FORCE AND EFFECT OR TO APPOINT ANOTHER AGENT SO THAT SUCH PARTY SHALL AT ALL TIMES HAVE AN AGENT FOR SERVICE OF PROCESS FOR THE ABOVE PURPOSES IN WILMINGTON, DELAWARE. NOTHING HEREIN SHALL AFFECT THE RIGHT OF ANY PARTY TO SERVE PROCESS IN ANY MANNER PERMITTED BY APPLICABLE LAW. EACH PARTY EXPRESSLY ACKNOWLEDGES THAT THE FOREGOING WAIVER IS INTENDED TO BE IRREVOCABLE UNDER THE LAWS OF THE STATE OF DELAWARE AND OF THE UNITED STATES OF AMERICA.

Section 4.06 WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

Section 4.07 Counterparts. This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. Until and unless each party has received a counterpart hereof signed by the other party hereto, this Agreement shall have no effect and no party shall have any right or obligation hereunder (whether by virtue of any other oral or written agreement or other communication).

Section 4.08 Entire Agreement. This Agreement, the LLC Agreement and the other Investor Rights Agreement constitute the entire agreement between the parties with respect to the subject matter of this Agreement and supersede all prior agreements and understandings, both oral and written, between the parties with respect to the subject matter of this Agreement. Nothing in this Agreement shall create any third-party beneficiary rights in favor of any Person or other party hereto.

Section 4.09 Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction or other Governmental Authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any party. Upon such a determination, the parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner in order that the transactions contemplated hereby are consummated as originally contemplated to the fullest extent possible.

Section 4.10 Amendment. This Agreement can be amended at any time and from time to time by written instrument signed by the Company, Pubco and Holdings; provided, however, that the consent of any other Holder under this agreement shall be required for any amendments that disproportionately materially adversely affect such Holder in relation to the other Holders hereunder.

Section 4.11 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law rules of such State that would result in the application of the laws of any other State.

Section 4.12 Tax Treatment. This Agreement shall be treated as part of the LLC Agreement as described in Section 761(c) of the Code and Sections 1.704-1(b)(2)(ii)(h) and 1.761-1(c) of the Treasury Regulations promulgated thereunder. As required by the Code and the Treasury Regulations, and except with respect to an Exchange occurring pursuant to the proviso to Section 2.04(b), the parties shall report any Exchange consummated hereunder as a taxable sale of the Nonvoting Common Units and shares of Class B Common Stock by a Holder to Pubco, and no party shall take a contrary position on any income tax return or amendment thereof unless an alternate position is permitted under the Code and Treasury Regulations and Pubco consents in writing.

Section 4.13 Independent Nature of Holders' Rights and Obligations. The obligations of each Holder hereunder are several and not joint with the obligations of any other Holder, and no Holder shall be responsible in any way for the performance of the obligations of any other Holder under hereunder. The decision of each Holder to enter into to this Agreement has been made by such Holder independently of any other Holder. Nothing contained herein, and no action taken by any Holder pursuant hereto, shall be deemed to constitute the Holders as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Holders are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated hereby.

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

**PUBCO:**

**VTV THERAPEUTICS INC.**

By: \_\_\_\_\_  
Name:  
Title:

**COMPANY:**

**VTV THERAPEUTICS LLC**

By: \_\_\_\_\_  
Name:  
Title:

**HOLDINGS:**

**VTV THERAPEUTICS HOLDINGS LLC**

By: \_\_\_\_\_  
Name:  
Title:

[Signature Page to the Exchange Agreement]

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**EXHIBIT A**  
**FORM OF**  
**NOTICE OF EXCHANGE**

vTv Therapeutics Inc.  
4170 Mendenhall Oaks Parkway  
High Point, NC 27265  
Attention: General Counsel

vTv Therapeutics LLC  
4170 Mendenhall Oaks Parkway  
High Point, NC 27265  
Attention: General Counsel

Reference is hereby made to the Exchange Agreement, dated as of [\_\_\_\_], 2015 (the “Exchange Agreement”), by and among vTv Therapeutics Inc., a Delaware corporation (“Pubco”), vTv Therapeutics LLC, a Delaware limited liability company (the “Company”), vTv Therapeutics Holdings LLC (“Holdings”) and the other Persons who become “Holders” as set forth therein. Capitalized terms used but not defined herein shall have the meanings given to them in the Exchange Agreement.

The undersigned desires to transfer to Pubco the number of (i) shares of Class B Common Stock plus Nonvoting Common Units set forth below (the “Paired Interests”) in exchange for, at the election of Pubco (i) shares of Class A Common Stock (the “Deliverable Common Stock”) to be issued in its name as set forth below, or (ii) cash, in accordance with the terms of the Exchange Agreement.

Legal Name of Holder:

\_\_\_\_\_

Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Number of Paired Interests to be Exchanged:

\_\_\_\_\_

Exchange Date:

\_\_\_\_\_

Account Information for Wire Transfer (in the event of cash settlement of Exchange):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Conditions Precedent to Notice of Exchange (attach additional sheets if necessary):

[ ]

Special delivery instructions:

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The undersigned hereby represents and warrants that (i) the undersigned has full legal capacity to execute and deliver this Notice of Exchange and to perform the undersigned's obligations hereunder; (ii) this Notice of Exchange has been duly executed and delivered by the undersigned and is the legal, valid and binding obligation of the undersigned enforceable against it in accordance with the terms thereof or hereof, as the case may be, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally and the availability of equitable remedies; (iii) the Paired Interests subject to this Notice of Exchange are being transferred to Pubco free and clear of any pledge, lien, security interest, encumbrance, equities or claim; and (iv) no consent, approval, authorization, order, registration or qualification of any third party or with any court or governmental agency or body having jurisdiction over the undersigned or the Paired Interests subject to this Notice of Exchange is required to be obtained by the undersigned for the transfer of such Paired Interests to Pubco.

The undersigned hereby irrevocably constitutes and appoints any officer of Pubco as the attorney of the undersigned, with full power of substitution and resubstitution in the premises, to do any and all things and to take any and all actions that may be necessary to transfer to Pubco the Paired Interests subject to this Notice of Exchange and to deliver to the undersigned the shares of Deliverable Common Stock or cash, as applicable, to be delivered in Exchange therefor.

IN WITNESS WHEREOF, the undersigned, by authority duly given, has caused this Notice of Exchange to be executed and delivered by the undersigned or by its duly authorized attorney.

\_\_\_\_\_  
Name:

Date:



**EXHIBIT B**

**FORM OF  
JOINDER AGREEMENT**

This Joinder Agreement (“Joinder Agreement”) is a joinder to the Exchange Agreement, dated as of [\_\_\_\_], 2015 (the “Agreement”), among vTv Therapeutics Inc., a Delaware corporation (“Pubco”), vTv Therapeutics LLC, a Delaware limited liability company (the “Company”), vTv Therapeutics Holdings LLC and the other Persons who become “Holder” as set forth therein. Capitalized terms used but not defined in this Joinder Agreement shall have their meanings given to them in the Agreement. This Joinder Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law rules of such State that would result in the application of the laws of any other State. In the event of any conflict between this Joinder Agreement and the Agreement, the terms of this Joinder Agreement shall control.

The undersigned, having acquired shares of Class B Common Stock and Nonvoting Common Units, hereby joins and enters into the Agreement. By signing and returning this Joinder Agreement to Pubco, the undersigned (i) accepts and agrees to be bound by and subject to all of the terms and conditions of and agreements of a Holder contained in the Agreement, with all attendant rights, duties and obligations of a Holder thereunder and (ii) makes each of the representations and warranties of a Holder set forth in Section 3.02 of the Agreement as fully as if such representations and warranties were set forth herein. The parties to the Agreement shall treat the execution and delivery hereof by the undersigned as the execution and delivery of the Agreement by the undersigned and, upon receipt of this Joinder Agreement by Pubco and by the Company, the signature of the undersigned set forth below shall constitute a counterpart signature to the signature page of the Agreement.

Name: \_\_\_\_\_

Address for Notices: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

With Copies To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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**TAX RECEIVABLE AGREEMENT**

**among**

**vTv THERAPEUTICS INC.,**

**and**

**THE PERSONS NAMED HEREIN**

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**Dated as of [\_\_\_\_\_, \_\_\_\_], 2015**

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## TAX RECEIVABLE AGREEMENT

This TAX RECEIVABLE AGREEMENT (as amended from time to time, this "Agreement"), dated as of [\_\_\_\_\_, \_\_\_\_], 2015, is hereby entered into by and among vTv Therapeutics Inc., a Delaware corporation (the "Corporate Taxpayer"), each of the undersigned parties hereto identified as "Members," and each Person who is assigned rights by a Member and executes a joinder hereto as provided in Section 7.02(b).

### RECITALS

WHEREAS, vTv Therapeutics LLC, a Delaware limited liability company ("OpCo"), is classified as a partnership for U.S. federal income tax purposes;

WHEREAS, the Corporate Taxpayer is classified as an association taxable as a corporation for U.S. federal income tax purposes;

WHEREAS, each Member holds non-voting common units in OpCo (the "Non-Voting Common Units");

WHEREAS, the Corporate Taxpayer will use the net proceeds from the transactions described in the registration statement on Form S-1 initially filed with the Securities and Exchange Commission on June 15, 2015 (Registration No. 333-204951), as amended prior to the date hereof, including the initial public offering of shares of Class A common stock, \$0.01 par value per share ("Class A Common Stock") by the Corporate Taxpayer (the "IPO"), to acquire newly-issued Non-Voting Common Units in OpCo directly from OpCo (the "Capital Contribution");

WHEREAS, under the terms of the Exchange Agreement, each Member may exchange each Non-Voting Common Unit held by it, together with a corresponding share of Class B common stock, \$0.01 par value per share, of the Corporate Taxpayer ("Class B Common Stock"), either for shares of Class A Common Stock, on a one-for-one basis, or cash (based on the market price of the shares of the Class A Common Stock), at the Corporate Taxpayer's option.

WHEREAS, OpCo and each of its direct and indirect subsidiaries classified as a partnership for U.S. federal income tax purposes will have in effect an election under Section 754 of the Internal Revenue Code of 1986, as amended (the "Code"), for the Taxable Year (as defined below) in which an Exchange (as defined below) occurs, which election is intended to result in an adjustment to the tax basis of the assets owned by OpCo (solely with respect to the Corporate Taxpayer) at the time of an Exchange (such time, the "Exchange Date") by reason of the Exchange and the receipt of certain payments under this Agreement;

WHEREAS, the income, gain, loss, expense and other Tax (as defined below) items of the Corporate Taxpayer may be affected by (i) the Basis Adjustment (as defined below) and (ii) Imputed Interest (as defined below); and

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WHEREAS, the parties to this Agreement desire to make certain arrangements with respect to the effect of the Basis Adjustment and Imputed Interest on the actual liability for Taxes of the Corporate Taxpayer.

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth herein, and intending to be legally bound hereby, the parties hereto agree as follows:

## ARTICLE I

### DEFINITIONS

#### Section 1.01 Definitions.

(a) The following terms shall have the following meanings for the purposes of this Agreement:

“Affiliate” shall have the meaning set forth in Rule 405 under the Securities Act of 1933, as amended (as in effect on the date hereof).

“Agreed Rate” means LIBOR plus 100 basis points.

“Applicable Member” means any Member to whom any portion of a Realized Tax Benefit may be Attributable under this Agreement.

“Attributable” means, with respect to any Applicable Member, the portion of any Realized Tax Benefit of the Corporate Taxpayer that is “attributable” to such Applicable Member, which shall be determined by reference to the assets from which arise the depreciation, amortization or other similar deductions for recovery of cost or basis (“Depreciation”) and with respect to increased basis upon a disposition of an asset or Imputed Interest that produce the Realized Tax Benefit, under the following principles:

(i) Any Realized Tax Benefit arising from a deduction to the Corporate Taxpayer with respect to a Taxable Year for Depreciation arising in respect of a Basis Adjustment to a Reference Asset resulting from an Exchange is Attributable to the Applicable Member to the extent that the ratio of all Depreciation for the Taxable Year in respect of Basis Adjustments resulting from all Exchanges by the Applicable Member bears to the aggregate of all Depreciation for the Taxable Year in respect of Basis Adjustments resulting from all Exchanges by the Applicable Members.

(ii) Any Realized Tax Benefit arising from the disposition of a Reference Asset is Attributable to the Applicable Member to the extent that the ratio of all Basis Adjustments (to the extent not previously giving rise to Realized Tax Benefits) resulting from all Exchanges by the Applicable Member with respect to such Reference Asset bears to the aggregate of all Basis Adjustments (to the extent not previously giving rise to Realized Tax Benefits) with respect to such Reference Asset.

(iii) Any Realized Tax Benefit arising from a deduction to the Corporate Taxpayer with respect to a Taxable Year in respect of Imputed Interest is Attributable to the Applicable Member that is required to include Imputed Interest in income (without regard to whether such Member is actually subject to tax thereon).

(iv) For the avoidance of doubt, in the case of a Basis Adjustment with respect to an Exchange, depreciation, amortization or other similar deductions for recovery of cost of basis shall constitute Depreciation only to the extent that such depreciation, amortization or other similar deductions may produce a Realized Tax Benefit (and not to the extent that such depreciation, amortization or other similar deductions may be for the benefit of a Person other than the Corporate Taxpayer), as reasonably determined by the Corporate Taxpayer.

“Basis Adjustment” means the adjustment to the tax basis of a Reference Asset under Sections 732, 755 and 1012 of the Code and the Treasury Regulations promulgated thereunder (in situations where, as a result of one or more Exchanges, OpCo becomes classified as an entity that is disregarded as separate from its owner for U.S. federal income tax purposes) or under Sections 734(b), 743(b) and 755 of the Code and the Treasury Regulations promulgated thereunder (in situations where, following an Exchange, OpCo remains in existence as an entity for U.S. federal income tax purposes) and, in each case, comparable sections of state and local tax laws, as a result of (i) an Exchange and (ii) the payments made pursuant to this Agreement. For the avoidance of doubt, the amount of any Basis Adjustment resulting from an Exchange of one or more Non-Voting Common Units shall be determined without regard to any Pre-Exchange Transfer of such Non-Voting Common Units and as if any such Pre-Exchange Transfer had not occurred.

A “Beneficial Owner” of a security is a Person who directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares: (i) voting power, which includes the power to vote, or to direct the voting of, such security and/or (ii) investment power, which includes the power to dispose of, or to direct the disposition of, such security.

“Board” means the board of directors of the Corporate Taxpayer.

“Business Day” shall have the meaning ascribed to such term in the LLC Agreement.

“Change of Control” means the occurrence of any of the following events:

(i) any Person or any group of Persons acting together which would constitute a “group” for purposes of Section 13(d) of the Securities and Exchange Act of 1934, or any successor provisions thereto, other than any of the Permitted Holders, is or becomes the Beneficial Owner, directly or indirectly, of securities of the Corporate Taxpayer representing more than 50% of the combined voting power of the Corporate Taxpayer’s then outstanding voting securities; or

(ii) the following individuals cease for any reason to constitute a majority of the number of directors of the Corporate Taxpayer then serving: individuals who, on the IPO Date, constitute the Board and any new director whose appointment or election by the Board or nomination for election by the Corporate Taxpayer's shareholders was approved or recommended by a vote of at least a majority of the directors then still in office who either were directors on the IPO Date or whose appointment, election or nomination for election was previously so approved or recommended by the directors referred to in this clause (ii); or

(iii) there is consummated a merger or consolidation of the Corporate Taxpayer with any other corporation or other entity, and, immediately after the consummation of such merger or consolidation, either (x) the Board immediately prior to the merger or consolidation does not constitute at least a majority of the board of directors of the company surviving the merger or, if the surviving company is a Subsidiary, the ultimate parent thereof, or (y) the voting securities of the Corporate Taxpayer immediately prior to such merger or consolidation do not continue to represent or are not converted into more than 50% of the combined voting power of the then outstanding voting securities of the Person resulting from such merger or consolidation or, if the surviving company is a Subsidiary, the ultimate parent thereof; or

(iv) the shareholders of the Corporate Taxpayer approve a plan of complete liquidation or dissolution of the Corporate Taxpayer or there is consummated an agreement or series of related agreements for the sale or other disposition, directly or indirectly, by the Corporate Taxpayer of all or substantially all of the Corporate Taxpayer's assets, other than such sale or other disposition by the Corporate Taxpayer of all or substantially all of the Corporate Taxpayer's assets to an entity, at least 50% of the combined voting power of the voting securities of which are owned or beneficially owned, directly or indirectly, by (x) shareholders of the Corporate Taxpayer in substantially the same proportions as their ownership immediately prior to such sale or (y) the Permitted Holders.

Notwithstanding the foregoing, except with respect to clause (ii) and clause (iii)(x) above, (1) a "Change of Control" shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which (a) the record or beneficial holders of the issued and outstanding shares of the Corporate Taxpayer immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in, and own substantially all of the shares of, an entity which owns all or substantially all of the assets of the Corporate Taxpayer immediately following such transaction or series of transactions, (b) no Person, other than a Permitted Holder, beneficially owns, directly or indirectly through one or more intermediaries, more than 50% of the voting power of the shares of an entity which owns all or substantially all of the assets of the Corporate Taxpayer immediately following such transaction or series of transactions; (2) any holding company whose only significant asset is shares of any direct or indirect parent of the Corporate Taxpayer shall not itself be considered a "Person" or "group" for purposes of this definition; (3) the transfer of assets between or among the Corporate Taxpayer and the Permitted Holders shall not itself constitute a Change of Control; (4) a Person or group of Persons shall not be deemed to have beneficial ownership of shares subject to a stock purchase agreement, merger agreement or similar agreement (or voting or option agreement related thereto) until the consummation of the transactions contemplated by such agreement; (5) any change in the relative beneficial ownership of the Permitted Holders that does not alter the overall beneficial ownership of the Permitted Holders shall not constitute a Change of Control; (6) the term "Change of Control" shall not include a merger or consolidation of the Corporate Taxpayer with or the sale, assignment, conveyance, transfer, lease or other disposition of all or substantially all of the Corporate Taxpayer's assets to, an Affiliate incorporated or organized solely for the purpose of reincorporating or reorganizing the Corporate Taxpayer in another jurisdiction and/or for the sole purpose of forming or collapsing a holding company structure.

“Corporate Taxpayer Return” means the federal and/or state and/or local Tax Return, as applicable, of the Corporate Taxpayer filed with respect to Taxes of any Taxable Year.

“Cumulative Net Realized Tax Benefit” for a Taxable Year means the cumulative amount of Realized Tax Benefits for all Taxable Years of the Corporate Taxpayer, up to and including such Taxable Year, net of the cumulative amount of Realized Tax Detriments for the same period. The Realized Tax Benefit and Realized Tax Detriment for each Taxable Year shall be determined based on the most recent Tax Benefit Schedule or Amended Schedule, if any, in existence at the time of such determination.

“Default Rate” means LIBOR plus 500 basis points.

“Determination” shall have the meaning ascribed to such term in Section 1313(a) of the Code or similar provision of state and local tax law, as applicable, or any other event (including the execution of IRS Form 870-AD) that finally and conclusively establishes the amount of any liability for Tax and shall also include the acquiescence of the Corporate Taxpayer to the amount of any assessed liability for Tax.

“Early Termination Date” means the date of an Early Termination Notice for purposes of determining the Early Termination Payment.

“Early Termination Rate” means the lesser of (i) 6.5% per annum, compounded annually, and (ii) LIBOR plus 100 basis points.

“Exchange” means an acquisition of Non-Voting Common Units or a purchase of Non-Voting Common Units by OpCo or the Corporate Taxpayer, including by way of an exchange of stock of the Corporate Taxpayer for Non-Voting Common Units pursuant to the Exchange Agreement, in each case occurring on or after the date of this Agreement.

“Exchange Agreement” means the Exchange Agreement, dated as of the date hereof, by and among the Corporate Taxpayer, OpCo, Holdings (and its successors and assigns) and any other Person that becomes a “Holder” thereunder, as the same may be amended, restated, supplemented and/or otherwise modified, from time to time.

“Governmental Authority” means the government of any nation, state, territory, city, locality or other political subdivision thereof, any entity or body exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government, including any court, quasi-governmental authority, self-regulatory organization, commission, tribunal, agency or any political or other subdivision, department, board, bureau, or branch or official of any of the foregoing.

“Holdings” means vTv Therapeutics Holdings LLC, a Delaware limited liability company.

“Hypothetical Tax Liability” means, with respect to any Taxable Year, the liability for Taxes of (i) the Corporate Taxpayer and (ii) without duplication, OpCo, but only with respect to Taxes imposed on OpCo or its Subsidiaries and allocable to the Corporate Taxpayer (or to the other members of the consolidated group of which the Corporate Taxpayer is the parent), in each case using the same methods, elections, conventions and similar practices used on the relevant Corporate Taxpayer Return, but (x) using the Non-Stepped Up Tax Basis as reflected on the Exchange Basis Schedule, including amendments thereto for the Taxable Year and (y) excluding any deduction attributable to Imputed Interest for the Taxable Year. For the avoidance of doubt, Hypothetical Tax Liability shall be determined without taking into account the carryover or carryback of any Tax item (or portions thereof) that is attributable to any of Basis Adjustments or Imputed Interest (which shall include Tax items that would not be available for use but for the prior use of Tax items relating to Basis Adjustments or Imputed Interest with respect to which there was no Realized Tax Benefit).

“Imputed Interest” shall mean any interest imputed under Section 1272, 1274 or 483 or other provision of the Code and any similar provision of state and local tax law with respect to the Corporate Taxpayer’s payment obligations under this Agreement.

“IPO Date” means the closing date of the IPO.

“IRS” means the U.S. Internal Revenue Service.

“LIBOR” means during any period, an interest rate per annum equal to the one-year LIBOR reported, on the date two days prior to the first day of such period, on the Telerate Page 3750 (or if such screen shall cease to be publicly available, as reported on Reuters Screen page “LIBOR01” or by any other publicly available source of such market rate) for London interbank offered rates for United States dollar deposits for such period.

“LLC Agreement” means the Amended and Restated Limited Liability Company Agreement of OpCo, dated as of the date hereof, as the same may be amended, restated, supplemented and/or otherwise modified, from time to time.

“Market Value” shall mean the closing price of the Class A Common Stock on the applicable Exchange Date on the national securities exchange or interdealer quotation system on which such Class A Common Stock is then traded or listed, as reported by the *Wall Street Journal*; provided, that if the closing price is not reported by the *Wall Street Journal* for the applicable Exchange Date, then the Market Value shall mean the closing price of the Class A Common Stock on the Business Day immediately preceding such Exchange Date on the national securities exchange or interdealer quotation system on which such Class A Common Stock is then traded or listed, as reported by the *Wall Street Journal*; provided, further, that if the Class A Common Stock is not then listed on a national securities exchange or interdealer quotation system, the Market Value shall mean the cash consideration paid for Class A Common Stock, or the fair market value of the other property delivered for Class A Common Stock, as determined by the Board in good faith.

“Non-Stepped Up Tax Basis” means, with respect to any Reference Asset at any time, the Tax basis that such asset would have had at such time if no Basis Adjustments had been made.

“Payment Date” means any date on which a payment is required to be made pursuant to this Agreement.

“Permitted Holder” shall mean vTv Therapeutics Holdings LLC, vTvx Holdings I LLC, vTvx Holdings II LLC, M&F TTP Holdings LLC, MacAndrews & Forbes Incorporated, Ronald O. Perelman or any of his immediate family members, and their respective Affiliates and Related Parties.

“Person” means any individual, corporation, firm, partnership, joint venture, limited liability company, estate, trust, business association, organization, governmental entity or other entity.

“Pre-Exchange Transfer” means any transfer (including upon the death of a Member) or distribution in respect of one or more Non-Voting Common Units (i) that occurs prior to an Exchange of such Non-Voting Common Units, and (ii) to which Section 743(b) or 734(b) of the Code applies.

“Realized Tax Benefit” means, for a Taxable Year, the excess, if any, of the Hypothetical Tax Liability over the actual liability for Taxes of (i) the Corporate Taxpayer and (ii) without duplication, OpCo, but only with respect to Taxes imposed on OpCo and allocable to the Corporate Taxpayer (or to the other members of the consolidated group of which the Corporate Taxpayer is the parent) for such Taxable Year. If all or a portion of the actual liability for such Taxes for the Taxable Year arises as a result of an audit by a Taxing Authority of any Taxable Year, such liability shall not be included in determining the Realized Tax Benefit unless and until there has been a Determination.

“Realized Tax Detriment” means, for a Taxable Year, the excess, if any, of the actual liability for Taxes of (i) the Corporate Taxpayer and (ii) without duplication, OpCo, but only with respect to Taxes imposed on OpCo and allocable to the Corporate Taxpayer (or to the other members of the consolidated group of which the Corporate Taxpayer is the parent) for such Taxable Year, over the Hypothetical Tax Liability for such Taxable Year. If all or a portion of the actual liability for such Taxes for the Taxable Year arises as a result of an audit by a Taxing Authority of any Taxable Year, such liability shall not be included in determining the Realized Tax Detriment unless and until there has been a Determination.

“Reference Asset” means an asset that is held by OpCo, or by any of its direct or indirect subsidiaries treated as a partnership or disregarded entity for purposes of the applicable Tax, at the time of an Exchange. A Reference Asset also includes any asset that is “substituted basis property” under Section 7701(a)(42) of the Code with respect to a Reference Asset.



“Related Party” shall mean, with respect to any Person, (a) any controlling stockholder, controlling member, general partner, subsidiary, spouse or immediate family member (in the case of an individual) of such Person, (b) any estate, trust, corporation, partnership or other entity, the beneficiaries, stockholders, partners or owners of which consist solely of one or more Permitted Holders and/or such other Persons referred to in the immediately preceding clause (a), or (c) any executor, administrator, trustee, manager, director or other similar fiduciary of any Person referred to in the immediately preceding clause (b), acting solely in such capacity.

“Schedule” means any of the following: (i) an Exchange Basis Schedule, (ii) a Tax Benefit Schedule, or (iii) the Early Termination Schedule.

“Subsidiaries” shall have the meaning ascribed to such term in the LLC Agreement.

“Tax Return” means any return, declaration, report or similar statement required to be filed with respect to Taxes (including any attached schedules), including any information return, claim for refund, amended return and declaration of estimated Tax.

“Taxable Year” means a taxable year of the Corporate Taxpayer as defined in Section 441(b) of the Code or comparable section of state or local tax law, as applicable (and, therefore, for the avoidance of doubt, may include a period of less than 12 months for which a Tax Return is made), ending on or after the IPO Date.

“Taxes” means any and all U.S. federal, state and local taxes, assessments or similar charges that are based on or measured with respect to net income or profits, and any interest related to such Tax.

“Taxing Authority” shall mean any domestic, federal, national, state, county or municipal or other local government, any subdivision, agency, commission or authority thereof, or any quasi-governmental body exercising any taxing authority or any other authority exercising Tax regulatory authority.

“Treasury Regulations” means the final, temporary and proposed regulations under the Code promulgated from time to time (including corresponding provisions and succeeding provisions) as in effect for the relevant taxable period.

“Valuation Assumptions” shall mean, as of an Early Termination Date, the assumptions that (1) in each Taxable Year ending on or after such Early Termination Date, the Corporate Taxpayer will have taxable income sufficient to fully utilize the deductions arising from the Basis Adjustments and Imputed Interest during such Taxable Year or future Taxable Years (including, for the avoidance of doubt, Basis Adjustments and Imputed Interest that would result from future Tax Benefit Payments that would be paid in accordance with the Valuation Assumptions) in which such deductions would become available, (2) the U.S. federal income tax rates and state and local income tax rates that will be in effect for each such Taxable Year will be those specified for each such Taxable Year by the Code and other law as in effect on the Early Termination Date, (3) any loss carryovers generated by deductions arising from Basis Adjustments or Imputed Interest that are available as of such Early Termination Date will be utilized by the Corporate Taxpayer on a pro rata basis from the Early Termination Date through the scheduled expiration date of such loss carryovers, (4) any non-amortizable assets will be disposed of on the fifteenth anniversary of the applicable Basis Adjustment; provided, that in the event of a Change of Control, such non-amortizable assets shall be deemed disposed of at the time of sale of the relevant asset (if earlier than such fifteenth anniversary), and (5) if, at the Early Termination Date, there are Non-Voting Common Units that have not been Exchanged, then each such Non-Voting Common Unit shall be deemed to be Exchanged for the Market Value of the number of shares of Class A Common Stock and the amount of cash that would be transferred if the Exchange occurred on the Early Termination Date.

(b) Each of the following terms is defined in the Section set forth opposite such term:

<b>Term</b>	<b>Section</b>
Agreement	Preamble
Amended Schedule	2.03(b)
Class A Common Stock	Recitals
Class B Common Stock	Recitals
Code	Recitals
Corporate Taxpayer	Preamble
Dispute	7.03(a)
Early Termination Effective Date	4.02
Early Termination Notice	4.02
Early Termination Payment	4.03(b)
Early Termination Schedule	4.02
e-mail	7.01
Exchange Basis Schedule	2.01
Exchange Date	Recitals
Expert	7.09
Interest Amount	3.01(b)
Material Objection Notice	4.02
Members	Preamble
Net Tax Benefit	3.01(b)
Objection Notice	2.03(a)
OpCo	Recitals
Reconciliation Dispute	7.09
Reconciliation Procedures	2.03(a)
Senior Obligations	5.01
Tax Benefit Payment	3.01(b)
Tax Benefit Schedule	2.02(a)

(c) Other Definitional and Interpretative Provisions. The words “hereof”, “herein” and “hereunder” and words of like import used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The captions herein are included for convenience of reference only and shall be ignored in the construction or interpretation hereof. References to Articles and Sections are to Articles and Sections of this Agreement unless otherwise specified. Any singular term in this Agreement shall be deemed to include the plural, and any plural term the singular. Whenever the words “include”, “includes” or “including” are used in this Agreement, they shall be deemed to be followed by the words “without limitation”, whether or not they are in fact followed by those words or words of like import. “Writing”, “written” and comparable terms refer to printing, typing and other means of reproducing words (including electronic media) in a visible form. References to any statute shall be deemed to refer to such statute as amended from time to time and to any rules or regulations promulgated thereunder. References to any agreement or contract are to that agreement or contract as amended, modified or supplemented from time to time in accordance with the terms hereof and thereof. References to any Person include the successors and permitted assigns of that Person. References from or through any date mean, unless otherwise specified, from and including or through and including, respectively.

## ARTICLE II

### DETERMINATION OF REALIZED TAX BENEFIT

Section 2.01 Basis Adjustment. Within 120 calendar days after the filing of the U.S. federal income tax return of the Corporate Taxpayer for each Taxable Year in which any Exchange has been effected by any Member, the Corporate Taxpayer shall deliver to such Member a schedule (the "Exchange Basis Schedule") that shows, in reasonable detail necessary to perform the calculations required by this Agreement, including with respect to each Exchanging party, (i) the Non-Stepped Up Tax Basis of the Reference Assets as of each applicable Exchange Date, (ii) the Basis Adjustments with respect to the Reference Assets as a result of the Exchanges effected in such Taxable Year, calculated (x) in the aggregate, (y) solely with respect to Exchanges by such Member and (z) in the case of a Basis Adjustment under Section 734(b) of the Code solely with respect to the amount that is available to the Corporate Taxpayer in such Taxable Year, (iii) the period (or periods) over which the Reference Assets are amortizable and/or depreciable and (iv) the period (or periods) over which each Basis Adjustment is amortizable and/or depreciable.

#### Section 2.02 Realized Tax Benefit and Realized Tax Detriment.

(a) Tax Benefit Schedule. Within 120 calendar days after the filing of the U.S. federal income tax return of the Corporate Taxpayer for any Taxable Year in which there is a Realized Tax Benefit or Realized Tax Detriment all or a portion of which is Attributable to a Member, the Corporate Taxpayer shall provide to such Member a schedule showing, in reasonable detail and, at the request of such Member, with respect to each separate Exchange, the calculation of the Realized Tax Benefit or Realized Tax Detriment and the portion Attributable to such Member for such Taxable Year (a "Tax Benefit Schedule"). The Tax Benefit Schedule will become final as provided in Section 2.03(a) and may be amended as provided in Section 2.03(b) (subject to the procedures set forth in Section 2.03(b)).

(b) Applicable Principles. The Realized Tax Benefit or Realized Tax Detriment for each Taxable Year is intended to measure the decrease or increase in the actual liability for Taxes of the Corporate Taxpayer for such Taxable Year attributable to the Basis Adjustments and Imputed Interest, determined using a "with and without" methodology. For the avoidance of doubt, the actual liability for Taxes will take into account the deduction of the portion of the Tax Benefit Payment that must be accounted for as interest under the Code based upon the characterization of Tax Benefit Payments as additional consideration payable by the Corporate Taxpayer for the Non-Voting Common Units acquired in an Exchange. Carryovers or carrybacks of any Tax item attributable to the Basis Adjustment or Imputed Interest shall be considered to be subject to the rules of the Code and the Treasury Regulations or the appropriate provisions of U.S. state and local income and franchise tax law, as applicable, governing the use, limitation and expiration of carryovers or carrybacks of the relevant type. If a carryover or carryback of any Tax item includes a portion that is attributable to the Basis Adjustment or Imputed Interest and another portion that is not, such portions shall be considered to be used in accordance with the "with and without" methodology. The parties agree that (i) all Tax Benefit Payments attributable to the Basis Adjustments (other than amounts accounted for as interest under the Code) will (A) be treated as subsequent upward purchase price adjustments that give rise to further Basis Adjustments to Reference Assets for the Corporate Taxpayer and (B) have the effect of creating additional Basis Adjustments to Reference Assets for the Corporate Taxpayer in the year of payment, and (ii) as a result, such additional Basis Adjustments will be incorporated into the current year calculation and into future year calculations, as appropriate.

Section 2.03 Procedures, Amendments

(a) Procedure. Every time the Corporate Taxpayer delivers to a Member an applicable Schedule under this Agreement, including any Amended Schedule delivered pursuant to Section 2.03(b) and any Early Termination Schedule or amended Early Termination Schedule, the Corporate Taxpayer shall also (x) deliver to such Member schedules, valuation reports (if any), and work papers, as determined by the Corporate Taxpayer or requested by such Member, providing reasonable detail regarding the preparation of the Schedule and (y) allow such Member reasonable access at no cost to the appropriate representatives at the Corporate Taxpayer, as determined by the Corporate Taxpayer or requested by such Member, in connection with a review of such Schedule. Without limiting the application of the preceding sentence, each time the Corporate Taxpayer delivers to a Member a Tax Benefit Schedule, in addition to the Tax Benefit Schedule duly completed, the Corporate Taxpayer shall deliver to such Member the Corporate Taxpayer Return, the reasonably detailed calculation by the Corporate Taxpayer of the Hypothetical Tax Liability, the reasonably detailed calculation by the Corporate Taxpayer of the actual Tax liability, as well as any other work papers as determined by the Corporate Taxpayer or requested by such Member. An applicable Schedule or amendment thereto shall become final and binding on all parties 30 calendar days from the first date on which the Member has received the applicable Schedule or amendment thereto unless such Member (i) within 30 calendar days after receiving an applicable Schedule or amendment thereto, provides the Corporate Taxpayer with notice of a material objection to such Schedule ("Objection Notice") made in good faith or (ii) provides a written waiver of such right of any Objection Notice within the period described in clause (i) above, in which case such Schedule or amendment thereto becomes binding on the date the waiver is received by the Corporate Taxpayer. If the parties, for any reason, are unable to successfully resolve the issues raised in the Objection Notice within 30 calendar days after receipt by the Corporate Taxpayer of an Objection Notice, the Corporate Taxpayer and the applicable Member shall employ the reconciliation procedures as described in Section 7.09 (the "Reconciliation Procedures").

(b) Amended Schedule. The applicable Schedule for any Taxable Year may be amended from time to time by the Corporate Taxpayer (i) in connection with a Determination affecting such Schedule, (ii) to correct inaccuracies in the Schedule identified as a result of the receipt of additional factual information relating to a Taxable Year after the date the Schedule was provided to the applicable Member, (iii) to comply with the Expert's determination under the Reconciliation Procedures, (iv) to reflect a change in the Realized Tax Benefit or Realized Tax Detriment for such Taxable Year attributable to a carryback or carryforward of a loss or other tax item to such Taxable Year, (v) to reflect a change in the Realized Tax Benefit or Realized Tax Detriment for such Taxable Year attributable to an amended Tax Return filed for such Taxable Year, or (vi) to adjust the Exchange Basis Schedule to take into account payments made pursuant to this Agreement (any such Schedule, an "Amended Schedule"). The Corporate Taxpayer shall provide an Amended Schedule to each Member within 30 calendar days of the occurrence of an event referenced in clauses (i) through (vi) of the preceding sentence.

### ARTICLE III

#### TAX BENEFIT PAYMENTS

##### Section 3.01 Payments.

(a) Within five (5) Business Days after all of the Tax Benefit Schedules with respect to a Taxable Year are delivered to a Member pursuant to this Agreement, the Corporate Taxpayer shall pay to each Member for such Taxable Year the Tax Benefit Payment in the amount determined pursuant to Section 3.01(b). Each such Tax Benefit Payment to a Member shall be made by wire transfer of immediately available funds to the bank account previously designated by such Member to the Corporate Taxpayer or as otherwise agreed by the Corporate Taxpayer and such Member. For the avoidance of doubt, no Tax Benefit Payment shall be made in respect of estimated tax payments, including federal estimated income tax payments. Notwithstanding anything herein to the contrary, solely at the election of a Member, which shall be made in a written notice to the Corporate Taxpayer in connection with the applicable Exchange, in no event shall the aggregate Tax Benefit Payments in respect of such Exchange (other than amounts accounted for as interest under the Code) exceed 50% of the amount equal to the sum of (A) the cash, excluding any Tax Benefit Payments, and (B) the Market Value of the Class A Common Stock, received by such Member on such Exchange.

(b) A "Tax Benefit Payment" in respect of a Member, means an amount, not less than zero, equal to the sum of the amount of the Net Tax Benefit Attributable to such Member and the related Interest Amount. For the avoidance of doubt, for Tax purposes, the Interest Amount shall not be treated as interest but instead shall be treated as additional consideration for the acquisition of Non-Voting Common Units in Exchanges, unless otherwise required by law. The "Net Tax Benefit" for a Taxable Year shall be an amount equal to the excess, if any, of 85% of the Cumulative Net Realized Tax Benefit as of the end of such Taxable Year over the total amount of Tax Benefit Payments previously made under this Section 3.01 (excluding payments attributable to Interest Amounts); provided, for the avoidance of doubt, that such Member shall not be required to return any portion of any previously made Tax Benefit Payment. The "Interest Amount" shall equal the interest on the amount of the Net Tax Benefit Attributable to such Member calculated at the Agreed Rate from the due date (without extensions) for filing the Corporate Taxpayer Return with respect to Taxes for such Taxable Year until the Payment Date of the applicable Tax Benefit Payment. Notwithstanding the foregoing, unless the Member elects to receive the lump-sum payment pursuant to the following sentence, for each Taxable Year ending on or after the date of a Change of Control, all Tax Benefit Payments, whether paid with respect to the Non-Voting Common Units that were Exchanged (i) prior to the date of such Change of Control or (ii) on or after the date of such Change of Control, shall be calculated by utilizing Valuation Assumptions (1) and (3), substituting in each case the terms "the closing date of a Change of Control" for an "Early Termination Date." In connection with any Change of Control, at the election of a Member, all obligations hereunder with respect to such Member shall be accelerated, and such obligations shall be calculated as if an Early Termination Notice had been delivered on the date of such election and shall include, but not be limited to, (1) the Early Termination Payment to such Member calculated as if an Early Termination Notice had been delivered on the date of such election, (2) any Tax Benefit Payment agreed to by the Corporate Taxpayer and such Member as due and payable but unpaid as of the date of such Member's election, and (3) any Tax Benefit Payment due for the Taxable Year ending with or including the date of such Member's election; provided, that procedures similar to the procedures of Section 4.02 shall apply with respect to the determination of the amount payable by the Corporate Taxpayer pursuant to this sentence.

Section 3.02 No Duplicative Payments. It is intended that the provisions of this Agreement will not result in duplicative payment of any amount (including interest) required under this Agreement. The provisions of this Agreement shall be construed in the appropriate manner to ensure such intentions are realized.

#### ARTICLE IV

#### TERMINATION

Section 4.01 Termination, Early Termination and Breach of Agreement.

(a) Unless terminated earlier pursuant to Section 4.01(b) or Section 4.01(c), this Agreement will terminate when there is no further potential for a Tax Benefit Payment pursuant to this Agreement.

(b) The Corporate Taxpayer may terminate this Agreement with respect to all amounts payable to the Members and with respect to all of the Non-Voting Common Units held (or previously held and exchanged) by all Members at any time by paying to each Member the Early Termination Payment in respect of such Member; provided, however, that this Agreement shall only terminate pursuant to this Section 4.01(b) upon the receipt of the Early Termination Payment by all Members; and provided, further, that the Corporate Taxpayer may withdraw any notice to execute its termination rights under this Section 4.01(b) prior to the time at which any Early Termination Payment has been paid. Upon payment of the Early Termination Payment by the Corporate Taxpayer in accordance with this Section 4.01(b), neither the Members nor the Corporate Taxpayer shall have any further payment obligations under this Agreement, other than for any (1) Tax Benefit Payment agreed to by the Corporate Taxpayer and a Member as due and payable but unpaid as of the Early Termination Notice and (2) Tax Benefit Payment due for the Taxable Year ending with or including the date of the Early Termination Notice (except to the extent that the amount described in clause (2) is included in the Early Termination Payment). If an Exchange occurs after the Corporate Taxpayer makes the Early Termination Payment pursuant to this Section 4.01(b), the Corporate Taxpayer shall have no obligations under this Agreement with respect to such Exchange. If the Corporate Taxpayer terminates, or proposes to terminate, this Agreement by making, or proposing to make, the Early Termination Payment to the Members under such agreement, then each Member that is a party to this Agreement shall have the right to cause the Corporate Taxpayer to make an Early Termination Payment to such Member under this Agreement; provided that the procedures of this Article IV shall apply to such Early Termination Payment as if the Corporate Taxpayer had delivered an Early Termination Notice to such electing Members; provided further that a Member may elect to receive an Early Termination Payment pursuant to this sentence notwithstanding the fact that not all Members under this Agreement elect to receive such a payment.

(c) In the event that the Corporate Taxpayer breaches any of its material obligations under this Agreement, whether as a result of failure to make any payment when due, failure to honor any other material obligation required hereunder or by operation of law as a result of the rejection of this Agreement in a case commenced under the Bankruptcy Code or otherwise, and does not cure such breach within ninety (90) days of receipt of notice of such breach, then all obligations hereunder shall be accelerated and such obligations shall be calculated as if an Early Termination Notice had been delivered on the date of such breach and shall include, but not be limited to, (1) the Early Termination Payment calculated as if an Early Termination Notice had been delivered on the date of a breach, (2) any Tax Benefit Payment agreed to by the Corporate Taxpayer and any Members as due and payable but unpaid as of the date of a breach, and (3) any Tax Benefit Payment due for the Taxable Year ending with or including the date of a breach; provided that procedures similar to the procedures of Section 4.02 shall apply with respect to the determination of the amount payable by the Corporate Taxpayer pursuant to this sentence. Notwithstanding the foregoing, in the event that the Corporate Taxpayer breaches this Agreement, the Members shall be entitled to elect to receive the amounts set forth in clauses (1), (2) and (3) above or to seek specific performance of the terms hereof. The parties agree that the failure to make any payment due pursuant to this Agreement within three months of the date such payment is due shall be deemed to be a breach of a material obligation under this Agreement for all purposes of this Agreement, and that it will not be considered to be a breach of a material obligation under this Agreement to make a payment due pursuant to this Agreement within three months of the date such payment is due. Notwithstanding anything in this Agreement to the contrary, it shall not be a breach of this Agreement if the Corporate Taxpayer fails to make any payment due pursuant to this Agreement when due to the extent the Corporate Taxpayer has insufficient funds to make such payment; provided that the interest provisions of Section 5.02 shall apply to such late payment (unless the Corporate Taxpayer does not have sufficient cash to make such payment as a result of limitations imposed by credit agreements to which the Corporate Taxpayer or its Subsidiaries is a party, in which case Section 5.02 shall apply, but the Default Rate shall be replaced by the Agreed Rate); provided, further, that the Corporate Taxpayer shall promptly (and in any event, within two (2) Business Days), pay all such unpaid payments, together with accrued and unpaid interest thereon, immediately following such time that the Corporate Taxpayer has, and to the extent the Corporate Taxpayer has, sufficient funds to make such payment, and the failure of the Corporate Taxpayer to do so shall constitute a breach of this Agreement. For the avoidance of doubt, all cash and cash equivalents used or to be used to pay dividends by, or repurchase equity securities of, the Corporate Taxpayer shall be deemed to be funds sufficient and available to pay such unpaid payments, together with any accrued and unpaid interest thereon.

(d) The undersigned hereby acknowledge and agree that the timing, amounts and aggregate value of Tax Benefit Payments pursuant to this Agreement are not reasonably ascertainable.

Section 4.02 Early Termination Notice. If the Corporate Taxpayer chooses to exercise its right of early termination under Section 4.01(b) above, the Corporate Taxpayer shall deliver to each Member notice of such intention to exercise such right ("Early Termination Notice") and a schedule (the "Early Termination Schedule") specifying the Corporate Taxpayer's intention to exercise such right and showing in reasonable detail the calculation of the Early Termination Payment for such Member. The Early Termination Schedule shall become final and binding on such Member thirty (30) calendar days from the first date on which such Member has received such Schedule or amendment thereto unless such Member (i) within thirty (30) calendar days after receiving the Early Termination Schedule, provides the Corporate Taxpayer with notice of a material objection to such Schedule made in good faith ("Material Objection Notice") or (ii) provides a written waiver of such right of a Material Objection Notice within the period described in clause (i) above, in which case such Schedule becomes binding on the date the waiver is received by the Corporate Taxpayer (such thirty (30) calendar day date as modified, if at all, by clauses (i) or (ii), the "Early Termination Effective Date"). If the Corporate Taxpayer and such Member, for any reason, are unable to successfully resolve the issues raised in such notice within thirty (30) calendar days after receipt by the Corporate Taxpayer of the Material Objection Notice, the Corporate Taxpayer and such Member shall employ the Reconciliation Procedures.

Section 4.03 Payment upon Early Termination.

(a) Within three (3) Business Days after the Early Termination Effective Date, the Corporate Taxpayer shall pay to each Member an amount equal to the Early Termination Payment in respect of such Member. Such payment shall be made by wire transfer of immediately available funds to a bank account or accounts designated by such Member or as otherwise agreed by the Corporate Taxpayer and such Member.

(b) "Early Termination Payment" in respect of a Member shall equal the present value, discounted at the Early Termination Rate as of the Early Termination Effective Date, of all Tax Benefit Payments in respect of such Member that would be required to be paid by the Corporate Taxpayer beginning from the Early Termination Date and assuming that the Valuation Assumptions are applied.

## ARTICLE V

### SUBORDINATION AND LATE PAYMENTS

Section 5.01 Subordination. Notwithstanding any other provision of this Agreement to the contrary, any Tax Benefit Payment or Early Termination Payment required to be made by the Corporate Taxpayer to any Member under this Agreement shall rank subordinate and junior in right of payment to any principal, interest or other amounts due and payable in respect of any obligations in respect of indebtedness for borrowed money of the Corporate Taxpayer and its Subsidiaries ("Senior Obligations") and shall rank pari passu with all current or future unsecured obligations of the Corporate Taxpayer that are not Senior Obligations.



Section 5.02 Late Payments by the Corporate Taxpayer. The amount of all or any portion of any Tax Benefit Payment or Early Termination Payment not made to the applicable Member when due under the terms of this Agreement shall be payable together with any interest thereon, computed at the Default Rate and commencing from the date on which such Tax Benefit Payment or Early Termination Payment was due and payable. The Corporate Taxpayer shall promptly (and in any event, within two (2) Business Days), pay all unpaid Tax Benefit Payments and Early Termination Payments, together with accrued and unpaid interest thereon, immediately following such time that the Corporate Taxpayer has, and to the extent the Corporate Taxpayer has, sufficient funds to make such payment. For the avoidance of doubt, all cash and cash equivalents used or to be used to pay dividends by, or repurchase equity securities of, the Corporate Taxpayer shall be deemed to be funds sufficient and available to pay unpaid Tax Benefit Payments and Early Termination Payments, together with any accrued and unpaid interest thereon.

## ARTICLE VI

### NO DISPUTES; CONSISTENCY; COOPERATION

Section 6.01 Participation in the Corporate Taxpayer's and OpCo's Tax Matters. Except as otherwise provided herein, the Corporate Taxpayer shall have full responsibility for, and sole discretion over, all Tax matters concerning the Corporate Taxpayer and OpCo, including the preparation, filing or amending of any Tax Return and defending, contesting or settling any issue pertaining to Taxes. Notwithstanding the foregoing, the Corporate Taxpayer shall notify a Member of, and keep such Member reasonably informed with respect to, the portion of any audit of the Corporate Taxpayer and OpCo by a Taxing Authority the outcome of which is reasonably expected to affect the rights and obligations of such Member under this Agreement, and shall provide to such Member reasonable opportunity to provide information and other input to the Corporate Taxpayer, OpCo and their respective advisors concerning the conduct of any such portion of such audit; provided, however, that the Corporate Taxpayer and OpCo shall not be required to take any action that is inconsistent with any provision of the LLC Agreement.

Section 6.02 Consistency. The Corporate Taxpayer and the Members agree to report and cause to be reported for all purposes, including federal, state and local Tax purposes and financial reporting purposes, all Tax-related items (including the Basis Adjustments and each Tax Benefit Payment) in a manner consistent with that specified by the Corporate Taxpayer in any Schedule required to be provided by or on behalf of the Corporate Taxpayer under this Agreement unless otherwise required by law. Any dispute as to required Tax or financial reporting shall be subject to Section 7.09.

Section 6.03 Cooperation. Each of the Corporate Taxpayer and each Member shall (a) furnish to the other party in a timely manner such information, documents and other materials as the other party may reasonably request for purposes of making any determination or computation necessary or appropriate under this Agreement, preparing any Tax Return or contesting or defending any audit, examination or controversy with any Taxing Authority, (b) make itself available to the other party and its representatives to provide explanations of documents and materials and such other information as the other party or its representatives may reasonably request in connection with any of the matters described in clause (a) above, and (c) reasonably cooperate in connection with any such matter, and the Corporate Taxpayer shall reimburse the applicable Member for any reasonable third-party costs and expenses incurred pursuant to this Section 6.03.

**ARTICLE VII**

**MISCELLANEOUS**

Section 7.01 Notices. All notices, requests and other communications to any party hereunder shall be in writing (including facsimile transmission and electronic mail (“e-mail”) transmission, so long as a receipt of such e-mail is requested and received) and shall be given to such party as set forth below, or pursuant to such other instructions as may be designated in writing by the party to receive such notice:

If to the Corporate Taxpayer, to:

vTv Therapeutics Inc.  
4170 Mendenhall Oaks Pkwy  
High Point, NC 27265  
Telephone: (336) 841-0300  
Facsimile: (336) 841-0310  
Attention: Stephen L. Holcombe  
Email: sholcombe@vtvtherapeutics.com

with a copy (which shall not constitute notice to the Corporate Taxpayer) to:

Paul, Weiss, Rifkind, Wharton & Garrison LLP  
1285 Avenue of the Americas  
New York, NY 10019-6064  
Telephone: (212) 373-3000  
Facsimile: (212) 757-3990  
Attention: Jeffrey B. Samuels  
Lawrence G. Wee  
Email: jsamuels@paulweiss.com  
lwee@paulweiss.com

If to the applicable Member, to the address, facsimile number or e-mail address specified for such party on the Member Schedule to the LLC Agreement.

All such notices, requests and other communications shall be deemed received on the date of receipt by the recipient thereof if received prior to 5:00 p.m. on a Business Day in the place of receipt. Otherwise, any such notice, request or communication shall be deemed to have been received on the next succeeding Business Day in the place of receipt.

Section 7.02 Binding Effect; Benefit; Assignment.

(a) The provisions of this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns. No provision of this Agreement is intended to confer any rights, benefits, remedies, obligations or liabilities hereunder upon any Person other than the parties hereto and their respective successors and assigns. The Corporate Taxpayer shall require and cause any direct or indirect successor (whether by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Corporate Taxpayer, by written agreement, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Corporate Taxpayer would be required to perform if no such succession had taken place.

(b) A Member, in its sole discretion, may assign any of its rights under this Agreement (including in connection with a dissolution or liquidation of a Member) to any Person as long as such transferee has executed and delivered, or, in connection with such transfer, executes and delivers, a joinder to this Agreement, in form of Exhibit A, agreeing to become a "Member" for all purposes of this Agreement, except as otherwise provided in such joinder; provided, that a Member's rights under this Agreement shall be assignable by such Member under the procedure in this Section 7.02(b) regardless of whether such Member continues to hold any interests in OpCo or the Corporate Taxpayer or has fully transferred any such interests.

Section 7.03 Resolution of Disputes.

(a) Except for Reconciliation Disputes subject to Section 7.09, any and all disputes which cannot be settled amicably, including any ancillary claims of any party, arising out of, relating to or in connection with the validity, negotiation, execution, interpretation, performance or non-performance of this Agreement (including the validity, scope and enforceability of this arbitration provision) (each a "Dispute") shall be finally settled by arbitration conducted by a single arbitrator in Delaware in accordance with the then-existing Rules of Arbitration of the International Chamber of Commerce. If the parties to the Dispute fail to agree on the selection of an arbitrator within ten (10) days of the receipt of the request for arbitration, the International Chamber of Commerce shall make the appointment. The arbitrator shall be a lawyer admitted to the practice of law in the State of Delaware and shall conduct the proceedings in the English language. Performance under this Agreement shall continue if reasonably possible during any arbitration proceedings.

(b) Notwithstanding the provisions of paragraph (a), the Corporate Taxpayer may bring an action or special proceeding in any court of competent jurisdiction for the purpose of compelling a party to arbitrate, seeking temporary or preliminary relief in aid of an arbitration hereunder, and/or enforcing an arbitration award and, for the purposes of this paragraph (b), each Member (i) expressly consents to the application of paragraph (c) of this Section 7.03 to any such action or proceeding, (ii) agrees that proof shall not be required that monetary damages for breach of the provisions of this Agreement would be difficult to calculate and that remedies at law would be inadequate, and (iii) irrevocably appoints the Corporate Taxpayer as agent of such Member for service of process in connection with any such action or proceeding and agrees that service of process upon such agent, who shall promptly advise such Member of any such service of process, shall be deemed in every respect effective service of process upon such Member in any such action or proceeding.

(c) EACH PARTY HEREBY IRREVOCABLY SUBMITS TO THE JURISDICTION OF THE CHANCERY COURT OF THE STATE OF DELAWARE OR, IF SUCH COURT DECLINES JURISDICTION, THE COURTS OF THE STATE OF DELAWARE SITTING IN WILMINGTON, DELAWARE, AND OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE SITTING IN WILMINGTON, DELAWARE, AND ANY APPELLATE COURT FROM ANY THEREOF, FOR THE PURPOSE OF ANY JUDICIAL PROCEEDING BROUGHT IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION 7.03, OR ANY JUDICIAL PROCEEDING ANCILLARY TO AN ARBITRATION OR CONTEMPLATED ARBITRATION ARISING OUT OF OR RELATING TO OR CONCERNING THIS AGREEMENT. Such ancillary judicial proceedings include any suit, action or proceeding to compel arbitration, to obtain temporary or preliminary judicial relief in aid of arbitration, or to confirm an arbitration award. The parties acknowledge that the fora designated by this paragraph (c) have a reasonable relation to this Agreement, and to the parties' relationship with one another.

(d) The parties hereby waive, to the fullest extent permitted by applicable law, any objection which they now or hereafter may have to personal jurisdiction or to the laying of venue of any such ancillary suit, action or proceeding brought in any court referred to in the preceding paragraph of this Section 7.03 and such parties agree not to plead or claim the same.

Section 7.04 Counterparts. This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. Until and unless each party has received a counterpart hereof signed by the other party hereto, this Agreement shall have no effect and no party shall have any right or obligation hereunder (whether by virtue of any other oral or written agreement or other communication).

Section 7.05 Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the subject matter of this Agreement and supersedes all prior agreements and understandings, both oral and written, between the parties with respect to the subject matter of this Agreement. Nothing in this Agreement shall create any third-party beneficiary rights in favor of any Person or other party hereto.

Section 7.06 Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction or other Governmental Authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any party. Upon such a determination, the parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner in order that the transactions contemplated hereby are consummated as originally contemplated to the fullest extent possible.

Section 7.07 Amendment. No provision of this Agreement may be amended unless such amendment is approved in writing by the Corporate Taxpayer and by Persons who would be entitled to receive at least two-thirds of the Early Termination Payments payable to all Persons entitled to Early Termination Payments under this Agreement if the Corporate Taxpayer had exercised its right of early termination on the date of the most recent Exchange prior to such amendment (excluding, for purposes of this sentence, all payments made to any Persons pursuant to this Agreement since the date of such most recent Exchange); provided, that no such amendment shall be effective if such amendment will have a disproportionate effect on the payments certain Persons will or may receive under this Agreement unless all such Persons disproportionately affected consent in writing to such amendment. No provision of this Agreement may be waived unless such waiver is in writing and signed by the party against whom the waiver is to be effective.

Section 7.08 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law rules of such State that would result in the application of the laws of any other State.

Section 7.09 Reconciliation. In the event that the Corporate Taxpayer and a Member are unable to resolve a disagreement with respect to the matters governed by Sections 2.03, 3.01(b), 4.02 and 6.02 within the relevant period designated in this Agreement ("Reconciliation Dispute"), the Reconciliation Dispute shall be submitted for determination to a nationally recognized expert (the "Expert") in the particular area of disagreement mutually acceptable to both parties. The Expert shall be a partner or principal in a nationally recognized accounting or law firm, and unless the Corporate Taxpayer and such Member agree otherwise, the Expert shall not, and the firm that employs the Expert shall not, have any material relationship with the Corporate Taxpayer or such Member or other actual or potential conflict of interest. If the parties are unable to agree on an Expert within fifteen (15) calendar days of receipt by the respondent(s) of written notice of a Reconciliation Dispute, the Expert shall be appointed by the International Chamber of Commerce Centre for Expertise. The Expert shall resolve any matter relating to the Exchange Basis Schedule or an amendment thereto or the Early Termination Schedule or an amendment thereto within thirty (30) calendar days and shall resolve any matter relating to a Tax Benefit Schedule or an amendment thereto within fifteen (15) calendar days or as soon thereafter as is reasonably practicable, in each case after the matter has been submitted to the Expert for resolution. Notwithstanding the preceding sentence, if the matter is not resolved before any payment that is the subject of a disagreement would be due (in the absence of such disagreement) or any Tax Return reflecting the subject of a disagreement is due, the undisputed amount shall be paid on the date prescribed by this Agreement and such Tax Return may be filed as prepared by the Corporate Taxpayer, subject to adjustment or amendment upon resolution. The costs and expenses relating to the engagement of such Expert or amending any Tax Return shall be borne by the Corporate Taxpayer, except as provided in the next sentence. The Corporate Taxpayer and such Member shall bear their own costs and expenses of such proceeding, unless (i) the Expert substantially adopts such Member's position, in which case the Corporate Taxpayer shall reimburse such Member for any reasonable out-of-pocket costs and expenses in such proceeding, or (ii) the Expert substantially adopts the Corporate Taxpayer's position, in which case such Member shall reimburse the Corporate Taxpayer for any reasonable out-of-pocket costs and expenses in such proceeding. Any dispute as to whether a dispute is a Reconciliation Dispute within the meaning of this Section 7.09 shall be decided by the Expert. The Expert shall finally determine any Reconciliation Dispute and the determinations of the Expert pursuant to this Section 7.09 shall be binding on the Corporate Taxpayer and such Member and may be entered and enforced in any court having jurisdiction.

Section 7.10 Withholding. The Corporate Taxpayer shall be entitled to deduct and withhold from any payment payable pursuant to this Agreement such amounts as the Corporate Taxpayer is required to deduct and withhold with respect to the making of such payment under the Code or any provision of state, local or foreign tax law. To the extent that amounts are so withheld and paid over to the appropriate Taxing Authority by the Corporate Taxpayer, such withheld amounts shall be treated for all purposes of this Agreement as having been paid to the applicable Member.

Section 7.11 Admission of the Corporate Taxpayer into a Consolidated Group; Transfers of Corporate Assets.

(a) If the Corporate Taxpayer is or becomes a member of an affiliated or consolidated group of corporations that files a consolidated income tax return pursuant to Sections 1501 et seq. of the Code or any corresponding provisions of state or local law, then: (i) the provisions of this Agreement shall be applied with respect to the group as a whole; and (ii) Tax Benefit Payments, Early Termination Payments and other applicable items hereunder shall be computed with reference to the consolidated taxable income of the group as a whole.

(b) If any entity that is obligated to make a Tax Benefit Payment or Early Termination Payment hereunder transfers one or more assets to a corporation (or a Person classified as a corporation for U.S. federal income tax purposes) with which such entity does not file a consolidated tax return pursuant to Section 1501 of the Code, such entity, for purposes of calculating the amount of any Tax Benefit Payment or Early Termination Payment (e.g., calculating the gross income of the entity and determining the Realized Tax Benefit of such entity) due hereunder, shall be treated as having disposed of such asset in a fully taxable transaction on the date of such contribution. The consideration deemed to be received by such entity shall be equal to the fair market value of the contributed asset. For purposes of this Section 7.11, a transfer of a partnership interest shall be treated as a transfer of the transferring partner's share of each of the assets and liabilities of that partnership.

Section 7.12 Confidentiality. Section 12.11 (Confidentiality) of the LLC Agreement as of the date of this Agreement shall apply to any information of the Corporate Taxpayer provided to the Members and their assignees pursuant to this Agreement.

Section 7.13 Partnership Agreement. This Agreement shall be treated as part of the partnership agreement of OpCo as described in Section 761(c) of the Code, and Sections 1.704-1(b)(2)(ii)(h) and 1.761-1(c) of the Treasury Regulations.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the Corporate Taxpayer and each Member set forth below have duly executed this Agreement as of the date first written above.

CORPORATE TAXPAYER:

**vTv Therapeutics Inc.**

By: \_\_\_\_\_

Name:

Title:

MEMBERS:

**vTv Therapeutics Holdings, LLC, for the benefit of M&F TTP Holdings, LLC**

By: \_\_\_\_\_

Title:

**M&F TTP Holdings, LLC**

By: \_\_\_\_\_

Title:

**Exhibit A**  
**Form of Joinder**

This JOINDER (this "Joinder") to the Tax Receivable Agreement (as defined below), dated as of \_\_\_\_\_, by and among vTv Therapeutics Inc., a Delaware corporation (the "Corporate Taxpayer"), and \_\_\_\_\_ ("Permitted Transferee").

WHEREAS, on \_\_\_\_\_, Permitted Transferee acquired (the "Acquisition") [\_\_\_ Non-Voting Common Units][the right to receive any and all payments that may become due and payable under the Tax Receivable Agreement with respect to \_\_\_ Non-Voting Common Units that were previously Exchanged and are described in greater detail in Annex A to this Joinder] (collectively, "Interests" and, together with all other interests hereinafter acquired by the Permitted Transferee from Transferor, the "Acquired Interests") from \_\_\_\_\_ ("Transferor"); and

WHEREAS, Transferor, in connection with the Acquisition, has required Permitted Transferee to execute and deliver this Joinder pursuant to Section 7.02(b) of the Tax Receivable Agreement, dated as of [\_\_\_\_\_] , 2015, by and among the Corporate Taxpayer and each Member (as defined therein) (the "Tax Receivable Agreement").

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth herein, and intending to be legally bound hereby, the parties hereto agree as follows:

Section 1.01 Definitions. To the extent capitalized words used in this Joinder are not defined in this Joinder, such words shall have the respective meanings set forth in the Tax Receivable Agreement.

Section 1.02 Joinder. Permitted Transferee hereby acknowledges and agrees to become a "Member" (as defined in the Tax Receivable Agreement) for all purposes of the Tax Receivable Agreement. Permitted Transferee hereby acknowledges the terms of Section 7.02(b) of the Tax Receivable Agreement and agrees to be bound by Section 7.12 of the Tax Receivable Agreement.

Section 1.03 Notice. Any notice, request, consent, claim, demand, approval, waiver or other communication hereunder to Permitted Transferee shall be delivered or sent to Permitted Transferee at the address set forth on the signature page hereto in accordance with Section 7.01 of the Tax Receivable Agreement.

Section 1.04 Governing Law. This Joinder shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law rules of such State that would result in the application of the laws of any other State.

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IN WITNESS WHEREOF, this Joinder has been duly executed and delivered by Permitted Transferee as of the date first above written.

[PERMITTED TRANSFEREE]

By: \_\_\_\_\_  
Name:  
Title:

Address for notices:



vTv Therapeutics Inc.  
4170 Mendenhall Oaks Pkwy  
High Point, NC 27265

July 16, 2015

MacAndrews & Forbes Group, LLC  
35 East 62nd Street  
New York, NY 10065

Re: Reimbursement of Fees and Expenses

Ladies and Gentlemen:

Reference is made to the proposed initial public offering and related transactions (including, without limitation, the reorganization transactions related thereto) (collectively, the “IPO”), of vTv Therapeutics Inc. (the “Company”).

The Company agrees that it will, from time to time, reimburse MacAndrews & Forbes Incorporated or its affiliates (including, without limitation, vTv Therapeutics LLC, High Point Pharmaceuticals, LLC, M&F TTP Holdings LLC and vTv Therapeutics Holdings LLC) (collectively, “MacAndrews”), as described below, for the documented out-of-pocket fees and expenses advanced by MacAndrews, including, without limitation, printing, filing, listing, corporate and other fees and expenses and those with respect to the Company’s legal, accounting, compensation, director search and other third party advisors, as well as any additional expenses incurred by MacAndrews, incurred in connection with the IPO (such fees and expenses, collectively, the “Fees and Expenses”), and incurred through the date that is the earlier of (a) the date on which MacAndrews provides notice in writing to the Company that the reimbursement period is ending and (b) the consummation of the IPO. Fees and Expenses shall be based on customary billing rates and in accordance with ordinary course and historical practices.

You agree that, as a condition to being reimbursed for your Fees and Expenses, you shall deliver to the Company a written request for such reimbursement, together with reasonably detailed supporting documentation for Fees and Expenses for which you seek reimbursement. The reimbursement of the Fees and Expenses shall be made by the Company within 10 business days following the date each such request is submitted to the Company.

This letter agreement shall be governed and construed in accordance with the laws of the State of New York applicable to contracts to be made and performed entirely therein without giving effect to the principles of conflicts of law thereof or of any other jurisdiction. This letter agreement may only be amended, modified and supplemented by written agreement of the parties hereto. If any term or other provision of this letter agreement is invalid, illegal or incapable of being enforced under any law or public policy, all other terms and provisions of this letter agreement shall nevertheless remain in full force and effect. If any term or provision of this letter agreement is determined to be unenforceable by reason of its extent, duration, scope or otherwise, then the parties contemplate that the court making such determination shall reduce such extent, duration, scope or other provision and enforce them in their reduced form for all purposes contemplated by this letter agreement. This letter agreement represents the entire agreement between the parties with respect to the subject matter herein and neither party is relying on any promises or agreements, written or oral, not contained herein.

[Remainder of page intentionally left blank]

---

Very truly yours,

**VTV THERAPEUTICS INC.**

By: /s/ Stephen L. Holcombe  
Name: Stephen L. Holcombe  
Title: President and Chief Executive Officer

Accepted and agreed:

**MACANDREWS & FORBES  
GROUP, LLC**

By: /s/ Paul G. Savas  
Name: Paul G. Savas  
Title: Executive Vice President and Chief Financial Officer

[Signature Page to Reimbursement Letter]

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**INDEMNIFICATION AGREEMENT**

**by and between**

**VTV THERAPEUTICS INC.**

**and**

[                    ]

**as Indemnatee**

\_\_\_\_\_

Dated as of \_\_\_\_\_ 2015

\_\_\_\_\_

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## INDEMNIFICATION AGREEMENT

INDEMNIFICATION AGREEMENT, dated effective as of [ ], 2015 (this "Agreement"), by and between vTv Therapeutics Inc., a Delaware corporation (the "Company"), and [ ] ("Indemnitee"). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in Article 1.

WHEREAS, the Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve the Company;

WHEREAS, in order to induce Indemnitee to provide or continue to provide services to the Company, the Company wishes to provide for the indemnification of, and advancement of expenses to, Indemnitee to the fullest extent permitted by law;

WHEREAS, the Company and Indemnitee further recognize the substantial increase in corporate litigation in general, subjecting directors, officers, employees, agents and fiduciaries to expensive litigation risks at the same time as the availability and scope of coverage of liability insurance provide increasing challenges for the Company;

WHEREAS, the Company's Amended and Restated Certificate of Incorporation (as the same may be amended and/or restated from time to time, the "Certificate of Incorporation") requires indemnification of the officers and directors of the Company, and Indemnitee may also be entitled to indemnification pursuant to applicable provisions of the Delaware General Corporation Law ("DGCL");

WHEREAS, the Certificate of Incorporation and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts providing for indemnification may be entered into between the Company and members of the board of directors of the Company (the "Board"), executive officers and other key employees of the Company;

WHEREAS, this Agreement is a supplement to and in furtherance of the Certificate of Incorporation and any resolutions adopted pursuant thereto and shall not be deemed a substitute therefor nor to diminish or abrogate any rights of Indemnitee thereunder (regardless of, among other things, any amendment to or revocation of governing documents or any change in the composition of the Board or any Corporate Transaction); and

WHEREAS, Indemnitee will serve or continue to serve as a director, officer or key employee of the Company for so long as Indemnitee is duly elected or appointed or until Indemnitee tenders his resignation or is otherwise terminated by the Company.

NOW, THEREFORE, in consideration of the promises and the covenants contained herein, the Company and Indemnitee do hereby covenant and agree as follows:

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## ARTICLE 1

### DEFINITIONS

As used in this Agreement:

1.1. “Affiliate” shall have the meaning set forth in Rule 405 under the Securities Act of 1933, as amended (as in effect on the date hereof).

1.2. “Agreement” shall have the meaning set forth in the preamble.

1.3. “Beneficial Owner” and “Beneficial Ownership” shall have the meaning set forth in Rule 13d-3 under the Exchange Act (as in effect on the date hereof).

1.4. “Board” shall have the meaning set forth in the recitals.

1.5. “By-Laws” shall mean the Company’s Amended and Restated By-Laws (as the same may be amended and/or restated from time to time).

1.6. “Certificate of Incorporation” shall have the meaning set forth in the recitals.

1.7. “Change in Control” shall mean, and shall be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events:

(a) Acquisition of Stock by Third Party. Any Person other than a Permitted Holder is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company’s then outstanding Voting Securities, unless (i) the change in the relative Beneficial Ownership of the Company’s securities by any Person results solely from a reduction in the aggregate number of outstanding shares of securities entitled to vote generally in the election of directors, or (ii) such acquisition was approved in advance by the Continuing Directors and such acquisition would not constitute a Change in Control under part (c) of this definition;

(b) Change in Board of Directors. Individuals who, as of the date hereof, constitute the Board, and any new director whose appointment or election by the Board or nomination for election by the Company’s stockholders was approved or recommended by a vote of at least a majority of the directors then still in office who were directors on the date hereof or whose appointment, election or nomination for election was previously so approved or recommended by the directors referred to in this clause (b) (collectively, the “Continuing Directors”), cease for any reason to constitute at least a majority of the members of the Board;

(c) Corporate Transactions. The effective date of a reorganization, merger or consolidation of the Company (a "Corporate Transaction"), in each case, unless, following such Corporate Transaction: (i) all or substantially all of the individuals and entities who were the Beneficial Owners of Voting Securities of the Company immediately prior to such Corporate Transaction beneficially own, directly or indirectly, more than 50% of the combined voting power of the then outstanding Voting Securities of the Company or other Person resulting from such Corporate Transaction (including, without limitation, a corporation or other Person that as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more Subsidiaries) in substantially the same proportions as their ownership of Voting Securities immediately prior to such Corporate Transaction; (ii) no Person (excluding any corporation resulting from such Corporate Transaction or the Permitted Holders) is the Beneficial Owner, directly or indirectly, of 50% or more of the combined voting power of the then outstanding Voting Securities of the Company or other Person resulting from such Corporate Transaction, except to the extent that such ownership existed prior to such Corporate Transaction; and (iii) at least a majority of the board of directors of the Company or other Person resulting from such Corporate Transaction were Continuing Directors at the time of the execution of the initial agreement, or of the action of the Board, providing for such Corporate Transaction; or

(d) Other Events. The approval by the stockholders of the Company of a plan of complete liquidation or dissolution of the Company or the consummation of an agreement or series of related agreements for the sale or other disposition, directly or indirectly, by the Company of all or substantially all of the Company's assets, other than such sale or other disposition by the Company of all or substantially all of the Company's assets to a Person, at least 50% of the combined voting power of the Voting Securities of which are Beneficially Owned by (i) the stockholders of the Company immediately prior to such sale or (ii) the Permitted Holders.

1.8. "Company" shall have the meaning set forth in the preamble and shall also include, in addition to the resulting corporation or other entity, any constituent corporation (including, without limitation, any constituent of a constituent) absorbed in a consolidation or merger that, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees or agents, so that if Indemnitee is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation or other entity as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

1.9. "Continuing Directors" shall have the meaning set forth in Section 1.7(b).

1.10. "Corporate Status" shall describe the status as such of a person who is or was a director, officer, trustee, general partner, managing member, fiduciary, employee or agent of the Company or of any other Enterprise which such person is or was serving at the request of the Company.

1.11. "Corporate Transaction" shall have the meaning set forth in Section 1.7(c).



1.12. “Delaware Court” shall mean the Court of Chancery of the State of Delaware.

1.13. “DGCL” shall have the meaning set forth in the recitals.

1.14. “Disinterested Director” shall mean a director of the Company who is not and was not a party to the Proceeding in respect of which indemnification is sought by Indemnitee.

1.15. “Enterprise” shall mean the Company and any other corporation, constituent corporation (including, without limitation, any constituent of a constituent) absorbed in a consolidation or merger to which the Company (or any of its wholly owned Subsidiaries) is a party, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise of which Indemnitee is or was serving at the request of the Company as a director, officer, trustee, general partner, managing member, fiduciary, employee or agent.

1.16. “Exchange Act” shall mean the Securities Exchange Act of 1934, as amended.

1.17. “Expenses” shall include all reasonable and documented attorneys’ fees, retainers, court costs, transcript costs, fees of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, and all other disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, settling or negotiating for the settlement of, responding to or objecting to a request to provide discovery in, or otherwise participating in, any Proceeding. Expenses also shall include Expenses incurred in connection with any appeal resulting from any Proceeding, including, without limitation, the premium, security for, and other costs relating to any cost bond, supersedeas bond, or other appeal bond or its equivalent and any federal, state, local or foreign taxes imposed on the Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement. Expenses, however, shall not include amounts paid in settlement by Indemnitee or the amount of judgments, fines or penalties against Indemnitee.

1.18. “Indemnification Arrangements” shall have the meaning set forth in Section 15.2.

1.19. “Indemnitee” shall have the meaning set forth in the preamble.

1.20. “Indemnitee-Related Entities” shall mean any corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise (other than the Company, any other Enterprise controlled by the Company or the insurer under and pursuant to an insurance policy of the Company or any such controlled Enterprise) from whom an Indemnitee may be entitled to indemnification or advancement of expenses with respect to which, in whole or in part, the Company or any other Enterprise controlled by the Company may also have an indemnification or advancement obligation.

1.21. “Independent Counsel” shall mean a law firm, or a member of a law firm, that is of outstanding reputation, experienced in matters of corporation law and neither is as of the date of selection of such firm, nor has been during the period of three years immediately preceding the date of selection of such firm, retained to represent: (a) the Company or Indemnitee in any material matter (other than with respect to matters concerning Indemnitee under this Agreement, or of other indemnitees under similar indemnification agreements); or (b) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term “Independent Counsel” shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee’s rights under this Agreement. The Company agrees to pay the reasonable fees and expenses of the Independent Counsel referred to above and to fully indemnify such counsel against any and all Expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto. For purposes of this definition, a “material matter” shall mean any matter for which billings exceeded or are expected to exceed \$100,000.

1.22. “Permitted Holder” shall mean vTv Therapeutics Holdings LLC, vTvx Holdings I LLC, vTvx Holdings II LLC, M&F TTP Holdings LLC, MacAndrews & Forbes Incorporated, Ronald O. Perelman or any of his immediate family members, and their respective Affiliates and Related Parties.

1.23. “Person” shall have the meaning set forth in Sections 13(d) and 14(d) of the Exchange Act (as in effect on the date hereof); provided, however, that the term “Person” shall exclude: (a) the Company; (b) any Subsidiaries of the Company; and (c) any employee benefit plan of the Company or a Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or of a Subsidiary of the Company or of a corporation or other entity owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company.

1.24. “Proceeding” shall include any threatened, pending or completed action, suit, arbitration, mediation, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, including, without limitation, any and all appeals, whether brought by or in the right of the Company or otherwise and whether of a civil (including, without limitation, intentional or unintentional tort claims), criminal, administrative or investigative nature, whether formal or informal, in which Indemnitee was, is, will or might be involved as a party or otherwise by reason of the fact that Indemnitee is or was a director or officer of the Company, by reason of any action taken by or omission by Indemnitee, or of any action or omission on Indemnitee’s part while acting as a director or officer of the Company, or by reason of the fact that Indemnitee is or was serving at the request of the Company as a director, officer, trustee, general partner, managing member, fiduciary, employee or agent of any other Enterprise; in each case whether or not acting or serving in such capacity at the time any liability or expense is incurred for which indemnification, reimbursement, or advancement of expenses can be provided under this Agreement or Section 145 of the DGCL; including one pending on or before the date of this Agreement but excluding one initiated by Indemnitee to enforce Indemnitee’s rights under this Agreement or Section 145 of the DGCL.

1.25. “Related Party” shall mean, with respect to any Person, (a) any controlling stockholder, controlling member, general partner, Subsidiary, spouse or immediate family member (in the case of an individual) of such Person, (b) any estate, trust, corporation, partnership or other entity, the beneficiaries, stockholders, partners or owners of which consist solely of one or more Permitted Holders and/or such other Persons referred to in the immediately preceding clause (a), or (c) any executor, administrator, trustee, manager, director or other similar fiduciary of any Person referred to in the immediately preceding clause (b), acting solely in such capacity.

1.26. “Section 409A” shall have the meaning set forth in Section 17.2.

1.27. “Subsidiary” with respect to any Person, shall mean any corporation or other entity of which a majority of the voting power of the voting equity securities or equity interest is owned, directly or indirectly, by that Person.

1.28. “Voting Securities” shall mean any securities of the Company (or a surviving entity as described in the definition of a “Change in Control”) that vote generally in the election of directors (or similar body).

1.29. References to “fines” shall include any excise tax or penalty assessed on Indemnitee with respect to any employee benefit plan; references to “other enterprise” shall include employee benefit plans; references to “serving at the request of the Company” shall include any service as a director, officer, employee, agent or fiduciary of the Company which imposes duties on, or involves services by, such director, officer, employee, agent or fiduciary with respect to an employee benefit plan, its participants or beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the best interests of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner “not opposed to the best interests of the Company” as referred to in this Agreement.

1.30. The phrase “to the fullest extent not prohibited by (and not merely to the extent affirmatively permitted by) applicable law” shall include, but not be limited to: (a) to the fullest extent authorized or permitted by the provision of the DGCL that authorizes or contemplates additional indemnification by agreement, or the corresponding provision of any amendment to or replacement of the DGCL, and (b) to the fullest extent authorized or permitted by any amendments to or replacements of the DGCL adopted after the date of this Agreement that increase the extent to which a corporation may indemnify its officers and directors.

## ARTICLE 2

### INDEMNITY IN THIRD-PARTY PROCEEDINGS

Subject to Article 8, the Company shall indemnify, hold harmless and exonerate Indemnitee in accordance with the provisions of this Article 2 if Indemnitee is, was or is threatened to be made a party to or a participant (as a witness or otherwise) in any Proceeding, other than a Proceeding by or in the right of the Company to procure a judgment in its favor. Subject to Article 8, to the fullest extent not prohibited by (and not merely to the extent affirmatively permitted by) applicable law, Indemnitee shall be indemnified against all Expenses, judgments, fines, penalties and, subject to Section 10.3, amounts paid in settlement actually and reasonably incurred by Indemnitee or on Indemnitee’s behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company and, in the case of a criminal Proceeding, had no reasonable cause to believe that such conduct was unlawful.

### ARTICLE 3

#### INDEMNITY IN PROCEEDINGS BY OR IN THE RIGHT OF THE COMPANY

Subject to Article 8, the Company shall indemnify, hold harmless and exonerate Indemnitee in accordance with the provisions of this Article 3 if Indemnitee is, was or is threatened to be made a party to or a participant in any Proceeding by or in the right of the Company to procure a judgment in its favor. Subject to Article 8, to the fullest extent not prohibited by (and not merely to the extent affirmatively permitted by) applicable law, Indemnitee shall be indemnified, held harmless and exonerated against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company. No indemnification for Expenses shall be made under this Article 3 in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudged (and not subject to further appeal) by a court of competent jurisdiction to be liable to the Company, except to the extent that the Delaware Court or any court in which the Proceeding was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification.

### ARTICLE 4

#### INDEMNIFICATION FOR EXPENSES OF A PARTY WHO IS WHOLLY OR PARTLY SUCCESSFUL

Notwithstanding any other provisions of this Agreement, to the extent that Indemnitee is a party to (or a participant in) and is successful, on the merits or otherwise, in any Proceeding or in defense of any claim, issue or matter therein, in whole or in part, the Company shall indemnify, hold harmless and exonerate Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith. For the avoidance of doubt, if Indemnitee is not wholly successful in such Proceeding but is successful, on the merits or otherwise, as to one or more but less than all claims, issues or matters in such Proceeding, then the Company shall indemnify, hold harmless and exonerate Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with each resolved claim, issue or matter, whether or not Indemnitee was wholly or partly successful; provided that Indemnitee shall only be entitled to indemnification for Expenses with respect to unsuccessful claims under this Article 4 to the extent Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company and, in the case of a criminal Proceeding, had no reasonable cause to believe that such conduct was unlawful. For purposes of this Article 4 and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, or by settlement, shall be deemed to be a successful result as to such claim, issue or matter.

## ARTICLE 5

### INDEMNIFICATION FOR EXPENSES OF A WITNESS

Notwithstanding any other provision of this Agreement, to the extent that Indemnitee is, by reason of Indemnitee's Corporate Status, a witness in any Proceeding to which Indemnitee is not a party, Indemnitee shall be indemnified, held harmless and exonerated against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith.

## ARTICLE 6

### ADDITIONAL INDEMNIFICATION, HOLD HARMLESS AND EXONERATION RIGHTS

In addition to and notwithstanding any limitations in Articles 2, 3 or 4, but subject to Article 8, the Company shall indemnify, hold harmless and exonerate Indemnitee to the fullest extent not prohibited by (and not merely to the extent affirmatively permitted by) law if Indemnitee is, was or is threatened to be made a party to or a participant in, any Proceeding (including a Proceeding by or in the right of the Company to procure a judgment in its favor) against all Expenses, judgments, fines, penalties and, subject to Section 10.3, penalties and amounts paid in settlement (including all interest, assessments and other charges paid or payable in connection with or in respect of such Expenses, judgments, fines, penalties and amounts paid in settlement) actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with the Proceeding. No indemnity shall be available under this Article 6 on account of Indemnitee's conduct that constitutes a breach of Indemnitee's duty of loyalty to the Company or its stockholders or is an act or omission not in good faith or that involves intentional misconduct or a knowing violation of the law.

## ARTICLE 7

### CONTRIBUTION IN THE EVENT OF JOINT LIABILITY

7.1. To the fullest extent not prohibited by (and not merely to the extent affirmatively permitted by) law, if the indemnification rights provided for in this Agreement are unavailable to Indemnitee in whole or in part for any reason whatsoever, the Company, in lieu of indemnifying Indemnitee, shall pay, in the first instance, the entire amount incurred by Indemnitee, whether for judgments, liabilities, fines, penalties, amounts paid or to be paid in settlement and/or for Expenses, in connection with any Proceeding without requiring Indemnitee to contribute to such payment, and the Company hereby waives and relinquishes any right of contribution it may have at any time against Indemnitee.

7.2. The Company shall not enter into any settlement of any Proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such Proceeding) unless such settlement provides for a full and final release of all claims asserted against Indemnitee.

7.3. The Company hereby agrees to fully indemnify, hold harmless and exonerate Indemnitee from any claims for contribution which may be brought by officers, directors or employees of the Company (other than Indemnitee) who may be jointly liable with Indemnitee.

## ARTICLE 8

### EXCLUSIONS

8.1. Notwithstanding any provision in this Agreement, the Company shall not be obligated under this Agreement to make any indemnity, contribution or advancement of Expenses in connection with any claim made against Indemnitee:

(a) except as provided in Section 15.4, for which payment has actually been made to or on behalf of Indemnitee under any insurance policy of the Company or its Subsidiaries or other indemnity provision of the Company or its Subsidiaries, except with respect to any excess beyond the amount paid under any insurance policy, contract, agreement, other indemnity provision or otherwise; or

(b) for an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Company within the meaning of Section 16(b) of the Exchange Act (or any similar successor statute) or similar provisions of state statutory law or common law; or

(c) in connection with any Proceeding (or any part of any Proceeding) initiated or brought voluntarily by Indemnitee, including, without limitation, any Proceeding (or any part of any Proceeding) initiated by Indemnitee against the Company or its directors, officers, employees or other indemnitees, other than a Proceeding initiated by Indemnitee to enforce its rights under this Agreement, unless (i) the Board authorized the Proceeding (or any part of any Proceeding) or (ii) the Company provides the indemnification payment, in its sole discretion, pursuant to the powers vested in the Company under applicable law; or

(d) for the payment of amounts required to be reimbursed to the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002, as amended, or any similar successor statute; or

(e) for any payment to Indemnitee that is determined to be unlawful by a final judgment or other adjudication of a court or arbitration, arbitral or administrative body of competent jurisdiction as to which there is no further right or option of appeal or the time within which an appeal must be filed has expired without such filing and under the procedures and subject to the presumptions of this Agreement; or

(f) in connection with any Proceeding initiated by Indemnitee to enforce its rights under this Agreement if a court of competent jurisdiction determines by final judicial decision that each of the material assertions made by Indemnitee in such Proceeding was not made in good faith or was frivolous.

The exclusion in Section 8.1(c) shall not apply to counterclaims or affirmative defenses asserted by Indemnitee in an action brought against Indemnitee.

## ARTICLE 9

### ADVANCES OF EXPENSES; SELECTION OF LAW FIRM

9.1. Subject to Article 8, the Company shall, unless prohibited by applicable law, advance the Expenses incurred by or on behalf of Indemnitee in connection with any Proceeding within ten business days after the receipt by the Company of a statement or statements requesting such advances, together with a reasonably detailed written explanation of the basis therefor and an itemization of legal fees and disbursements in reasonable detail, from time to time, whether prior to or after final disposition of any Proceeding. Advances shall be unsecured and interest free. Indemnitee shall qualify for advances, to the fullest extent permitted by this Agreement, solely upon the execution and delivery to the Company of an undertaking providing that Indemnitee undertakes to repay the advance to the extent that it is ultimately determined, by final judicial decision of a court of competent jurisdiction from which there is no further right to appeal, that Indemnitee is not entitled to be indemnified by the Company under the provisions of this Agreement or pursuant to applicable law. This Section 9.1 shall not apply to any claim made by Indemnitee for which an indemnification payment is excluded pursuant to Article 8.

9.2. If the Company shall be obligated under Section 9.1 hereof to pay the Expenses of any Proceeding against Indemnitee, then the Company shall be entitled to assume the defense of such Proceeding upon the delivery to Indemnitee of written notice of its election to do so. If the Company elects to assume the defense of such Proceeding, then unless the plaintiff or plaintiffs in such Proceeding include one or more Persons holding, together with his, her or its Affiliates, in the aggregate, a majority of the combined voting power of the Company's then outstanding Voting Securities, the Company shall assume such defense using a single law firm (in addition to local counsel) selected by the Company representing Indemnitee and other present and former directors or officers of the Company. The retention of such law firm by the Company shall be subject to prior written approval by Indemnitee, which approval shall not be unreasonably withheld, delayed or conditioned. If the Company elects to assume the defense of such Proceeding and the plaintiff or plaintiffs in such Proceeding include one or more Persons holding, together with his, her or its Affiliates, in the aggregate, a majority of the combined voting power of the Company's then outstanding Voting Securities, then the Company shall assume such defense using a single law firm (in addition to local counsel) selected by Indemnitee and any other present or former directors or officers of the Company who are parties to such Proceeding. After (x) in the case of retention of any such law firm selected by the Company, delivery of the required notice to Indemnitee, approval of such law firm by Indemnitee and the retention of such law firm by the Company, or (y) in the case of retention of any such law firm selected by Indemnitee, the completion of such retention, the Company will not be liable to Indemnitee under this Agreement for any Expenses of any other law firm incurred by Indemnitee after the date that such first law firm is retained by the Company with respect to the same Proceeding; provided, that in the case of retention of any such law firm selected by the Company (a) Indemnitee shall have the right to retain a separate law firm in any such Proceeding at Indemnitee's sole expense; and (b) if (i) the retention of a law firm by Indemnitee has been previously authorized by the Company in writing, (ii) Indemnitee shall have reasonably concluded that (1) there may be a conflict of interest between either (x) the Company and Indemnitee or (y) Indemnitee and another present or former director or officer of the Company also represented by such law firm in the conduct of any such defense or (2) there may be defenses available to Indemnitee that are incompatible or inconsistent with those available to the Company or another present or former director represented by such law firm in the conduct of such defense, or (iii) the Company shall not, in fact, have retained a law firm to prosecute the defense of such Proceeding within thirty days, then the reasonable Expenses of a single law firm retained by Indemnitee shall be at the expense of the Company. Notwithstanding anything else to the contrary in this Section 9.2, the Company will not be entitled without the written consent of the Indemnitee to assume the defense of any Proceeding brought by or in the right of the Company.

## ARTICLE 10

### PROCEDURE FOR NOTIFICATION; DEFENSE OF CLAIM; SETTLEMENT

10.1. Indemnitee shall, as a condition precedent to Indemnitee's right to be indemnified under this Agreement, give the Company notice in writing promptly of any claim made against Indemnitee for which indemnification will or could be sought under this Agreement; provided, however, that a delay in giving such notice shall not deprive Indemnitee of any right to be indemnified under this Agreement unless, and then only to the extent that, such delay is materially prejudicial to the defense of such claim. The omission or delay to notify the Company will not relieve the Company from any liability for indemnification which it may have to Indemnitee otherwise than under this Agreement. The Secretary of the Company shall, promptly upon receipt of such a request for indemnification, advise the Board in writing that Indemnitee has requested indemnification.

10.2. The Company will be entitled to participate in the Proceeding at its own expense.

10.3. The Company shall have no obligation to indemnify Indemnitee under this Agreement for any amounts paid in settlement of any claim effected without the Company's prior written consent, provided the Company has not breached its obligations hereunder. The Company shall not settle any claim, including, without limitation, any claim in which it takes the position that Indemnitee is not entitled to indemnification in connection with such settlement, nor shall the Company settle any claim which would impose any fine or obligation on Indemnitee or attribute to Indemnitee any admission of liability, without Indemnitee's prior written consent. Neither the Company nor Indemnitee shall unreasonably withhold, delay or condition their consent to any proposed settlement.



## ARTICLE 11

### PROCEDURE UPON APPLICATION FOR INDEMNIFICATION

11.1. Upon written request by Indemnitee for indemnification pursuant to the first sentence of Section 10.1, a determination, if required by applicable law, with respect to Indemnitee's entitlement thereto shall be made in the specific case: (a) if a Change in Control shall have occurred, by Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to Indemnitee; or (b) if a Change in Control shall not have occurred, (i) by a majority vote of the Disinterested Directors (provided there is a minimum of three Disinterested Directors), even though less than a quorum of the Board, (ii) by a committee of Disinterested Directors designated by a majority vote of the Disinterested Directors (provided there is a minimum of three Disinterested Directors), even though less than a quorum of the Board, or (iii) if there are less than three Disinterested Directors or, if such Disinterested Directors so direct, by Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to Indemnitee, and, if it is so determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within ten business days after such determination and any future amounts due to Indemnitee shall be paid in accordance with this Agreement. Indemnitee shall cooperate with the Person making such determination with respect to Indemnitee's entitlement to indemnification, including, without limitation, providing to such Person upon reasonable advance request any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to such determination, provided, that nothing contained in this Agreement shall require Indemnitee to waive any privilege Indemnitee may have. Any costs or expenses (including, without limitation, reasonable attorneys' fees and disbursements) incurred by Indemnitee in so cooperating with the Person making such determination shall be borne by the Company (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Company hereby indemnifies and agrees to hold Indemnitee harmless therefrom.

11.2. If the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 11.1 hereof, the Independent Counsel shall be selected as provided in this Section 11.2. If a Change in Control shall not have occurred, the Independent Counsel shall be selected by the Board, and the Company shall give written notice to Indemnitee advising Indemnitee of the identity of the Independent Counsel so selected. If a Change in Control shall have occurred, the Independent Counsel shall be selected by Indemnitee (unless Indemnitee shall request that such selection be made by the Board, in which event the preceding sentence shall apply), and Indemnitee shall give written notice to the Company advising it of the identity of the Independent Counsel so selected. In either event, Indemnitee or the Company, as the case may be, may, within ten business days after such written notice of selection shall have been given, deliver to the Company or to Indemnitee, as the case may be, a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Article 1 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If such written objection is so made and substantiated, the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or a court or arbitrator has determined that such objection is without merit. If, within twenty days after submission by Indemnitee of a written request for indemnification pursuant to Section 10.1 hereof, no Independent Counsel shall have been selected and not objected to, either the Company or Indemnitee may seek arbitration for resolution of any objection which shall have been made by the Company or Indemnitee to the other's selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by the arbitrator or by such other person as the arbitrator shall designate, and the person with respect to whom all objections are so resolved or the person so appointed shall act as Independent Counsel under Section 11.1 hereof. Such arbitration referred to in the previous sentence shall be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association, and Article 13 hereof shall apply in respect of such arbitration and the Company and Indemnitee. Upon the due commencement of any judicial proceeding pursuant to Section 13.1 of this Agreement, Independent Counsel shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

## ARTICLE 12

### PRESUMPTIONS AND EFFECT OF CERTAIN PROCEEDINGS

12.1. In making a determination with respect to entitlement to indemnification hereunder, the Person making such determination shall presume that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 10.1 of this Agreement. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence. Neither the failure of the Company (including by its Board, its Independent Counsel and its stockholders) to have made a determination prior to the commencement of any action pursuant to this Agreement that indemnification or advancement of expenses is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor an actual determination by the Company (including by its Board, its Independent Counsel and its stockholders) that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct.

12.2. If the Person empowered or selected under Article 11 of this Agreement to determine whether Indemnitee is entitled to indemnification shall not have made a determination within thirty days after receipt by the Company of the request therefor, the requisite determination of entitlement to indemnification shall be deemed to have been made and Indemnitee shall be entitled to such indemnification, absent (a) an intentional misstatement by Indemnitee of a material fact, or an intentional omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (b) a final judicial determination that any or all such indemnification is expressly prohibited under applicable law; provided, however, that such thirty-day period may be extended for a reasonable time, not to exceed an additional fifteen days, if the Person making the determination with respect to entitlement to indemnification in good faith requires such additional time for the obtaining or evaluating of documentation and/or information relating thereto.

12.3. The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement (with or without court approval), conviction, or upon a plea of nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

12.4. For purposes of any determination of good faith pursuant to this Agreement, Indemnitee shall be deemed to have acted in good faith if, among other things, Indemnitee's action is based on the records or books of account of the Enterprise, including financial statements, or on information supplied to Indemnitee by the directors or officers of the Enterprise in the course of their duties, or on the advice of legal counsel for the Enterprise, its board of directors, any committee of the board of directors or any director, or on information or records given or reports made to the Enterprise, its board of directors, any committee of the board of directors or any director, by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Enterprise, its board of directors, any committee of the board of directors or any director. The provisions of this Section 12.4 shall not be deemed to be exclusive or to limit in any way the other circumstances in which Indemnitee may be deemed or found to have met the applicable standard of conduct set forth in this Agreement. In any event, it shall be presumed that Indemnitee has at all times acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence.

12.5. The knowledge and/or actions, or failure to act, of any other director, officer, trustee, partner, managing member, fiduciary, agent or employee of the Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement.

12.6. The Company acknowledges that a settlement or other disposition short of final judgment may be successful if it permits a party to avoid expense, delay, distraction, disruption and uncertainty. In the event that any action, claim or proceeding to which Indemnitee is a party is resolved in any manner other than by adverse judgment against Indemnitee (including, without limitation, settlement of such action, claim or proceeding with or without payment of money or other consideration) it shall be presumed that Indemnitee has been successful on the merits or otherwise in such action, suit or proceeding. Anyone seeking to overcome this presumption shall have the burden of proof and the burden of persuasion by clear and convincing evidence.

## ARTICLE 13

### REMEDIES OF INDEMNITEE

13.1. In the event that (a) a determination is made pursuant to Article 11 of this Agreement that Indemnatee is not entitled to indemnification under this Agreement, (b) advancement of Expenses, to the fullest extent permitted by applicable law, is not timely made pursuant to Article 9 of this Agreement, (c) no determination of entitlement to indemnification shall have been made pursuant to Section 11.1 of this Agreement within thirty days after receipt by the Company of the request for indemnification and of reasonable documentation and information which Indemnatee may be called upon to provide pursuant to Section 11.1, (d) payment of indemnification is not made pursuant to Articles 4, 5, 6, or the last sentence of Section 11.1 of this Agreement within ten business days after receipt by the Company of a written request therefor, (e) a contribution payment is not made in a timely manner pursuant to Article 7 of this Agreement, (f) payment of indemnification pursuant to Article 3 or 6 of this Agreement is not made within ten business days after a determination has been made that Indemnatee is entitled to indemnification or (g) the Company or any representative thereof takes or threatens to take any action to declare this Agreement void or unenforceable, or institutes any Proceeding designed to deny, or to recover from, Indemnatee the benefits provided or intended to be provided to Indemnatee hereunder, Indemnatee shall be entitled to an adjudication by a court of competent jurisdiction of Indemnatee's entitlement to such indemnification, contribution or advancement of Expenses. Alternatively, Indemnatee, at his or her option, may seek an award in arbitration to be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Except as set forth herein, the provisions of Delaware law (without regard to its conflict of laws rules) shall apply to any such arbitration. The Company shall not oppose Indemnatee's right to seek any such adjudication or award in arbitration. The award rendered by such arbitration will be final and binding upon the parties hereto, and final judgment on the arbitration award may be entered in any court of competent jurisdiction.

13.2. In the event that a determination shall have been made pursuant to Section 11.1 of this Agreement that Indemnatee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Article 13 shall be conducted in all respects as a de novo trial, or arbitration, on the merits and Indemnatee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding or arbitration commenced pursuant to this Article 13, Indemnatee shall be presumed to be entitled to receive advances of Expenses under this Agreement and the Company shall have the burden of proving Indemnatee is not entitled to indemnification or advancement of Expenses, as the case may be, and the Company may not refer to or introduce into evidence any determination pursuant to Section 11.1 of this Agreement adverse to Indemnatee for any purpose. If Indemnatee commences a judicial proceeding or arbitration pursuant to this Article 13, Indemnatee shall not be required to reimburse the Company for any advances pursuant to Article 9 until a final determination is made with respect to Indemnatee's entitlement to indemnification (as to which all rights of appeal shall have been exhausted or lapsed).

13.3. If a determination shall have been made pursuant to Section 11.1 of this Agreement that Indemnatee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Article 13, absent (a) an intentional misstatement by Indemnatee of a material fact, or an intentional omission of a material fact necessary to make Indemnatee's statement not materially misleading, in connection with the request for indemnification, or (b) a prohibition of such indemnification under applicable law.

13.4. The Company shall be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Article 13 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Company is bound by all the provisions of this Agreement.

13.5. The Company shall indemnify and hold harmless Indemnitee to the fullest extent permitted by law against all Expenses and, if requested by Indemnitee, shall (within ten days after the Company's receipt of such written request) pay to Indemnitee, to the fullest extent permitted by applicable law, such Expenses which are incurred by Indemnitee in connection with any judicial proceeding or arbitration brought by Indemnitee (a) to enforce his rights under, or to recover damages for breach of, this Agreement or any other indemnification, advancement or contribution agreement or provision of the Certificate of Incorporation, or the By-Laws now or hereafter in effect; or (b) for recovery or advances under any insurance policy maintained by any person for the benefit of Indemnitee, regardless of the outcome and whether Indemnitee ultimately is determined to be entitled to such indemnification, advancement, contribution or insurance recovery, as the case may be (unless such judicial proceeding or arbitration was not brought by Indemnitee in good faith).

13.6. Interest shall be paid by the Company to Indemnitee at the legal rate under Delaware law for amounts which the Company indemnifies, or is obliged to indemnify, for the period commencing with the date on which Indemnitee requests indemnification, contribution, reimbursement or advancement of any Expenses and ending with the date on which such payment is made to Indemnitee by the Company.

#### **ARTICLE 14**

##### **SECURITY**

Notwithstanding anything herein to the contrary, to the extent requested by Indemnitee and approved by the Board, the Company may at any time and from time to time provide security to Indemnitee for the Company's obligations hereunder through an irrevocable bank line of credit, funded trust or other collateral. Any such security, once provided to Indemnitee, may not be revoked or released without the prior written consent of Indemnitee.

#### **ARTICLE 15**

##### **NON-EXCLUSIVITY; SURVIVAL OF RIGHTS; INSURANCE; PRIMACY OF INDEMNIFICATION; SUBROGATION**

15.1. The rights of Indemnitee as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Certificate of Incorporation, the By-Laws, any agreement, a vote of stockholders or a resolution of directors, or otherwise. To the extent that a change in applicable law, whether by statute or judicial decision, permits greater indemnification or advancement of Expenses than would be afforded currently under the Certificate of Incorporation, the By-Laws or this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

15.2. The DGCL and the Certificate of Incorporation permit the Company to purchase and maintain insurance or furnish similar protection or make other arrangements, including, but not limited to, providing a trust fund, letter of credit, or surety bond (“Indemnification Arrangements”) on behalf of Indemnitee against any liability asserted against Indemnitee or incurred by or on behalf of Indemnitee or in such capacity as a director, officer, employee or agent of the Company, or arising out of his or her status as such, whether or not the Company would have the power to indemnify Indemnitee against such liability under the provisions of this Agreement or under the DGCL, as it may then be in effect. The purchase, establishment, and maintenance of any such Indemnification Arrangement shall not in any way limit or affect the rights and obligations of the Company or of Indemnitee under this Agreement except as expressly provided herein, and the execution and delivery of this Agreement by the Company and Indemnitee shall not in any way limit or affect the rights and obligations of the Company or the other party or parties thereto under any such Indemnification Arrangement.

15.3. To the extent that the Company maintains an insurance policy or policies providing liability insurance for directors, officers, trustees, partners, managing members, fiduciaries, employees, or agents of the Company or of any other Enterprise which such person serves at the request of the Company, Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any such director, officer, trustee, partner, managing member, fiduciary, employee or agent under such policy or policies. If, at the time the Company receives notice from any source of a Proceeding as to which Indemnitee is a party or a participant (as a witness or otherwise), the Company has director and officer liability insurance in effect, the Company shall give prompt notice of the commencement of such Proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such Proceeding in accordance with the terms of such policies.

15.4. The Company hereby acknowledges that Indemnitee has certain rights to indemnification, advancement of Expenses and/or insurance provided by the Indemnitee-Related Entities. The Company hereby agrees (i) that it is the indemnitor of first resort (i.e., its obligations to Indemnitee are primary and any obligation of the Indemnitee-Related Entities to advance Expenses or to provide indemnification for the same Expenses or liabilities incurred by Indemnitee are secondary), (ii) that it shall be required to advance the full amount of Expenses incurred by Indemnitee and shall be liable for the full amount of all Expenses, judgments, penalties, fines and amounts paid in settlement to the extent not prohibited by (and not merely to the extent affirmatively permitted by) applicable law and as required by the terms of this Agreement and the Certificate of Incorporation or the By-Laws (or any other agreement between the Company and Indemnitee), without regard to any rights Indemnitee may have against the Indemnitee-Related Entities, and (iii) that it irrevocably waives, relinquishes and releases the Indemnitee-Related Entities from any and all claims against the Indemnitee-Related Entities for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Indemnitee-Related Entities on behalf of Indemnitee with respect to any claim for which Indemnitee has sought indemnification from the Company shall reduce or otherwise alter the rights of Indemnitee or the obligations of the Company hereunder. Under no circumstance shall the Company be entitled to any right of subrogation or contribution by the Indemnitee-Related Entities. In the event that any of the Indemnitee-Related Entities shall make any advancement or payment on behalf of Indemnitee with respect to any claim for which Indemnitee has sought indemnification from the Company, the Indemnitee-Related Entity making such payment shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Company, and Indemnitee shall execute all papers reasonably required and take all action reasonably necessary to secure such rights, including, without limitation, execution of such documents as are necessary to enable the Indemnitee-Related Entities to bring suit to enforce such rights. The Company and Indemnitee agree that the Indemnitee-Related Entities are express third party beneficiaries of the terms of this Section 15.4, entitled to enforce this Section 15.4 as though each of the Indemnitee-Related Entities were a party to this Agreement.

15.5. Except as provided in Section 15.4, in the event of any payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee (other than against the Indemnitee-Related Entities), who shall execute all papers reasonably required and take all action reasonably necessary to secure such rights, including, without limitation, execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

15.6. Except as provided in Section 15.4, the Company shall not be liable under this Agreement to make any payment of amounts otherwise indemnifiable hereunder (or for which advancement is provided hereunder) if and to the extent that Indemnitee has otherwise actually received such payment under any insurance policy, contract, agreement or otherwise.

15.7. Except as provided in Section 15.4, the Company's obligation to indemnify or advance Expenses hereunder to Indemnitee who is or was serving at the request of the Company as a director, officer, trustee, partner, managing member, fiduciary, employee or agent of any other Enterprise shall be reduced by any amount Indemnitee has actually received as indemnification payments or advancement of Expenses from such Enterprise. Notwithstanding any other provision of this Agreement to the contrary, (a) Indemnitee shall have no obligation to reduce, offset, allocate, pursue or apportion any indemnification advancement, contribution or insurance coverage among multiple parties possessing such duties to Indemnitee prior to the Company's satisfaction and performance of all its obligations under this Agreement, and (b) the Company shall perform fully its obligations under this Agreement without regard to whether Indemnitee holds, may pursue or has pursued any indemnification, advancement, contribution or insurance coverage rights against any person or entity other than the Company.

## ARTICLE 16

### ENFORCEMENT AND BINDING EFFECT

16.1. The Company expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee to serve or continue to serve as a director, officer or key employee of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving or continuing to serve as a director, officer or key employee of the Company.

16.2. This Agreement shall be effective as of the date set forth on the first page and may apply to acts or omissions of Indemnitee which occurred prior to such date if Indemnitee was an officer, director, employee or other agent of the Company, or was serving at the request of the Company as a director, officer, trustee, general partner, managing member, fiduciary, employee or agent of another corporation, limited liability company, partnership, joint venture, trust or other enterprise, at the time such act or omission occurred.

16.3. The Company and Indemnitee agree herein that a monetary remedy for breach of this Agreement, at some later date, may be inadequate, impracticable and difficult to prove, and further agree that such breach may cause Indemnitee irreparable harm. Accordingly, the parties hereto agree that Indemnitee may enforce this Agreement by seeking, among other things, injunctive relief and/or specific performance hereof, without any necessity of showing actual damage or irreparable harm and that by seeking injunctive relief and/or specific performance, Indemnitee shall not be precluded from seeking or obtaining any other relief to which he may be entitled. The Company and Indemnitee further agree that Indemnitee shall be entitled to such specific performance and injunctive relief, including, without limitation, temporary restraining orders, preliminary injunctions and permanent injunctions, without the necessity of posting bonds or other undertaking in connection therewith. The Company acknowledges that in the absence of a waiver, a bond or undertaking may be required of Indemnitee by the Court, and the Company hereby waives any such requirement of such a bond or undertaking.

## ARTICLE 17

### MISCELLANEOUS

17.1. Successors and Assigns. This Agreement shall be binding upon the Company and its successors and assigns and shall inure to the benefit of Indemnitee and Indemnitee's assigns, heirs, executors and administrators. The Company shall require and cause any successor (whether direct or indirect successor by purchase, merger, consolidation or otherwise) to all, substantially all or a substantial part, of the business and/or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.



17.2. Section 409A. It is intended that any indemnification payment or advancement of Expenses made hereunder shall be exempt from Section 409A of the Internal Revenue Code of 1986, as amended, and the guidance issued thereunder (“Section 409A”) pursuant to Treasury Regulation Section 1.409A-1(b)(10). Notwithstanding the foregoing, if any indemnification payment or advancement of Expenses made hereunder shall be determined to be “nonqualified deferred compensation” within the meaning of Section 409A, then (i) the amount of the indemnification payment or advancement of Expenses during one taxable year shall not affect the amount of the indemnification payments or advancement of Expenses during any other taxable year, (ii) the indemnification payments or advancement of Expenses must be made on or before the last day of the Indemnitee’s taxable year following the year in which the expense was incurred, and (iii) the right to indemnification payments or advancement of Expenses hereunder is not subject to liquidation or exchange for another benefit.

17.3. Severability. In the event that any provision of this Agreement is determined by a court to require the Company to do or to fail to do an act which is in violation of applicable law, such provision (including, without limitation, any provision within a single Article, Section, paragraph or sentence) shall be limited or modified in its application to the minimum extent necessary to avoid a violation of law, and, as so limited or modified, such provision and the balance of this Agreement shall be enforceable in accordance with their terms to the fullest extent permitted by law.

17.4. Entire Agreement. Without limiting any of the rights of Indemnitee under the Certificate of Incorporation or By-Laws, this Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof.

17.5. Modification, Waiver and Termination. No supplement, modification, termination, cancellation or amendment of this Agreement shall be binding unless executed in writing by the parties hereto. No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in Indemnitee’s Corporate Status prior to such amendment, alteration or repeal. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement nor shall any waiver constitute a continuing waiver.

17.6. Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed to have been duly given (a) if delivered by hand and receipted for by the party to whom said notice or other communication shall have been directed, or (b) mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed:

(i) If to Indemnitee, at the address indicated on the signature page of this Agreement, or such other address as Indemnitee shall provide in writing to the Company.

(ii) If to the Company, to:  
vTv Therapeutics Inc.  
4170 Mendenhall Oaks Pkwy  
High Point, NC 27265  
Attn: Chief Financial Officer  
Telephone: (336)-841-0300

or to any other address as may have been furnished to Indemnitee in writing by the Company.

17.7. Applicable Law. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. If, notwithstanding the foregoing sentence, a court of competent jurisdiction shall make a final determination that the provisions of the law of any state other than Delaware govern indemnification by the Company of Indemnitee, then the indemnification provided under this Agreement shall in all instances be enforceable to the fullest extent permitted under such law, notwithstanding any provision of this Agreement to the contrary.

17.8. Identical Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

17.9. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

17.10. Representation by Counsel. Each of the parties has been represented by and has had an opportunity to consult legal counsel in connection with the negotiation and execution of this Agreement. No provision of this Agreement shall be construed against or interpreted to the disadvantage of any party by any court or arbitrator or any governmental authority by reason of such party having drafted or being deemed to have drafted such provision.

17.11. Period of Limitations. No legal action shall be brought and no cause of action shall be asserted by or in the right of the Company against Indemnitee, Indemnitee's spouse, heirs, executors or personal or legal representatives after the expiration of two years from the date of accrual of such cause of action, and any claim or cause of action of the Company shall be extinguished and deemed released unless asserted by the timely filing of a legal action within such two-year period; provided, however, that if any shorter period of limitations is otherwise applicable to any such cause of action such shorter period shall govern.

17.12. Additional Acts. If for the validation of any of the provisions in this Agreement any act, resolution, approval or other procedure is required, the Company undertakes to cause such act, resolution, approval or other procedure to be affected or adopted in a manner that will enable the Company to fulfill its obligations under this Agreement.

*[Signature page follows]*

IN WITNESS WHEREOF, the parties hereto have caused this Indemnification Agreement to be signed as of the day and year first above written.

**COMPANY:**

VTV THERAPEUTICS INC.

By: \_\_\_\_\_

Name:

Title:

**INDEMNITEE:**

By: \_\_\_\_\_

Name:

Address:

*[Signature page to Indemnification Agreement]*

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NEW EXCLUSIVE LICENSE AGREEMENT

NEW EXCLUSIVE LICENSE AGREEMENT, dated May 14, 2015 (the "Effective Date"), between THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK ("Columbia"), and TransTech Pharma, LLC ("Company").

WHEREAS Columbia and a predecessor-in-interest of the Company, TransTech Pharma, Inc., previously entered into an Amended and Restated Exclusive License Agreement on October 1, 2003, as further amended on December 22, 2003, June 30, 2006, September 11, 2006, and August 12, 2010 (the "Amended 2003 Agreement"); and

WHEREAS Columbia and TransTech Pharma, Inc. terminated the Amended 2003 Agreement on or about February 3, 2012; and

WHEREAS, the parties desire to enter into this New Exclusive License Agreement in the manner provided for herein;

NOW THEREFORE, in consideration of the mutual promises contained herein and for other good and valuable consideration the parties hereto agree as follows:

1. Definitions.

a. "Agreement" shall mean this New Exclusive License Agreement between the parties.

b. "Affiliate" shall mean any corporation or other business entity that directly or indirectly controls, is controlled by, or is under common control with the Company. Control means ownership or other beneficial interest in 50% or more of the voting stock or other voting interest of a corporation or other business entity.

c. "Licensed Patent" shall mean United States Patent No. 6,677,299.

d. "Licensed Product" shall mean any RAGE-inhibiting small molecule, including but not limited to the molecule designated by the Company as TTP488, (i) the discovery, development, manufacture, use, sale, rental, lease, importation, and offer to sell of which is covered by a Claim of the Licensed Patent or (ii) that has been discovered or developed through the use of or that uses Licensed Research Information or Licensed Materials.

e. "Licensed Research Information" shall have the meaning as set forth in the Amended 2003 Agreement.

f. "Licensed Material" shall have the meaning as set forth in the Amended 2003 Agreement.

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\* Confidential treatment has been requested with respect to portions of this agreement as indicated by "[\*\*\*]" and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

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g. "Net Sales" shall mean the total of all revenues and other value received by the Company and any Affiliate or Sublicensee for the manufacture, use, sale, rental, or lease of Licensed Products, less returns and customary trade discounts actually taken, outbound freight, value-added, sales or use taxes, custom duties, bad debts actually taken in accordance with current United States generally accepted accounting principles and not factored to third parties, refunds, customary chargebacks and any other allowances actually paid, granted or accrued that effectively reduce the net selling price, rebates actually paid, granted or accrued to any governmental authority (or branch thereof), or to any third party payor, third party administrator, or third party contractee responsible for healthcare insurance covering Licensed Products, discounts mandated by, or granted to meet the requirements of, applicable law, including legally required chargebacks and retroactive price reductions, and adjustments arising from consumer discount programs or similar programs provided to low-income, uninsured or other patients. In the case of transfers of Licensed Products to an Affiliate by the Company for sale, rental, or lease of such Licensed Products to third parties by such Affiliate, Net Sales shall be based upon the greater of the total fees and other consideration charged by the Affiliate to third parties or the total fees and consideration charged by the Company to the Affiliate. If Licensed Products are sold as only a part of a services package in regard to an unlicensed combination which includes a charge for Licensed Products, then the Net Sales of the Licensed Products shall be that portion of the entire combination which is fairly attributable to the Licensed Products component thereof, or as separately shown on an invoice.

h. "Claim" shall mean a claim of the Licensed Patent, which claim has not lapsed, been disclaimed or become abandoned and which claim has not been declared invalid or unenforceable by a court of competent jurisdiction in a decision from which no appeal has or can be taken.

i. "RAGE" shall mean the receptor for advanced glycation endproducts which is a membrane protein that is a member of the immunoglobulin supergene family, and a receptor for multiple ligands, including advanced glycation endproducts, amyloid beta, S100B, and high mobility group box 1 protein.

j. "Sublicensee" shall mean any unaffiliated third party to whom the Company has granted a sublicense pursuant to this Agreement.

## 2. License Grant.

a. Columbia grants to the Company and its Affiliates, upon and subject to all the terms and conditions of this Agreement:

(i) a worldwide exclusive license under the Licensed Patent to discover, develop, manufacture, use, sell, have sold, import, have made, offer to sell, rent, or lease Licensed Products;

(ii) a worldwide license to use any Licensed Research Information to discover, develop, manufacture, use, sell, have sold, import, have made, offer to sell, rent, or lease Licensed Products, which license shall be exclusive until such time as the Licensed Research Information is published or otherwise publicly distributed and non-exclusive thereafter; and

(iii) a worldwide exclusive license to use any Licensed Materials to discover, develop, manufacture, use, sell, have sold, import, have made, offer to sell, rent, or lease Licensed Products.

b. Columbia grants to the Company the right to grant sublicenses under the Licensed Patent to third parties, provided that (i) the Sublicensee agrees to abide by all the terms and provisions of this Agreement; (ii) the Company remains fully liable for the performance of its and its Sublicensee's obligations hereunder; and (iii) the Company notifies Columbia of any grant of a sublicense and provides to Columbia, within 30 days after each sublicense is executed, a copy of any sublicense agreement; provided, however, that if Company plans to grant a sublicense to a Sublicensee outside the United States, Europe or Japan, Company shall first obtain Columbia's approval of any proposed sublicense prior to execution thereof, which approval Columbia shall not unreasonably withhold.

c. All rights granted by Columbia to the Company under this Agreement are subject to the requirements of 35 U.S.C. Sections 200 et seq., as amended, and its implementing regulations and policies.

d. Columbia unconditionally agrees, promises, and covenants, fully and forever, for itself and any Affiliate, predecessors, successors, and heirs and assigns, that it will not sue, assert any claim, counterclaim, demand, action, cause of action, or lien against, or otherwise enforce, in law or in equity, the Licensed Patents as defined in the Amended 2003 Agreement, any patent issuing from any application that falls within the definition of Licensed Patents in the Amended 2003 Agreement, or any patent that issues directly or indirectly from PCT/US2014/016137 against Company (including its Affiliates, Sublicensees, predecessors, successors, or heirs and assigns) or Company's customers, suppliers, importers, manufacturers, distributors, or insurers, in connection with the manufacture, use, offer for sale, sale, or importation of Licensed Products, nor will it cause or authorize any person or entity to do any of the foregoing.

### 3. Royalties and Payment.

a. Unless the Agreement has been terminated or expired pursuant to Section 16, in consideration of the licenses granted under Section 2(a) of this Agreement, the Company shall pay to Columbia the following payments and royalties only:

(i) \$750,000 upon the earlier to occur of (A) approval by the United States Food and Drug Administration or its foreign equivalent in any European Union member country, Australia, Canada or Japan to market the first Licensed Product of the Company, an Affiliate, or a Sublicensee, and (B) sale or transfer of the portion of Company's business related to the subject matter of this Agreement, unless such sale or transfer is to an Affiliate or to a third party having annual gross revenues of greater than \$500 million;

(ii) A royalty of [\*\*\*] of Net Sales of Licensed Products by the Company, an Affiliate, or any Sublicensee during the term of United States Patent No. 6,677,299 ("the '299 patent"); and

(iii) \$100,000 annual fee payable on December 15<sup>th</sup> of each year from 2015 through and including 2021, for a total of seven such payments, provided that Columbia sends Company an invoice for each such annual payment at least 30 days in advance of the due date of each such payment.

Columbia may, in its sole discretion, apply any portion of the fees paid under Section 3(a)(i) and Section 3(a)(iii) towards patent expenses incurred by Columbia relating to the Licensed Patents as defined in the Amended 2003 Agreement not already reimbursed by Company prior to the execution of this Agreement or in accordance with Section 6a.

Nothing herein shall obligate the Company to remit to Columbia any portion of any payment or other thing of value received from a Sublicensee other than royalties on Net Sales by Sublicensees as provided for herein.

4. Reports and Payments.

a. Beginning on the date of first sale, rental or lease of Licensed Products, or before the last business day of January, April, July, and October of each year in which the Company owes royalties in accordance with section 3(a)(ii), the Company shall submit to Columbia a written report with respect to the preceding calendar quarter (the "Payment Report") stating separately:

(i) Net Sales received by the Company and any Affiliate during such quarter;

(ii) In the case of transfers of Licensed Products to an Affiliate by the Company for sale, rental, or lease of such Licensed Products by the Affiliate to third parties, Net Sales by the Company to the Affiliate and Net Sales by the Affiliate to third parties during such quarter;

(iii) Amounts accruing to, and received by, the Company from its Sublicensees during such quarter;

(iv) Net Sales by Sublicensees during such quarter; and

(v) A calculation of the amounts due to Columbia under section 3.

b. Simultaneously with the submission of each Payment Report, the Company shall make payments to Columbia of the amounts due for the calendar quarter covered by the Payment Report. Columbia shall be entitled to receive payment of the royalty set forth in Section 3(a)(ii) hereof on Net Sales of a Sublicensee no less frequently than the quarter following the quarter in which such sales are made, regardless of any provision of a Sublicense that may defer, credit or otherwise reduce or eliminate royalties payable to the Company or an Affiliate, provided that so long as a Sublicense provides for the payment of royalties to the Company or an Affiliate no less frequently than the quarter following the quarter in which Net Sales are made, no payment shall be due to Columbia that is based upon Net Sales of such Sublicensee until the date the Company or its Affiliate receives its royalty payment from such Sublicensee.

c. The Company shall maintain at its principal office usual books of account and records showing its actions under this Agreement. Upon reasonable notice, such books and records shall be open to inspection and copying, during usual business hours, by an independent certified public accountant to whom the Company has no reasonable objection, for two years after the calendar quarter to which they pertain, for purposes of verifying the accuracy of the amounts paid by the Company under this Agreement.

d. Columbia agrees that all information contained in the Payment Reports rendered by Company pursuant to this Section or obtained pursuant to the provisions herein shall be maintained in confidence by the accountant and/or Columbia. The accountant shall not disclose to Columbia or any other party any information relating to the business of Company, except to the extent that such information is reasonably necessary to inform Columbia of: (i) the accuracy or inaccuracy of Company's reports and payments; (ii) compliance or noncompliance by Company with the terms and conditions of this Agreement; and (iii) the extent of any inaccuracy or noncompliance. Columbia shall not disclose to any third party any information that the Company has designated in writing as confidential relating to the business of Company provided to Columbia pursuant to this Section, except as required by any applicable law or regulation.

5. Reservation of Rights for Research Purposes.

Columbia reserves the right to use the Licensed Patent, Licensed Research Information and Licensed Materials for noncommercial research purposes and to permit other entities or individuals to use such Licensed Patent, Licensed Research Information or Licensed Materials for noncommercial research purposes. Columbia shall obtain from all such entities or individuals an agreement in writing not to use the Licensed Patent, Licensed Research Information or Licensed Materials for commercial purposes and shall inform the Company of the identity of all such entities and individuals in advance of such transfer. Each entity or individual shall be required to execute an appropriate confidentiality or material transfer agreement.

6. Patent Prosecution and Maintenance.

a. Columbia, by counsel it selects to whom the Company has no reasonable objection, in consultation with counsel appointed by the Company, will prepare, file, prosecute and maintain the Licensed Patent in Columbia's name and in countries designated by the Company. The Company will reimburse Columbia for reasonable expenses it has incurred prior to the Effective Date of this Agreement not previously reimbursed by Company or its predecessor in interest for filing, prosecution and maintenance of the '299 patent, not to exceed \$45,000, provided that Columbia provides Company with an invoice describing the basis for any such expenses, including supporting documentation upon request of the Company. Company will pay reasonable expenses incurred in the future during the term of this Agreement in filing, prosecuting and maintaining the '299 patent, including attorneys' fees, the costs of any interference proceedings, reexaminations, or any other ex parte or inter parties administrative proceeding before patent offices, taxes, annuities, issue fees, working fees, maintenance fees and renewal charges. Company will not reimburse Columbia for the costs incurred by Columbia in the use of its own resources, such as employee time, and shall not extend to patenting fees and costs incurred by Columbia after termination of this Agreement.



b. Company shall solely at its own cost file and prosecute all U.S. and foreign patent applications for, and shall be the sole owner of and maintain, all patents to the extent the inventions claimed the patents are invented or developed solely by Company.

7. Infringement.

a. Columbia will protect its Licensed Patent from infringement and prosecute infringers at its own expense when in its sole judgment such action may be reasonably necessary, proper, and justified.

b. If the Company shall have supplied Columbia with written evidence demonstrating to Columbia's satisfaction prima facie infringement of a claim of a Licensed Patent by a third party selling products in competition with the Company or any of its Affiliates or Sublicensees, the Company may by notice request that Columbia take steps to assert the Licensed Patent. Unless Columbia shall within three months of the receipt of such notice either (i) cause such infringement to terminate, or (ii) initiate legal proceedings against the infringer, the Company may, upon notice to Columbia, initiate legal proceedings against the infringer at the Company's expense. In such event the Company may deduct from payments due hereunder to Columbia reasonable costs and legal fees incurred to conduct such proceedings, but in no event shall any payment due in any calendar quarter be reduced by more than [\*\*\*] of the amount otherwise due to Columbia hereunder. Any recovery by the Company in such proceedings shall first be used to reimburse the Company for its reasonable costs and legal fees incurred to conduct such proceedings and next to pay to Columbia an amount equal to all amounts withheld from Columbia by the Company under this Section 7 during the pendency of the proceedings. The balance shall be divided [\*\*\*] to the Company and [\*\*\*] to Columbia.

If Columbia initiates the legal proceedings against the infringer at Columbia's expense, any recovery by Columbia in such proceedings shall first be used to reimburse Columbia for its reasonable costs and legal fees incurred to conduct such proceedings. The balance shall be divided [\*\*\*] to Columbia and [\*\*\*] to Company.

c. In the event one party shall initiate or carry on legal proceedings to enforce a Licensed Patent against an alleged infringer, the other party shall use its best efforts to cooperate fully with and shall supply all assistance reasonably requested by the party initiating or carrying on such proceedings. The party that institutes any proceeding to protect or enforce a Licensed Patent shall have sole control of that proceeding and shall be responsible for the reasonable expenses incurred by said other party in providing such assistance and cooperation as is requested pursuant to this paragraph.

d. Each party, within thirty (30) days of learning of any alleged infringement of Licensed Patent by a third party, shall inform the other party, and provide any available evidence thereof.

e. Neither Company nor Columbia is obligated under this Agreement to institute a suit against an alleged infringer of Licensed Patent.

8. Validity.

a. If a prima facie case challenging the validity or enforceability of any of the Licensed Patent solely owned by Columbia is brought against Company, Company shall promptly notify Columbia. Columbia, at its option, shall have the right, within sixty (60) days after notification by Company of such action, to intervene and take over the sole defense of the claim at Columbia's sole expense.

9. Warranty.

a. Nothing in this Agreement shall be construed as a warranty or representation by either party as to the validity of any Licensed Patent. Nothing in this Agreement shall be construed as a warranty or representation by either party that anything developed, manufactured, used, sold, rented, leased, or otherwise disposed of under any license granted under this Agreement is or will be free from infringement of domestic or foreign patents of other parties.

b. Columbia represents and warrants that it has a right to grant the license in and to the Licensed Patent and Licensed Research Information and to disclose the Licensed Research Information and to transfer the Licensed Materials set forth in this Agreement.

c. Columbia represents and warrants that, as of the Effective Date, it does not own or have any rights to any RAGE-related patents or patent applications that name as inventors David M. Stern, Anne Marie Schmidt, Shi Du Yan, Kevan Herold, or Ira Lamster except for the '299 patent, the Licensed Patents as defined in the Amended 2003 Agreement, and PCT/US2014/016137.

10. Prohibition Against Use of Names.

a. The Company will not use the name, insignia, or symbols of Columbia, its faculties or departments, or any variation or combination thereof, or the name of any trustee, faculty member, agent, other employee, or student of Columbia for any purpose whatsoever without Columbia's prior written consent. However Company may inform collaborators that Licensed Patent are owned by Columbia and exclusively licensed to Company, and may make disclosure of the existence and terms of this Agreement to the extent reasonably required by federal and state securities laws and regulations, provided the Company, in consultation with Columbia, makes reasonable claims for confidential treatment of commercially sensitive information contained in this Agreement.

b. Columbia will not use the name or trademarks/service marks of Company or any variation or combination thereof or the name of any employee, officer or director of the Company without Company's prior written consent. However, Columbia may state the fact that the Licensed Patent, Licensed Research Information and Licensed Materials are licensed to the Company.

c. Either party may disclose the existence of this Agreement and that the Licensed Patent is owned by Columbia and exclusively licensed to Company.

11. Compliance with Governmental Obligations.

a. Notwithstanding any provision in this Agreement, Columbia disclaims any obligation or liability arising under the license provisions of this Agreement if the Company is charged in a governmental action for not complying with or fails to comply with governmental regulations in the course of taking steps to bring any Licensed Product to a point of practical application. Company acknowledges and agrees that Columbia does not comply with Good Laboratory Practices, 21 CFR Part 58, with respect to the Research conducted under this Agreement. In any submission by the Company to the FDA that includes data from the Research, the Company will state that the research was not intended to be performed in compliance with Good Laboratory Practices.

b. The Company shall comply upon reasonable notice from Columbia with all governmental requests directed to either Columbia or the Company and provide all information and assistance necessary to comply with legitimate governmental requests.

c. The Company shall insure that any research, development, and marketing performed by the Company under this Agreement complies with all government regulations in force and effect including, but not limited to, Federal, state, and municipal legislation.

12. Indemnity and Insurance.

a. The Company will indemnify and hold Columbia harmless against any and all actions, suits, claims, demands, prosecutions, liabilities, costs, and expenses (including reasonable attorneys' fees) based on or arising out of this Agreement, including, without limitation, (i) the development, manufacture, packaging, use, sale, rental, or lease of Licensed Products, even if altered for use for a purpose not intended, by the Company, its Affiliates, Sublicensee, and its (or their) customers, (ii) use of Licensed Patent, Licensed Research Information or Licensed Materials by the Company, its Affiliates, its Sublicensees or its (or their) customers and (iii) any representation made or warranty given by the Company, its Affiliates or Sublicensees with respect to Licensed Products, Licensed Patent, Licensed Research Information or Licensed Material.

b. The Company shall maintain, during the term of this Agreement, comprehensive general liability and umbrella insurance, including product liability insurance, with reputable and financially secure insurance carriers acceptable to Columbia to cover the activities of the Company, its Affiliates and its Sublicensees, for minimum limits of \$2,000,000 combined single limit for bodily injury and property damage per occurrence and in the aggregate. Such minimum amount shall be increased prior to the Company administering its first dose of a Licensed Product in man to an amount determined by the Company, based on advice from a nationally- recognized insurance advisor, to be adequate and customary in the industry for the level of increased risk anticipated during the policy period, and at each succeeding policy renewal date such minimum amount shall be reviewed on the same basis and, if necessary, increased. The minimum limits shall in any event be increased to \$5,000,000 by not later than the date the Company commences its first Phase III testing of a Licensed Product in any country. Such insurance shall include Columbia, its trustees, directors, officers, employees, and agents as additional insureds. The Company shall furnish a certificate of insurance evidencing such coverage, with thirty days' written notice to Columbia of cancellation or material change.

The Company's insurance shall be primary coverage; any insurance Columbia may purchase shall be excess and noncontributory. Such insurance shall be written to cover claims incurred, discovered, manifested, or made during or after the expiration of this Agreement.

The Company shall at all times comply with all statutory workers' compensation and employers liability requirements covering its employees with respect to activities performed under this Agreement.

13. Marking.

Prior to the issuance of patents, the Company will mark Licensed Products made, sold, or otherwise disposed of by it under the license granted in this Agreement with the words "Patent Pending," and following the issuance of one or more patents, with the numbers of such patents. Any exception to these requirements shall be approved in advance by Columbia.

14. Export Control Laws.

This Agreement is made subject to any restrictions concerning the export and re-export of products or technical information that the United States government may impose from time to time ("Export Laws"). To this end, the Company shall cooperate with Columbia as reasonably necessary to permit Columbia to comply with the Export Laws. The Company hereby represents and covenants that the Company (a) is neither a national of nor Controlled by a national of any country to which the United States prohibits the export or re-export of goods, services, or technology; (b) is not a person specifically designated as ineligible to export from the United States or deal in U.S.-origin goods, services or technologies; (c) will not export or re-export, directly or indirectly, any goods, services, or technology, to any country or person (including juridical persons) to which the United States prohibits the export of goods, technology or services, and (d) in the event that a United States government license or authorization is required for an export or re-export of goods, services or technology (including technical information acquired from Columbia under this Agreement and/or any products created by using such technical information or any part thereof), the Company shall obtain any necessary United States government license or other authorization prior to undertaking the export or re-export.

15. Breach and Cure.

a. In addition to applicable legal standards, the Company shall be considered to be in material breach of this Agreement for (i) failure to pay fully and promptly amounts due pursuant to Section 3 and payable pursuant to Section 4; (ii) failure to comply with governmental requests directed to Columbia or the Company pursuant to Section 11(b); or (iii) otherwise being in material breach of this Agreement.

b. Either party shall have the right to cure its material breach. The cure shall be effected within a reasonable period of time but in no event later than 60 days after written notice of breach given by the non-breaching party.

16. Term of Agreement.

a. This Agreement shall commence as of the Effective Date and shall continue in full force and effect until its expiration or termination in accordance with this Section 16.

b. Unless terminated earlier under any provision of this Agreement, this Agreement shall expire on the date Company makes the seventh (7<sup>th</sup>) annual fee due under Section 3(a)(iii) of this Agreement. At that time, the Company shall have a fully-paid-up, irrevocable license to the Licensed Patent, Licensed Research Information, and Licensed Materials.

c. This Agreement may be terminated by Columbia (i) upon thirty days' written notice to the Company for the Company's material breach of the Agreement and the Company's failure to cure such material breach, or (ii) should the Company commit any act of bankruptcy, become insolvent, file a petition under any bankruptcy or insolvency act or have such petition filed against it. Company shall have a right to terminate this Agreement with or without cause, upon sixty (60) days prior written notice to Columbia; provided that, Company cannot terminate this Agreement without cause for one (1) year after the Effective Date.

d. Upon any termination of this Agreement pursuant to Section 16(c), all sublicenses granted by the Company under this Agreement shall be assigned to Columbia, provided that in the event Columbia terminates this Agreement pursuant to Section 16(c), Columbia must promptly terminate any such sublicenses assigned to it to the extent it may do so under the terms of such sublicenses. In the event that Columbia fails to terminate such a terminable sublicense, the termination of this Agreement will be null and void.

e. The provisions under which this Agreement may be terminated shall be in addition to any and all other legal remedies which either party may have for the enforcement of any and all terms hereof, and do not in any way limit any other legal remedy such party may have.

17. Notices.

Any notice required or permitted to be given under this Agreement shall be sufficient if sent by certified mail (return receipt requested), postage pre-paid,

if to Columbia, to: Executive Director  
Columbia Technology Ventures  
Columbia University  
80 Claremont Avenue #4F  
New York, NY 10027

copy to: General Counsel  
Columbia University  
412 Low Memorial Library  
535 West 116th St., Mail Code 4308  
New York, NY 10027

if to the Company, to: President & CEO  
TransTech Pharma, LLC  
4170 Mendenhall Oaks Parkway  
High Point, N.C. 27265

copy to: Vice President of Legal Affairs  
TransTech Pharma, LLC  
4170 Mendenhall Oaks Parkway  
High Point, N.C. 27265

or to such other address as a party may specify by notice hereunder.

18. Entire Agreement: No Waiver: Assignment.

This Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof, and shall not be further amended except by means of a written instrument signed by authorized representatives of the parties. No course of conduct shall constitute a waiver of any terms or conditions of this Agreement, unless such waiver is specified in writing, and then only to the extent so specified. A waiver of any of the terms and conditions of this Agreement on one occasion shall not constitute a waiver of the other terms of this Agreement, or of such terms and conditions on any other occasion. This Agreement may not be assigned by either party without the written consent of the other party, which consent shall not be unreasonably withheld or delayed; provided, however, that the Company may assign this Agreement without the prior written consent of Columbia (i) in connection with the sale of all or substantially all of its assets or the sale or transfer of the portion of its business related to the subject matter of this Agreement; (ii) to the surviving entity in any merger, consolidation or reorganization of the Company; (iii) to any of its Affiliates; or (iv) to satisfy a regulatory requirement imposed upon the Company by a governmental body with appropriate authority. This Agreement shall be binding upon and inure to the benefit of the parties and their permitted successors and assigns.

19. Governing Law.

This Agreement shall be governed by New York Law applicable to agreements made and to be performed in New York.

20. Release.

Each party, on behalf of itself, its Affiliates, and their respective directors, officers, employees, agents, representatives, assigns, predecessors, or successors hereby releases, acquits, and forever discharges the other party including each of their respective current and future customers, importers, manufacturers, distributors, suppliers, insurers, attorneys, representatives and agents, their successors and assigns, from any and all pending and potential claims, demands, obligations, all manner of actions, causes of actions, suits, debts, liabilities, losses, damages, attorneys' fees, costs, expenses, judgments, settlements, interest, punitive damages, and other damages or costs of whatever nature, whether known or unknown, pending or future, certain or contingent, arising out of, derived from, predicated upon or relating to the Amended 2003 Agreement, the "Research Agreement" between Columbia and a predecessor of Company dated May 25, 2000, expired May 25, 2005, the "Research Agreement" between Columbia and a predecessor of Company dated June 30, 2006, effective May 25, 2005, and the "Agreement Regarding Addendum No. 1 to Exhibit A of Research Agreement" between Columbia and a predecessor of Company, dated August 24, 2007.

IN WITNESS THEREOF, Columbia and the Company have caused this Agreement to be executed by their duly authorized representatives as of the date first written above.

THE TRUSTEES OF COLUMBIA UNIVERSITY  
IN THE CITY OF NEW YORK

By /s/ Orin Hershowitz

TT: 46712

TRANSTECH PHARMA, LLC

By /s/ Stephen L. Holcombe

**LICENSE AND RESEARCH AGREEMENT**

**BY AND BETWEEN**

**CALITHERA BIOSCIENCES INC.**

**AND**

**HIGH POINT PHARMACEUTICALS, LLC  
TRANSTECH PHARMA LLC**

**DATED AS OF MARCH 5, 2015**

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\* Confidential treatment has been requested with respect to portions of this agreement as indicated by “[\*\*\*]” and such confidential portions have been deleted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

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## LICENSE AND RESEARCH AGREEMENT

**THIS LICENSE AND RESEARCH AGREEMENT** is entered into this 5th day of March, 2015 (the "Effective Date") by and between Calithera Bioscience Inc., a corporation organized under the laws of the State of Delaware, having a business address at 343 Oyster Point Blvd #200, South San Francisco, CA 94080 ("Calithera"), on the one hand, and High Point Pharmaceuticals, LLC, a company organized under the laws of the State of Delaware, having a business address at 4170 Mendenhall Oaks Parkway, High Point, NC 27265 ("HPP") and TransTech Pharma LLC, a company organized under the laws of the State of Delaware, having a business address at 4170 Mendenhall Oaks Parkway, High Point, NC 27265 ("TransTech" and collectively with HPP, "High Point"), on the other hand.

WHEREAS, High Point has developed or obtained rights to High Point Patent Rights (as hereinafter defined) and High Point Know-How (as hereinafter defined);

WHEREAS, High Point has developed certain Hexokinase Inhibitors (as hereinafter defined), and Calithera wishes to fund a research program that will include the development of additional Hexokinase Inhibitors by High Point; and

WHEREAS, Calithera desires to obtain an exclusive license under the High Point Patent Rights and the High Point Know-How to make and use such Hexokinase Inhibitors, and to develop and commercialize Licensed Products (as hereinafter defined), under the terms and conditions set forth herein, and High Point desires to grant such a license.

NOW, THEREFORE, the Parties agree as follows:

### ARTICLE I

#### DEFINITIONS

The following terms, whether used in the singular or plural, shall have the following meanings:

1.1 "Acceptable Human Exposure". Acceptable Human Exposure means the demonstration of all of the following in a clinical trial of a Licensed Product: (a) [\*\*\*]; (b) [\*\*\*]; and (c) [\*\*\*].

1.2 "Act". Act means both the United States Federal Food, Drug, and Cosmetic Act, as amended from time to time, and the regulations promulgated under the foregoing.

1.3 "Affiliate". Affiliate means any Person directly or indirectly controlled by, controlling or under common control with, a Party, but only for so long as such control shall continue. For purposes of this definition, "control" (including, with correlative meanings, "controlled by", "controlling" and "under common control with") means, with respect to a Person, possession, direct or indirect, of (a) the power to direct or cause direction of the management and policies of such Person (whether through ownership of securities or partnership or other ownership interests, by contract or otherwise), or (b) at least 50% of the voting securities or other comparable equity interests of such Person.

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1.4 “Bankruptcy Code”. Bankruptcy Code means Title 11 of the United States Code, as amended from time to time.

1.5 “Business Day”. Business Day means a day that is not a Saturday, Sunday or a day on which banking institutions in New York City, New York are authorized or required by Law to remain closed.

1.6 “Calendar Quarter”. Calendar Quarter means each of the periods ending on March 31, June 30, September 30 and December 31 of any year.

1.7 “Calendar Year”. Calendar Year means each calendar year during the Term.

1.8 “Calithera-Derived Molecule”. Calithera-Derived Molecule means any Hexokinase Inhibitor that is (a) [\*\*\*] or [\*\*\*], (b) [\*\*\*] or [\*\*\*] or [\*\*\*], or (c) [\*\*\*] or [\*\*\*]. Notwithstanding the foregoing, Calithera-Derived Molecule [\*\*\*] either [\*\*\*] or [\*\*\*].

1.9 “Calithera Intellectual Property”. Calithera Intellectual Property means the Calithera Know-How and the Calithera Patent Rights.

1.10 “Calithera Know-How”. Calithera Know-How means all Know-How that is Controlled by Calithera as of the Effective Date or thereafter during the Term and that is necessary or reasonably needed to research, Develop or Manufacture any Program Molecule or any Licensed Product.

1.11 “Calithera Patent Rights”. Calithera Patent Rights means (a) all Patent Rights that are Controlled by Calithera as of the Effective Date or thereafter during the Term and that is necessary or reasonably needed to research, Develop or Manufacture any Program Molecule or any Licensed Product and (b) Program Patent Rights.

1.12 “Clinical Candidate”. Clinical Candidate means a Program Molecule that:

(a) is shown to have the following profile:

(i) [\*\*\*]; or

(b) is selected by Calithera as, or otherwise is, the subject of [\*\*\*].

1.13 “Combination Product”. Combination Product means (a) any pharmaceutical product that is a single formulation consisting of a Program Molecule and one or more other active compounds or active ingredients, which other active compounds or active ingredients are not another Program Molecule, are not Covered by a High Point Patent Right or Program Patent Right, and do not embody any High Point Know-How, in all such cases prior to such other active compound or active ingredient (“Other API”) being combined with such Program Molecule or (b) any combination of a Program Molecule sold together with any separately formulated Other API for a single invoiced price.

1.14 “Commercialization” or “Commercialize”. Commercialization or Commercialize means activities directed to obtaining pricing and reimbursement approvals, marketing, promoting, distributing, importing or selling a product. For purposes of clarity, Commercialization shall not include any activities related to Manufacturing.

1.15 “Commercially Reasonable Efforts”. Commercially Reasonable Efforts means, with respect to a Program Molecule or Licensed Product, the carrying out of obligations under this Agreement with those efforts and resources that a biotechnology company of similar size and resources to Calithera would use were it Developing or Commercializing its own pharmaceutical products that are of similar stage of Development or Commercialization or market potential as the Licensed Product, taking into account product profile, product labeling or anticipated labeling, present and future market potential, strength and duration of patent protection and anticipated exclusivity, past performance of Licensed Products, financial return, safety, efficacy and other medical and clinical considerations, present and future regulatory environment and competitive market conditions, launching strategy and other relevant scientific, technical, legal, operational and commercial factors, all as measured by the facts and circumstances at the time such efforts are due.

1.16 “Control” or “Controlled”. Control or Controlled means, with respect to any intellectual property right or other intangible or tangible property, the possession (whether by ownership or license (other than pursuant to this Agreement)) by a Party of the ability to grant to the other Party a license or sublicense or access as provided herein without violating the terms of any agreement with any other Person.

1.17 “Cover”, “Covering” or “Covered”. Cover, Covering or Covered means, with respect to a product, technology, process or method that, in the absence of ownership of or a license granted under a Valid Claim, the manufacture, use, offer for sale, sale or importation of such product or the practice of such technology, process or method would infringe such Valid Claim (or, in the case of a Valid Claim that has not yet issued, would infringe such Valid Claim if it were to issue).

1.18 “Covered Period”. Covered Period means the period commencing on the Effective Date and ending on [\*\*\*].



1.19 “Development” or “Develop”. Development or Develop means pre-clinical and clinical research and drug development activities, including toxicology and other pre-clinical development efforts, stability testing, process development, formulation development, delivery system development, quality assurance and quality control development, statistical analysis, clinical pharmacology, clinical studies (including pre- and post-approval studies and investigator sponsored clinical studies), regulatory affairs, and Regulatory Approval and clinical study regulatory activities (excluding regulatory activities directed to obtaining pricing and reimbursement approvals). For purposes of clarity, “Development” and “Develop” excludes basic research, screening and discovery activities, including molecular biology, biochemistry and pre-clinical pharmacology, directed to the identification of new compounds or molecules.

1.20 “Development Plan”. Development Plan means the plan for the clinical Development of Licensed Products in the Field in the Territory as it may be modified from time to time, from which Calithera may redact proprietary information as well as information that is not relevant to Licensed Products.

1.21 “Development Term”. Development Term means, with respect to a Program Molecule, the period commencing on the Effective Date and ending as of the date of the First Commercial Sale of a Licensed Product containing such Program Molecule to occur for any Indication in any Major Market.

1.22 “EMA”. EMA means The European Medicines Agency and any successor agency thereto.

1.23 “EU”. EU means the European Union, as it may be redefined from time to time.

1.24 “FDA”. FDA means the United States Food and Drug Administration and any successor agency thereto.

1.25 “Field”. Field means any therapeutic, prophylactic, preventative or diagnostic use.

1.26 “First Commercial Sale”. First Commercial Sale means, with respect to a Licensed Product in a country, the earlier of the issuance of the first invoice or the receipt of the first payment for a shipment of a Licensed Product in commercial quantities for commercial sale by Calithera, its Affiliates or its Sublicensees to a Third Party after receipt of the first Regulatory Approval for such Licensed Product in such country.

1.27 “FTE”. FTE means a full-time equivalent person year (consisting of a total of [\*\*\*] hours per year) of scientific, technical or managerial (but not administrative) research work. An individual who works more than [\*\*\*] hours in a year will be treated as one FTE regardless of the number of hours worked.

1.28 “FTE Rate”. FTE Rate means \$275,000 per FTE.

1.29 “GAAP”. GAAP means accounting principles generally accepted in the United States of America, as in effect from time to time.

1.30 “Generic Competition”. Generic Competition exists, with respect to a Licensed Product in any country in the Territory in a given Calendar Quarter, if, during such Calendar Quarter, one or more Generic Products are commercially available in such country.

1.31 “Generic Product”. Generic Product means, with respect to a given Licensed Product, any pharmaceutical product sold by a Third Party, not authorized by Calithera, its Affiliates or Sublicensees, that (a) contains as an active pharmaceutical ingredient a Program Molecule included in such Licensed Product or a prodrug, metabolite, salt, ester, hydrate, solvate, polymorph, stereoisomer, enantiomer, free acid form, crystal form, free base form, or racemate of such Program Molecule, and (b) is either (i) approved for sale in reliance on, in whole or in part, the prior approval of such Licensed Product as determined by the applicable Regulatory Authority, or (ii) is otherwise substitutable for such Licensed Product under applicable Laws by a pharmacist without the intervention of the prescribing physician.

1.32 “Governmental Authority”. Governmental Authority means any United States federal, state or local or any foreign government, or political subdivision thereof, or any multinational organization or authority or any authority, agency or commission entitled to exercise any administrative, executive, judicial, legislative, police, regulatory or taxing authority or power, any court or tribunal (or any department, bureau or division thereof), or any governmental arbitrator or arbitral body.

1.33 “Hexokinase Inhibitor”. Hexokinase Inhibitor means any Small Molecule having the following characteristic: [\*\*\*] assay described in Schedule 1.33.

1.34 “High Point Intellectual Property”. High Point Intellectual Property means the High Point Know-How and the High Point Patent Rights and all of High Point’s rights in the Joint Inventions and Joint Patents.

1.35 “High Point Know-How”. High Point Know-How means any Know-How that is Controlled by High Point as of the Effective Date or thereafter during the Term and that is necessary or reasonably needed to Develop, make, have made, use, sell, offer for sale or import Program Molecules or Licensed Products.

1.36 “High Point Molecule”. High Point Molecule means (a) any Hexokinase Inhibitor that is (i) Controlled by High Point as of the Effective Date, (ii) disclosed or claimed in the High Point Patent Rights, or (iii) invented solely by or on behalf of High Point in the conduct of the Research Program or (b) any other Small Molecule disclosed or claimed in the High Point Patent Rights existing as of the Effective Date. For clarity, HPP399 is a High Point Molecule.

1.37 “High Point Patent Rights”. High Point Patent Rights means (a) all Patent Rights that are Controlled by High Point as of the Effective Date or thereafter during the Term that are necessary or reasonably needed to Develop, make, have made, use, sell, offer for sale or import Program Molecules or Licensed Products and (b) High Point’s interest in the Joint Patents. The High Point Patent Rights existing as of the Effective Date are set forth on Schedule 1.37.

1.38 “HPP399”. HPP399 means the molecule identified by High Point using High Point’s internal reference number 00309399, the structure of which High Point has disclosed to Calithera as of the Effective Date. For purposes of clarity, HPP399 shall be deemed to be a Hexokinase Inhibitor.

1.39 “IND”. IND means an investigational new drug application filed with the FDA with respect to a Licensed Product, or equivalent application filed with the Regulatory Authority of a country in the Territory other than the United States.

1.40 “IND Enabling GLP Toxicology Study”. IND Enabling GLP Toxicology Study means a toxicology (acute or sub-chronic), genotoxicity, or safety pharmacology study that meets the requirements set forth in 21 C.F.R. Part 58 or comparable regulations in countries outside the United States pertaining to good laboratory practice for use or intended for use in an IND, but excluding any toxicology study performed in the course of evaluating compounds prior to the selection of a Clinical Candidate.

1.41 “Indication”. Indication means the description of use of a Licensed Product in the treatment, prevention or diagnosis of a recognized disease or condition as provided for in the Code of Federal Regulations (CFR) labeling requirements in 21 CFR Part 201 – Labeling. For the purposes of this Agreement, a new Indication [\*\*\*] or [\*\*\*].

1.42 “Initiation”. Initiation means, with respect to any Phase I Clinical Trial, Phase II Clinical Trial or Phase III Clinical Trial, the date on which the first volunteer or patient in such trial has received his or her initial dose.

1.43 “Know-How”. Know-How means proprietary, non-public information and materials, whether patentable or not, including (a) ideas, discoveries, inventions, improvements or trade secrets, (b) pharmaceutical, chemical and biological materials, products and compositions, (c) tests, assays, techniques, data, methods, procedures, formulas, or processes, (d) technical, medical, clinical, toxicological and other scientific data and other information relating to any of the foregoing, and (e) drawings, plans, designs, diagrams, sketches, specifications or other documents containing or relating to such information or materials.

1.44 “Law” or “Laws”. Law or Laws means all laws, statutes, rules, regulations, orders, judgments or ordinances of any Governmental Authority.

1.45 “Legal Exclusivity”. Legal Exclusivity means, with respect to a Licensed Product and a country or region, the right to exclude any Person who is not a Calithera Affiliate or a Sublicensee from Commercializing a product that could compete with such Licensed Product in such country or region, either through (a) a Valid Claim included within a High Point Patent Right Covering such Licensed Product in such country or region, or (b) data exclusivity rights, orphan drug designation, or such other rights conferred by a Regulatory Authority or other applicable Governmental Authority in such country or region.

- 1.46      “Licensed Product”. Licensed Product means any pharmaceutical preparation containing a Program Molecule, including any Combination Product.
- 1.47      “Losses”. Losses means any and all (a) claims, losses, liabilities, damages, fines, royalties, governmental penalties, deficiencies, interest, awards, and judgments, (b) with respect to Third Parties, settlement amounts and all of the items referred to in clause (a), and (c) in connection with all of the items referred to in clauses (a) and (b) above, any and all costs and expenses (including reasonable attorney fees and all other out-of-pocket expenses reasonably incurred in investigating, preparing or defending any litigation or proceeding, commenced or threatened).
- 1.48      “Major EU Country”. Major EU Country means France, Germany, Italy, Spain or the United Kingdom.
- 1.49      “Major Markets”. Major Markets means, collectively, the United States, the Major EU Countries and Japan, and Major Market means any one of them.
- 1.50      “Manufacture” or “Manufacturing”. Manufacture or Manufacturing means activities directed to producing, manufacturing, processing, filling, finishing, packaging, labeling, quality assurance testing and release, shipping and storage of a product.
- 1.51      “Marketing Authorization”. Marketing Authorization means the act of a Regulatory Authority or other Governmental Authority necessary for the marketing and sale of a Licensed Product in a particular Indication or Indications in a country in the Territory, including, (a) in the case of the United States, the granting of Regulatory Approval, and, (b) in the case of a country in the Territory other than the United States in which Pricing Approval is required, the granting of both Regulatory Approval and Pricing Approval by the applicable Regulatory Authority or other Governmental Authority in such country. As used in this definition, “Pricing Approval” means the approval or governmental decision establishing a price for a Licensed Product that can be charged to consumers and will be reimbursed by the applicable Governmental Authority(ies) in such country.
- 1.52      “MHLW”. MHLW means the Japanese Ministry of Health, Labour and Welfare and any successor agency thereto.
- 1.53      “NDA”. NDA means a New Drug Application, as the case may be, as defined in the Act, filed with the FDA with respect to a Licensed Product, or an equivalent application filed with the Regulatory Authority of a country in the Territory other than the United States.

1.54 “Net Sales”. Net Sales means the gross amounts invoiced (or, in the absence of an invoice, received) by Calithera, its Affiliates and Sublicensees (each, a “Selling Party”) to any Third Party that is not a Sublicensee with respect to sales of Licensed Products in the Territory, calculated in the same manner as reported in its audited financial statements, less the sum of the following to the extent attributable to such sales:

- (a) Discounts, credits, refunds, adjustments, retroactive price reductions, chargebacks and rebates actually allowed by Calithera, its Affiliates or their Sublicensees directly for a Licensed Product, including those granted to managed healthcare organizations, institutions or other buying groups, providers of healthcare or social and welfare systems;
- (b) Sales, import, export, customs, value added taxes, tariffs, duties and other governmental charges and fees (including annual fees due under Section 9008 of the United States Patient Protection and Affordable Care Act of 2010 (Pub. L. No. 111-148)) directly imposed on the Licensed Products without reimbursement from any Third Party;
- (c) Freight and insurance costs actually incurred by Calithera, its Affiliates or their Sublicensees directly on outbound shipping of Licensed Products;
- (d) Amounts actually allowed or credited on rejections or returns of sales of Licensed Products by Calithera, its Affiliates or their Sublicensees, including returns by reason of a recall or corrective action;
- (e) Amounts paid or credited to customers or third party distributors for inventory management, distribution, warehousing, and related services to the extent consistent with industry standards;
- (f) arm’s-length fees paid to Third Party consignees or agents in connection with the sale of the Licensed Product; and
- (g) Amounts previously included in Net Sales of such Licensed Product that are written-off by Calithera, its Affiliates or Sublicensees as uncollectible in accordance with GAAP.

Even if there is an overlap between any of the deductions described in (a) through (g) above, each individual item shall only be deducted once in the overall Net Sales calculation.

Net Sales shall be determined from books and records maintained in accordance with GAAP, consistently applied throughout the organization and across all products of the entity whose sales of Licensed Product are giving rise to Net Sales. Licensed Products transferred for use in clinical or non-clinical research and trials shall be excluded from Net Sales. Licensed Products sold or transferred in connection with compassionate sales or use or indigent programs and Licensed Product samples shall not be counted toward Net Sales to the extent that such Licensed Products are sold or transferred at or below fully burdened manufacturing and distribution costs. Licensed Products transferred between Selling Parties shall not count toward Net Sales unless such Selling Party is an end-user of such Licensed Product.

In the event that Program Molecules are sold or otherwise commercially disposed of as part of Combination Products, the Net Sales of such Combination Products, for purposes of determining royalty payments, shall be determined, as to each unit of Combination Product sold or otherwise disposed of, by multiplying (x) the Net Sales of the Combination Product (determined according to the method set forth above in this Section 1.54) and (y) the Applicable Fraction determined in accordance with the following:

(i) Except as otherwise set forth in this Section 1.54, the “Applicable Fraction” shall be  $A/(A+B)$ , where A is the average wholesale price of the Product containing such Program Molecule as its only active ingredient when sold separately in finished form and B is the average wholesale price of the other product containing Other API and not the Program Molecule (the “Other Product”) sold separately in finished form.

(ii) In the event that the average wholesale price of the Licensed Product containing such Program Molecule as its only active ingredient when sold separately in finished form can be determined but the average wholesale price of the Other Product when sold separately in finished form cannot be determined, the “Applicable Fraction” shall be  $A/C$ , where A is the average wholesale price of the Licensed Product containing such Program Molecule when sold separately in finished form and C is the average wholesale price of the Combination Product.

(iii) In the event that the average wholesale price of the Other Product when sold separately in finished form can be determined but the average wholesale price of the Licensed Product containing such Program Molecule as its only active ingredient when sold separately in finished form cannot be determined, the “Applicable Fraction” shall be  $(C-D)/C$ , where D is the average wholesale price of the Other Product when sold separately in finished form and C is the average wholesale price of the Combination Product.

(iv) In the event that the average wholesale price of neither the Licensed Product containing such Program Molecule as its only active ingredient when sold separately in finished form nor the Other Product when sold separately in finished form can be determined, the “Applicable Fraction” shall be  $F/(F+G)$ , where F is the fair market value of the Licensed Product containing such Program Molecule as its only active ingredient contained in the Combination Product and G is the fair market value of all Other APIs contained in the Combination Product, as reasonably determined in good faith by the Parties.

1.55 “Objective Response”. Objective Response means the demonstration of [\*\*\*] or [\*\*\*] or [\*\*\*] or [\*\*\*] or [\*\*\*]. For the purposes of this Section 1.55, [\*\*\*] will be based on [\*\*\*] and [\*\*\*] and [\*\*\*]. For the avoidance of doubt, any [\*\*\*], or [\*\*\*] will not be considered to have demonstrated [\*\*\*] for the purposes of this Section 1.55.

1.56 “Party”. Party means either HPP or TransTech, on the one hand or Calithera, on the other hand; “Parties” means both HPP and TransTech, on the one hand and Calithera, on the other hand.

1.57 “Patent Rights”. Patent Rights means the rights and interest in and to all issued patents and pending patent applications in any country in the Territory, including all provisionals, divisionals, continuations, renewals, continuations-in-part, patents of addition, re-examination, supplementary protection certificates, extensions, registrations or confirmation patents, restoration of patent terms, letters of patent, and reissues thereof, and foreign counterparts of the foregoing.

1.58 “Person”. Person means any natural person or any corporation, company, partnership, joint venture, firm, Governmental Authority or other entity, including a Party.

1.59 “Phase I Clinical Trial”. Phase I Clinical Trial means a human clinical trial in any country in the Territory that would satisfy the requirements of 21 C.F.R. § 312.21(a).

1.60 “Phase II Clinical Trial”. Phase II Clinical Trial means a human clinical trial in any country in the Territory that would satisfy the requirements of 21 C.F.R. § 312.21(b).

1.61 “Phase III Clinical Trial”. Phase III Clinical Trial means a human clinical trial in any country in the Territory that would satisfy the requirements of 21 C.F.R. § 312.21(c).

1.62 “Program Molecule”. Program Molecule means any (a) High Point Molecule or (b) Calithera-Derived Molecule.

1.63 “Program Patent Rights”. Program Patent Right means (a) all Patent Rights that (i) are Controlled by Calithera, (ii) disclose or claim (A) a composition of matter comprising a Hexokinase Inhibitor, (B) any use, or method of making of any compound or molecule described in subsection (A), or (C) inventions, results, biomarkers, assays or formulations related exclusively to Hexokinase Inhibitors or the use or testing, and (iii) are (A) conceived during the Covered Period by or on behalf of Calithera or any of its Sublicensees, or (B) in-licensed by Calithera or any of its Sublicensees from a Third Party during any portion of the Covered Period that is during the Term; and (b) Calithera’s interest in the Joint Patents. Notwithstanding the foregoing, Program Patent Rights exclude all Patent Rights conceived by or on behalf of any Sublicensee prior to the Effective Date or after termination or expiration of the applicable sublicense.

1.64 “Regulatory Approval”. Regulatory Approval means the granting, whether through lapse of time or otherwise, by the FDA or by a comparable Regulatory Authority of approval to market a drug product in a country in the Territory.

1.65 “Regulatory Authority”. Regulatory Authority means any Governmental Authority, including the FDA, EMA or MHLW, with responsibility for granting licenses or approvals (with the exception of price approvals) necessary for the marketing and sale of pharmaceutical products in any country.

1.66 “Research Plan”. Research Plan means the written plan generally describing the activities to be conducted by or on behalf of High Point pursuant to the Research Program. The initial Research Plan is attached hereto as Schedule 1.66, which may be amended from time to time as provided in Section 3.1.

1.67 “Research Program”. Research Program means the conduct of the research activities described in the Research Plan by or on behalf of High Point.

1.68 “Research Program Term”. Research Program Term means the twelve (12) month period commencing on the Effective Date and ending twelve (12) months after the Effective Date, unless earlier terminated pursuant to this Agreement. Calithera may discontinue the Research Program, for any reason, with at least two months written notice. In no event will the Research Program extend beyond twelve (12) months from the Effective Date without mutual agreement.

1.69 “ROW”. ROW means all countries in the Territory other than the countries in the Major Markets.

1.70 “Small Molecule”. Small Molecule means any organic compound or molecule with a molecular weight less than three thousand (3000) atomic mass units, other than a protein or an antibody, but including peptides, peptide analogs, metabolites, prodrugs, solvates, hydrates, esters, salts, isomers, stereoisomers, racemates, tautomers, and polymorphs thereof. A “protein” refers to a sequence of ten (10) or more amino acids joined to each other by peptide bonds or modified peptide bonds.

1.71 “Sublicensee”. Sublicensee means a Third Party that has been granted a sublicense under the rights granted to Calithera pursuant to Section 2.1 of this Agreement, which rights include at least the rights to Develop a Licensed Product or to Manufacture or Commercialize a Licensed Product. Third Parties that are permitted only to (a) distribute and resell a Licensed Product, (b) re-package a Licensed Product for resale or (c) Manufacture a Licensed Product for supply to Calithera, its Affiliates or its Sublicensees (and have no other rights to Develop or Commercialize such Licensed Product) are not “Sublicensees”.

1.72 “Territory”. Territory means all countries of the world.

1.73 “Third Party”. Third Party means any Person other than High Point or Calithera or any of their respective Affiliates.



1.74 “Valid Claim”. Valid Claim means a claim in the High Point Patent Rights that Covers the applicable Licensed Product in a country and that has not (a) expired; (b) been disclaimed; (c) been cancelled or superseded, or if cancelled or superseded, has been reinstated; (d) been revoked, held invalid, or otherwise declared unenforceable or not allowable by a tribunal or patent authority of competent jurisdiction over such claim in such country from which no further appeal has or may be taken; and (e) in the case of a patent application, been pending for more than [\*\*\*] after the date of its first priority filing.

1.75 Additional Definitions. Each of the following definitions is set forth in the section of this Agreement indicated below:

<b>Definition:</b>	<b>Section:</b>
1934 Act	Section 9.4
Abandoned Calithera Patent	Section 12.5(e)(v)
Abandoned Joint Patent	Section 8.2(c)
Abandoned Patent	Section 8.2(b)
Additional Territories	Section 8.2(b)
Agents	Section 9.1
Applicable Fraction	Section 1.54
Assignor	Section 13.9
Calithera	Preamble
Calithera Parties	Section 11.2
Calithera Sole Inventions	Section 8.1(a)
Commercialization Plan	Section 5.2
Confidential Information	Section 9.2
Confidentiality Agreements	Section 9.2
Courts	Section 13.2
Defaulting Party	Section 12.3
Development Forum or DF	Section 4.2(a)
Effective Date	Preamble
High Point	Preamble
High Point Parties	Section 11.1
High Point Sole Inventions	Section 8.1(a)
HPP	Preamble
House Marks	Section 12.5(f)
Indemnified Party	Section 11.3(a)
Indemnifying Party	Section 11.3(a)
Infringement Claim	Section 8.3(a)
Joint Inventions	Section 8.1(b)
Joint Patents	Section 8.2(c)
Other API	Section 1.12
Other Product	Section 1.54
Paragraph IV Claim	Section 8.8(a)
Quarterly Research Fee	Section 7.2(a)
Research Program Coordinator	Section 3.3
Royalty Term	Section 7.6(e)

<b>Definition:</b>	<b>Section:</b>
Sole Inventions	Section 8.1(a)
Term	Section 12.1
Third Party Claims	Section 11.1
Third Party Licenses	Section 7.6(d)
TransTech	Preamble
Unelected Patent	Section 8.2(b)

## ARTICLE II

### GRANTS OF RIGHTS

#### 2.1 High Point Grants of Rights.

(a) License Grant. Subject to the terms and conditions of this Agreement, High Point hereby grants to Calithera an exclusive (even as to High Point and its Affiliates, except as set forth in Section 2.2(a)), royalty-bearing right and license, under the High Point Intellectual Property, to (i) Manufacture and use High Point Molecules to identify and synthesize Calithera-Derived Molecules, (ii) Develop High Point Molecules and Calithera-Derived Molecules into Licensed Products, and (iii) make and have made, use, offer for sale, sell, have sold, import and otherwise Commercialize or have Commercialized Program Molecules and Licensed Products in the Field in the Territory; subject to Section 2.2(a).

(b) Sublicenses. Calithera shall have the right to grant sublicenses through multiple tiers under the licenses granted to Calithera under Section 2.1(a) to its Affiliates and to Third Parties without High Point's prior written approval but with written notice to High Point, with such notice to be provided no later than ninety (90) days after the grant of each sublicense. Calithera shall provide High Point with written notice of the termination or expiration of any sublicense granted to a Third Party within thirty (30) days thereof. All sublicenses granted by Calithera hereunder shall be consistent with the terms and conditions of this Agreement. Calithera shall remain liable for breaches by its Sublicensees of any sublicense agreement; provided that in the event a breach by a Sublicensee under its sublicense causes Calithera to breach any of its obligations under this Agreement, Calithera shall have the opportunity to cure as set forth in Section 12.3.

## 2.2 Calithera Grants of Rights.

(a) License Grant. Subject to the terms and conditions of this Agreement, Calithera hereby grants to High Point a non-exclusive, royalty-free right and license, with the limited right to sublicense and to have made as set forth in Section 2.2(b), under the Calithera Intellectual Property and its rights under the High Point Intellectual Property as set forth in Section 2.1(a), solely to conduct, on behalf of Calithera, High Point's research responsibilities under the Research Program.

(b) Sublicenses. High Point shall have the right to grant sublicenses under the license granted to High Point under Section 2.2(a), to other Persons retained by High Point upon the prior written consent of Calithera, such consent not to be unreasonably withheld, delayed or conditioned, in each case solely to perform High Point's responsibilities under the Research Program on High Point's behalf. All permitted sublicenses of High Point hereunder shall include terms and covenants at least as favorable to and for the benefit of Calithera as those provided by High Point in the following sections of this Agreement: Sections 2.2(b), 8.1(d), 9, 10.1(b) and 10.1(c). High Point shall remain liable for breaches by its sublicensees of any sublicense agreement; provided that in the event a breach by such sublicensee under its sublicense causes High Point to breach any of its obligations under this Agreement, High Point shall have the opportunity to cure as set forth in Section 12.3.

2.3 Rights Retained by the Parties. Any rights of High Point or Calithera, as the case may be, not expressly granted to the other Party under the provisions of this Agreement shall be retained by such Party, subject to Section 2.5. Without limiting the generality of the foregoing and without limitation to Section 2.5, no right or license is granted under the High Point Intellectual Property to access or use any compound or molecule that is not a Program Molecule.

2.4 Section 365(n) of the Bankruptcy Code. All rights and licenses granted under or pursuant to any Section of this Agreement, including under Sections 2.1 and 2.2, are rights to "intellectual property" (as defined in Section 101(35A) of the Bankruptcy Code). Each of High Point and Calithera hereby acknowledges that (a) copies of research data, (b) laboratory samples, (d) product samples, (d) formulas, (e) laboratory notes and notebooks, (f) data and results related to clinical trials, (g) regulatory filings and approvals, (h) rights of reference in respect of regulatory filings and approvals, (i) pre-clinical research data and results, and (j) marketing, advertising and promotional materials, in each case that relate to such intellectual property, constitute "embodiments" of such intellectual property pursuant to Section 365(n) of the Bankruptcy Code. Each Party shall retain and may fully exercise all of its rights and elections under the Bankruptcy Code or equivalent legislation in any other jurisdiction. Upon the bankruptcy of either Party, the other Party shall further be entitled to a complete duplicate of, or complete access to, as appropriate, any such intellectual property, and such intellectual property, if not already in its possession, shall be promptly delivered to such other Party, unless the Party in bankruptcy elects to continue, and continues, to perform all of its obligations under this Agreement.

2.5 Exclusivity. During the Term, neither High Point nor any of its controlled (as such word is defined in Section 1.2) Affiliates shall, alone or in collaboration with any other Person, [\*\*\*]. During the Term, High Point shall ensure that none of its personnel or its controlled (as such word is defined in Section 1.2) Affiliates' or their personnel (a) enable or assist any other Affiliate of High Point or any Third Party with [\*\*\*] or (b) disclose any Confidential Information relating to Hexokinase Inhibitors to any Affiliate of High Point other than a controlled (as such word is defined in Section 1.2) Affiliate or an investor in High Point that is subject to obligations of non-disclosure and non-use with respect thereto.

## ARTICLE III

### RESEARCH

3.1 General. Calithera shall lead, and pay all costs of, the research of Licensed Products in the Field in the Territory hereunder. High Point shall use commercially reasonable efforts to perform the Research Program in accordance with the Research Plan. The Research Plan may be amended from time to time by mutual agreement of the Parties.

3.2 High Point FTE Commitments.

(a) During the first twelve (12) months of the Research Program Term, High Point shall provide [\*\*\*] to four (4) FTEs to work on the Research Program consistent with the timelines set forth in the Research Plan and Calithera shall fully fund the costs of such FTEs at the FTE Rate as provided in Section 7.2. In no event shall Calithera be responsible for funding more than four (4) FTEs per year. High Point shall be responsible for and shall provide sufficient resources, including reagents and disposables, at High Point's cost and expense, to complete all aspects of the Research Plan assigned to High Point, including synthesizing any additional High Point Molecules; provided, however, that, except as set forth in the initial Research Plan attached hereto as Schedule 1.64, High Point shall not be obligated to manufacture quantities of any Program Molecule beyond the quantity needed for research purposes, which shall not exceed the greater of the amounts listed in the initial Research Plan or [\*\*\*] of each Program Molecule.

(b) High Point shall require by written agreement that all FTEs and all other High Point personnel, employees, and agents involved in the Research Program have entered into confidentiality and invention assignment agreements that are consistent with the provisions of this Agreement and shall be obligated to assign any rights they may have in any invention made during such work to High Point.

3.3 Research Program Coordinators. Calithera and High Point each shall appoint a representative (each, a "Research Program Coordinator") to serve as the primary contact between the Parties with respect to the Research Program. Each Party shall notify the other within thirty (30) days after the Effective Date of the appointment of its Research Program Coordinator and shall notify the other Party as soon as practicable upon changing this appointment. The Research Program Coordinators shall meet at least once per month during the Research Program Term or more frequently as agreed by the Parties to discuss the progress of the Research Program and interim results. Such meetings may be by teleconference or in person, with each Party responsible for its own travel expenses, at a location agreed by the Parties. Within thirty (30) days after the end of the first three (3) months of the Research Program Term, and within thirty (30) days after the end of each three (3) month period thereafter, High Point's Research Program Coordinator shall provide a written report to Calithera's Research Program Coordinator summarizing the status and interim results of the Research Program.

3.4 Calithera Contributions. Upon the reasonable request of High Point, Calithera may, but shall not be obligated to, provide High Point with scientific, development or other expertise in connection with the performance by High Point of its responsibilities under the Research Plan.

3.5 High Point Assistance. During the [\*\*\*] month period immediately following the Effective Date and again during the [\*\*\*] month period immediately following the Research Program Term, High Point shall provide Calithera reasonable assistance in transitioning High Point's Hexokinase Inhibitor program to Calithera at no additional cost other than reimbursement of High Point's reasonable related out-of-pocket expenses. High Point shall promptly execute all reasonable actions following Calithera's request so as not to delay any timelines set forth in the Research Plan or the Development Plan. Such assistance shall include providing Calithera with copies of all tangible materials in High Point's possession that are included in the High Point Intellectual Property or that otherwise relate to High Point's Hexokinase Inhibitor program (such as cancer cell lines and assays), subject to High Point's existing obligations to any applicable Third Party, and related information regarding High Point's Hexokinase Inhibitor program, and providing reasonable amounts of consultation regarding such materials and information and the status of High Point's Hexokinase Inhibitor program.

#### ARTICLE IV

#### DEVELOPMENT

4.1 General. Subject to the terms of this Agreement, including the requirements of ARTICLE VI, Calithera shall be solely responsible for, and pay all costs of, the Development of Program Molecules and Licensed Products in the Field in the Territory, and for Manufacture of all Program Molecules and Licensed Products to support such Development, and shall use Commercially Reasonable Efforts to perform such Development in accordance with the Development Plan. Calithera will provide High Point with a summary clinical Development Plan for the Program Molecules and Licensed Products prepared at least annually and updated as appropriate; such plans may be redacted for proprietary information as well as information that is not relevant to Program Molecules or Licensed Products.

4.2 Development Forum. The Parties hereby establish a forum for communications and discussions regarding the Development Plan (the "Development Forum" or "DF").

(a) Composition of the Development Forum. The Development Forum shall be comprised of an equal number of representatives of each Party which, unless the Parties otherwise agree, shall be two (2) representatives of each Party. Each Party shall notify the other within thirty (30) days after the Effective Date of the appointment of its representatives to the DF, which representative shall have the requisite technical knowledge and experience to oversee Development of Program Molecules and Licensed Products and the requisite seniority to make decisions regarding such Development on behalf of such Party. Each Party may change its representatives to the DF from time to time in its sole discretion, effective upon notice to the other Party of such change. These representatives shall have ongoing familiarity with and a technical understanding of the Development Plan activities. Additional representatives or consultants may from time to time, by mutual consent of the Parties, be invited to attend DF meetings. The DF shall be chaired by a representative of Calithera. Each Party shall bear its own expenses related to the attendance of such meetings by its representatives.

(b) Meetings. The DF shall meet in accordance with a schedule established by mutual written agreement of the Parties or upon the reasonable request of Calithera, but no less frequently than [\*\*\*] during the Development Term, with the location for such meetings alternating between High Point and Calithera facilities in the United States (or such other location as may be agreed by the Parties), with each Party paying for its own travel expenses. Alternatively, the DF may meet by means of teleconference, videoconference or other similar communications equipment as the Parties may agree.

(c) Scope of Development Forum. The DF's role shall be limited to communications and discussions regarding the Development of Program Molecules and Licensed Products in the Field. Within such scope the DF may: (i) confer regarding the status of Development Plan activities; (ii) review and discuss amendments to the Development Plan; and (iii) discuss such other matters relating to the Development of Program Molecules and Licensed Products in the Field as either Party may bring before the DF. The DF shall have no decision-making authority.

4.3 Exchange of Information Regarding Development. During the Development Term, Calithera shall provide High Point, through the DF, with information and data relating to Calithera's Development of Program Molecules and Licensed Products in the Field. In addition, Calithera shall, promptly upon request by High Point, provide High Point with additional information reasonably requested by High Point relating to Calithera's Development of Program Molecules and Licensed Products in the Field. Without limiting the generality of the foregoing, at least [\*\*\*] during the period after the Development Term for so long as Calithera continues to Develop any Program Molecule or Licensed Product for an Indication (other than the Indication(s) for which the applicable Licensed Product has received Regulatory Approval), Calithera shall provide High Point with a reasonably detailed report describing Calithera's Development activities and the summary results thereof with respect to all Program Molecules and Licensed Products. Notwithstanding anything to the contrary, this Section 4.3 shall be subject in all respects to ARTICLE IX.

## ARTICLE V

### COMMERCIALIZATION

5.1 General. Subject to the terms of this Agreement, including the requirements of ARTICLE VI, Calithera shall be solely responsible for, and pay all costs of, the Commercialization of Licensed Products in the Field in the Territory, and for Manufacture of all Licensed Products to support such Commercialization.

5.2 Commercialization Plans. During the Royalty Term with respect to each Licensed Product, Calithera shall provide High Point at least once per year with a summary of the Commercialization activities to be conducted by or on behalf of Calithera and its Affiliates and Sublicensees (to the extent known to Calithera) with respect to such Licensed Product in the Major Markets, taken as a whole, during the next year (each such plan, a “Commercialization Plan”).

## ARTICLE VI

### DILIGENCE

6.1 Commercially Reasonable Efforts. During the Term, subject to Section 6.3, Calithera shall use Commercially Reasonable Efforts to research, Develop, seek Marketing Authorizations for, Manufacture and Commercialize at least one Program Molecule and Licensed Product in the Territory.

6.2 Specific Efforts with Respect to Program Molecules and Licensed Products. Subject to Section 6.3, Calithera shall achieve [\*\*\*], by the corresponding deadlines (subject to Section 13.11) with respect to at least one Program Molecule or Licensed Product set forth in the table below:

Diligence Milestone	Deadline
[***]	[***]

\* For purposes of (b) above, [\*\*\*] means a [\*\*\*] that:

[\*\*\*]

For clarity, Calithera shall not be deemed to be in breach of its obligations under this Section 6.2 for failure to meet a diligence milestone by the applicable deadline if (A) such deadline has been extended pursuant to Section 6.3, (B) Calithera can demonstrate to High Point’s reasonable satisfaction that Calithera is actively pursuing ongoing studies designed to achieve such diligence milestone by such extended deadline, and (C) Calithera achieves such diligence milestone by such extended deadline (which may be subject to further extension pursuant to Section 6.3).

6.3 Failure to Meet Diligence Obligations. If Calithera fails to meet its obligations under Section 6.1 or 6.2 in any material respect, then High Point shall notify Calithera of such failure and High Point shall have the right to terminate this Agreement pursuant to Section 12.3 (subject to the opportunity to cure as set forth therein) in the case of a breach under Section 6.1 or Section 6.2. Notwithstanding the foregoing, if such failure is due to causes that are beyond the reasonable control of Calithera, including due to regulatory action or delay, low patient enrollment, safety concerns, issues with chemistry, manufacturing and controls (CMC), force majeure, delays due to an institutional review board, scientific or legal reasons or delays caused by High Point, its Affiliates or a Third Party, notwithstanding Calithera’s good faith efforts to achieve those milestones, then, if Calithera promptly notifies High Point in writing of any such delay and the cause and anticipated duration thereof, Calithera not be deemed in default or breach of this Agreement and the deadlines for achieving those milestones will be deemed automatically extended by the time of the delay reasonably attributable to such applicable causes.

## ARTICLE VII

### FINANCIAL PROVISIONS

7.1 Initial License Payment. Calithera shall make a one-time payment to HPP of Six Hundred Thousand Dollars (\$600,000) no later than thirty (30) days after the Effective Date as upfront consideration for the license granted hereunder.

7.2 Research Program. On or prior to the fifth (5<sup>th</sup>) Business Day after the end of the first Calendar Quarter following the Effective Date, HPP shall submit an invoice and Calithera shall pay HPP within twenty-five (25) days after receipt of such invoice, a Quarterly Research Fee for the then-ended first Calendar Quarter of the Research Program Term or portion thereof, as applicable. Thereafter, on the last day of each Calendar Quarter during the portion of the Research Program Term covered by the Research Plan, HPP shall submit an invoice, and Calithera shall pay HPP within twenty-five (25) days after receipt of such invoice, a Quarterly Research Fee for such Calendar Quarter of the Research Program Term. As used in this Agreement, "Quarterly Research Fee" means the amount determined by multiplying the FTE Rate by the number of FTE hours to be contributed by High Point pursuant to the Research Plan during the applicable Calendar Quarter or portion thereof of the Research Program Term. For purposes of clarity, the maximum amounts payable by Calithera to HPP for FTEs annually, if High Point provides the maximum of four (4) FTEs, is set forth in Schedule 7.2(a) and the minimum amounts payable by Calithera to HPP annually, if High Point provides the minimum of [\*\*\*] FTEs, is set forth in Schedule 7.2(b). The minimum and maximum Quarterly Research Fee for each Calendar Quarter of the Research Program Term is set forth in Schedule 7.2(c).

7.3 Development, Manufacturing and Commercialization Costs. As between the Parties, Calithera shall be solely responsible for all costs of Developing, Manufacturing and Commercializing Licensed Products.



7.4 Event Milestone Payments. Calithera shall make the non-refundable, non-creditable payments to HPP set forth below not later than thirty (30) days after the earliest date on which the corresponding milestone event set forth below is first achieved by a Licensed Product for a disease or condition in the Field:

<u>Milestone Event</u>	<u>Payment</u>
(a)[***]	[\$***]
(b)[***]	[\$***]
(c)[***]	[\$***]
(d)[***]	(i) \$[***]
	(ii) \$[***]
	(iii) \$[***]
(e)[***]	[\$***]
(f)[***]	[\$***]
(g)[***]	[\$***]
(h)[***]	[\$***]
(i)[***]	[\$***]
(j)[***]	[\$***]
(k)[***]	[\$***]
(l)[***]	[\$***]
(m)[***]	[\$***]

For purposes of clarity, the milestone payments set forth in this Section 7.4 shall be paid only once, upon the first achievement of the applicable milestone event by the first Licensed Product to achieve such milestone event, except that, if Regulatory Approval is obtained for a first Licensed Product, and Calithera or any of its Affiliates or Sublicensees subsequently commence Development of an additional Licensed Product, then the milestones payments for each of the milestone events listed in Section 7.4(f) ([\*\*\*]) through (m) ([\*\*\*]) above shall be payable at [\*\*\*] of the corresponding milestone payment amount for the first subsequent Licensed Product that achieves such milestone event. For purposes of clarity, the maximum potential payment by Calithera under this Section 7.4 for each milestone shall be one hundred percent (100%) of each milestone payment set forth in (a) through (e) and [\*\*\*] of each milestone payment set forth in (f) through (m) (*i.e.*, one hundred percent (100%) for the first Licensed Product to achieve such milestone and an additional [\*\*\*] for the second Licensed Product to achieve such milestone).

If, with respect to any particular Licensed Product, a later-listed milestone event in Section 7.4 (other than milestone (d) and each of the milestones (h) through (m), namely the [\*\*\*] for additional Indication milestones) is achieved by such Licensed Product prior to the achievement by such Licensed Product of an earlier-listed milestone event in Section 7.4 (other than milestone (d) and each of the milestones (h) through (m), namely the [\*\*\*] for additional Indication milestones), then the milestone payment for such earlier-listed milestone event for such Licensed Product shall be due and payable simultaneously with the payment for achievement of such subsequent milestone event, except that (x) [\*\*\*] shall not be deemed to trigger any milestone payment [\*\*\*], and (y) [\*\*\*] shall not be deemed to trigger any other milestone payment.

If Calithera elects to cease Development of any Licensed Product, then the milestone payments previously made by Calithera under this Section 7.4 shall be fully creditable against the achievement of such milestone by a subsequent Licensed Product.

7.5 Sales Milestone Payments. In addition to all other amounts payable under this Agreement, Calithera shall make non-refundable, non-creditable milestone payments to HPP related to the marketing and sale of Licensed Products in the Territory, in the amounts provided below:

<u>Milestone Event</u>	<u>Payment</u>
(a) Aggregate Net Sales of a Licensed Product in the Territory of greater than \$[***] in a Calendar Year	\$[***]
(b) Aggregate Net Sales of a Licensed Product in the Territory of greater than \$[***] in a Calendar Year	\$[***]
(c) Aggregate Net Sales of a Licensed Product in the Territory of greater than \$[***] in a Calendar Year	\$[***]

For purposes of clarity, each of the milestone payments set forth in this Section 7.5 shall be paid only once and the maximum potential payment by Calithera under this Section 7.5 for each milestone shall be equal to one hundred percent (100%) of each milestone payment. A maximum of one milestone event specified in Section 7.5(a), (b), and (c) above will be payable by Calithera for any given Calendar Year. If two or more of such milestone events are achieved in different Calendar Quarters in the same Calendar Year, then Calithera shall pay each corresponding milestone payment within the time period specified in Section 7.7, but may credit any milestone payment previously made for such Calendar Year against the subsequent milestone payment for the same Calendar Year, such that, for such subsequent milestone event, Calithera shall only be obligated to pay the difference between the milestone payment for the subsequent event and the aggregate of all other sales milestone payments made during such Calendar Year corresponding to the earlier event(s), and the earlier milestone payments may become payable if and when achieved in a subsequent Calendar Year. If two or more of such milestone events are achieved in the same Calendar Quarter, Calithera shall only be obligated to pay the greater of the corresponding milestone payments for such Calendar Quarter and the earlier milestone payments may become payable if and when achieved in a subsequent Calendar Year.

For example, upon the first achievement of the milestone event set forth in Section 7.5(a), Calithera shall make the \$[\*\*\*] payment in accordance with Section 7.7. If the milestone event set forth in Section 7.5(b) is also achieved during the same Calendar Year, Calithera shall make the \$[\*\*\*] payment for that milestone event in accordance with Section 7.7, but Calithera may credit the \$[\*\*\*] it paid for achievement of the milestone event set forth in Section 7.5(a) against such amount resulting in a net payment of \$[\*\*\*]. In this example, each of the milestone events set forth in Sections 7.5(a) and (c) would become payable in subsequent Calendar Years if and when it is achieved.

7.6 Licensed Product Royalties. Calithera shall pay to HPP royalties on Net Sales of Licensed Products in the Territory as follows:

<u>Calendar Year Net Sales of Licensed Products</u>	<u>Royalty Rate</u>
Less than or equal to \$[***]	[***]%
Greater than \$[***] and less than or equal to \$[***]	[***]%
Greater than \$[***] and less than or equal to \$[***]	[***]%
Greater than \$[***]	[***]%

(a) Applicability of Royalty Rates to Net Sales in the Territory. Royalties under this Section 7.6 on aggregate Net Sales of Licensed Products in the Territory in a Calendar Year shall be paid at the rate applicable to the portion of Net Sales within each of the Net Sales levels during such Calendar Year. For example, if, during a Calendar Year, aggregate Net Sales of Licensed Products were equal to \$[\*\*\*], then the royalties payable by Calithera under this Section 7.6 would be calculated by adding (i) the royalties with respect to the first \$[\*\*\*] at the first-level percentage of [\*\*\*] percent ([\*\*\*]%) ( $[***] \times [***] = [***]$ ), and (ii) the royalties with respect to the next \$[\*\*\*] at the second-level percentage of [\*\*\*] percent ([\*\*\*]%) ( $[***] \times [***] = [***]$ ), for a total royalty of \$[\*\*\*].

(b) Royalty Term. Calithera's royalty obligations to HPP under this Section 7.6 shall commence on a country-by-country and Licensed Product-by-Licensed Product basis upon the First Commercial Sale of such Licensed Product in such country and shall expire on a country-by-country basis and Licensed Product-by-Licensed Product basis on the later of: (i) the expiration of Legal Exclusivity for such Licensed Product in such country (the "Exclusivity Royalty Term") or (ii) the tenth (10th) anniversary of the date of the First Commercial Sale by Calithera or any of its Affiliates or Sublicensees to a non-Sublicensee Third Party of such Licensed Product in such country (the "Royalty Term"). Upon expiration of the Royalty Term for a given Licensed Product in a given country, Calithera's license under Section 2.1(a) shall become fully paid-up and perpetual with respect to Commercialization of such Licensed Product in such country.

(c) Royalty Adjustment for Generic Competition or Expiration of Exclusivity Royalty Term. If, with respect to a particular Licensed Product in a particular country in a particular Calendar Quarter, the Exclusivity Royalty Term has expired, then the royalties payable pursuant to this Section 7.6 may be reduced for such Calendar Quarter to the extent required to comply with applicable Law, if any, governing royalties payable on Licensed Products after expiration of all issued High Point Patent Rights Covering such Licensed Products, and provided, that (i) if the Generic Products have a market share during such Calendar Quarter of more than [\*\*\*] and less than or equal to [\*\*\*] of the aggregate market share of the corresponding Licensed Product(s) and Generic Product(s) (based on data provided by IMS International, or if such data is not available, such other reliable data source as reasonably determined by Calithera and agreed by HPP (such agreement not to be unreasonably withheld)) as measured by unit sales, then the royalty rate pursuant to Section 7.6(a) for such Licensed Product(s) in such country shall be reduced for such Calendar Quarter to [\*\*\*] of Net Sales, and (ii) if the Generic Product(s) have a market share of more than [\*\*\*] (as calculated in the preceding proviso) during such Calendar Quarter, then [\*\*\*] royalty shall be payable under this Section 7.6 on Net Sales during such Calendar Quarter of such Licensed Product(s) in such country.

(d) Third Party Licenses. If Calithera reasonably determines to obtain a patent or intellectual property license from a Third Party that is required or reasonably needed to make, sell or use a Licensed Product in the Field in a given country (“Third Party License”), then Calithera may offset [\*\*\*] of any payments (including upfront payments, milestones and royalties) paid under such Third Party License to obtain such rights for such Licensed Product in such country against royalties payable to HPP hereunder in respect of Net Sales of such Licensed Product in such country; provided, however, in no event shall such credit cause the royalties paid to HPP for any particular Calendar Quarter to be reduced to less than [\*\*\*] of the amount that would otherwise be payable to HPP for such Calendar Quarter pursuant to Section 7.6 with respect to such Licensed Product in such country. Notwithstanding the foregoing provisions of this Section 7.6(d), [\*\*\*] to the extent any Third Party Licenses relate to [\*\*\*].

(e) Aggregate Royalty Reductions. Notwithstanding anything to the contrary in this Section 7.6, in no event shall the royalties otherwise payable under Section 7.6(a) with respect to any given Net Sales of a Licensed Product in a country in the Territory be reduced as a result of the royalty reduction provisions of Sections 7.6(c) and (d) to be less than [\*\*\*].

7.7 Reports; Payments. Within [\*\*\*] days after the end of each Calendar Quarter other than the last Calendar Quarter of Calithera’s fiscal year, and within [\*\*\*] days after the end of the last Calendar Quarter of Calithera’s fiscal year, in which there are Net Sales giving rise to a payment obligation under Section 7.5 or 7.6, Calithera shall submit to HPP a report identifying, for each Licensed Product, the gross amount of sales of such Licensed Product for each country for such Calendar Quarter and the resulting royalties and the sales milestone payable to HPP, including a description of any deductions made from the gross amount of sales to calculate Net Sales and any royalty reductions made as a result of Sections 7.6(d) and 7.6(e). Concurrently with each such report, Calithera shall pay to HPP all royalties and sales milestones payable by it under Sections 7.5 and 7.6.

7.8 Books and Records; Audit Rights. Calithera shall keep complete and accurate records of the underlying revenue and expense data relating to the calculations of Net Sales and payments required by Sections 7.5 and 7.6. HPP shall have the right, once annually at its own expense, to have an independent, certified public accounting firm, selected by HPP and reasonably acceptable to Calithera, review any such records of Calithera in the location(s) where such records are maintained by Calithera upon reasonable notice (which shall be no less than thirty (30) days prior notice) and during regular business hours and under obligations of strict confidence, for the sole purpose of verifying the basis and accuracy of payments made under Sections 7.5 and 7.6 within the [\*\*\*] period preceding the date of the request for review. The report of such accounting firm shall be limited to a certificate stating whether any report made or payment submitted by Calithera during such period is accurate or inaccurate and the actual amounts of Net Sales and royalties due for such period. Calithera shall receive a copy of each such report concurrently with receipt by HPP. Should such inspection lead to the discovery of a discrepancy to HPP’s detriment, Calithera shall pay within fifteen (15) Business Days after its receipt from the accounting firm of the certificate the amount of the discrepancy. HPP shall pay the full cost of the review unless the underpayment of royalties is greater than [\*\*\*] of the amount due for the applicable period, in which case Calithera shall pay the reasonable cost charged by such accounting firm for such review. Any overpayment of royalties by Calithera revealed by an examination shall be fully creditable against future royalty payments.

7.9 Taxes. HPP shall pay any and all taxes levied on account of all payments it receives under this Agreement. If laws or regulations require that taxes be withheld, Calithera will (a) deduct those taxes from the remittable payment, (b) timely pay the taxes to the proper taxing authority, and (c) send proof of payment to HPP within thirty (30) days after receipt of confirmation of payment from the relevant taxing authority. Calithera will reasonably cooperate with HPP to obtain the benefit of any applicable tax law or treaty, including the pursuit of any refund or credit of such tax to HPP.

7.10 Payment Method and Currency Conversion. All payments to be made by Calithera to HPP shall be in immediately available funds via either a bank wire transfer, an ACH (automated clearing house) mechanism, or any other means of electronic funds transfer, at Calithera's election, to HPP's bank account at [\*\*\*], or to such other bank account as HPP shall designate in a notice at least ten (10) days before the payment is due. HPP's wiring instructions are set forth on Schedule 7.10. For the purposes of determining the amount of any sales milestone payment under Section 7.5 or royalties due for the relevant Calendar Quarter under Section 7.6, the amount of Net Sales in any foreign currency shall be converted into United States dollars in a manner consistent with Calithera's normal practices used to prepare its audited financial reports; provided that such practices use a widely accepted source of published exchange rates. Upon request by HPP, Calithera shall disclose the source for the rates of exchange used.

7.11 Blocked Payments. If by reason of applicable Laws in any country in the Territory, it becomes impossible or illegal for Calithera or its Affiliates or Sublicensees to transfer, or have transferred on its behalf, milestones, royalties or other payments to HPP, Calithera shall promptly notify HPP of the conditions preventing such transfer and such milestones, royalties or other payments shall be deposited in local currency in the relevant country to the credit of HPP in a recognized banking institution designated by HPP or, if none is designated by HPP within a period of thirty (30) days, in a recognized banking institution selected by Calithera or its Affiliate or Sublicensee, as the case may be, and identified in a notice given to HPP. If so deposited in a foreign country, Calithera shall provide, or cause its Affiliate or Sublicensee to provide, reasonable cooperation to HPP so as to allow HPP to assume control over such deposit as promptly as practicable.

7.12 Late Payments. If a Party shall fail to make a timely payment pursuant to the terms of this Agreement, interest shall accrue on the past due amount as follows:

(a) for amounts thirty (30) or fewer days past due, the rate applied shall be the thirty (30) day U.S. dollar LIBOR rate effective for the date that payment was due (as published in the Wall Street Journal), computed for the actual number of days the payment was past due; and

(b) for amounts greater than thirty (30) days past due, the rate applied shall be the thirty (30) day U.S. dollar LIBOR rate effective for the date that payment was due (as published in the Wall Street Journal) plus [\*\*\*] per annum, computed for the actual number of days the payment was past due.

## ARTICLE VIII

### INTELLECTUAL PROPERTY OWNERSHIP, PROTECTION AND RELATED MATTERS

#### 8.1 Ownership of Inventions.

(a) Sole Inventions. Each Party shall exclusively own all inventions made solely by such Party, its employees, agents and consultants ("Sole Inventions"). Sole Inventions made solely by Calithera, its employees, agents and consultants are referred to herein as "Calithera Sole Inventions". Sole Inventions made solely by High Point, its employees, agents and consultants shall be solely owned by HPP and are referred to herein as "High Point Sole Inventions".

(b) Joint Inventions. Calithera and HPP shall jointly own all inventions made jointly by employees, agents and consultants of Calithera, on the one hand, and employees, agents and consultants of High Point, on the other hand, on the basis of each of Calithera and HPP having one-half of an undivided interest in the whole ("Joint Inventions"). Each Party, on behalf of itself and its Affiliates and permitted sublicensees, hereby assigns, agrees to assign or causes to be assigned sufficient of its and its Affiliates' and its permitted sublicensees' right, title and interest in, to and under any Joint Invention as necessary to effect the foregoing joint ownership allocation or any other assignment or license obligation under this Agreement with respect to such Joint Invention. HPP hereby acknowledges and agrees that all of its right, title and interest in, to and under Joint Inventions shall become part of the High Point Intellectual Property and subject to the license set forth in Section 2.1(a).

(c) Inventorship. For purposes of determining whether an invention is a Calithera Sole Invention, a High Point Sole Invention or a Joint Invention, and for purposes of determining inventions with respect to Program Patent Rights, questions of inventorship shall be resolved in accordance with United States patent Laws.

(d) Further Assurances. Each Party shall, and shall cause its Affiliates and permitted sublicensees to, enter into assignment agreements pre-approved and reasonably acceptable to the other Party with Persons involved in the Research Program to obtain such automatic assignment of future inventions, and shall execute all documents necessary to effect such assignment.

8.2 Prosecution and Maintenance of Patent Rights.

(a) Prosecution of Calithera Patent Rights. Except as set forth in Section 12.5(e)(iv), Calithera shall have the sole right to prepare, file, prosecute and maintain the Calithera Patent Rights (including the Program Patent Rights) other than the Joint Patents.

(b) Prosecution of High Point Patent Rights. In accordance with this Section 8.2(b), unless Calithera and HPP otherwise agree in writing and for so long as Calithera retains exclusive rights hereunder, Calithera shall have the right, but not the obligation, and High Point shall reasonably cooperate, with respect to, the preparation, filing, prosecution and maintenance of the High Point Patent Rights (other than the Joint Patents), using Foley Hoag LLP or other counsel of Calithera's choice reasonably acceptable to HPP. The out-of-pocket costs and expenses incurred to prepare, file, prosecute and maintain such High Point Patent Rights shall be [\*\*\*]. Calithera shall notify HPP at least forty-five (45) days prior to the deadline for entering into national phase with respect to any PCT application included in such High Point Patent Rights and identify the countries or regions Calithera intends to enter. No later than fifteen (15) days after receiving notice from Calithera of its intent to enter into national phase, HPP shall provide Calithera with a list of any additional countries or regions ("Additional Territories") in which HPP would like Calithera to file and Calithera shall consider such list in good faith. If Calithera elects to not enter the national phase in one or more Additional Territories, HPP may elect to enter the national phase in such Additional Territories [\*\*\*], any such application or patent (the "Unelected Patent") shall [\*\*\*], and HPP shall have the sole right, but not the obligation, to prepare, file, prosecute and maintain such Unelected Patent.

HPP shall have access to all documentation, filings and communications to or from the respective patent offices, at reasonable times and upon reasonable written notice (which notice may be in e-mail). Calithera shall keep HPP informed of the status of all pending patent applications that pertain to any Program Molecule or any Licensed Product. Calithera, its agents and attorneys shall consider in good faith comments of HPP regarding any aspect of such patent prosecutions. In the event that HPP believes that such patent strategy would have an unreasonable, adverse, economic effect on High Point's rights under this Agreement (including inventorship or the value of any rights that HPP may obtain under Section 12.5), HPP may elect to submit the dispute to an independent Third Party patent counsel mutually agreed by Calithera and HPP, at HPP's cost and expense. If such patent counsel determines that such patent strategy would have an unreasonable, adverse economic effect on High Point's rights under this Agreement (including inventorship or the value of any rights that HPP may obtain under Section 12.5), then Calithera shall incorporate comments and adjust patent strategy as advised by such independent Third Party patent counsel, and Calithera shall [\*\*\*]. If Calithera determines to abandon any High Point Patent Right (other than a Joint Patent) in all or any portion of the Territory (the "Abandoned Patent"), Calithera shall notify HPP of such determination, no later than thirty (30) days before any deadline for further action to avoid abandonment. If HPP wishes to continue to prosecute and maintain the Abandoned Patent, Calithera shall have the option to continue to prosecute and maintain the Abandoned Patent or allow HPP to have the sole right, but not the obligation, to continue to prosecute and maintain the Abandoned Patent [\*\*\*], which for purposes of clarity, shall [\*\*\*] set forth in this Agreement. If HPP is prosecuting and maintaining the Abandoned Patent and High Point determines to abandon such Abandoned Patent, the foregoing rights of HPP set forth in this Section 8.2(a) shall apply to Calithera *mutatis mutandis*. Notwithstanding anything to the contrary, Calithera shall have the option to regain control of prosecution and maintenance of an Abandoned Patent at any time, subject to [\*\*\*] and [\*\*\*] for such Abandoned Patent. If either Calithera or HPP elects to maintain any Abandoned Patent or Unelected Patent, the other shall reasonably cooperate to transfer such maintenance and prosecution thereof.

(c) Prosecution of Joint Patents. Calithera shall be responsible for obtaining, preparing, filing, prosecuting and maintaining Patent Rights, in appropriate countries in the Territory, including the countries reasonably requested by HPP, Covering Joint Inventions (“Joint Patents”). The out-of-pocket costs and expenses incurred to obtain, prosecute and maintain Joint Patents shall be [\*\*\*]. Calithera shall keep HPP informed of the status of all pending Joint Patents. In the event that HPP believes that such patent strategy would have an unreasonable, adverse, economic effect on High Point’s rights under this Agreement (including inventorship or the value of any rights that HPP may obtain under Section 12.5), HPP may elect to submit the dispute to an independent Third Party patent counsel mutually agreed by Calithera and HPP, at HPP’s cost and expense. If such patent counsel determines that such patent strategy would have an unreasonable, adverse economic effect on High Point’s rights under this Agreement (including inventorship or the value of any rights that HPP may obtain under Section 12.5), then Calithera shall incorporate comments and adjust patent strategy as advised by such independent Third Party patent counsel, and Calithera shall [\*\*\*]. Calithera shall not abandon any Joint Patent without at least thirty (30) days’ prior notice to HPP. If Calithera determines to abandon any Joint Patent in all or any portion of the Territory (the “Abandoned Joint Patent”), Calithera shall notify HPP of such determination. If HPP wishes to continue to prosecute and maintain the Abandoned Joint Patent, Calithera shall have the option to continue to prosecute and maintain the Abandoned Joint Patent at its expense or allow HPP to have the sole right, but not the obligation, to continue to prosecute and maintain the Abandoned Joint Patent [\*\*\*]. Notwithstanding anything to the contrary, Calithera shall have the option to regain control of prosecution and maintenance of an Abandoned Joint Patent at any time, subject to [\*\*\*] and [\*\*\*] for such Abandoned Joint Patent. If Calithera or HPP elects to continue to prosecute and maintain any Abandoned Joint Patent, the other shall reasonably cooperate to transfer prosecution and maintenance of such Abandoned Joint Patent.

(d) The Parties acknowledge that Calithera has the right, but not the obligation, at its sole discretion, to submit applicable High Point Patent Rights, Calithera Patent Rights and Joint Patents, and other relevant patent information, to all applicable Governmental Authorities for listing in the Orange Book or any similar listing or statutory or regulatory requirement in any country or regulatory jurisdiction outside the United States. High Point or its Affiliates, as applicable, shall provide, [\*\*\*], all support reasonably necessary for Calithera to exercise its rights under this Section 8.2(d). “Orange Book” means the United States Food and Drug Administration publication titled, “Approved Drug Products with Therapeutic Equivalence Evaluations”, as it may be amended from time to time.



8.3 Third Party Infringement.

(a) Notice. Each Party shall promptly report in writing to the other Party during the Term any known or suspected (i) infringement of any of the High Point Patent Rights (including any Abandoned Patent or Unelected Patent) or Joint Patents (including any Abandoned Joint Patent), or (ii) unauthorized use or misappropriation of any of the High Point Know-How or Know-How in Joint Inventions (an “Infringement Claim”) of which such Party becomes aware, and shall provide the other Party with all available evidence supporting such known or suspected infringement or unauthorized use.

(b) Initial Right to Enforce. Calithera shall have the sole right to enforce the Calithera Patent Rights (including the Program Patent Rights) other than the Joint Patents. Calithera shall have the first right, but not the obligation, to initiate a suit or take other appropriate action that it believes is reasonably required to protect (i.e., prevent or abate actual or threatened infringement or misappropriation of) or otherwise enforce the High Point Intellectual Property (including any Abandoned Patent or Unelected Patent), and the Parties’ rights in Joint Inventions and Joint Patents (including any Abandoned Joint Patent). Any suit by Calithera shall be either in the name of HPP or its Affiliate, the name of Calithera or its Affiliate, or jointly by Calithera, Calithera’s Affiliate(s), HPP and HPP’s Affiliate(s), as may be required by the Law of the forum. For this purpose, High Point shall execute such legal papers and cooperate in the prosecution of such suit as may be reasonably requested by Calithera; provided that [\*\*\*] in connection with such cooperation.

(c) Step-In Right. If Calithera does not initiate a suit or take other appropriate action that it has the initial right to initiate or take pursuant to Section 8.3(b) with respect to the High Point Patent Rights (including any Abandoned Patent or Unelected Patent), Joint Patents (including any Abandoned Joint Patent), High Point Know-How or Know-How in Joint Inventions, against a Third Party as to which the Infringement Claim concerns a product for which a Third Party is seeking or has received marketing approval from the FDA or a corresponding foreign regulatory authority, HPP may provide Calithera with notice of HPP’s intent to initiate a suit or take other appropriate action. If HPP provides such notice and Calithera does not initiate a suit or take other appropriate action to protect the High Point Patent Rights (including any Abandoned Patent or Unelected Patent), Joint Patents (including any Abandoned Joint Patent), High Point Know-How or Know-How in Joint Inventions within sixty (60) days after receipt of such notice from HPP, then HPP shall have the right to initiate a suit or take such other appropriate action that HPP believes is reasonably required to protect the High Point Patent Rights (including any Abandoned Patent or Unelected Patent), Joint Patents (including any Abandoned Joint Patent), High Point Know-How or Know-How in Joint Inventions. Any suit by HPP shall be either in the name of HPP or its Affiliate, the name of Calithera or its Affiliate, or jointly by Calithera, Calithera’s Affiliate(s), HPP and HPP’s Affiliate(s), as may be required by the Law of the forum. For this purpose, Calithera shall execute such legal papers and cooperate in the prosecution of such suit as may be reasonably requested by HPP; provided that [\*\*\*] in connection with such cooperation.

(d) Conduct of Certain Actions; Costs. The Party initiating suit shall have the sole and exclusive right to select counsel for any suit initiated by it pursuant to Section 8.3(b) or 8.3(c). The initiating Party shall assume and pay all of its own out-of-pocket costs incurred in connection with any litigation or proceedings initiated by it pursuant to Sections 8.3(b) and 8.3(c), including the fees and expenses of the counsel selected by it. The other Party shall have the right to participate and be represented in any such suit by its own counsel at its own expense.

(e) Recoveries. In the event a Party assumes control over enforcing any Infringement Claim, the other Party (which, in the case of High Point, shall be HPP) shall be entitled to [\*\*\*] any damages, settlements, accounts of profits, or other financial compensation recovered from a Third Party based upon any such Infringement Claim after deducting from the amount recovered the controlling Party's actual out-of-pocket expenses (including reasonable counsel fees and expenses) incurred in pursuing such Infringement Claim, and the controlling Party may retain the balance.

8.4 Patent Invalidity Claim. Each of the Parties shall promptly notify the other in the event of any legal or administrative action by any Third Party against a High Point Patent Right (including an Abandoned Patent or Unelected Patent) or Joint Patent (including an Abandoned Joint Patent) of which it becomes aware, including any nullity, revocation, reexamination, *inter partes* review, post-grant review, opposition, interference, derivation or compulsory license proceeding. Calithera shall have the sole right to defend against any such action involving a Calithera Patent Right or Program Patent Right. Calithera shall have the first right, but not the obligation, to defend against any such action involving a High Point Patent Right (including an Abandoned Patent or Unelected Patent) or Joint Patent (including an Abandoned Joint Patent) using counsel of its choice and the costs of any such defense shall be [\*\*\*]. High Point, upon request of Calithera, agrees to join in any such action and to cooperate reasonably with Calithera; provided that [\*\*\*] in connection with such cooperation. If Calithera does not defend against any such action involving such Patent Right, then HPP shall have the right, but not the obligation, to defend such action and any such defense shall be [\*\*\*]. Calithera, upon request of HPP, agrees to join in any such action and to cooperate reasonably with HPP; provided that [\*\*\*] in connection with such cooperation.

8.5 Patent Term Extensions. Calithera shall have the exclusive right, and shall use Commercially Reasonable Efforts, to seek patent term extensions or supplemental patent protection, including supplementary protection certificates, in any country in the Territory in relation to the Licensed Products [\*\*\*]. High Point and Calithera shall cooperate in connection with all such activities, and Calithera, its agents and attorneys will give due consideration to all timely suggestions and comments of HPP regarding any such activities; provided that all final decisions shall be made by Calithera.

8.6 Patent Marking. Calithera shall comply with the patent marking statutes in each country in which the Licensed Product is sold by Calithera, its Affiliates or its Sublicensees.

8.7 Interpretation of Patent Judgments. If any claim relating to a patent under the High Point Patent Rights (including an Abandoned Patent or Unelected Patent) or Joint Patent (including an Abandoned Joint Patent) becomes the subject of a judgment, decree or decision of a court, tribunal, or other authority of competent jurisdiction in any country, which judgment, decree, or decision is or becomes final (there being no further right of review) and adjudicates the validity, enforceability, scope, or infringement of the same, the construction of such claim in such judgment, decree or decision shall be followed thereafter in such country in determining whether a product is a Licensed Product hereunder, not only as to such claim but also as to all other claims in such country to which such construction reasonably applies. If at any time there are two or more conflicting final judgments, decrees, or decisions with respect to the same claim, the decision of the higher tribunal shall thereafter control, but if the tribunals be of equal rank, then the final judgment, decree, or decision more favorable to such claim shall control unless and until the majority of such tribunals of equal rank adopt or follow a less favorable final judgment, decree, or decision, in which event the latter shall control.

8.8 Certification under Drug Price Competition and Patent Restoration Act.

(a) Notice. If a Party becomes aware of any certification filed pursuant to 21 U.S. C. § 355(b)(2)(A) or 355(j)(2)(A)(vii) (IV) (or any amendment or successor statute thereto) claiming that any High Point Patent Rights (including an Abandoned Patent or Unelected Patent) Covering a Licensed Product in the Field or Joint Patents (including an Abandoned Joint Patent), are invalid or otherwise unenforceable, or that infringement will not arise from the manufacture, use, import or sale of a product by a Third Party (a "Paragraph IV Claim"), such Party shall promptly notify the other Party in writing within five (5) Business Days after its receipt thereof.

(b) Control of Response. Calithera shall have the right, but not the obligation, to initiate patent infringement litigation for such Paragraph IV Claim, [\*\*\*]. If Calithera elects not to assume control over enforcing any Paragraph IV Claim, Calithera shall notify HPP as soon as practicable but in any event not later than ten (10) days before the first action required to enforce or preserve such Paragraph IV Claim so that HPP may, but shall not be required to, assume sole control over enforcing such Paragraph IV Claim using counsel of its own choice. The Parties shall reasonably cooperate in the prosecution of any Paragraph IV Claim, and share any compensation recovered as a result of such prosecution, as set forth in Section 8.3(e) above; provided that [\*\*\*] in connection with such cooperation.

8.9 Consents as to Joint Inventions and Joint Patents.

(a) During the Term, (i) High Point hereby consents to Calithera having the sole right and authority to control the licensing of the Joint Inventions and Joint Patents and having the rights to prepare, file, prosecute and maintain the Joint Inventions and Joint Patents in accordance with Section 8.2(c), and to enforce the Joint Patents in accordance with Section 8.3, and (ii) Calithera hereby consents to High Point having the right to enforce the Joint Patents in accordance with Section 8.3(c).

(b) Following the Term:

(i) Subject to High Point's rights under Section 12.5, High Point hereby consents to Calithera having the sole right to control the licensing of and prepare, file, prosecute and maintain the Joint Inventions and Joint Patents in accordance with Section 8.2(c).

(ii) If HPP elects to receive the license set forth in Section 12.5(e)(ii), Calithera hereby consents to HPP thereafter having the sole right and authority to control the licensing of the Joint Inventions and Joint Patents solely to make, have made, use, sell, offer for sale and import the Program Molecules and Licensed Products in the Territory and having the rights to prepare, file, prosecute and maintain the Joint Inventions and Joint Patents in accordance with Sections 8.2(c) and 12.5(e)(v), and to enforce the Joint Patents in accordance with Section 12.5(e)(iii).

(iii) Subject to the rights set forth in subclause (ii) above, Calithera and HPP shall mutually agree on the roles and responsibilities after the Term of each of them with respect to the enforcement of Joint Inventions and Joint Patents prior to either of them seeking to enforce any Joint Invention or Joint Patent.

**ARTICLE IX**

**CONFIDENTIAL INFORMATION**

9.1 Treatment of Confidential Information. During the Term and for [\*\*\*] years thereafter, each Party shall maintain Confidential Information (as defined in Section 9.2) of the other Party in confidence, and shall not disclose, divulge or otherwise communicate such Confidential Information to others (except for agents, directors, officers, employees, consultants, Affiliates and advisors (collectively, "Agents") under obligations of confidentiality no less stringent than those contained herein) or use it for any purpose other than in connection with the conduct of the Research Program, or the Development, Manufacture or Commercialization of Program Molecules or Licensed Products pursuant to this Agreement, and each Party shall exercise reasonable efforts to prevent and restrain the unauthorized disclosure of such Confidential Information by any of its Agents, which reasonable efforts shall be at least as diligent as those generally used by such Party in protecting its own confidential and proprietary information. Each Party will be responsible for a breach of this ARTICLE IX by its Agents. For clarity, Calithera may disclose Confidential Information of High Point (a) to Governmental Authorities (i) to the extent desirable to obtain or maintain INDs or Regulatory Approvals for any Program Molecule or Licensed Product within the Territory and (ii) in order to respond to inquiries, requests or investigations by Governmental Authorities; (b) to outside consultants, scientific advisory boards, managed care organizations, and non-clinical and clinical investigators to the extent necessary to Develop or Commercialize any Program Molecule or Licensed Product; and (c) to the extent desirable to obtain Program Patent Rights to protect, or to Develop or Commercialize, any Program Molecule or Licensed Product; provided that Calithera shall obtain the same confidentiality obligations from such Third Parties as it obtains with respect to its own similar types of confidential information.

9.2 Confidential Information. “Confidential Information” means all trade secrets or other proprietary information, including any proprietary data and materials (whether or not patentable or protectable as a trade secret), regarding a Party’s or its licensor’s technology, products, business, financial status or prospects or objectives regarding the Licensed Products, which is disclosed by a Party to the other Party. All information disclosed prior to the Effective Date by HPP to Calithera pursuant to the confidentiality agreement between Calithera and HPP dated as of June 24, 2014, the confidentiality agreement between Calithera and HPP dated as of August 12, 2014, as amended on September 30, 2014, or the material transfer agreements between Calithera and HPP, dated September 30, 2014 and November 5, 2014 (collectively, the “Confidentiality Agreements”) shall be deemed “Confidential Information” of High Point and all information disclosed prior to the Effective Date by Calithera to High Point pursuant to the Confidentiality Agreements and all results from the Research Program shall be deemed “Confidential Information” of Calithera. Notwithstanding the foregoing, there shall be excluded from the foregoing definition of Confidential Information any of the foregoing that:

(a) either before or after the date of the disclosure to the receiving Party is lawfully disclosed to the receiving Party by Third Parties without any violation of any obligation to the other Party; or

(b) either before or after the date of the disclosure to the receiving Party, becomes published or generally known to the public through no fault or omission on the part of the receiving Party or its Agents; or

(c) is independently developed by or for the receiving Party without reference to or reliance upon the Confidential Information as demonstrated by contemporaneous written records of the receiving Party; or

(d) is required to be disclosed by the receiving Party to comply with applicable Laws, to defend or prosecute litigation or to comply with governmental regulations or the regulations or requirements of any stock exchange or securities commission, provided that the receiving Party promptly provides prior notice of such disclosure to the other Party and uses reasonable efforts to avoid or minimize the degree of such disclosure.

9.3 Publication Rights.

(a) High Point shall not, and shall cause its controlled (as such word is defined in Section 1.2) Affiliates and their respective employees, consultants, contractors, licensees and agents not to, publish or publicly present any results of any preclinical or clinical studies with respect to any Program Molecule or Licensed Product without Calithera’s prior written consent, not to be unreasonably withheld, conditioned or delayed. Calithera recognizes the importance of each Party’s ability to make publications and in the spirit of scientific advancement, in the event High Point wishes to publish or publicly present such results, High Point shall submit the proposed publication to the Development Forum sufficiently in advance of the proposed publication date to allow Calithera to review and comment on the draft. Calithera shall advise the Development Forum as to the timing of the proposed comments within thirty (30) days of submission to the Development Forum.

(b) During the Research Term, Calithera shall provide to High Point the opportunity to review any proposed abstracts, manuscripts or summaries of presentations that cover any Program Molecule or Licensed Product as early as reasonably practicable following Calithera's publication of such proposed abstract, manuscript or summary for publication or presentation.

9.4 Restrictions on Material Non-Public Information. Each Party acknowledges that it is aware that the United States securities laws prohibit certain Persons who have received material, non-public information with respect to a public company from purchasing or selling securities of that public company and from communicating such information to any other Person under circumstances in which it is reasonably foreseeable that such Person is likely to purchase or sell such securities. Each Party acknowledges that it is familiar with the United States Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (collectively, the "1934 Act"); and agrees that it will neither use, nor cause or permit any person to use, any Confidential Information in contravention of the 1934 Act, including Rule 10b-5 and Rule 14e-3 thereunder, or other applicable securities laws.

## ARTICLE X

### REPRESENTATIONS, WARRANTIES AND COVENANTS

10.1 High Point's Representations. High Point hereby represents and warrants as of the Effective Date as follows:

(a) High Point has the corporate power and authority to execute and deliver this Agreement and to perform its obligations hereunder. The execution, delivery and performance of this Agreement has been duly and validly authorized and approved by proper corporate action on the part of High Point. High Point has taken all other action required by Law, its certificate of incorporation or by-laws or any agreement to which it is a party or by which it or its assets are bound, to authorize such execution, delivery and (subject to obtaining all necessary governmental approvals with respect to the continued Development of Licensed Products) performance. Assuming due authorization, execution and delivery on the part of Calithera, this Agreement constitutes a legal, valid and binding obligation of High Point, enforceable against High Point in accordance with its terms.

(b) The execution and delivery of this Agreement by High Point and the performance by High Point, or its Affiliates or sublicensees, contemplated hereunder will not violate (subject to obtaining all necessary governmental approvals with respect to High Point's obligations under the Research Program) any United States Law or, to High Point's knowledge, any Law of any Governmental Authority outside the United States.

(c) Neither the execution and delivery of this Agreement nor the performance hereof by High Point, or its Affiliates or sublicensees, requires High Point, or its Affiliates or sublicensees, to obtain any permit, authorization or consent from any Governmental Authority (subject to obtaining all necessary governmental approvals with respect to the continued Development of Licensed Products) or from any other Person, and such execution, delivery and performance by High Point, or its Affiliates or sublicensees, will not result in the breach of or give rise to any termination of, rescission, renegotiation or acceleration under or trigger any other rights under any agreement or contract to which High Point, or its Affiliates or sublicensees, as applicable, may be a party that relates to the High Point Patent Rights or the High Point Know-How, except any that would not, individually or in the aggregate, reasonably be expected to adversely affect Calithera's rights under this Agreement or the ability of High Point, or its Affiliates or sublicensees, to perform its or their respective obligations under this Agreement.

(d) To High Point's knowledge, no Third Party is infringing any of the High Point Patent Rights. To the knowledge of High Point, the issued patents encompassed within High Point Patent Rights are valid and enforceable patents and no Third Party has challenged the validity or enforceability of such patents (including by way of example through the institution or written threat of institution of interference, nullity, revocation or similar invalidity proceedings before the United States Patent and Trademark Office or any equivalent foreign entity).

(e) High Point Controls the High Point Patent Rights identified on Schedule 1.37. None of High Point's controlled (as such term is defined in Section 1.2) Affiliates own or Control any intellectual property related to Hexokinase Inhibitors. No other Person has any right, interest or claim in or to, and High Point has not entered into any agreement granting any right, interest or claim in or to, the High Point Patent Rights or High Point Know-How, including any lien, encumbrance, charge, security interest, mortgage or other similar restriction; provided, however, that High Point makes no representation or warranty as to whether any other Person has independently developed rights to scientific or technical information or related know-how or trade secrets. High Point has entered into assignment agreements with all inventors of the High Point Intellectual Property owned by High Point and, to High Point's knowledge, all assignments to High Point of ownership rights relating to the High Point Patent Rights owned by High Point are valid and enforceable.

(f) Schedule 1.37 is a complete and correct list of all High Point Patent Rights in the Territory owned by or licensed to High Point as of the Effective Date.

(g) There is no action, claim, demand, suit, proceeding, arbitration, grievance, citation, summons, subpoena, inquiry or investigation of any nature, civil, criminal, regulatory or otherwise, in law or in equity, pending or, to High Point's knowledge, threatened, against High Point in connection with any High Point Patent Rights, High Point Know-How or against or relating to the transactions contemplated by this Agreement.

(h) The information relating to High Point's Hexokinase program that was provided by High Point to Calithera prior to the Effective Date is, to High Point's knowledge, true and correct in all material respects.

10.2 Calithera's Representations. Calithera hereby represents and warrants as of the Effective Date as follows:

(a) Calithera has the corporate power and authority to execute and deliver this Agreement and to perform its obligations hereunder. The execution, delivery and performance of this Agreement has been duly and validly authorized and approved by proper corporate action on the part of Calithera. Calithera has taken all other action required by Law, its certificate of incorporation or by-laws or any agreement to which it is a party or by which it or its assets are bound to authorize such execution, delivery and (subject to obtaining all necessary governmental approvals with respect to the Development, Manufacture and Commercialization of Program Molecules and Licensed Products) performance. Assuming due authorization, execution and delivery on the part of High Point, this Agreement constitutes a legal, valid and binding obligation of Calithera, enforceable against Calithera in accordance with its terms.

(b) The execution and delivery of this Agreement by Calithera and the performance by Calithera contemplated hereunder will not violate (subject to obtaining all necessary governmental approvals with respect to the continued Development, Manufacture and Commercialization of Program Molecules and Licensed Products) any United States Law or, to Calithera's knowledge, any Law of any Governmental Authority outside the United States.

(c) There is no action, claim, demand, suit, proceeding, arbitration, grievance, citation, summons, subpoena, inquiry or investigation of any nature, civil, criminal, regulatory or otherwise, in law or in equity, pending or, to the knowledge of Calithera, threatened against Calithera in connection with or relating to the transactions contemplated by this Agreement.

(d) Neither the execution and delivery of this Agreement nor the performance hereof by Calithera requires Calithera to obtain any permit, authorization or consent from any Governmental Authority (subject to obtaining all necessary governmental approvals with respect to the continued Development, Manufacture and Commercialization of Program Molecules and Licensed Products) or from any other Person, and such execution, delivery and performance by Calithera will not result in the breach of or give rise to any termination of, rescission, renegotiation or acceleration under or trigger any other rights under any agreement or contract to which Calithera may be a party that relates to the Licensed Products, Calithera Patent Rights or Calithera Know-How, except any that would not, individually or in the aggregate, reasonably be expected to adversely affect High Point's rights under this Agreement or the ability of Calithera to perform its obligations under this Agreement.



(e) The information relating to Calithera's plans for pursuing a Hexokinase program that was provided by Calithera to High Point prior to the Effective Date is, to Calithera's knowledge, true and correct in all material respects.

10.3 Mutual Covenant. Each Party shall conduct, and shall use reasonable efforts to cause its contractors and consultants to conduct, all of its activities contemplated under this Agreement in accordance with the Act, any similar foreign Law, and all applicable Laws of the country in which such activities are conducted.

10.4 No Warranty. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY HERETO MAKES ANY REPRESENTATION AND EXTENDS NO WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED. IN PARTICULAR, BUT WITHOUT LIMITATION, HIGH POINT MAKES NO REPRESENTATION AND EXTENDS NO WARRANTY CONCERNING WHETHER ANY PROGRAM MOLECULE IS FIT FOR ANY PARTICULAR PURPOSE OR SAFE FOR USE IN HUMANS.

## ARTICLE XI

### INDEMNIFICATION

11.1 Indemnification in Favor of High Point. Calithera shall indemnify, defend and hold harmless the High Point Parties (as hereinafter defined) from and against any and all Losses incurred, suffered or sustained by any of the High Point Parties or to which any of the High Point Parties becomes subject, arising out of, relating to or resulting from any Third Party claim, action, suit, proceeding, liability or obligation (collectively, "Third Party Claims") arising out of, relating to or resulting from:

(a) any misrepresentation or breach of any representation, warranty, covenant or agreement made by Calithera in this Agreement; or

(b) the Development, Manufacture, use or Commercialization of a Program Molecule or Licensed Product by Calithera, its Affiliates or Sublicensees, including all Third Party Claims involving (A) death or bodily injury caused or allegedly caused by the use of a Program Molecule or Licensed Product, and even if a Program Molecule or Licensed Product is altered for use for a purpose not intended or (B) any actual or alleged infringement of any trademark, Patent Right or other intellectual property right, or misappropriation of any trade secret, of any Third Party; or

(c) the gross negligence or willful misconduct of any of the Calithera Parties (as hereinafter defined) in connection with Calithera's performance of this Agreement.

For purposes of this ARTICLE XI, “High Point Parties” means High Point, its Affiliates and their respective licensors, agents, directors, officers, employees and shareholders.

The indemnification obligations set forth in this Section 11.1 shall not apply to the extent that any Loss is the result of a breach of this Agreement by High Point or, with respect to any indemnitee, the gross negligence or willful misconduct of such indemnitee.

11.2 Indemnification in Favor of Calithera. High Point shall indemnify, defend and hold harmless the Calithera Parties from and against any and all Losses incurred, suffered or sustained by any of the Calithera Parties or to which any of the Calithera Parties becomes subject, arising out of, relating to or resulting from any Third Party Claim arising out of, relating to or resulting from:

(a) any misrepresentation or breach of any representation, warranty, covenant or agreement made by High Point in this Agreement; or

(b) the gross negligence or willful misconduct of any of the High Point Parties in connection with High Point’s performance of its obligations under this Agreement.

For purposes of this ARTICLE XI, “Calithera Parties” means Calithera, its Affiliates and their respective agents, directors, officers, employees and shareholders.

The indemnification obligations set forth in this Section 11.2 shall not apply to the extent that any Loss is the result of a breach of this Agreement by Calithera or, with respect to any indemnitee, the gross negligence or willful misconduct of such indemnitee.

11.3 General Indemnification Procedures.

(a) A Person seeking indemnification pursuant to this ARTICLE XI (an “Indemnified Party”) shall give prompt notice to the Party from whom such indemnification is sought (the “Indemnifying Party”) of the commencement or assertion of any Third Party Claim (which in no event includes any claim by any Calithera Party or any High Point Party) in respect of which indemnity may be sought hereunder, shall give the Indemnifying Party such information with respect to any indemnified matter as the Indemnifying Party may reasonably request, and shall not make any admission concerning any Third Party Claim, unless such admission is required by applicable Law or legal process, including in response to questions presented in depositions or interrogatories. Any admission made by the Indemnified Party or the failure to give such notice shall relieve the Indemnifying Party of any liability hereunder only to the extent that the ability of the Indemnifying Party to defend such Third Party Claim is prejudiced thereby (and no admission required by applicable Law or legal process shall be deemed to result in prejudice). The Indemnifying Party shall assume and conduct the defense of such Third Party Claim, with counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party. Subject to the initial and continuing satisfaction of the terms and conditions of this ARTICLE XI, the Indemnifying Party shall have full control of such Third Party Claim, including settlement negotiations and any legal proceedings. If the Indemnifying Party does not assume the defense of such Third Party Claim in accordance with this Section 11.3, the Indemnified Party may defend the Third Party Claim. If both Parties are Indemnifying Parties with respect to the same Third Party Claim, the Parties shall determine by mutual agreement, within twenty (20) days following their receipt of notice of commencement or assertion of such Third Party Claim (or such lesser period of time as may be required to respond properly to such claim), which Party shall assume the lead role in the defense thereof. Should the Indemnifying Parties be unable to mutually agree on which of them shall assume the lead role in the defense of such Third Party Claim, both Indemnifying Parties shall be entitled to participate in such defense through counsel of their respective choosing.

(b) Any Indemnified Party or Indemnifying Party not managing the defense of a Third Party Claim shall have the right to participate in (but not control), at its own expense (subject to the immediately succeeding sentence), the defense. The Indemnifying Party managing the defense shall not be liable for any litigation cost or expense incurred, without its consent, by the Indemnified Party (or an Indemnifying Party not managing the defense) where the action or proceeding is under the control of such Indemnifying Party; provided, however, that if the Indemnifying Party managing the defense fails to take reasonable steps necessary to defend such Third Party Claim, the Indemnified Party may assume its own defense, and the Indemnifying Party managing the defense will be liable for all reasonable costs or expenses paid or incurred in connection therewith.

(c) The Indemnifying Party shall not consent to a settlement of, or the entry of any judgment against an Indemnified Party arising from any such Third Party Claim to the extent such Third Party Claim involves equitable or other non-monetary relief from the Indemnified Party. No Party shall, without the prior written consent of the other Party or the Indemnified Party, enter into any compromise or settlement that commits the other Party or the Indemnified Party to take, or to forbear to take, any action.

(d) The Parties shall cooperate in the defense or prosecution of any Third Party Claim and shall furnish such records, information and testimony, and attend such conferences, discovery proceedings, hearings, trials and appeals, as may be reasonably requested in connection therewith.

(e) Any indemnification hereunder shall be made net of any insurance proceeds actually recovered by the Indemnified Party from unaffiliated Third Parties; provided, however, that if, following the payment to the Indemnified Party of any amount under this ARTICLE XI, such Indemnified Party recovers any such insurance proceeds in respect of the claim for which such indemnification payment was made, the Indemnified Party shall promptly pay an amount equal to the amount of such proceeds (but not exceeding the amount of such net indemnification payment) to the Indemnifying Party.

(f) The Parties agree and acknowledge that the provisions of this ARTICLE XI represent the Indemnified Party's exclusive recourse with respect to any Losses for which indemnification is provided to the Indemnified Party under this ARTICLE XI.

## ARTICLE XII

### TERM AND TERMINATION

12.1 Term. The term of this Agreement (the “Term”) shall commence on the Effective Date and, unless earlier terminated as provided in this ARTICLE XII, shall continue in full force and effect, on a country-by-country and Licensed Product-by-Licensed Product basis until there is no remaining royalty obligation in such country with respect to such Licensed Product, at which time this Agreement shall expire in its entirety with respect to such Licensed Product in such country. The Term shall expire on the date the Agreement has expired with respect to all Licensed Products in all countries in the Territory.

12.2 Termination for Convenience. Calithera shall have the right to terminate this Agreement or the Research Program, at any time and for any reason, upon ninety (90) days’ prior written notice to High Point. If Calithera terminates this Agreement under this Section 12.2, then the provisions of Section 12.5 shall apply.

12.3 Termination for Breach. In the event of a material breach of this Agreement by a Party, Calithera or HPP, as applicable, may give the Party in default notice requiring it to cure such default. If such material breach is not cured within [\*\*\*] days after receipt of such notice, within [\*\*\*] days in the case of a payment breach, or within [\*\*\*] days in the case of a breach of diligence obligations as set forth in ARTICLE VI, Calithera or HPP, as applicable, shall be entitled (without prejudice to any of its other rights conferred on it by this Agreement or under applicable Law) to terminate this Agreement by giving written notice to the defaulting Party, with such termination to take effect immediately. The right of Calithera or HPP to terminate this Agreement as set forth in this Section 12.3 shall not be affected in any way by its waiver of, or failure to take action with respect to, any previous default. If HPP terminates this Agreement under this Section 12.3, then the consequences set forth in Section 12.5 shall apply. In the event that a Party is notified by Calithera or HPP, as applicable, under this Section 12.3 that such Party (as applicable, the “Defaulting Party”) has materially breached this Agreement, and such breach was caused by a sublicensee of the Defaulting Party, and such breach is by its nature curable, then the Defaulting Party shall have an additional [\*\*\*] days after the applicable cure period set forth in the second sentence of this Section 12.3 to cure such breach.

12.4 Termination for Insolvency. This Agreement may be terminated by Calithera or HPP upon written notice to the other if (a) the other Party (HPP or Calithera, respectively) shall make an assignment for the benefit of its creditors, file a petition in bankruptcy, petition or apply to any tribunal for the appointment of a custodian, receiver or trustee for it or a substantial part of its assets, or shall commence any proceeding under any bankruptcy, reorganization, readjustment of debt, dissolution or liquidation law or statute of any jurisdiction, whether now or hereafter in effect; or (b) if there shall have been filed against HPP or Calithera, respectively, any such *bona fide* petition or application, or any such proceeding shall have been commenced against it, in which an order for relief is entered or that remains undismitted or unstayed for a period of [\*\*\*] days or more; or (c) if HPP or Calithera, respectively, by any act or omission shall indicate its consent to, approval of or acquiescence in any such petition, application or proceeding or order for relief or the appointment of a custodian, receiver or trustee for it or any substantial part of its assets, or shall suffer any such custodianship, receivership or trusteeship to continue undischarged or unstayed for a period of [\*\*\*] days or more. Termination shall be effective upon the date specified in such notice. If HPP terminates this Agreement under this Section 12.4, then the provisions of Section 12.5 shall apply. If Calithera terminates this Agreement under this Section 12.4, then the provisions of Section 12.6 shall apply.

12.5 Consequences of Certain Terminations by the Parties. If this Agreement is terminated by Calithera under Section 12.2, or by HPP under Section 12.3 or 12.4, then the license granted to Calithera in Section 2.1 shall terminate, and for a period of [\*\*\*] days after such termination, HPP shall have the exclusive right to elect, via written notice(s) to Calithera, to acquire, license or gain access to all or a portion of the following as set forth in such notice(s). To the extent reasonably accessible and without additional unreimbursed out-of-pocket cost to Calithera, for a reasonable period of time, not to exceed [\*\*\*] but no less than [\*\*\*] after HPP's election under this Section 12.5, Calithera shall provide such elected items and perform such elected activities, subject to applicable Third Party agreements or legal obligations, including to clinical sites, patients, institutional review boards, or Third Party vendors, as to whom Calithera shall provide reasonable letters of introduction as requested by HPP; provided that Calithera may keep a copy of all documents for its records or a sample of any materials:

(a) Regulatory Matters. Ownership of all regulatory filings and Regulatory Approvals relating to the Program Molecules and the Licensed Products, and copies of related material correspondence with Regulatory Authorities, as maintained as of the effective date of termination, and performance by Calithera of the activities set forth on Schedule 12.5(a), subject to reimbursement of reasonable internal costs of Calithera for such transfer, with the reasonable internal rate for Calithera employees' time not to exceed [\*\*\*] per hour; provided that the first [\*\*\*] hours of Calithera employees' time devoted to activities under this Section 12.5(a) shall not be subject to reimbursement;

(b) Pre-clinical and Clinical Matters. All pre-clinical and clinical data, including pharmacology and biology data, specifically relating to Program Molecules and Licensed Products, but excluding any comparison data or business analysis, and performance by Calithera of the activities set forth on Schedule 12.5(b) in each case to the extent in Calithera's possession or control or, if not in Calithera's possession or control, to the extent Calithera's standard operating procedures provide for their preparation;

(c) High Point Documents and Materials. All documents and materials received from High Point;

(d) Manufacturing Matters. Subject to (x) Calithera Patent Rights (which shall be licensed pursuant to Section 12.5(e) below) and (y) Calithera's proprietary information and systems developed independently of this Agreement, subject to applicable agreements or legal obligations including to clinical sites, patients, institutional review boards, or third-party vendors, provided that Calithera may keep a copy of all documents for its records or a sample of any materials:

(i) assignment of each manufacturing agreement for Program Molecules or Licensed Products to HPP (or, where such agreement is not specific to Program Molecules or Licensed Products, the benefit thereof);

(ii) cooperation with HPP in reasonable respects to transfer manufacturing documents and materials which are used (at the time of the termination) by Calithera exclusively in the Manufacture of Program Molecules and Licensed Products to the extent such manufacturing documents and materials are not obtained by HPP pursuant to paragraph (i) above;

(iii) cooperation with HPP in reasonable respects to transfer manufacturing technologies Controlled by Calithera which are used (at the time of the termination) exclusively in the Manufacture of Program Molecules and Licensed Products to the extent such manufacturing documents and materials are not obtained by HPP pursuant to paragraphs (i) and (ii) above, provided that HPP shall pay Calithera's reasonable internal rates and expenses to provide such requested assistance, with the reasonable internal rate for Calithera employees' time not to exceed [\*\*\*] per hour; provided that the first [\*\*\*] hours of Calithera employees' time devoted to activities under this Section 12.5(d)(iii) shall not be subject to reimbursement;

(iv) Calithera's then existing inventory of Program Molecules and Licensed Products to HPP, at [\*\*\*], but only if the following conditions have been met: (A) such Program Molecules and Licensed Products meet the applicable release specifications; (B) Calithera does not reasonably believe the continued use of such Program Molecules and Licensed Products cause safety concerns; and (C) HPP shall not place into commerce products marked with Calithera's House Marks as defined in Section 12.5(f) below;

(v) in the event this Agreement is terminated after Initiation of a Phase III Clinical Trial of a Licensed Product, use of Commercially Reasonable Efforts using Calithera's then existing manufacturing facilities and equipment to Manufacture and supply HPP's requirements of such Licensed Product for a period of no longer than [\*\*\*] after the effective date of termination, at [\*\*\*], provided that HPP shall not place into commerce products marked with Calithera's House Marks as defined in Section 12.5(f) below;

(e) License Grant. At HPP's option, to be exercised no later than [\*\*\*] days after the effective date of termination:

(i) Effective upon the date of termination by Calithera under Section 12.2, or by HPP under Section 12.3 or 12.4, Calithera shall and hereby does grant to HPP a non-exclusive, fully paid-up, non-royalty-bearing, irrevocable, perpetual license, with the right to grant sublicenses under multiple tiers, under the Calithera Know-How solely to the extent required to make, have made, use, sell, offer for sale and import the Program Molecules and the Licensed Products in the Territory; provided that with respect to any Calithera Know-How that Calithera acquired from another Person (by license or otherwise), Calithera shall only be required to grant to HPP a license to such Calithera Know-How to the extent permitted under its agreement with such Person, and, after the effective date of termination, HPP shall pay Calithera or such Person any payment that becomes due to such Person arising from the activities of HPP, its Affiliates or sublicensees relating to the Program Molecules and Licensed Products; provided further that HPP shall execute mutually acceptable documentation to effectuate such agreement;

(ii) Effective upon the date of termination by Calithera under Section 12.2, or by HPP under Section 12.3 or 12.4, Calithera shall and hereby does grant to HPP an exclusive, royalty-bearing, irrevocable, perpetual license, with the right to grant sublicenses under multiple tiers (A) under the Program Patent Rights solely to the extent required to make, have made, use, sell, offer for sale and import Program Molecules and Licensed Products in the Territory, and (B) under the Calithera Patent Rights (that are not Program Patent Rights and that are actually used in the discovery, Development, Commercialization or Manufacture of any Program Molecule or Licensed Product) solely to the extent required to make, have made, use, sell, offer for sale and import the Program Molecules and the Licensed Products in the Territory. In consideration of such license, HPP shall pay to Calithera following the effective date of termination a royalty equal to (y) [\*\*\*] of the royalties set forth in Section 7.6 of net sales of such Licensed Products, if such termination [\*\*\*] or (x) [\*\*\*] of the royalties set forth in Section 7.6 of net sales of such Licensed Products, if such termination [\*\*\*] (in each case with (1) such net sales being determined by applying the definitions of Net Sales *mutatis mutandis* to any sales of such Licensed Products by HPP, its Affiliates or sublicensees, and (2) the duration of such royalty payments being, on a country-by-country basis, the period commencing on the first commercial sale by HPP, its Affiliates or sublicensees in such country and ending on the date on which the manufacture, use, sale, offer for sale or importation of such Program Molecules or such Licensed Products in such country ceases to be Covered by a valid claim of the Calithera Patent Rights or Program Patent Rights (with valid claim to be determined by applying the definition of Valid Claim to Calithera Patent Rights or Program Patent Rights) in such country; provided that, with respect to any Calithera Patent Rights that Calithera acquired from another Person (by license or otherwise), Calithera shall only be required to grant to HPP a license to such Calithera Patent Rights to the extent permitted under its agreement with such Person, and, after the effective date of termination, HPP shall pay Calithera or such Person any payment that becomes due to such Person arising from the activities of HPP, its Affiliates or sublicensees relating to such Program Molecules or such Licensed Products; provided further that HPP shall execute mutually acceptable documentation to effectuate such agreement;

(iii) With respect to enforcement of any Calithera Patent Rights or Program Patent Rights (including Joint Patents) licensed to HPP pursuant to Section 12.5(e)(ii) above, HPP shall have the same rights as Calithera has with respect to High Point Patent Rights pursuant to Section 8.3, but only with respect to infringement that involves the making, using, selling, offering for sale and importing of a product by a Third Party that contains a Hexokinase Inhibitor in the Field in the Territory;

(iv) If Calithera determines to abandon in all or any portion of the Territory any Calithera Patent Right (other than a Joint Patent) licensed to HPP pursuant to Section 12.5(e)(ii) (the "Abandoned Calithera Patent"), Calithera shall notify HPP of such determination, no later than thirty (30) days before any deadline for further action to avoid abandonment.

(A) In the case of any pending application for an Abandoned Calithera Patent, if HPP wishes to continue to prosecute such Abandoned Calithera Patent in such Territory, Calithera may elect to continue to prosecute such Abandoned Calithera Patent in such Territory or allow HPP to have the sole right, but not the obligation, to continue to prosecute such Abandoned Calithera Patent [\*\*\*]. HPP may only elect to continue to prosecute such Abandoned Calithera Patent that exclusively relates to Program Molecules or Licensed Products. To the extent permitted by applicable Laws, a patent application that relates to, but does not exclusively relate to, the Program Molecules or Licensed Products, will be split such that the claims of the patent application only recite subject matter exclusively related to Program Molecules or Licensed Products. Divisionals or other patent applications that do not specifically relate to Program Molecules or Licensed Products shall be excluded from the Calithera Patent Rights licensed to HPP pursuant to Section 12.5(e)(ii).

(B) In the case of any issued Abandoned Calithera Patent, if HPP wishes to continue to maintain such Abandoned Calithera Patent in such Territory, Calithera may elect to continue to maintain such Abandoned Calithera Patent in such Territory or allow HPP to have the sole right, but not the obligation, to continue to maintain the Abandoned Calithera Patent [\*\*\*].

(C) If either Party elects to continue to prosecute and maintain any Abandoned Calithera Patent, the other Party shall reasonably cooperate to transfer such prosecution and maintenance of such Abandoned Calithera Patent;

(v) Calithera shall have the right under Section 8.2(c) to regain control of prosecution and maintenance of any Abandoned Joint Patent licensed to HPP at any time, subject to [\*\*\*] and [\*\*\*] for such Abandoned Calithera Patent. If either Party elects to maintain any Abandoned Calithera Patent, the other Party shall reasonably cooperate to transfer such maintenance and prosecution thereof;

(vi) The roles of HPP and Calithera with respect to patent term extensions under Section 8.5 shall be reversed;



(vii) If Calithera becomes aware of any certification filed pursuant to 21 U.S. C. § 355(b)(2)(A) or 355(j)(2)(A)(vii) (IV) (or any amendment or successor statute thereto) claiming that any Calithera Patent Rights (including an Abandoned Calithera Patent and Joint Patents, including an Abandoned Joint Patent) licensed to HPP pursuant to Section 12.5(e)(ii) are invalid or otherwise unenforceable, or that infringement will not arise from the manufacture, use, import or sale of a product by a Third Party, Calithera shall promptly notify HPP in writing within five (5) Business Days after its receipt thereof;

(f) Assignment of Trademark. Calithera agrees to and hereby assigns to HPP of all of Calithera's right, title and interest in any trademark used solely in connection with the Licensed Products, provided that said assignment shall not include any trademark relating to the name 'Calithera' or the business names or trade names of any of Calithera's Affiliates or Sublicensees ("House Marks").

(g) Limitation on Remedy. In the event this Agreement is terminated by Calithera under Section 12.2, or by High Point under Section 12.3 or 12.4, and HPP elects to obtain any of the items under Section 12.5 then the fair market value of such items obtained by HPP shall be deducted from any damages to which High Point may otherwise be entitled hereunder in connection with such termination.

#### 12.6 Payment of Balance of Quarterly Research Fees.

(a) If Calithera terminates this Agreement or the Research Program during the Research Program Term pursuant to Section 12.2, then HPP shall retain all Quarterly Research Fees paid by Calithera under Section 7.2 prior to the effective date of such termination, and [\*\*\*] the effective date of such termination, which Quarterly Research Fee shall be [\*\*\*] the Research Program [\*\*\*] (or [\*\*\*] the Research Program) [\*\*\*] the date of termination and shall be [\*\*\*] Quarterly Research Fee [\*\*\*].

(b) If Calithera terminates this Agreement or the Research Program during the Research Program Term pursuant to Section 12.3 or 12.4, then HPP shall retain all Quarterly Research Fees paid by Calithera under Section 7.2 prior to the effective date of such termination

(c) For purposes of clarity, a termination of the Research Program shall not constitute a termination of the Agreement, unless explicitly stated in such termination notice.

12.7 Unblock License. Upon termination or expiration of this Agreement (other than a termination by High Point pursuant to Section 12.3 or 12.4), High Point shall and hereby does grant to Calithera a perpetual, irrevocable, fully paid-up, royalty-free, worldwide, non-exclusive license, with the right to grant sublicenses under multiple tiers, under the High Point Sole Inventions conceived under the Research Program, provided that if HPP exercises its option to obtain the license set forth in Section 12.5(e)(ii), Calithera shall have no rights under the license granted under this Section 12.7 to make, have made, use, sell, offer for sale or import Program Molecules or Licensed Products in the Field in the Territory.

12.8 Effect of Termination and Expiration; Accrued Rights and Obligations. Termination of this Agreement for any reason shall not release either Party from any liability that, at the time of such termination, has already accrued or that is attributable to a period prior to such termination (including payment obligations accrued prior to the effective date of termination pursuant to Sections 7.4, 7.5 or 7.6) nor preclude either Party from pursuing any right or remedy it may have hereunder or at Law or in equity with respect to any breach of this Agreement. It is understood and agreed that monetary damages may not be a sufficient remedy for any breach of this Agreement and that the non-breaching Party may be entitled to seek injunctive relief as a remedy for any such breach. HPP shall have no obligation to repay any Quarterly Research Fee paid pursuant to Section 7.2 following any termination of this Agreement.

12.9 Survival. The rights and obligations set forth in this Agreement shall extend beyond the Term or termination of this Agreement only to the extent expressly provided for in this Agreement or to the extent required to give effect to a termination of this Agreement or the consequences of a termination of this Agreement as expressly provided for in this Agreement. Without limiting the generality of the foregoing, it is agreed that the provisions of ARTICLE I, Sections 2.3, 7.6(b) (with respect to the fully paid-up license granted therein), 7.7, 7.8, 7.9, 7.10, 7.11, 7.12, 8.1, 8.2(a), 8.2(c) (and with respect to Calithera Patent Rights, Joint Patents and Joint Inventions, only, and subject to Sections 8.9(b) and 12.5(e), Sections 8.2(d), 8.3, 8.4, 8.7 and 8.8), 8.5 (subject to Section 12.5(e)(vi)), 8.9(b), 9.1, 9.2, 9.4, 11.1, 11.2, 11.3, 12.5, 12.6, 12.7, 12.8, 12.9, 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.8, 13.9, 13.10, 13.11, 13.12, 13.13, 13.14, 13.15, 13.16 and 13.17 shall survive expiration or termination of this Agreement for any reason.

### ARTICLE XIII

#### MISCELLANEOUS

13.1 Governing Law. This Agreement shall be governed by and interpreted in accordance with the internal laws of the State of Delaware, without regard to its conflicts of laws rules.

13.2 Jurisdiction. Each Party (a) irrevocably submits to the exclusive jurisdiction in any state or federal court sitting in Wilmington, Delaware (collectively, the "Courts"), for purposes of any action, suit or other proceeding arising out of this Agreement, and (b) agrees not to raise any objection at any time to the laying or maintaining of the venue of any such action, suit or proceeding in any of the Courts, irrevocably waives any claim that such action, suit or other proceeding has been brought in an inconvenient forum and further irrevocably waives the right to object, with respect to such action, suit or other proceeding, that such Court does not have any jurisdiction over such Party. Either Party may serve any process required by such Courts by way of notice under this Agreement pursuant to Section 13.4.

13.3 Waiver. Waiver by a Party of a breach hereunder by the other Party shall not be construed as a waiver of any succeeding breach of the same or any other provision. No delay or omission by a Party to exercise or avail itself of any right, power or privilege that it has or may have hereunder shall operate as a waiver of any right, power or privilege by such Party. No waiver shall be effective unless made in writing with specific reference to the relevant provision(s) of this Agreement and signed by a duly authorized representative of the Party granting the waiver.

13.4 Notices. All notices, instructions and other communications hereunder or in connection herewith shall be in writing, shall be sent to the address specified in this Section 13.4 and shall be: (a) delivered personally; (b) sent by registered or certified mail, return receipt requested, postage prepaid; (c) sent via a reputable nationwide overnight courier service; or (d) sent by facsimile transmission. Any such notice, instruction or communication (except as provided expressly herein) shall be deemed to have been delivered upon receipt if delivered by hand, three (3) Business Days after it is sent by registered or certified mail, return receipt requested, postage prepaid, one (1) Business Day after it is sent via a reputable nationwide overnight courier service, or when transmitted with electronic confirmation of receipt, if transmitted by facsimile (if such transmission is on a Business Day; otherwise, on the next Business Day following such transmission).

Notices to Calithera shall be addressed to:

Calithera Biosciences Inc.  
343 Oyster Point Blvd #200  
South San Francisco, CA 94080  
Attention: Curtis Hecht  
Vice President, Business and Corporate Development  
Facsimile: (650) 588-5272

with a copy to:

Calithera Biosciences Inc.  
343 Oyster Point Blvd #200  
South San Francisco, CA 94080  
Attention: Terri Davis  
Associate Director, Intellectual Property and Legal Affairs  
Facsimile: (650) 319-8093

and

Foley Hoag LLP  
Seaport West  
155 Seaport Boulevard  
Boston, MA 02210-2600  
Attention: Hemmie Chang  
Facsimile: 617-832-7000

Notices to High Point shall be addressed to:

High Point Pharmaceuticals, LLC  
4170 Mendenhall Oaks Parkway  
High Point, NC 27265  
Attention: President  
Facsimile: 336-841-0310

with a copy to:

TransTech Pharma LLC  
4170 Mendenhall Oaks Parkway  
High Point, NC 27265  
Attention: President  
Facsimile: 336-841-0310

Either Party may change its address by giving notice to the other Party in the manner provided above.

13.5 Entire Agreement. This Agreement (including Schedules) contains the complete understanding of the Parties with respect to the research, Development, Manufacture and Commercialization of Program Molecules and Licensed Products and supersedes all prior understandings and writings relating to such subject matter. In particular, and without limitation, it supersedes and replaces the Confidentiality Agreements and any and all term sheets relating to the transactions contemplated by this Agreement and exchanged between the Parties prior to the Effective Date.

13.6 Headings. Headings in this Agreement are for convenience of reference only and shall not be considered in construing this Agreement.

13.7 Severability. If any provision of this Agreement is held unenforceable by a court or tribunal of competent jurisdiction because it is invalid or conflicts with any Law of any relevant jurisdiction, the validity of the remaining provisions shall not be affected. In such event, the Parties shall negotiate a substitute provision that, to the extent possible, accomplishes the original business purpose.

13.8 Registration and Filing of the Agreement. To the extent a Party determines in good faith that it is required by applicable Law to publicly file, register or notify this Agreement with a Governmental Authority, including public filings pursuant to securities Laws, it shall provide the proposed redacted form of the Agreement to the other Party a reasonable amount of time prior to filing for the other Party to review such draft and propose changes to such proposed redactions. The Party making such filing, registration or notification shall incorporate any proposed changes timely requested by the other Party, absent a substantial reason to the contrary, and shall use commercially reasonable efforts to seek confidential treatment for any terms that the other Party timely requests be kept confidential, to the extent such confidential treatment is reasonably available consistent with applicable Law. Each Party shall be responsible for its own legal and other external costs in connection with any such filing, registration or notification.

13.9 Assignment. Neither this Agreement nor any right or obligation hereunder may be assigned or otherwise transferred by Calithera, HPP or TransTech (the “Assignor”) without the consent of the other Party; provided, however, that an Assignor may, without such consent, assign this Agreement, in whole or in part: (i) to any of its Affiliates, provided that the Assignor shall remain jointly and severally liable with such Affiliate in respect of all obligations so assigned or transferred and such Affiliate has acknowledged and confirmed in writing that, effective as of such assignment or other transfer, such Affiliate shall be bound by this Agreement as if it were a party to it as and to the identical extent applicable to the Assignor; or (ii) to any successor in interest by way of merger, acquisition or sale of all or substantially all of its assets to which this Agreement relates, provided that such successor agrees in writing to be bound by the terms of this Agreement as if it were the Assignor and to assume all obligations of the Assignor under this Agreement. Any purported assignment or transfer in violation of this Section 13.9 shall be void. Notwithstanding the foregoing provisions of this Section 13.9, each Party acknowledges and agrees that the other Party may satisfy any of its performance obligations under this Agreement through permitted sublicensees in accordance with Section 2.1(b) or 2.2(b).

13.10 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. Such counterparts may be exchanged by facsimile or PDF (provided that each executed counterpart is transmitted in one complete transmission or electronic mail message). Where there is an exchange of executed counterparts by facsimile or PDF, each Party shall be bound by the Agreement notwithstanding that original copies of the Agreement may not be exchanged immediately. The Parties shall cooperate after execution of the Agreement and exchange by facsimile or PDF to ensure that each Party obtains an original executed copy of this Agreement with reasonable promptness.

13.11 Force Majeure. No Party shall be liable for failure of or delay in performing obligations set forth in this Agreement, and no Party shall be deemed in breach of its obligations, if such failure or delay is due to a natural disaster, explosion, fire, flood, tornadoes, thunderstorms, earthquake, war, terrorism, riots, embargo, losses or shortages of power, labor stoppage, substance or material shortages, damage to or loss of product in transit, events caused by reason of Laws of any Governmental Authority, events caused by acts or omissions of a Third Party, or any other cause reasonably beyond the control of such Party.

13.12 Press Releases and Other Disclosures. The Parties hereby each approve the forms of separate press releases set forth in Schedule 13.12 hereto and will cooperate in the release thereof as soon as practicable after the Effective Date. The Parties also recognize that each Party may from time to time desire to issue additional press releases and make other public statements or disclosures regarding the subject matter of this Agreement. In such event, subject to Section 9.4, the Party desiring to issue an additional press release or make a public statement or disclosure shall provide the other Party with a copy of the proposed press release, statement or disclosure for review and approval in advance, which advance approval shall not be unreasonably withheld, conditioned or delayed (except that neither Party shall have any obligation to disclose Confidential Information except to the extent required or permitted pursuant to ARTICLE IX). No other public statement or disclosure concerning the existence or terms of this Agreement shall be made, either directly or indirectly, by either Party, without first obtaining the written approval of the other Party. Once any public statement or disclosure has been approved in accordance with this Section, then either Party may appropriately communicate information contained in such permitted statement or disclosure. Notwithstanding the foregoing provisions of this Section 13.12 or of ARTICLE IX, a Party may (a) disclose the existence and terms of the this Agreement where required, as reasonably determined by the disclosing Party, by applicable Law, by applicable stock exchange regulation or by order or other ruling of a competent court, (b) disclose the existence and terms of this Agreement under obligations of confidentiality to agents, advisors, contractors, investors and sublicensees, and to potential agents, advisors, contractors, investors and sublicensees, in connection with such Party’s activities hereunder and in connection with such Party’s financing activities and (c) publicly announce any of the matters set forth in Schedule 13.12, provided that such announcements do not entail disclosure of non-public technical or scientific information (which, for purposes of clarity, excludes clinical trial results) and the announcing Party provides the other Party with a copy of the proposed text of such announcement sufficiently in advance of the scheduled release or publication thereof to afford such other Party a reasonable opportunity to review and comment upon the proposed text.

13.13 Third Party Beneficiaries. None of the provisions of this Agreement shall be for the benefit of or enforceable by any Third Party other than an indemnitee under ARTICLE XI. No such Third Party shall obtain any right under any provision of this Agreement or shall by reason of any such provision make any claim in respect of any debt, liability or obligation (or otherwise) against either Party.

13.14 Relationship of the Parties. Each Party shall bear its own costs incurred in the performance of its obligations hereunder without charge or expense to the other, except as expressly provided in this Agreement. Neither Party shall have any responsibility for the hiring, termination or compensation of the other Party's employees or for any employee compensation or benefits of the other Party's employees. No employee or representative of a Party shall have any authority to bind or obligate the other Party for any sum or in any manner whatsoever, or to create or impose any contractual or other liability on the other Party without said other Party's approval. For all purposes, and notwithstanding any other provision of this Agreement to the contrary, the legal relationship under this Agreement of each Party to the other Party shall be that of independent contractor. Nothing in this Agreement shall be construed to establish a relationship of partners or joint venturers between the Parties.

13.15 Performance by Affiliates. To the extent that this Agreement imposes obligations on Affiliates of a Party, such Party agrees to cause its Affiliates to perform such obligations.

13.16 Construction. Each Party acknowledges that it has been advised by counsel during the course of negotiation of this Agreement, and, therefore, that this Agreement shall be interpreted without regard to any presumption or rule requiring construction against the Party causing this Agreement to be drafted. Any reference in this Agreement to an Article, Section, subsection, paragraph, clause or Schedule shall be deemed to be a reference to any Article, Section, subsection, paragraph, clause or Schedule, of or to, as the case may be, this Agreement. Except where the context otherwise requires, (a) wherever used, the use of any gender will be applicable to all genders, (b) the word “or” is used in the inclusive sense (and/or), (c) any definition of or reference to any agreement, instrument or other document refers to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein or therein), (d) any reference to any Laws refers to such Laws as from time to time enacted, repealed or amended, (e) the words “herein”, “hereof” and “hereunder”, and words of similar import, refer to this Agreement in its entirety and not to any particular provision hereof, (f) the words “include”, “includes” and “including” shall be deemed to be followed by the phrase “but not limited to”, “without limitation” or words of similar import, and (g) all dollar (\$) amounts specified herein are United States dollar amounts.

13.17 No Consequential or Punitive Damages. NEITHER PARTY WILL BE LIABLE FOR INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY OR PUNITIVE DAMAGES, INCLUDING LOST PROFITS, ARISING FROM OR RELATING TO THIS AGREEMENT, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES. NOTHING IN THIS SECTION 13.17 IS INTENDED TO LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF EITHER PARTY UNDER THIS AGREEMENT WITH RESPECT TO THIRD PARTY CLAIMS, OR WITH RESPECT TO THE INFRINGEMENT OR MISAPPROPRIATION OF THE OTHER PARTY’S INTELLECTUAL PROPERTY RIGHTS OR CONFIDENTIAL INFORMATION.

*[Remainder of page intentionally left blank.]*

IN WITNESS WHEREOF, the Parties have signed this Agreement as of the Effective Date.

**CALITHERA BIOSCIENCES INC.**

By: /s/ Susan Molineaux  
Name: Susan Molineaux, Ph.D.  
Title: President & CEO

**HIGH POINT PHARMACEUTICALS, LLC**

By: /s/ Stephen L. Holcombe  
Name: Stephen L. Holcombe  
Title: President & CFO

**TRANSTECH PHARMA LLC**

By: /s/ Stephen L. Holcombe  
Name: Stephen L. Holcombe  
Title: President & CFO



Schedule 1.33

Hexokinase Inhibitor Assay

[\*\*\*]

Schedule 1.37

High Point Patent Rights

<b>File No.</b>	<b>Application No.</b>	<b>Filing Date</b>	<b>Assignee</b>	<b>Title</b>	<b>Status</b>
[***]	[***]	[***]	[***]	[***]	[***]

<b>File No.</b>	<b>Application No.</b>	<b>Filing Date</b>	<b>Assignee</b>	<b>Title</b>	<b>Status</b>
[***]	[***]	[***]	[***]	[***]	[***]

**Schedule 1.66**

**Research Plan**

[\*\*\*]

[\*\*\*]

[\*\*\*]

**Schedule 7.2**

(a)

Maximum Number of FTEs during Research Program Term	FTE Rate	Maximum Annual Payment by Calithera	Maximum Quarterly Payment by Calithera (Prorated for four (4) FTEs)
Four (4)	\$275,000	\$1,100,000	\$275,000

(b)

Minimum Number of FTEs during Research Program Term	FTE Rate	Minimum Annual Payment by Calithera	Minimum Quarterly Payment by Calithera (Prorated for three (3) FTEs)
***]	\$275,000	\$[***]	\$[***]

(c)

	Q1	Q2	Q3	Q4
Minimum Fee (Prorated for [***] FTEs)	\$[***]	\$[***]	\$[***]	\$[***]
Maximum Fee (Prorated for four (4) FTEs)	\$275,000	\$275,000	\$275,000	\$275,000

**Schedule 7.10**

**HPP Wiring Instructions**

Account Name: High Point Pharmaceuticals LLC  
Account Number: [\*\*\*]  
Routing Number: [\*\*\*] (for domestic transfers)  
SWIFT Code: [\*\*\*] (for international transfers)



Schedule 12.5(a).

Transition of Regulatory Matters

[\*\*\*]

**Schedule 12.5(b)**

**Transition of Pre-Clinical and Clinical Matters**

[\*\*\*]

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[\*\*\*]

[\*\*\*]

[\*\*\*]

[\*\*\*]



**Calithera Biosciences Gains Exclusive, Worldwide License to TransTech Pharma’s Hexokinase II Inhibitor Program**

South San Francisco, Calif., March 05, 2015 --(GLOBE NEWSWIRE)-- Calithera Biosciences, Inc. (NASDAQ:CALA), a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, announced today an exclusive global license agreement with TransTech Pharma, a clinical stage pharmaceutical company, granting Calithera exclusive world-wide rights to research, develop and commercialize TransTech’s portfolio of hexokinase II inhibitors. Hexokinase II is the first and rate-limiting enzyme in the pathway that enables cancer cells to convert glucose to energy and building blocks that feed cancer cell growth. Under the terms of the agreement, Calithera will obtain exclusive, worldwide rights to TransTech’s hexokinase II inhibitors for research, development and commercialization. TransTech will receive an upfront payment and will be eligible to receive future development and commercialization milestones as well as royalties on sales of approved products.

“TransTech’s hexokinase II inhibitor program will further expand Calithera’s portfolio of pre-clinical programs and solidify our leadership in the area of tumor metabolism drug research and development as we are now able to target two essential nutrients that cancer cells rely on for growth and survival: glutamine and glucose,” said Susan M. Molineaux, CEO, Calithera Biosciences. “We believe we can apply our expertise to rapidly advance TransTech’s potent small-molecule hexokinase II inhibitors into the clinic to become our third potential first-in-class therapy for cancer patients.”

**About Tumor Metabolism and Hexokinase II Inhibitors**

The field of tumor metabolism seeks to exploit the unique ways in which cancer cells take up and utilize nutrients in order to grow and proliferate. Cancer cells have altered cellular metabolic pathways to acquire and utilize these nutrients and redirect them to provide the necessary building blocks for growth. When these metabolic pathways are blocked, cancer cells are essentially starved of critical nutrients and stop growing or die, whereas normal cells are largely unaffected.



Most cancer cells have increased uptake of the sugar glucose relative to surrounding normal cells. This phenomenon forms the basis for the widely used tumor imaging procedure known as  $^{18}\text{F}$ -2-deoxyglucose (FDG)/PET. Tumors take up more FDG, a radioactive glucose analog, than the surrounding normal tissue and this differential can be visualized with PET imaging. Not only do tumors take up more glucose, but they also utilize the nutrient in a unique way. Tumors convert glucose into lactic acid in a process known as aerobic glycolysis or the “Warburg effect”, a route rarely utilized in normal cells. This unique uptake and processing of glucose by tumors relative to normal tissue creates an opportunity to selectively target tumors by cutting off their ability to use this fuel.

In many cancers, hexokinase II is over expressed and has been linked to more aggressive and invasive tumors. Pre-clinical studies in mice have confirmed that the reduction of hexokinase II activity through genetic deactivation (siRNA knockdown studies) results in a significant reduction of tumor growth. The hexokinase inhibitors in-licensed from TransTech may provide an opportunity to inhibit the unique way cancer cells utilize glucose, and the overall Warburg effect, which could result in new treatments for cancer.

#### **About Calithera Biosciences**

Calithera Biosciences, Inc. is a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer. Calithera’s lead product candidate, CB-839, an orally bioavailable inhibitor of glutaminase, is currently being evaluated in three Phase 1 clinical trials in solid and hematological cancers. Calithera is headquartered in South San Francisco. For more information about Calithera, please visit [www.calithera.com](http://www.calithera.com).

#### **About TransTech Pharma**

TransTech Pharma, LLC is a privately held, clinical-stage pharmaceutical company focused on the discovery and development of human therapeutics to fill unmet medical needs. The Company’s high-throughput drug discovery platform, Translational Technology®, translates the functional modulation of human proteins into safe and effective medicines. TransTech Pharma, LLC has a pipeline of small-molecule clinical and pre-clinical drug candidates for the treatment of a wide range of human diseases, including central nervous system disorders, diabetes and metabolic disorders, inflammation and oncology. For further company information, visit <http://www.ttpharma.com>

## Forward-Looking Statements

This news release contains forward-looking statements by Calithera that involve risks and uncertainties. These statements include those related to Calithera's ability to rapidly advance TransTech's potent small-molecule hexokinase II inhibitors into the clinic; that hexokinase II inhibitors may have therapeutic potential in the treatment of cancer; and the potential of tumor metabolism pathways to be transformational in the treatment of cancer. Actual results may differ from Calithera's expectations and important factors that could cause actual results to differ materially. Calithera's hexokinase II inhibitor program or other potential product candidates that Calithera develops may not progress through clinical development or receive required regulatory approvals within expected timelines or at all. In addition, clinical trials may not confirm any safety, potency or other product characteristics described or assumed in this press release. Such product candidates may not be beneficial to patients or successfully commercialized. The failure to meet expectations with respect to any of the foregoing matters may have a negative effect on Calithera's stock price. Additional information concerning these and other risk factors affecting Calithera's business can be found in Calithera's Quarterly Report on Form 10-Q for the period ended September 30, 2014 and other periodic filings with the Securities and Exchange Commission at [www.sec.gov](http://www.sec.gov). These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, Calithera disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

**SOURCE:** Calithera Biosciences, Incorporated

### CONTACT:

Jennifer McNealey

Calithera Biosciences, Inc.

[ir@Calithera.com](mailto:ir@Calithera.com)

650-870-1071

**Schedule 13.12 (cont'd)**

**Press Releases**

**TransTech Pharma and Calithera Biosciences Enter Into Worldwide Licensing Agreement for Hexokinase II Inhibitor Program**

High Point, NC, March 05, 2015 - TransTech Pharma, LLC today announced a global licensing agreement granting Calithera Biosciences, Inc. exclusive world-wide rights to research, develop and commercialize TransTech's portfolio of hexokinase II inhibitors. TransTech will receive an upfront payment and will be eligible to receive future development and commercialization milestones as well as royalties on sales of approved products.

Hexokinase II is the first enzyme in the pathway that enables cancer cells to convert glucose to energy and building blocks required for cancer cell growth. The Warburg effect describes the particular reliance of cancer cells on glycolysis for energy and tumor cell survival. FDG-PET imaging of cancer and diagnosis in the clinic exploits the Warburg effect by detection of increased uptake of a glucose analogue by cancer cells. Increased glycolysis has been posited to be an essential part of carcinogenesis, conferring a significant growth advantage as well as promoting typical tumor progression making it a new promising modality for treatment of cancer.

"We are excited to be partnering our hexokinase II program with Calithera. We selected Calithera because of their specific expertise and focus in tumor metabolism research and development and look forward to our continued partnership. This portfolio of hexokinase II inhibitors was discovered using our Translational Technology® which has also been utilized in the discovery of our other clinical and preclinical programs," said Stephen L. Holcombe, President and CFO, TransTech Pharma, LLC.

**About TransTech Pharma, LLC**

TransTech Pharma, LLC is a privately held, clinical-stage pharmaceutical company focused on the discovery and development of human therapeutics to fill unmet medical needs. The Company's high-throughput drug discovery platform, Translational Technology®, translates the functional modulation of human proteins into safe and effective medicines. TransTech Pharma, LLC has a pipeline of small-molecule clinical and pre-clinical drug candidates for the treatment of a wide range of human diseases, including Alzheimer's disease, diabetes and other metabolic disorders, inflammation and oncology. For further company information, visit <http://www.ttpharma.com>

**About Calithera Biosciences, Inc.**

Calithera Biosciences, Inc. (NASDAQ:CALA) is a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer. Calithera's lead product candidate, CB-839, an orally bioavailable inhibitor of glutaminase, is currently being evaluated in three Phase 1 clinical trials in solid and hematological cancers. Calithera is headquartered in South San Francisco. For more information about Calithera, please visit [www.calithera.com](http://www.calithera.com).

**Contact:**

TransTech Pharma, LLC  
Nura Strong  
336-841-0300 ext 164  
[nstrong@tppharma.com](mailto:nstrong@tppharma.com)

## vTv Therapeutics Inc. 2015 Omnibus Equity Incentive Plan

1. **Purpose.** The vTv Therapeutics Inc. 2015 Omnibus Equity Incentive Plan (the “**Plan**”) is intended to help vTv Therapeutics Inc., a Delaware corporation (including any successor thereto, the “**Company**”) and its Affiliates (i) attract and retain key personnel by providing them the opportunity to acquire an equity interest in the Company or other incentive compensation measured by reference to the value of Common Stock and (ii) align the interests of key personnel with those of the Company’s shareholders.
  2. **Effective Date; Duration.** The Plan shall be effective as of [ ], 2015 (the “**Effective Date**”). The expiration date of the Plan, on and after which date no Awards may be granted, shall be the tenth anniversary of the Effective Date; provided, however, that such expiration shall not affect Awards then outstanding, and the terms and conditions of the Plan shall continue to apply to such Awards.
  3. **Definitions.** The following definitions shall apply throughout the Plan.
    - (a) “**Affiliate**” means (i) any person or entity that directly or indirectly controls, is controlled by or is under common control with the Company and/or (ii) to the extent provided by the Committee, any person or entity in which the Company has a significant interest. The term “control” (including, with correlative meaning, the terms “controlled by” and “under common control with”), as applied to any person or entity, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such person or entity, whether through the ownership of voting or other securities, by contract or otherwise.
    - (b) “**Award**” means, individually or collectively, any Incentive Stock Option, Nonqualified Stock Option, Stock Appreciation Right, Restricted Stock, Restricted Stock Unit, Other Stock-Based Award and/or Performance Compensation Award granted under the Plan.
    - (c) “**Beneficial Ownership**” has the meaning set forth in Rule 13d-3 promulgated under Section 13 of the Exchange Act.
    - (d) “**Board**” means the Board of Directors of the Company.
    - (e) “**Cause**” means, in the case of a particular Award, unless the applicable Award agreement states otherwise, the Company or an Affiliate having “cause” to terminate the Participant’s employment or service, (i) as such term is defined in any employment, consulting, change-in-control, severance or any other agreement between the Participant and the Company or an Affiliate in effect at the time of such termination or (ii) in the absence of any such employment, consulting, change-in-control, severance or any other agreement (or the absence of any definition of “cause” or term of similar import therein), due to the Participant’s (A) willful misconduct or gross neglect of his duties; (B) having engaged in conduct harmful (whether financially, reputationally or otherwise) to the Company or an Affiliate; (C) failure or refusal to perform his duties; (D) conviction of, or guilty or no contest plea to, a felony or any crime involving dishonesty or moral turpitude; (E) willful violation of the written policies of the Company or an Affiliate; (F) misappropriation or misuse of Company or Affiliate funds or property or other act of personal dishonesty in connection with his employment; or (G) willful breach of fiduciary duty. The determination of whether Cause exists shall be made by the Committee in its sole discretion.
    - (f) “**Change in Control**” shall, in the case of a particular Award, unless the applicable Award agreement (or any employment, consulting, change-in-control, severance or other agreement between the Participant and the Company or an Affiliate) states otherwise, be deemed to occur upon any of the following events:
-

(i) the acquisition by any Person of Beneficial Ownership of 50% or more (on a fully diluted basis) of either (A) the then outstanding shares of Common Stock, including Common Stock issuable upon the exercise of options or warrants, the conversion of convertible stock or debt, and the exercise of any similar right to acquire such Common Stock (the “**Outstanding Company Common Stock**”); or (B) the combined voting power of the then outstanding voting securities of the Company entitled to vote in the election of directors (the “**Outstanding Company Voting Securities**”); but excluding any acquisition by the Company or any of its Affiliates, or by Ronald O. Perelman or, his Permitted Transferees or any of their respective Affiliates or by any employee benefit plan sponsored or maintained by the Company or any of its Affiliates;

(ii) a change in the composition of the Board such that members of the Board during any consecutive 12-month period (the “**Incumbent Directors**”) cease to constitute a majority of the Board. Any person becoming a director through election or nomination for election approved by a valid vote of at least two-thirds of the Incumbent Directors shall be deemed an Incumbent Director; provided, however, that no individual becoming a director as a result of an actual or threatened election contest, as such terms are used in Rule 14a-12 of Regulation 14A promulgated under the Exchange Act, or as a result of any other actual or threatened solicitation of proxies or consents by or on behalf of any person other than the Board shall be deemed to be an Incumbent Director;

(iii) the approval by the shareholders of the Company of a plan of complete dissolution or liquidation of the Company; or

(iv) the consummation of a reorganization, recapitalization, merger, consolidation, statutory share exchange or similar form of corporate transaction involving the Company (a “**Business Combination**”), or sale, transfer or other disposition of all or substantially all of the business or assets of the Company to an entity that is not an Affiliate of the Company (a “**Sale**”), unless immediately following such Business Combination or Sale: (A) more than 50% of the total voting power of the entity resulting from such Business Combination or the entity that acquired all or substantially all of the business or assets of the Company in such Sale (in either case, the “**Surviving Company**”), or the ultimate parent entity that has Beneficial Ownership of sufficient voting power to elect a majority of the board of directors (or analogous governing body) of the Surviving Company (the “**Parent Company**”), is represented by the Outstanding Company Voting Securities that were outstanding immediately prior to such Business Combination or Sale (or, if applicable, is represented by shares into which the Outstanding Company Voting Securities were converted pursuant to such Business Combination or Sale), and such voting power among the holders thereof is in substantially the same proportion as the voting power of the Outstanding Company Voting Securities among the holders thereof immediately prior to the Business Combination or Sale, (B) no Person (other than any employee benefit plan sponsored or maintained by the Surviving Company or the Parent Company), is or becomes the beneficial owner, directly or indirectly, of 50% or more of the total voting power of the outstanding voting securities eligible to elect members of the board of directors (or the analogous governing body) of the Parent Company (or, if there is no Parent Company, the Surviving Company) and (C) at least a majority of the members of the board of directors (or the analogous governing body) of the Parent Company (or, if there is no Parent Company, the Surviving Company) following the consummation of the Business Combination or Sale were Board members at the time of the Board’s approval of the execution of the initial agreement providing for such Business Combination or Sale.

Notwithstanding the foregoing, a “Change in Control” shall not be deemed to have occurred if immediately after the occurrence of any of the events described in clauses (i)–(iv) above, a Designated Holder or Designated Holders are the Beneficial Owners, directly or indirectly, of more than 50% of the combined voting power of the Company or any successor.

(g) “Class A Common Stock” means the Class A common stock of the Company, par value \$0.01 per share (and any stock or other securities into which such common shares may be converted or into which it may be exchanged).

(h) “Code” means the U.S. Internal Revenue Code of 1986, as amended, and any successor thereto. References to any section of the Code shall be deemed to include any regulations or other interpretative guidance under such section, and any amendments or successors thereto.

(i) “Committee” means the Compensation Committee of the Board or subcommittee thereof if required with respect to actions taken to obtain the exception for performance-based compensation under Section 162(m) of the Code or to comply with Rule 16b-3 promulgated under the Exchange Act in respect of Awards or, if no such Compensation Committee or subcommittee thereof exists, the Board.

(j) “Common Stock” means collectively or individually the Class A Common Stock.

(k) “Designated Holder” means (i) MacAndrews and Forbes; (ii) any Affiliate or subsidiary of MacAndrews and Forbes; (iii) Ronald O. Perelman; or (iv) the estate of, Immediate Family of or any other trust or other legal entity the primary beneficiary of which is the Immediate Family of Ronald O. Perelman.

(l) “Disability” means cause for termination of the Participant’s employment or service due to a determination that the Participant is disabled in accordance with a long-term disability insurance program maintained by the Company or a determination by the U.S. Social Security Administration that the Participant is totally disabled.

(m) “Eligible Person” means any (i) individual employed by the Company or an Affiliate; provided, however, that no such employee covered by a collective bargaining agreement shall be an Eligible Person; (ii) director or officer of the Company or an Affiliate; (iii) consultant or advisor to the Company or an Affiliate who may be offered securities registrable on Form S-8 under the Securities Act; or (iv) prospective employee, director, officer, consultant or advisor who has accepted an offer of employment or consultancy from the Company or its Affiliates (and would satisfy the provisions of clauses (i) through (iii) above once he begins employment with or providing services to the Company or its Affiliates).

(n) “Exchange Act” means the U.S. Securities Exchange Act of 1934, as amended, and any successor thereto. References to any section of (or rule promulgated under) the Exchange Act shall be deemed to include any rules, regulations or other interpretative guidance under such section or rule, and any amendments or successors thereto.

(o) “Fair Market Value” means, on a given date, (i) if the Common Stock is listed on a national securities exchange, the closing sales price of the Common Stock reported on such exchange on such date, or, if there is no such sale on that date, then on the last preceding date on which such a sale was reported; or (ii) if the Common Stock is not listed on any national securities exchange, the amount determined by the Committee in good faith to be the fair market value of the Common Stock.

(p) “Incentive Stock Option” means an Option which is designated by the Committee as an incentive stock option as described in Section 422 of the Code and otherwise meets the requirements set forth in the Plan.

(q) “Immediate Family” means, with respect to any Person, the spouse, ex-spouse, children, step-children and their respective lineal descendants.

(r) “NASDAQ” means The Nasdaq Global Market.

(s) “Nonqualified Stock Option” means an Option which is not designated by the Committee as an Incentive Stock Option.

(t) “Option” means an Award granted under Section 7 of the Plan.

(u) “Performance Compensation Award” means an Award designated by the Committee as a Performance Compensation Award pursuant to Section 11 of the Plan.

(v) “Performance Criteria” shall mean the criterion or criteria that the Committee shall select for purposes of establishing the Performance Goal(s) for a Performance Period with respect to any Performance Compensation Award under the Plan.

(w) “Performance Formula” shall mean, for a Performance Period, the one or more objective formulae applied against the relevant Performance Goal to determine, with regard to the Performance Compensation Award of a particular Participant, whether all, some portion but less than all, or none of the Performance Compensation Award has been earned for the Performance Period.

(x) “Performance Goals” shall mean, for a Performance Period, the one or more goals established by the Committee for the Performance Period based upon the Performance Criteria.

(y) “Performance Period” shall mean the one or more periods of time as the Committee may select, over which the attainment of one or more Performance Goals will be measured for the purpose of determining the Participant’s right to, and the payment of, a Performance Compensation Award.

(z) “Person” has the meaning given in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 14(d) thereof, except that such term shall not include (i) the Company or any of its subsidiaries, (ii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, or (iv) a corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of Common Stock of the Company.

(aa) “Restricted Stock” means an Award of Common Stock, subject to certain specified restrictions, granted under Section 9 of the Plan.

(bb) “Restricted Stock Unit” means an Award of an unfunded and unsecured promise to deliver shares of Common Stock, cash, other securities or other property, subject to certain specified restrictions, granted under Section 9 of the Plan.

(cc) “Securities Act” means the U.S. Securities Act of 1933, as amended, and any successor thereto. Reference in the Plan to any section of (or rule promulgated under) the Securities Act shall be deemed to include any rules, regulations or other interpretative guidance under such section or rule, and any amendments or successor provisions to such section, rules, regulations or guidance.

(dd) “Stock Appreciation Right” or “SAR” means an Award granted under Section 8 of the Plan.

#### 4. Administration.

(a) The Committee shall administer the Plan, and shall have the sole and plenary authority to: (i) designate Participants; (ii) determine the type, size, and terms and conditions of Awards to be granted; (iii) determine the method by which an Award may be settled, exercised, canceled, forfeited, or suspended; (iv) determine the circumstances under which the delivery of cash, property or other amounts payable with respect to an Award may be deferred either automatically or at the Participant’s or Committee’s election; (v) interpret and administer, reconcile any inconsistency in, correct any defect in and/or supply any omission in the Plan and any Award granted under, the Plan; (vi) establish, amend, suspend, or waive any rules and regulations and appoint such agents as the Committee shall deem appropriate for the proper administration of the Plan; (vii) accelerate the vesting, delivery or exercisability of, payment for or lapse of restrictions on, or waive any condition in respect of, Awards; and (viii) make any other determination and take any other action that the Committee deems necessary or desirable for the administration of the Plan or to comply with any applicable law, including Section 162(m) of the Code. To the extent required to comply with the provisions of Rule 16b-3 promulgated under the Exchange Act (if applicable and if the Board is not acting as the Committee under the Plan) or necessary to obtain the exception for performance-based compensation under Section 162(m) of the Code, or any exception or exemption under the rules of NASDAQ or any other securities exchange or inter-dealer quotation service on which the Common Stock is listed or quoted, as applicable, it is intended that each member of the Committee shall, at the time he takes any action with respect to an Award under the Plan, be (i) a “non-employee director” within the meaning of Rule 16b-3 promulgated under the Exchange Act and (ii) an “outside director” within the meaning of Section 162(m) of the Code and/or (iii) an “independent director” under the rules of NASDAQ or any other securities exchange or inter-dealer quotation service on which the Common Stock is listed or quoted (“**Eligible Director**”). However, the fact that a Committee member shall fail to qualify as an Eligible Director shall not invalidate any Award granted or action taken by the Committee that is otherwise validly granted or taken under the Plan.

(b) The Committee may allocate all or any portion of its responsibilities and powers to any one or more of its members and may delegate all or any part of its responsibilities and powers to any person(s) selected by it, except for grants of Awards to persons (i) who are non-employee members of the Board or otherwise are subject to Section 16 of the Exchange Act or (ii) who are or may reasonably be expected to be “covered employees” for purposes of Section 162(m) of the Code. Any such allocation or delegation may be revoked by the Committee at any time.

(c) As further set forth in Section 15(f) of the Plan, the Committee shall have the authority to amend the Plan and Awards to the extent necessary to permit participation in the Plan by Eligible Persons who are located outside of the United States on terms and conditions comparable to those afforded to Eligible Persons located within the United States; provided, however, that no such action shall be taken without shareholder approval if such approval is required by applicable law or regulation.



(d) Unless otherwise expressly provided in the Plan, all designations, determinations, interpretations, and other decisions regarding the Plan or any Award or any documents evidencing Awards granted pursuant to the Plan shall be within the sole discretion of the Committee, may be made at any time and shall be final, conclusive and binding upon all persons or entities, including, without limitation, the Company, any Affiliate, any Participant, any holder or beneficiary of any Award, and any shareholder of the Company.

(e) No member of the Board, the Committee or any employee or agent of the Company (each such person, an “*Indemnifiable Person*”) shall be liable for any action taken or omitted to be taken or any determination made with respect to the Plan or any Award hereunder (unless constituting fraud or a willful criminal act or omission). Each Indemnifiable Person shall be indemnified and held harmless by the Company against and from any loss, cost, liability, or expense (including attorneys’ fees) that may be imposed upon or incurred by such Indemnifiable Person in connection with or resulting from any action, suit or proceeding to which such Indemnifiable Person may be involved as a party, witness or otherwise by reason of any action taken or omitted to be taken or determination made under the Plan or any Award agreement and against and from any and all amounts paid by such Indemnifiable Person with the Company’s approval (not to be unreasonably withheld), in settlement thereof, or paid by such Indemnifiable Person in satisfaction of any judgment in any such action, suit or proceeding against such Indemnifiable Person, and the Company shall advance to such Indemnifiable Person any such expenses promptly upon written request (which request shall include an undertaking by the Indemnifiable Person to repay the amount of such advance if it shall ultimately be determined as provided below that the Indemnifiable Person is not entitled to be indemnified); provided, that the Company shall have the right, at its own expense, to assume and defend any such action, suit or proceeding and once the Company gives notice of its intent to assume the defense, the Company shall have sole control over such defense with counsel of recognized standing of the Company’s choice. The foregoing right of indemnification shall not be available to an Indemnifiable Person to the extent that a final judgment or other final adjudication (in either case not subject to further appeal) binding upon such Indemnifiable Person determines that the acts or omissions or determinations of such Indemnifiable Person giving rise to the indemnification claim resulted from such Indemnifiable Person’s fraud or willful criminal act or omission or that such right of indemnification is otherwise prohibited by law or by the Company’s Certificate of Incorporation or By-laws. The foregoing right of indemnification shall not be exclusive of or otherwise supersede any other rights of indemnification to which such Indemnifiable Persons may be entitled under the Company’s Certificate of Incorporation or By-laws, as a matter of law, individual indemnification agreement or contract or otherwise, or any other power that the Company may have to indemnify such Indemnifiable Persons or hold them harmless.

(f) The Board may at any time and from time to time, grant Awards and administer the Plan with respect to such Awards. In any such case, the Board shall have all the authority granted to the Committee under the Plan.

## **5. Grant of Awards; Shares Subject to the Plan; Limitations.**

(a) The Committee may grant Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Other Stock-Based Awards and/or Performance Compensation Awards to one or more Eligible Persons.

(b) Subject to Section 12 of the Plan and subsection (e) below, the following limitations apply to the grant of Awards: (i) no more than 3,250,000 shares of Class A Common Stock may be delivered in the aggregate pursuant to Awards granted under the Plan; (ii) no more than 1,000,000 shares of Class A Common Stock may be subject to grants of Options or SARs under the Plan to any single Participant during any single fiscal year; (iii) no more than 2,500,000 shares of Class A Common Stock may be delivered pursuant to the exercise of Incentive Stock Options granted under the Plan; (iv) no more than 500,000 shares of Class A Common Stock may be delivered in respect of Performance Compensation Awards denominated in shares of Common Stock granted pursuant to Section 11 of the Plan to any Participant for a single Performance Period (or with respect to each single fiscal year in the event a Performance Period extends beyond a single fiscal year), or in the event such Performance Compensation Award is paid in cash, other securities, other Awards or other property, no more than the Fair Market Value of 500,000 shares of Class A Common Stock on the last day of the Performance Period to which such Award relates; (v) the maximum amount that can be paid to any individual Participant for a single fiscal year during a Performance Period (or with respect to each single fiscal year in the event a Performance Period extends beyond a single fiscal year) pursuant to a Performance Compensation Award denominated in cash described in Section 11(a) of the Plan shall be \$5,000,000; and (vi) the maximum amount (based on the fair value of shares of Common Stock on the date of grant as determined in accordance with applicable financial accounting rules) of Awards that may be granted in any single fiscal year to any non-employee director shall be \$1,000,000, exclusive of voluntary deferrals by such director of his or her director fees and committee retainers.

(c) Shares of Common Stock shall be deemed to have been used in settlement of Awards whether or not they are actually delivered or the Fair Market Value equivalent of such shares is paid in cash; provided, however, that if shares of Common Stock issued upon exercise, vesting or settlement of an Award, or shares of Common Stock owned by the Participant are surrendered or tendered to the Company in payment of the Exercise Price or any taxes required to be withheld in respect of an Award, in each case, in accordance with the terms and conditions of the Plan and any applicable Award agreement, such surrendered or tendered shares shall again become available for other Awards; provided, further, that in no event shall such shares increase the number of shares of Common Stock that may be delivered pursuant to Incentive Stock Options. If and to the extent all or any portion of an Award expires, terminates or is canceled or forfeited for any reason without the Participant having received any benefit therefrom, the shares covered by such Award or portion thereof shall again become available for other Awards. For purposes of the foregoing sentence, the Participant shall not be deemed to have received any “benefit” (i) in the case of forfeited Restricted Stock by reason of having enjoyed voting rights and dividend rights prior to the date of forfeiture or (ii) in the case of an Award canceled by reason of a new Award being granted in substitution therefor.

(d) Shares of Common Stock delivered by the Company in settlement of Awards may be authorized and unissued shares, shares held in the treasury of the Company, shares purchased on the open market or by private purchase, or a combination of the foregoing.

(e) The Committee may grant Awards in assumption of, or in substitution for, outstanding awards previously granted by the Company or any Affiliate or an entity directly or indirectly acquired by the Company or with which the Company combines (“**Substitute Awards**”), and such Substitute Awards shall not be counted against the aggregate number of shares of Common Stock available for Awards; provided, that Substitute Awards issued or intended as “incentive stock options” within the meaning of Section 422 of the Code shall be counted against the aggregate number of Incentive Stock Options available under the Plan.

**6. Eligibility.** Participation shall be limited to Eligible Persons who have been selected by the Committee and who have entered into an Award agreement with respect to an Award granted to them under the Plan (each such Eligible Person, a “**Participant**”).

## **7. Options.**

(a) Generally, Each Option shall be subject to the conditions set forth in the Plan and in the Award agreement. All Options granted under the Plan shall be Nonqualified Stock Options unless the Award agreement expressly states otherwise. Incentive Stock Options shall be granted only subject to and in compliance with Section 422 of the Code, and only to Eligible Persons who are employees of the Company and its Affiliates and who are eligible to receive an Incentive Stock Option under the Code. If for any reason an Option intended to be an Incentive Stock Option (or any portion thereof) shall not qualify as an Incentive Stock Option, then, to the extent of such nonqualification, such Option or portion thereof shall be regarded as a Nonqualified Stock Option appropriately granted under the Plan.

(b) Exercise Price. The exercise price ("**Exercise Price**") per share of Common Stock for each Option shall not be less than 100% of the Fair Market Value of such share, determined as of the date of grant. Any modification to the Exercise Price of an outstanding Option shall be subject to the prohibition on repricing set forth in Section 14(b).

(c) Vesting, Exercise and Expiration. The Committee shall determine the manner and timing of vesting, exercise and expiration of Options. The period between date of grant and the scheduled expiration date of the Option ("**Option Period**") shall not exceed ten years, unless the Option Period (other than in the case of an Incentive Stock Option) would expire at a time when trading in the shares of Common Stock is prohibited by the Company's securities trading policy or a Company-imposed "blackout period", in which case the Option Period shall be automatically extended until the 30th day following the expiration of such prohibition (so long as such extension shall not violate Section 409A of the Code). The Committee may accelerate the vesting and/or exercisability of any Option, which acceleration shall not affect any other terms and conditions of such Option.

(d) Method of Exercise and Form of Payment. No shares of Common Stock shall be delivered pursuant to any exercise of an Option until the Participant has made payment in full to the Company of the Exercise Price and an amount equal to any U.S. federal, state and local income and employment taxes and non-U.S. income and employment taxes, social contributions and any other tax-related items required to be withheld. Options may be exercised by delivery of written or electronic notice of exercise to the Company or its designee (including a third party administrator) in accordance with the terms of the Option accompanied by payment of the Exercise Price. The Exercise Price and all applicable required withholding taxes shall be payable (i) in cash, check, cash equivalent and/or shares of Common Stock (or any combination of the foregoing) valued at the Fair Market Value at the time the Option is exercised (including, pursuant to procedures approved by the Committee, by means of attestation of ownership of a sufficient number of shares of Common Stock in lieu of actual delivery of such shares to the Company); provided, that such shares of Common Stock are not subject to any pledge or other security interest; or (ii) by such other method as the Committee may permit, including without limitation: (A) in other property having a Fair Market Value on the date of exercise equal to the Exercise Price and all applicable required withholding taxes; (B) if there is a public market for the shares of Common Stock at such time, by means of a broker-assisted "cashless exercise" pursuant to which the Company is delivered a copy of irrevocable instructions to a stockbroker to sell the shares of Common Stock otherwise deliverable upon the exercise of the Option and to deliver promptly to the Company an amount equal to the Exercise Price and all applicable required withholding taxes; or (C) by means of a "net exercise" procedure effected by withholding the minimum number of shares of Common Stock otherwise deliverable in respect of an Option that are needed to pay for the Exercise Price and all applicable required withholding taxes. Notwithstanding the foregoing, unless otherwise determined by the Committee, if on the last day of the Option Period, the Fair Market Value exceeds the Exercise Price, the Participant has not exercised the Option, and the Option has not expired, such Option shall be deemed to have been exercised by the Participant on such last day by means of a "net exercise" procedure described above. Any fractional shares of Common Stock shall be settled in cash.

(e) Notification upon Disqualifying Disposition of an Incentive Stock Option. Each Participant awarded an Incentive Stock Option under the Plan shall notify the Company in writing immediately after the date he makes a disqualifying disposition of any Common Stock acquired pursuant to the exercise of such Incentive Stock Option. A disqualifying disposition is any disposition (including, without limitation, any sale) of such Common Stock before the later of (i) two years after the date of grant of the Incentive Stock Option or (ii) one year after the date of exercise of the Incentive Stock Option. The Company may, if determined by the Committee and in accordance with procedures established by the Committee, retain possession, as agent for the applicable Participant, of any Common Stock acquired pursuant to the exercise of an Incentive Stock Option until the end of the period described in the preceding sentence, subject to complying with any instruction from such Participant as to the sale of such Common Stock.

(f) Compliance with Laws, etc. Notwithstanding the foregoing, in no event shall the Participant be permitted to exercise an Option in a manner which the Committee determines would violate the Sarbanes-Oxley Act of 2002, or any other applicable law or the applicable rules and regulations of the Securities and Exchange Commission or the applicable rules and regulations of any securities exchange or inter-dealer quotation service on which the Common Stock of the Company is listed or quoted.

(g) Incentive Stock Option Grants to 10% Shareholders. Notwithstanding anything to the contrary in this Section 7, if an Incentive Stock Option is granted to a Participant who owns stock representing more than ten percent of the voting power of all classes of stock of the Company or of a subsidiary or a parent of the Company, the Option Period shall not exceed five years from the date of grant of such Option and the Option Price shall be at least 110% of the Fair Market Value (on the date of grant) of the shares subject to the Option.

(h) \$100,000 Per Year Limitation for Incentive Stock Options. To the extent the aggregate Fair Market Value (determined as of the date of grant) of shares of Common Stock for which Incentive Stock Options are exercisable for the first time by any Participant during any calendar year (under all plans of the Company) exceeds \$100,000, such excess Incentive Stock Options shall be treated as Nonqualified Stock Options.

## **8. Stock Appreciation Rights (SARs).**

(a) Generally. Each SAR shall be subject to the conditions set forth in the Plan and the Award agreement. Any Option granted under the Plan may include a tandem SAR. The Committee also may award SARs independent of any Option.

(b) Strike Price. The strike price ("**Strike Price**") per share of Common Stock for each SAR shall not be less than 100% of the Fair Market Value of such share (determined as of the date of grant); provided, however, that a SAR granted in tandem with (or in substitution for) an Option previously granted shall have a Strike Price equal to the Exercise Price of the corresponding Option. Any modification to the Strike Price of an outstanding SAR shall be subject to the prohibition on repricing set forth in Section 14(b).

(c) Vesting and Expiration. A SAR granted in tandem with an Option shall become exercisable and shall expire according to the same vesting schedule and expiration provisions as the corresponding Option. A SAR granted independently of an Option shall vest and become exercisable and shall expire in such manner and on such date or dates determined by the Committee and shall expire after such period, not to exceed ten years, as may be determined by the Committee (the "**SAR Period**"); provided, however, that notwithstanding any vesting or exercisability dates set by the Committee, the Committee may accelerate the vesting and/or exercisability of any SAR, which acceleration shall not affect the terms and conditions of such SAR other than with respect to vesting and/or exercisability. If the SAR Period would expire at a time when trading in the shares of Common Stock is prohibited by the Company's securities trading policy or a Company-imposed "blackout period", the SAR Period shall be automatically extended until the 30th day following the expiration of such prohibition (so long as such extension shall not violate Section 409A of the Code).

(d) Method of Exercise. SARs may be exercised by delivery of written or electronic notice of exercise to the Company or its designee (including a third party administrator) in accordance with the terms of the Award, specifying the number of SARs to be exercised and the date on which such SARs were awarded. Notwithstanding the foregoing, if on the last day of the Option Period (or in the case of a SAR independent of an Option, the SAR Period), the Fair Market Value exceeds the Strike Price, the Participant has not exercised the SAR or the corresponding Option (if applicable), and neither the SAR nor the corresponding Option (if applicable) has expired, such SAR shall be deemed to have been exercised by the Participant on such last day and the Company shall make the appropriate payment therefor.

(e) Payment. Upon the exercise of a SAR, the Company shall pay to the holder thereof an amount equal to the number of shares subject to the SAR that are being exercised multiplied by the excess, if any, of the Fair Market Value of one share of Common Stock on the exercise date over the Strike Price, less an amount equal to any U.S. federal, state and local income and employment taxes and non-U.S. income and employment taxes, social contributions and any other tax-related items required to be withheld. The Company shall pay such amount in cash, in shares of Common Stock valued at Fair Market Value, or any combination thereof, as determined by the Committee. Any fractional shares of Common Stock shall be settled in cash.

## 9. Restricted Stock and Restricted Stock Units.

(a) Generally. Each Restricted Stock and Restricted Stock Unit grant shall be subject to the conditions set forth in the Plan and the Award agreement. The Committee shall establish restrictions applicable to such Restricted Stock and Restricted Stock Units, including the period over which the restrictions shall apply (the "**Restricted Period**"), and the time or times at which Restricted Stock or Restricted Stock Units shall become vested. The Committee may accelerate the vesting and/or the lapse of any or all of the restrictions on the Restricted Stock and Restricted Stock Units, which acceleration shall not affect any other terms and conditions of such Awards. No shares shall be issued at the time an Award of Restricted Stock Units is made, and the Company will not be required to set aside a fund for the payment of any such Award.

(b) Stock Certificates; Escrow or Similar Arrangement. Upon the grant of Restricted Stock, the Committee shall cause share(s) of Common Stock to be registered in the name of the Participant and held in book-entry form subject to the Company's directions. The Committee also may cause a stock certificate registered in the name of the Participant to be issued. In such event, the Committee may provide that such certificates shall be held by the Company or in escrow rather than delivered to the Participant pending vesting and release of restrictions, in which case the Committee may require the Participant to execute and deliver to the Company (i) an escrow agreement satisfactory to the Committee, if applicable, and (ii) the appropriate stock power (endorsed in blank) with respect to the Restricted Stock. If the Participant shall fail to execute and deliver the escrow agreement and blank stock power within the amount of time specified by the Committee, the Award shall be null and void. Subject to the restrictions set forth in this Section 9 and the Award agreement, the Participant shall have the rights and privileges of a shareholder as to such Restricted Stock, including without limitation the right to vote such Restricted Stock.

(c) Restrictions; Forfeiture. Restricted Stock and Restricted Stock Units awarded to the Participant shall be subject to forfeiture until the expiration of the Restricted Period and the attainment of any other vesting criteria established by the Committee, and shall be subject to the restrictions on transferability set forth in the Award agreement. In the event of any forfeiture, all rights of the Participant to such Restricted Stock (or as a shareholder with respect thereto), and/or to such Restricted Stock Units, as applicable, including to any dividends and/or dividend equivalents that may have been accumulated and withheld during the Restricted Period in respect thereof, shall terminate without further action or obligation on the part of the Company. The Committee shall have the authority to remove any or all of the restrictions on the Restricted Stock and Restricted Stock Units whenever it may determine that, by reason of changes in applicable laws or other changes in circumstances arising after the date of grant of the Restricted Stock Award or Restricted Stock Unit Award, such action is appropriate.

(d) Delivery of Restricted Stock and Settlement of Restricted Stock Units.

(i) Upon the expiration of the Restricted Period with respect to any shares of Restricted Stock and the attainment of any other vesting criteria, the restrictions set forth in the applicable Award agreement shall be of no further force or effect, except as set forth in the Award agreement. If an escrow arrangement is used, upon such expiration the Company shall deliver to the Participant or his beneficiary (via book entry notation or, if applicable, in stock certificate form) the shares of Restricted Stock with respect to which the Restricted Period has expired (rounded down to the nearest full share). Dividends, if any, that may have been withheld by the Committee and attributable to the Restricted Stock shall be distributed to the Participant in cash or in shares of Common Stock having a Fair Market Value (on the date of distribution) equal to the amount of such dividends, upon the release of restrictions on such share.

(ii) Unless otherwise provided by the Committee in an Award agreement, upon the expiration of the Restricted Period and the attainment of any other vesting criteria established by the Committee, with respect to any outstanding Restricted Stock Units, the Company shall deliver to the Participant, or his beneficiary (via book entry notation or, if applicable, in stock certificate form), one share of Common Stock (or other securities or other property, as applicable) for each such outstanding Restricted Stock Unit which has not then been forfeited and with respect to which the Restricted Period has expired and any other such vesting criteria are attained ("**Released Unit**"); provided, however, that the Committee may elect to (A) pay cash or part cash and part Common Stock in lieu of delivering only shares of Common Stock in respect of such Released Units or (B) defer the delivery of Common Stock (or cash or part Common Stock and part cash, as the case may be) beyond the expiration of the Restricted Period if such extension would not cause adverse tax consequences under Section 409A of the Code. If a cash payment is made in lieu of delivering shares of Common Stock, the amount of such payment shall be equal to the Fair Market Value of the Common Stock as of the date on which the Restricted Period lapsed with respect to such Restricted Stock Units. To the extent provided in an Award agreement, the holder of outstanding Restricted Stock Units shall be entitled to be credited with dividend equivalent payments (upon the payment by the Company of dividends on shares of Common Stock) either in cash or, if determined by the Committee, in shares of Common Stock having a Fair Market Value equal to the amount of such dividends (and interest may, if determined by the Committee, be credited on the amount of cash dividend equivalents at a rate and subject to such terms as determined by the Committee), which accumulated dividend equivalents (and interest thereon, if applicable) shall be payable at the same time as the underlying Restricted Stock Units are settled following the release of restrictions on such Restricted Stock Units, and, if such Restricted Stock Units are forfeited, the holder thereof shall have no right to such dividend equivalent payments.

(e) Legends on Restricted Stock. Each certificate representing Restricted Stock awarded under the Plan, if any, shall bear a legend substantially in the form of the following in addition to any other information the Company deems appropriate until the lapse of all restrictions with respect to such Common Stock:

TRANSFER OF THIS CERTIFICATE AND THE SHARES REPRESENTED HEREBY IS RESTRICTED PURSUANT TO THE TERMS OF THE VTV THERAPEUTICS INC. 2015 OMNIBUS EQUITY INCENTIVE PLAN AND A RESTRICTED STOCK AWARD AGREEMENT, DATED AS OF \_\_\_\_\_, BETWEEN VTV THERAPEUTICS INC. AND \_\_\_\_\_. A COPY OF SUCH PLAN AND AWARD AGREEMENT IS ON FILE AT THE PRINCIPAL EXECUTIVE OFFICES OF VTV THERAPEUTICS, INC.

**10. Other Stock-Based Awards.** The Committee may issue unrestricted Common Stock, rights to receive future grants of Awards, or other Awards denominated in Common Stock (including performance shares or performance units), or Awards that provide for cash payments based in whole or in part on the value or future value of shares of Common Stock under the Plan to Eligible Persons, alone or in tandem with other Awards, in such amounts as the Committee shall from time to time determine (“**Other Stock-Based Awards**”). Each Other Stock-Based Award shall be evidenced by an Award agreement which may include conditions including without limitation the payment by the Participant of the Fair Market Value of such shares of Common Stock on the date of grant.

**11. Performance Compensation Awards.**

(a) Generally. The Committee shall have the authority, at or before the time of grant of any Award described in Sections 7 through 10 of the Plan, to designate such Award as a Performance Compensation Award intended to qualify as “performance-based compensation” under Section 162(m) of the Code. In addition, the Committee shall have the authority to make an award of a cash bonus to any Participant and designate such Award as a Performance Compensation Award intended to qualify as “performance based compensation” under Section 162(m). Notwithstanding the foregoing, (i) any Award to a Participant who is a “covered employee” within the meaning of Section 162(m) for a fiscal year that satisfies the requirements of this Section 11 may be treated as a Performance Compensation Award in the absence of any such Committee designation and (ii) if the Company determines that a Participant who has been granted an Award designated as a Performance Compensation Award is not (or is no longer) a “covered employee” within the meaning of Section 162(m), the terms and conditions of such Award may be modified without regard to any restrictions or limitations set forth in this Section 11 (but subject otherwise to the provisions of Section 14 of the Plan).

(b) Discretion of Committee with Respect to Performance Compensation Awards. The Committee may select the length of a Performance Period, the type(s) of Performance Compensation Awards to be issued, the Performance Criteria used to establish the Performance Goal(s), the kind(s) and/or level(s) of the Performance Goals(s) and the Performance Formula. Within the first 90 days of a Performance Period (or the maximum period allowed under Section 162(m) of the Code), the Committee shall, with regard to the Performance Compensation Awards to be issued for such Performance Period, exercise its discretion with respect to each of the matters enumerated in the immediately preceding sentence and record the same in writing (which may be in the form of minutes of a meeting of the Committee).

(c) Performance Criteria. The Performance Criteria that will be used to establish the Performance Goal(s) may be based on the attainment of specific levels of performance of the Company (and/or one or more Affiliates, divisions or operational and/or business units, product lines, brands, business segments, administrative departments, units, or any combination of the foregoing) and shall be limited to the following: (i) net earnings or net income (before or after taxes); (ii) basic or diluted earnings per share (before or after taxes); (iii) net revenue or net revenue growth; (iv) gross revenue or gross revenue growth, gross profit or gross profit growth; (v) net operating profit (before or after taxes); (vi) return measures (including, but not limited to, return on investment, assets, capital, gross revenue or gross revenue growth, invested capital, equity or sales); (vii) cash flow measures (including, but not limited to, operating cash flow, free cash flow and cash flow return on capital), which may but are not required to be measured on a per-share basis; (viii) earnings before or after taxes, interest, depreciation, and amortization (including EBIT and EBITDA); (ix) gross or net operating margins; (x) productivity ratios; (xi) share price (including, but not limited to, growth measures and total shareholder return); (xii) expense targets or cost reduction goals, general and administrative expense savings; (xiii) operating efficiency; (xiv) objective measures of customer satisfaction; (xv) working capital targets; (xvi) measures of economic value added or other “value creation” metrics; (xvii) enterprise value; (xviii) stockholder return; (xix) customer retention; (xx) competitive market metrics; (xxi) employee retention; (xxii) objective measures of personal targets, goals or completion of projects (including but not limited to succession and hiring projects, completion of specific acquisitions, reorganizations or other corporate transactions or capital-raising transactions, expansions of specific business operations and meeting divisional or project budgets); (xxiii) system-wide revenues; (xxiv) cost of capital, debt leverage, year-end cash position or book value; (xxv) strategic objectives, development of new product lines and related revenue, sales and margin targets, or international operations; (xxvi) meeting milestones with respect to drug candidates or (xxvii) any combination of the foregoing. Any one or more of the Performance Criteria may be stated as a percentage of another Performance Criteria, or a percentage of a prior period’s Performance Criteria, or used on an absolute, relative or adjusted basis to measure the performance of the Company and/or one or more Affiliates as a whole or any divisions or operational and/or business units, product lines, brands, business segments, administrative departments of the Company and/or one or more Affiliates or any combination thereof, as the Committee may deem appropriate, or any of the above Performance Criteria may be compared to the performance of a group of comparator companies, or a published or special index that the Committee deems appropriate, or as compared to various stock market indices. The Committee also has the authority to provide for accelerated vesting, delivery and exercisability of any Award based on the achievement of Performance Goals pursuant to the Performance Criteria specified in this paragraph. To the extent required under Section 162(m) of the Code, the Committee shall, within the first 90 days of a Performance Period (or within the maximum period allowed under Section 162(m) of the Code), define in an objective fashion the manner of calculating the Performance Criteria it selects to use for such Performance Period.

(d) Modification of Performance Goal(s). The Committee may alter Performance Criteria without obtaining shareholder approval if applicable tax and/or securities laws so permit. The Committee may modify the calculation of a Performance Goal during the first 90 days of a Performance Period (or within the maximum period allowed under Section 162(m) of the Code), or at any time thereafter if the change would not cause any Performance Compensation Award to fail to qualify as “performance-based compensation” under Section 162(m), to reflect any of the following events: (i) asset write-downs; (ii) litigation or claim judgments or settlements; (iii) the effect of changes in tax laws, accounting principles, or other laws or regulatory rules affecting reported results; (iv) any reorganization and restructuring programs; (v) extraordinary nonrecurring items as described in Accounting Standards Codification Topic 225-20 (or any successor pronouncement thereto) and/or in management’s discussion and analysis of financial condition and results of operations appearing in the Company’s annual report to shareholders for the applicable year; (vi) acquisitions or divestitures; (vii) any other specific unusual or nonrecurring events, or objectively determinable category thereof; (viii) foreign exchange gains and losses; (ix) discontinued operations and nonrecurring charges; and (x) a change in the Company’s fiscal year.

(e) Payment of Performance Compensation Awards.

(i) Condition to Receipt of Payment. Unless otherwise provided in the applicable Award agreement or any employment, consulting, change-in-control, severance or other agreement between the Participant and the Company or an Affiliate, the Participant must be employed by or rendering services for the Company or an Affiliate on the last day of a Performance Period to be eligible for payment in respect of a Performance Compensation Award for such Performance Period.



(ii) Limitation. Unless otherwise provided in the applicable Award agreement, or any employment, consulting, change-in-control, severance or other agreement between the Participant and the Company or an Affiliate, the Participant shall be eligible to receive payment or delivery, as applicable, in respect of a Performance Compensation Award only to the extent the Committee determines that: (A) the Performance Goals for such period are achieved, as determined by the Committee; and (B) all or some of the portion of such Participant's Performance Compensation Award has been earned for the Performance Period based on the application of the Performance Formula to such achieved Performance Goals, as determined by the Committee; provided, however, that if so provided by the Committee in its sole discretion, in the event of (x) the termination of the Participant's employment or service by the Company other than for Cause (and other than due to death or Disability), in each case within 12 months following a Change in Control, or (y) the termination of a Participant's employment or service due to the Participant's death or Disability, the Participant shall receive payment in respect of a Performance Compensation Award based on (1) actual performance through the date of termination as determined by the Committee, or (2) if the Committee determines that measurement of actual performance cannot be reasonably assessed, the assumed achievement of target performance as determined by the Committee (but not to the extent that application of this clause (2) would cause Section 162(m) of the Code to result in the loss of the deduction of the compensation payable in respect of such Performance Compensation Award for any Participant reasonably expected to be a "covered employee" within the meaning of Section 162(m) of the Code), in each case prorated based on the time elapsed from the date of grant to the date of termination of employment or service.

(iii) Certification. Following the completion of a Performance Period, the Committee shall review and certify in writing (which may be in the form of minutes of a meeting of the Committee) whether, and to what extent, the Performance Goals for the Performance Period have been achieved and, if so, calculate and certify in writing (which may be in the form of minutes of a meeting of the Committee) that amount of the Performance Compensation Awards earned for the period based upon the Performance Formula. The Committee shall then determine the amount of each Participant's Performance Compensation Award actually payable for the Performance Period and, in so doing, may apply discretion to eliminate or reduce the size of a Performance Compensation Award consistent with Section 162(m) of the Code. Unless otherwise provided in the applicable Award agreement, the Committee shall not have the discretion to (A) provide payment or delivery in respect of Performance Compensation Awards for a Performance Period if the Performance Goals for such Performance Period have not been attained; or (B) increase a Performance Compensation Award above the applicable limitations set forth in Section 5 of the Plan.

(f) Timing of Award Payments. Unless otherwise provided in the applicable Award agreement, Performance Compensation Awards granted for a Performance Period shall be paid to Participants as soon as administratively practicable following completion of the certifications required by this Section 11. Any Performance Compensation Award that has been deferred shall not (between the date as of which the Award is deferred and the payment date) increase (i) with respect to a Performance Compensation Award that is payable in cash, by a measuring factor for each fiscal year greater than a reasonable rate of interest set by the Committee or (ii) with respect to a Performance Compensation Award that is payable in shares of Common Stock, by an amount greater than the appreciation of a share of Common Stock from the date such Award is deferred to the payment date. Unless otherwise provided in an Award agreement, any Performance Compensation Award that is deferred and is otherwise payable in shares of Common Stock shall be credited (during the period between the date as of which the Award is deferred and the payment date) with dividend equivalents (in a manner consistent with the methodology set forth in the last sentence of Section 9(d)(ii)).

**12. Changes in Capital Structure and Similar Events.** In the event of (a) any dividend (other than regular cash dividends) or other distribution (whether in the form of cash, shares of Common Stock, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, split-off, spin-off, combination, repurchase or exchange of shares of Common Stock or other securities of the Company, issuance of warrants or other rights to acquire shares of Common Stock or other securities of the Company, or other similar corporate transaction or event (including, without limitation, a Change in Control) that affects the shares of Common Stock, or (b) unusual or nonrecurring events (including, without limitation, a Change in Control) affecting the Company, any Affiliate, or the financial statements of the Company or any Affiliate, or changes in applicable rules, rulings, regulations or other requirements of any governmental body or securities exchange or inter-dealer quotation service, accounting principles or law, such that in any case an adjustment is determined by the Committee to be necessary or appropriate, then the Committee shall make any such adjustments in such manner as it may deem equitable, including without limitation any or all of the following: (i) adjusting any or all of (A) the number of shares of Common Stock or other securities of the Company (or number and kind of other securities or other property) which may be delivered in respect of Awards or with respect to which Awards may be granted under the Plan (including, without limitation, adjusting any or all of the limitations under Section 5 of the Plan) and (B) the terms of any outstanding Award, including, without limitation, (1) the number of shares of Common Stock or other securities of the Company (or number and kind of other securities or other property) subject to outstanding Awards or to which outstanding Awards relate, (2) the Exercise Price or Strike Price with respect to any Award or (3) any applicable performance measures (including, without limitation, Performance Criteria, Performance Formula and Performance Goals); (ii) providing for a substitution or assumption of Awards (or awards of an acquiring company), accelerating the delivery, vesting and/or exercisability of, lapse of restrictions and/or other conditions on, or termination of, Awards or providing for a period of time (which shall not be required to be more than ten (10) days) for Participants to exercise outstanding Awards prior to the occurrence of such event (and any such Award not so exercised shall terminate upon the occurrence of such event); and (iii) cancelling any one or more outstanding Awards (or awards of an acquiring company) and causing to be paid to the holders thereof, in cash, shares of Common Stock, other securities or other property, or any combination thereof, the value of such Awards, if any, as determined by the Committee (which, if applicable, may be based upon the price per share of Common Stock received or to be received by other shareholders of the Company in such event), including without limitation, in the case of an outstanding Option or SAR, a cash payment in an amount equal to the excess, if any, of the Fair Market Value (as of a date specified by the Committee) of the shares of Common Stock subject to such Option or SAR over the aggregate Exercise Price or Strike Price of such Option or SAR, respectively (it being understood that, in such event, any Option or SAR having a per share Exercise Price or Strike Price equal to, or in excess of, the Fair Market Value of a share of Common Stock subject thereto may be canceled and terminated without any payment or consideration therefor); provided, however, that the Committee shall make an equitable or proportionate adjustment to outstanding Awards to reflect any “equity restructuring” (within the meaning of the Financial Accounting Standards Codification Topic 718 (or any successor pronouncement thereto)). Except as otherwise determined by the Committee, any adjustment in Incentive Stock Options under this Section 12 (other than any cancellation of Incentive Stock Options) shall be made only to the extent not constituting a “modification” within the meaning of Section 424(h)(3) of the Code, and any adjustments under this Section 12 shall be made in a manner which does not adversely affect the exemption provided pursuant to Rule 16b-3 promulgated under the Exchange Act. The Company shall give each Participant notice of an adjustment hereunder and, upon notice, such adjustment shall be conclusive and binding for all purposes.

**13. Effect of Change in Control.** Except to the extent otherwise provided in an Award agreement, or any applicable employment, consulting, change-in-control, severance or other agreement between the Participant and the Company or an Affiliate, in the event of a Change in Control, notwithstanding any provision of the Plan to the contrary:

(a) In the event the Participant's employment with the Company or an Affiliate is terminated by the Company or Affiliate without Cause (and other than due to death or Disability) on or within 12 months following a Change in Control, the Committee may provide that all Options and SARs held by such Participant shall become immediately exercisable with respect to 100% of the shares subject to such Options and SARs, and that the Restricted Period (and any other conditions) shall expire immediately with respect to 100% of the shares of Restricted Stock and Restricted Stock Units and any other Awards held by such Participant (including a waiver of any applicable Performance Goals); provided, that in the event the vesting or exercisability of any Award would otherwise be subject to the achievement of performance conditions, the portion of such Award that shall become fully vested and immediately exercisable shall be based on the assumed achievement of target performance as determined by the Committee and prorated for the number of days elapsed from the grant date of such Award through the date of termination.

(b) In addition, the Committee may upon at least ten (10) days' advance notice to the affected persons, cancel any outstanding Award and pay to the holders thereof, in cash, securities or other property (including of the acquiring or successor company), or any combination thereof, the value of such Awards based upon the price per share of Common Stock received or to be received by other shareholders of the Company in the event. Notwithstanding the above, the Committee shall exercise such discretion over the timing of settlement of any Award subject to Code Section 409A at the time such Award is granted.

(c) To the extent practicable, the provisions of this Section 13 shall occur in a manner and at a time which allows affected Participants the ability to participate in the Change in Control transaction with respect to the Common Stock subject to their Awards.

#### **14. Amendments and Termination.**

(a) Amendment and Termination of the Plan. The Board may amend, alter, suspend, discontinue, or terminate the Plan or any portion thereof at any time; provided, that no such amendment, alteration, suspension, discontinuation or termination shall be made without shareholder approval if such approval is necessary to comply with any tax or regulatory requirement applicable to the Plan (including, without limitation, as necessary to comply with any rules or requirements of any securities exchange or inter-dealer quotation service on which the shares of Common Stock may be listed or quoted, for changes in GAAP to new accounting standards, or to prevent the Company from being denied a tax deduction under Section 162(m) of the Code); provided, further, that any such amendment, alteration, suspension, discontinuance or termination that would materially and adversely affect the rights of any Participant or any holder or beneficiary of any Award theretofore granted shall not, to that extent, be effective without the consent of the affected Participant, holder or beneficiary, unless the Committee determines that such amendment, alteration, suspension, discontinuance or termination either is required or advisable in order for the Company, the Plan or the Award to satisfy any applicable law or regulation. Notwithstanding the foregoing, no amendment shall be made to the last proviso of Section 14(b) without shareholder approval.

(b) Amendment of Award Agreements. The Committee may, to the extent not inconsistent with the terms of any applicable Award agreement, waive any conditions or rights under, amend any terms of, or alter, suspend, discontinue, cancel or terminate, any Award theretofore granted or the associated Award agreement, prospectively or retroactively (including after the Participant's termination of employment or service with the Company); provided, that any such waiver, amendment, alteration, suspension, discontinuance, cancellation or termination that would materially and adversely affect the rights of any Participant with respect to any Award theretofore granted shall not to that extent be effective without the consent of the affected Participant unless the Committee determines that such waiver, amendment, alteration, suspension, discontinuance, cancellation or termination either is required or advisable in order for the Company, the Plan or the Award to satisfy any applicable law or regulation; provided, further, that except as otherwise permitted under Section 12 of the Plan, if (i) the Committee reduces the Exercise Price of any Option or the Strike Price of any SAR, (ii) the Committee cancels any outstanding Option or SAR and replaces it with a new Option or SAR (with a lower Exercise Price or Strike Price, as the case may be) or other Award or cash in a manner which would either (A) be reportable on the Company's proxy statement or Form 10-K (if applicable) as Options which have been "repriced" (as such term is used in Item 402 of Regulation S-K promulgated under the Exchange Act), or (B) result in any "repricing" for financial statement reporting purposes (or otherwise cause the Award to fail to qualify for equity accounting treatment) or (iii) the Committee takes any other action which is considered a "repricing" for purposes of the shareholder approval rules of the applicable securities exchange or inter-dealer quotation service on which the Common Stock is listed or quoted, then, in the case of the immediately preceding clauses (i) through (iii), any such action shall not be effective without shareholder approval.

## 15. General.

(a) Award Agreements; Other Agreements. Each Award under the Plan shall be evidenced by an Award agreement, which shall be delivered to the Participant and shall specify the terms and conditions of the Award and any rules applicable thereto. An Award agreement may be in written or electronic form and shall be signed (either in written or electronic form) by the Participant and a duly authorized representative of the Company. The terms of any Award agreement, or any employment, change-in-control, severance or other agreement in effect with the Participant, may have terms or features different from and/or additional to those set forth in the Plan, and, unless expressly provided otherwise in such Award or other agreement, shall control in the event of any conflict with the terms of the Plan.

(b) Nontransferability.

(i) Each Award shall be exercisable only by the Participant during the Participant's lifetime, or, if permissible under applicable law, by the Participant's legal guardian or representative. No Award may be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by the Participant other than by will or by the laws of descent and distribution and any such purported assignment, alienation, pledge, attachment, sale, transfer or encumbrance shall be void and unenforceable against the Company or an Affiliate; provided, that the designation of a beneficiary shall not constitute an assignment, alienation, pledge, attachment, sale, transfer or encumbrance.

(ii) Notwithstanding the foregoing, the Committee may permit Awards (other than Incentive Stock Options) to be transferred by the Participant, without consideration, subject to such rules as the Committee may adopt, to: (A) any person who is a "family member" of the Participant, as such term is used in the instructions to Form S-8 under the Securities Act or any successor form of registration statements promulgated by the Securities and Exchange Commission (collectively, the "**Immediate Family Members**"); (B) a trust solely for the benefit of the Participant and his Immediate Family Members; (C) a partnership or limited liability company whose only partners or shareholders are the Participant and his Immediate Family Members; or (D) any other transferee as may be approved either (1) by the Board or the Committee, or (2) as provided in the applicable Award agreement; (each transferee described in clauses (A), (B), (C) and (D) above is hereinafter referred to as a "**Permitted Transferee**"); provided, that the Participant gives the Committee advance written notice describing the terms and conditions of the proposed transfer and the Committee notifies the Participant in writing that such a transfer would comply with the requirements of the Plan.

(iii) The terms of any Award transferred in accordance with the immediately preceding sentence shall apply to the Permitted Transferee and any reference in the Plan, or in any applicable Award agreement, to the Participant shall be deemed to refer to the Permitted Transferee, except that (A) Permitted Transferees shall not be entitled to transfer any Award, other than by will or the laws of descent and distribution; (B) Permitted Transferees shall not be entitled to exercise any transferred Option unless there shall be in effect a registration statement on an appropriate form covering the shares of Common Stock to be acquired pursuant to the exercise of such Option if the Committee determines, consistent with any applicable Award agreement, that such a registration statement is necessary or appropriate; (C) the Committee or the Company shall not be required to provide any notice to a Permitted Transferee, whether or not such notice is or would otherwise have been required to be given to the Participant under the Plan or otherwise; and (D) the consequences of the termination of the Participant's employment by, or services to, the Company or an Affiliate under the terms of the Plan and the applicable Award agreement shall continue to be applied with respect to the transferred Award, including, without limitation, that an Option shall be exercisable by the Permitted Transferee only to the extent, and for the periods, specified in the Plan and the applicable Award agreement.

(c) Dividends and Dividend Equivalents. The Committee may provide the Participant as part of an Award with dividends or dividend equivalents, payable in cash, shares of Common Stock, other securities, other Awards or other property, on a current or deferred basis, on such terms and conditions as may be determined by the Committee, including, without limitation, payment directly to the Participant, withholding of such amounts by the Company subject to vesting of the Award or reinvestment in additional shares of Common Stock, Restricted Stock or other Awards; provided, that no dividends or dividend equivalents shall be payable in respect of outstanding (i) Options or SARs or (ii) unearned Performance Compensation Awards or other unearned Awards subject to performance conditions (other than or in addition to the passage of time); provided, further, that dividend equivalents may be accumulated in respect of unearned Awards and paid as soon as administratively practicable, but no more than 60 days, after such Awards are earned and become payable or distributable (and the right to any such accumulated dividends or dividend equivalents shall be forfeited upon the forfeiture of the Award to which such dividends or dividend equivalents relate).

(d) Tax Withholding.

(i) The Participant shall be required to pay to the Company or any Affiliate, and the Company or any Affiliate shall have the right (but not the obligation) and is hereby authorized to withhold, from any cash, shares of Common Stock, other securities or other property deliverable under any Award or from any compensation or other amounts owing to the Participant, the amount (in cash, Common Stock, other securities or other property) of any required withholding taxes in respect of an Award, its exercise, or any payment or transfer under an Award or under the Plan and to take such other action as the Committee or the Company deem necessary to satisfy all obligations for the payment of such withholding taxes.

(ii) Without limiting the generality of clause (i) above, the Committee may permit the Participant to satisfy, in whole or in part, the foregoing withholding liability by (A) payment in cash; (B) the delivery of shares of Common Stock (which are not subject to any pledge or other security interest) owned by the Participant having a Fair Market Value equal to such withholding liability or (C) having the Company withhold from the number of shares of Common Stock otherwise issuable or deliverable pursuant to the exercise or settlement of the Award a number of shares with a Fair Market Value equal to such withholding liability.

(e) No Claim to Awards; No Rights to Continued Employment. No employee of the Company or an Affiliate, or other person, shall have any claim or right to be granted an Award under the Plan or, having been selected for the grant of an Award, to be selected for a grant of any other Award. There is no obligation for uniformity of treatment of Participants or holders or beneficiaries of Awards. The terms and conditions of Awards and the Committee's determinations and interpretations with respect thereto need not be the same with respect to each Participant and may be made selectively among Participants, whether or not such Participants are similarly situated. Neither the Plan nor any action taken hereunder shall be construed as giving any Participant any right to be retained in the employ or service of the Company or an Affiliate, nor shall it be construed as giving any Participant any rights to continued service on the Board.

(f) International Participants. With respect to Participants who reside or work outside of the United States and who are not (and who are not expected to be) "covered employees" within the meaning of Section 162(m) of the Code, the Committee may amend the terms of the Plan or appendices thereto, or outstanding Awards, with respect to such Participants, in order to conform such terms with or accommodate the requirements of local laws, procedures or practices or to obtain more favorable tax or other treatment for the Participant, the Company or its Affiliates. Without limiting the generality of this subsection, the Committee is specifically authorized to adopt rules, procedures and sub-plans with provisions that limit or modify rights on death, disability, retirement or other terminations of employment, available methods of exercise or settlement of an Award, payment of income, social insurance contributions or payroll taxes, withholding procedures and handling of any stock certificates or other indicia of ownership which vary with local requirements. The Committee may also adopt rules, procedures or sub-plans applicable to particular Affiliates or locations.

(g) Beneficiary Designation. The Participant's beneficiary shall be deemed to be his spouse (or domestic partner if such status is recognized by the Company and in such jurisdiction), or if the Participant is otherwise unmarried at the time of death, his estate, except to the extent a different beneficiary is designated in accordance with procedures that may be established by the Committee from time to time for such purpose. Notwithstanding the foregoing, in the absence of a beneficiary validly designated under such Committee-established procedures and/or applicable law who is living (or in existence) at the time of death of a Participant residing or working outside the United States, any required distribution under the Plan shall be made to the executor or administrator of the estate of the Participant, or to such other individual as may be prescribed by applicable law.

(h) Termination of Employment or Service. Except as otherwise provided in an Award agreement, or any employment, consulting, change-in-control, severance or other agreement between the Participant and the Company or an Affiliate, unless determined otherwise by the Committee: (i) neither a temporary absence from employment or service due to illness, vacation or leave of absence (including, without limitation, a call to active duty for military service through a Reserve or National guard unit) nor a transfer from employment or service with the Company to employment or service with an Affiliate (or vice versa) shall be considered a termination of employment or service with the Company or an Affiliate; and (ii) if the Participant's employment with the Company or its Affiliates terminates, but such Participant continues to provide services with the Company or its Affiliates in a non-employee capacity (including as a non-employee director) (or vice versa), such change in status shall not be considered a termination of employment or service with the Company or an Affiliate for purposes of the Plan.

(i) No Rights as a Shareholder. Except as otherwise specifically provided in the Plan or any Award agreement, no person shall be entitled to the privileges of ownership in respect of shares of Common Stock which are subject to Awards hereunder until such shares have been issued or delivered to that person.

(j) Government and Other Regulations.

(i) Nothing in the Plan shall be deemed to authorize the Committee or Board or any members thereof to take any action contrary to applicable law or regulation, or rules of NASDAQ or any other securities exchange or inter-dealer quotation service on which the Common Stock is listed or quoted.

(ii) The obligation of the Company to settle Awards in Common Stock or other consideration shall be subject to all applicable laws, rules, and regulations, and to such approvals by governmental agencies as may be required. Notwithstanding any terms or conditions of any Award to the contrary, the Company shall be under no obligation to offer to sell or to sell, and shall be prohibited from offering to sell or selling, any shares of Common Stock pursuant to an Award unless such shares have been properly registered for sale pursuant to the Securities Act with the Securities and Exchange Commission or unless the Company has received an opinion of counsel, satisfactory to the Company, that such shares may be offered or sold without such registration pursuant to and in compliance with the terms of an available exemption. The Company shall be under no obligation to register for sale under the Securities Act any of the shares of Common Stock to be offered or sold under the Plan. The Committee shall have the authority to provide that all shares of Common Stock or other securities of the Company or any Affiliate delivered under the Plan shall be subject to such stop transfer orders and other restrictions as the Committee may deem advisable under the Plan, the applicable Award agreement, the U.S. federal securities laws, or the rules, regulations and other requirements of the U.S. Securities and Exchange Commission, any securities exchange or inter-dealer quotation service upon which such shares or other securities of the Company are then listed or quoted and any other applicable federal, state, local or non-U.S. laws, rules, regulations and other requirements, and, without limiting the generality of Section 9 of the Plan, the Committee may cause a legend or legends to be put on any such certificates of Common Stock or other securities of the Company or any Affiliate delivered under the Plan to make appropriate reference to such restrictions or may cause such Common Stock or other securities of the Company or any Affiliate delivered under the Plan in book-entry form to be held subject to the Company's instructions or subject to appropriate stop-transfer orders. Notwithstanding any provision in the Plan to the contrary, the Committee reserves the right to add any additional terms or provisions to any Award granted under the Plan that it in its sole discretion deems necessary or advisable in order that such Award complies with the legal requirements of any governmental entity to whose jurisdiction the Award is subject.

(iii) The Committee may cancel an Award or any portion thereof if it determines that legal or contractual restrictions and/or blockage and/or other market considerations would make the Company's acquisition of shares of Common Stock from the public markets, the Company's issuance of Common Stock to the Participant, the Participant's acquisition of Common Stock from the Company and/or the Participant's sale of Common Stock to the public markets, illegal, impracticable or inadvisable. If the Committee determines to cancel all or any portion of an Award in accordance with the foregoing, unless prevented by applicable laws, the Company shall pay to the Participant an amount equal to the excess of (A) the aggregate Fair Market Value of the shares of Common Stock subject to such Award or portion thereof canceled (determined as of the applicable exercise date, or the date that the shares would have been vested or delivered, as applicable), over (B) the aggregate Exercise Price or Strike Price (in the case of an Option or SAR, respectively) or any amount payable as a condition of delivery of shares of Common Stock (in the case of any other Award). Such amount shall be delivered to the Participant as soon as practicable following the cancellation of such Award or portion thereof.

(k) No Section 83(b) Elections Without Consent of Company. No election under Section 83(b) of the Code or under a similar provision of law may be made unless expressly permitted by the terms of the applicable Award agreement or by action of the Committee in writing prior to the making of such election. If the Participant, in connection with the acquisition of shares of Common Stock under the Plan or otherwise, is expressly permitted to make such election and the Participant makes the election, the Participant shall notify the Company of such election within ten days of filing notice of the election with the Internal Revenue Service or other governmental authority, in addition to any filing and notification required pursuant to Section 83(b) of the Code or other applicable provision.

(l) Payments to Persons Other Than Participants. If the Committee shall find that any person to whom any amount is payable under the Plan is unable to care for his affairs because of illness or accident, or is a minor, or has died, then any payment due to such person or his estate (unless a prior claim therefor has been made by a duly appointed legal representative or a beneficiary designation form has been filed with the Company) may, if the Committee so directs the Company, be paid to his spouse, child, relative, an institution maintaining or having custody of such person, or any other person deemed by the Committee to be a proper recipient on behalf of such person otherwise entitled to payment. Any such payment shall be a complete discharge of the liability of the Committee and the Company therefor.

(m) Nonexclusivity of the Plan. Neither the adoption of the Plan by the Board nor the submission of the Plan to the shareholders of the Company for approval shall be construed as creating any limitations on the power of the Board to adopt such other incentive arrangements as it may deem desirable, including, without limitation, the granting of stock options otherwise than under the Plan, and such arrangements may be either applicable generally or only in specific cases.

(n) No Trust or Fund Created. Neither the Plan nor any Award shall create or be construed to create a trust or separate fund of any kind or a fiduciary relationship between the Company or any Affiliate, on the one hand, and the Participant or other person or entity, on the other hand. No provision of the Plan or any Award shall require the Company, for the purpose of satisfying any obligations under the Plan, to purchase assets or place any assets in a trust or other entity to which contributions are made or otherwise to segregate any assets, nor shall the Company maintain separate bank accounts, books, records or other evidence of the existence of a segregated or separately maintained or administered fund for such purposes. Participants shall have no rights under the Plan other than as unsecured general creditors of the Company.

(o) Reliance on Reports. Each member of the Committee and each member of the Board (and their respective designees) shall be fully justified in acting or failing to act, as the case may be, and shall not be liable for having so acted or failed to act in good faith, in reliance upon any report made by the independent registered public accounting firm of the Company and its Affiliates and/or any other information furnished in connection with the Plan by any agent of the Company or the Committee or the Board, other than himself.

(p) Relationship to Other Benefits. No payment under the Plan shall be taken into account in determining any benefits under any pension, retirement, profit sharing, group insurance or other benefit plan of the Company except as otherwise specifically provided in such other plan.

(q) Purchase for Investment. Whether or not the Options and shares covered by the Plan have been registered under the Securities Act, each person exercising an Option under the Plan or acquiring shares under the Plan, may be required by the Company to give a representation in writing that such person is acquiring such shares for investment and not with a view to, or for sale in connection with, the distribution of any part thereof. The Company will endorse any necessary legend referring to the foregoing restriction upon the certificate or certificates representing any shares issued or transferred to the Participant upon the exercise of any Option granted under the Plan.



(r) Governing Law. The Plan shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to principles of conflicts of laws thereof, or principles of conflicts of laws of any other jurisdiction which could cause the application of the laws of any jurisdiction other than the State of Delaware.

(s) Severability. If any provision of the Plan or any Award or Award agreement is or becomes or is deemed to be invalid, illegal, or unenforceable in any jurisdiction or as to any person or entity or Award, or would disqualify the Plan or any Award under any law deemed applicable by the Committee, such provision shall be construed or deemed amended to conform to the applicable laws, or if it cannot be construed or deemed amended without, in the determination of the Committee, materially altering the intent of the Plan or the Award, such provision shall be construed or deemed stricken as to such jurisdiction, person or entity or Award and the remainder of the Plan and any such Award shall remain in full force and effect.

(t) Obligations Binding on Successors. The obligations of the Company under the Plan shall be binding upon any successor corporation or organization resulting from the merger, consolidation or other reorganization of the Company, or upon any successor corporation or organization succeeding to all or substantially all of the assets and business of the Company.

(u) 409A of the Code.

(i) It is intended that the Plan comply with Section 409A of the Code, and all provisions of the Plan shall be construed and interpreted in a manner consistent with the requirements for avoiding taxes or penalties under Section 409A of the Code. Each Participant is solely responsible and liable for the satisfaction of all taxes and penalties that may be imposed on or in respect of such Participant in connection with the Plan or any other plan maintained by the Company, including any taxes and penalties under Section 409A of the Code, and neither the Company nor any Affiliate shall have any obligation to indemnify or otherwise hold such Participant or any beneficiary harmless from any or all of such taxes or penalties. With respect to any Award that is considered “deferred compensation” subject to Section 409A of the Code, references in the Plan to “termination of employment” (and substantially similar phrases) shall mean “separation from service” within the meaning of Section 409A of the Code. For purposes of Section 409A of the Code, each of the payments that may be made in respect of any Award granted under the Plan is designated as a separate payment.

(ii) Notwithstanding anything in the Plan to the contrary, if the Participant is a “specified employee” within the meaning of Section 409A(a)(2)(B)(i) of the Code, no payments or deliveries in respect of any Awards that are “deferred compensation” subject to Section 409A of the Code shall be made to such Participant prior to the date that is six months after the date of such Participant’s “separation from service” within the meaning of Section 409A of the Code or, if earlier, the Participant’s date of death. All such delayed payments or deliveries will be paid or delivered (without interest) in a single lump sum on the earliest date permitted under Section 409A of the Code that is also a business day.

(iii) In the event that the timing of payments in respect of any Award that would otherwise be considered “deferred compensation” subject to Section 409A of the Code would be accelerated upon the occurrence of (A) a Change in Control, no such acceleration shall be permitted unless the event giving rise to the Change in Control satisfies the definition of a change in the ownership or effective control of a corporation, or a change in the ownership of a substantial portion of the assets of a corporation pursuant to Section 409A of the Code and any Treasury Regulations promulgated thereunder or (B) a Disability, no such acceleration shall be permitted unless the Disability also satisfies the definition of “Disability” pursuant to Section 409A of the Code and any Treasury Regulations promulgated thereunder.

(v) Clawback/Forfeiture. Notwithstanding anything to the contrary contained herein, an Award agreement may provide that the Committee may cancel such Award if the Participant, without the consent of the Company, has engaged in or engages in activity that is in conflict with or adverse to the interest of the Company or any Affiliate while employed by or providing services to the Company or any Affiliate, including fraud or conduct contributing to any financial restatements or irregularities, or violates a non-competition, non-solicitation, non-disparagement or non-disclosure covenant or agreement with the Company or any Affiliate, as determined by the Committee. The Committee may also provide in an Award agreement that in such event, the Participant will forfeit any compensation, gain or other value realized thereafter on the vesting, exercise or settlement of such Award, the sale or other transfer of such Award, or the sale of shares of Common Stock acquired in respect of such Award, and must promptly repay such amounts to the Company. The Committee may also provide in an Award agreement that if the Participant receives any amount in excess of what the Participant should have received under the terms of the Award for any reason (including without limitation by reason of a financial restatement, mistake in calculations or other administrative error), all as determined by the Committee, then the Participant shall be required to promptly repay any such excess amount to the Company. To the extent required by applicable law (including, without limitation, Section 304 of the Sarbanes-Oxley Act and Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act) and/or the rules and regulations of NASDAQ or any other securities exchange or inter-dealer quotation service on which the Common Stock is listed or quoted, or if so required pursuant to a written policy adopted by the Company, Awards shall be subject (including on a retroactive basis) to clawback, forfeiture or similar requirements (and such requirements shall be deemed incorporated by reference into all outstanding Award agreements).

(w) No Representations or Covenants With Respect to Tax Qualification. Although the Company may endeavor to (i) qualify an Award for favorable U.S. or non-U.S. tax treatment or (ii) avoid adverse tax treatment, the Company makes no representation to that effect and expressly disavows any covenant to maintain favorable or avoid unfavorable tax treatment. The Company shall be unconstrained in its corporate activities without regard to the potential negative tax impact on holders of Awards under the Plan.

(x) Code Section 162(m) Re-approval. If the Company becomes subject to the provisions of Section 162(m) of the Code, the Committee may, for purposes of exempting certain Awards granted after such time from the deduction limitations of Section 162(m) of the Code, submit the provisions of the Plan regarding Performance Compensation Awards for re-approval by the shareholders of the Company (i) prior to the first shareholder meeting at which directors are to be elected that occurs in calendar year 2019, or such earlier time as required under applicable Treasury Regulations, and (ii) thereafter not later than every five years in accordance with applicable Treasury Regulations. Nothing in this subsection, however, shall affect the validity of Awards granted after such time if such shareholder approval has not been obtained.

(y) Expenses; Gender; Titles and Headings. The expenses of administering the Plan shall be borne by the Company and its Affiliates. Masculine pronouns and other words of masculine gender shall refer to both men and women. The titles and headings of the sections in the Plan are for convenience of reference only, and in the event of any conflict, the text of the Plan, rather than such titles or headings shall control.

\* \* \*

As adopted by the Board of Directors of the Company on [ ], 2015.

As approved by the shareholders of the Company on [ ], 2015.

**VTV THERAPEUTICS INC.**  
**2015 OMNIBUS EQUITY INCENTIVE PLAN**  
**NONQUALIFIED**  
**OPTION AWARD AGREEMENT**

THIS NONQUALIFIED OPTION AWARD AGREEMENT (the “Agreement”), is entered into as of [\_\_\_\_\_] (the “Date of Grant”), by and between vTv Therapeutics Inc., a Delaware corporation (the “Company”), and [\_\_\_\_\_] (the “Participant”).

WHEREAS, the Company has adopted the vTv Therapeutics Inc. 2015 Omnibus Equity Incentive Plan (the “Plan”), pursuant to which Options may be granted; and

WHEREAS, the Compensation Committee of the Board of Directors of the Company (the “Committee”)<sup>1</sup> has determined that it is in the best interests of the Company and its stockholders to grant the Option provided for herein to the Participant subject to the terms set forth herein.

NOW, THEREFORE, for and in consideration of the premises and the covenants of the parties contained in this Agreement, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto, for themselves, their successors and assigns, hereby agree as follows:

**1. Grant of Option.**

(a) Grant. The Company hereby grants to the Participant an Option (the “Option”) to purchase [\_\_\_\_\_] shares of Class A Common Stock (such shares, the “Option Shares”), on the terms and conditions set forth in this Agreement and as otherwise provided in the Plan. The Option is not intended to qualify as an Incentive Stock Option. The Options shall vest in accordance with Section 2. The Exercise Price shall be \$[\_\_\_\_\_] per Option Share.

(b) Incorporation by Reference. The provisions of the Plan are incorporated herein by reference. Except as otherwise expressly set forth herein, this Agreement shall be construed in accordance with the provisions of the Plan and any interpretations, amendments, rules and regulations promulgated by the Committee from time to time pursuant to the Plan. Any capitalized terms not otherwise defined in this Agreement shall have the definitions set forth in the Plan. The Committee shall have final authority to interpret and construe the Plan and this Agreement and to make any and all determinations under them, and its decision shall be binding and conclusive upon the Participant and his legal representative in respect of any questions arising under the Plan or this Agreement. The Participant acknowledges that he or she has received a copy of the Plan and has had an opportunity to review the Plan and agrees to be bound by all the terms and provisions of the Plan.

**2. Vesting**. Except as may otherwise be provided herein or as otherwise provided in an employment agreement, consulting agreement or other written agreement between the Participant and the Company or any of its Affiliates, subject to the Participant’s continued employment or service with the Company or an Affiliate, the Options shall become vested and exercisable in equal installments [on each of the first [\_\_\_] anniversaries of] [over [\_\_\_] months after]<sup>2</sup> the Date of Grant (each such date, a “Vesting Date”). Any fractional Option Shares resulting from the application of the vesting schedule shall be aggregated and the Option Shares resulting from such aggregation shall vest on the final Vesting Date.

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<sup>1</sup> Pursuant to the terms of the Plan, the Board of Directors of the Company is also authorized to grant awards and administer the Plan.

<sup>2</sup> Awards for non-employee directors are expected to vest on a monthly basis.

### 3. Termination of Employment or Service.

(a) Except as otherwise provided herein or as otherwise provided in an employment agreement, consulting agreement or other written agreement between the Participant and the Company or any of its Affiliates, if the Participant's employment or service with the Company and its Affiliates terminates for any reason other, the unvested portion of the Option shall be cancelled immediately, and the Participant shall immediately forfeit any rights to the Option Shares subject to such unvested portion.

(b) [For purpose hereof, the term "Good Reason" shall have the meaning ascribed to such term (or term of similar meaning and import) in any employment, consulting, or other written agreement between the Participant and the Company or an Affiliate in effect at the time of such termination or, in the absence of any such agreement or in the absence of any definition of good reason in such agreement, then Good Reason shall mean the occurrence of any of the following events without the Participant's written consent: (i) any material diminution of base salary and target bonus opportunity, or (ii) any relocation of principal place of employment to a location more than 50 miles from the Participant's principal place of employment as of the date hereof that increases the Participant's one-way commute. Notwithstanding the foregoing, Good Reason shall not exist unless (x) within ten (10) days after the occurrence of the event that the Participant asserts constitutes an event described in clause (i) or (ii) above, the Participant notifies the Company's senior human resources officer in writing of such event and the circumstances that the Participant asserts give rise to Good Reason, (y) the Company fails to cure such circumstances within thirty (30) days following such notice (the "Cure Period"), and (z) no later than two (2) days after the expiration of the Cure Period, the Participant resigns from employment, such resignation to be effective ten (10) days following expiration of the Cure Period; provided, that the Company, in its sole discretion, may waive all or any part of the Cure Period, and the Company may assert that, notwithstanding such resignation, the Participant did not terminate for Good Reason within the meaning of this Agreement.

(c) Notwithstanding Section 3(a), if the Participant's employment or service with the Company and its Affiliates is terminated by the Company or its Affiliates without Cause (other than for death or disability) or by the Participant for Good Reason in each case on or within twelve months following a Change-in-Control, then any unvested Options then outstanding shall become vested upon the date of such termination.]

### 4. Expiration.

(a) In no event shall all or any portion of the Option be exercisable after the tenth annual anniversary of the Date of Grant (such ten-year period, the "Option Period"); provided, that if the Option Period would expire at a time when trading in the shares of Class A Common Stock is prohibited by the Company's securities trading policy (or Company-imposed "blackout period"), the Option Period shall be automatically extended until the 30<sup>th</sup> day following the expiration of such prohibition (but not to the extent any such extension would otherwise violate Section 409A of the Code).

(b) Except as otherwise provided in an employment agreement, consulting agreement or other written agreement between the Participant and the Company or any of its Affiliates, if, prior to the end of the Option Period, the Participant's employment or service with the Company and all Affiliates is terminated without Cause or by the Participant for any reason other than Cause, the Option shall expire on the earlier of the last day of the Option Period or the date that is 90 days after the date of such termination. In the event of a termination described in this subsection (b), the Option shall remain exercisable by the Participant until its expiration only to the extent the Option was exercisable at the time of such termination.

(c) Except as otherwise provided in an employment agreement, consulting agreement or other written agreement between the Participant and the Company or any of its Affiliates, if (x) the Participant's employment or service is terminated prior to the end of the Option Period on account of his or her Disability, (y) the Participant dies while still in the employ of the Company or an Affiliate or (z) the Participant dies following a termination described in subsection (b) above but prior to the expiration of an Option, the Option shall expire on the earlier of the last day of the Option Period or the date that is one year after the date of death or termination on account of Disability of the Participant, as applicable. In such event, the Option shall remain exercisable by the Participant or his beneficiary, as applicable, until its expiration only to the extent the Option was exercisable by the Participant at the time of such event.

(d) If the Participant ceases employment or service with the Company or any Affiliates due to a termination for Cause or a termination for any reason at a time when grounds to terminate the Participant's employment for Cause exist, the Option (including any vested portion of the Option) shall expire immediately upon such termination.

**5. Method of Exercise and Form of Payment.** No Option Shares shall be delivered pursuant to any exercise of the Option until payment in full is made to the Company of the Exercise Price and an amount equal to any U.S. federal, state, local and non-U.S. income and employment taxes required to be withheld is withheld. The Option may be exercised by delivery of written or electronic notice of exercise to the Company or its designee (including a third party administrator) in accordance with the terms hereof. The Exercise Price and all applicable required withholding taxes shall be payable (i) in cash, check, cash equivalent (including bank or certified check or wire transfer) and/or in shares of Class A Common Stock (or any combination of the foregoing) valued at the Fair Market Value at the time the Option is exercised (including, pursuant to procedures approved by the Committee, by means of attestation of ownership of a sufficient number of shares of Class A Common Stock in lieu of actual delivery of such shares to the Company); provided, that such shares of Class A Common Stock are not subject to any pledge or other security interest; or (ii) by such other method as the Committee may permit, including without limitation: (A) in other property having a fair market value equal to the Exercise Price and all applicable required withholding taxes or (B) if there is a public market for the shares of Class A Common Stock at such time, by means of a broker-assisted "cashless exercise" pursuant to which the Company is delivered a copy of irrevocable instructions to a stockbroker to sell the shares of Class A Common Stock otherwise deliverable upon the exercise of the Option and to deliver promptly to the Company an amount equal to the Exercise Price and all applicable required withholding taxes; or (C) by means of a "net exercise" procedure effected by withholding the minimum number of shares of Class A Common Stock otherwise deliverable in respect of an Option that are needed to pay for the Exercise Price and all applicable required withholding taxes. Any fractional shares of Class A Common Stock shall be settled in cash.

**6. Rights as a Stockholder.** The Participant shall not be deemed for any purpose to be the owner of any shares of Class A Common Stock subject to this Option unless, until and to the extent that (i) this Option shall have been exercised pursuant to its terms, (ii) the Company shall have issued and delivered to the Participant the Option Shares and (iii) the Participant's name shall have been entered as a stockholder of record with respect to such Option Shares on the books of the Company. The Company shall cause the actions described in clauses (ii) and (iii) of the preceding sentence to occur promptly following settlement as contemplated by this Agreement, subject to compliance with applicable laws.

## 7. Compliance with Legal Requirements.

(a) **Generally.** The granting and exercising of the Option, and any other obligations of the Company under this Agreement, shall be subject to all applicable U.S. federal, state and local laws, rules and regulations, all applicable non-U.S. laws, rules and regulations and to such approvals by any regulatory or governmental agency as may be required. The Participant agrees to take all steps the Committee or the Company determines are reasonably necessary to comply with all applicable provisions of U.S. federal and state securities law and non-U.S. securities law in exercising his or her rights under this Agreement.

(b) **Tax Withholding.** Any exercise of the Option shall be subject to the Participant satisfying any applicable U.S. federal, state and local tax withholding obligations and non-U.S. tax withholding obligations. The Company shall have the right and is hereby authorized to withhold from any amounts payable to the Participant in connection with the Option or otherwise the amount of any required withholding taxes in respect of the Option, its exercise or any payment or transfer of the Option or under the Plan and to take any such other action as the Committee or the Company deem necessary to satisfy all obligations for the payment of such withholding taxes. The Committee, may in its sole discretion permit the Participant to satisfy, in whole or in part, the tax obligations by withholding shares of Class A Common Stock that would otherwise be received upon exercise of the Option with a Fair Market Value equal to such withholding liability (but no more than the minimum required statutory withholding liability).

**8. Clawback.** Notwithstanding anything to the contrary contained herein, the Committee may cancel the Option award if the Participant, without the consent of the Company, has engaged in or engages in activity that is in conflict with or adverse to the interest of the Company or any Affiliate while employed by or providing services to the Company or any Affiliate, including fraud or conduct contributing to any financial restatements or irregularities, or violates a non-competition, non-solicitation, non-disparagement or non-disclosure covenant or agreement with the Company or any Affiliate, as determined by the Committee. In such event, the Participant will forfeit any compensation, gain or other value realized thereafter on the vesting or exercise of the Option, the sale or other transfer of the Option, or the sale of shares of Class A Common Stock acquired in respect of the Option, and must promptly repay such amounts to the Company. If the Participant receives any amount in excess of what the Participant should have received under the terms of the Option for any reason (including without limitation by reason of a financial restatement, mistake in calculations or other administrative error), all as determined by the Committee, then the Participant shall be required to promptly repay any such excess amount to the Company. To the extent required by applicable law and/or the rules and regulations of NASDAQ or any other securities exchange or inter-dealer quotation system on which the Class A Common Stock is listed or quoted, or if so required pursuant to a written policy adopted by the Company, the Option shall be subject (including on a retroactive basis) to clawback, forfeiture or similar requirements (and such requirements shall be deemed incorporated by reference into this Agreement).

**9. Restrictive Covenants.** In the event that the Participant violates any restrictive covenants applicable to the Participant, in addition to any other remedy which may be available at law or in equity, the Option shall be forfeited effective as of the date on which such violation first occurs, unless otherwise determined by the Committee. The foregoing rights and remedies are in addition to any other rights and remedies that may be available to the Company and shall not prevent (and the Participant shall not assert that they shall prevent) the Company from bringing one or more actions in any applicable jurisdiction to recover damages as a result of the Participant's breach of such restrictive covenants.

**10. Miscellaneous.**

(a) Transferability. The Option may not be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered (a “Transfer”) by the Participant other than by will or by the laws of descent and distribution, pursuant to a qualified domestic relations order or as otherwise permitted under Section 15(b) of the Plan. Any attempted Transfer of the Option contrary to the provisions hereof, and the levy of any execution, attachment or similar process upon the Option, shall be null and void and without effect.

(b) Waiver. Any right of the Company contained in this Agreement may be waived in writing by the Committee. No waiver of any right hereunder by any party shall operate as a waiver of any other right, or as a waiver of the same right with respect to any subsequent occasion for its exercise, or as a waiver of any right to damages. No waiver by any party of any breach of this Agreement shall be held to constitute a waiver of any other breach or a waiver of the continuation of the same breach.

(c) Section 409A. The Option is not intended to be subject to Section 409A of the Code. Notwithstanding the foregoing or any provision of the Plan or this Agreement, if any provision of the Plan or this Agreement contravenes Section 409A of the Code or could cause the Participant to incur any tax, interest or penalties under Section 409A of the Code, the Committee may, in its sole discretion and without the Participant’s consent, modify such provision to (i) comply with, or avoid being subject to, Section 409A of the Code, or to avoid the incurrence of taxes, interest and penalties under Section 409A of the Code, and/or (ii) maintain, to the maximum extent practicable, the original intent and economic benefit to the Participant of the applicable provision without materially increasing the cost to the Company or contravening the provisions of Section 409A of the Code. This Section 10(c) does not create an obligation on the part of the Company to modify the Plan or this Agreement and does not guarantee that the Option or the Option Shares will not be subject to interest and penalties under Section 409A.

(d) Notices. Any notices provided for in this Agreement or the Plan shall be in writing and shall be deemed sufficiently given if either hand delivered or if sent by fax, pdf/email or overnight courier, or by postage paid first class mail. Notices sent by mail shall be deemed received three (3) business days after mailing but in no event later than the date of actual receipt. Notices shall be directed, if to the Participant, at the Participant’s address indicated by the Company’s records, or if to the Company, to the attention of the Chief Financial Officer of the Company at the Company’s principal executive office.

(e) Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

(f) No Rights to Employment or Service. Nothing contained in this Agreement shall be construed as giving the Participant any right to be retained, in any position, as an employee, consultant or director of the Company or its Affiliates or shall interfere with or restrict in any way the rights of the Company or its Affiliates, which are hereby expressly reserved, to remove, terminate or discharge the Participant at any time for any reason whatsoever.

(g) Fractional Shares. In lieu of issuing a fraction of a share of Class A Common Stock resulting from any exercise of the Option or an adjustment of the Option pursuant to Section 12 of the Plan or otherwise, the Company shall be entitled to pay to the Participant an amount in cash equal to the Fair Market Value of such fractional share.

(h) Beneficiary. The Participant may file with the Committee a written designation of a beneficiary on such form as may be prescribed by the Committee and may, from time to time, amend or revoke such designation.

(i) Successors. The terms of this Agreement shall be binding upon and inure to the benefit of the Company and its successors and assigns, and of the Participant and the beneficiaries, executors, administrators, heirs and successors of the Participant.

(j) Entire Agreement. This Agreement and the Plan contain the entire agreement and understanding of the parties hereto with respect to the subject matter contained herein and supersede all prior communications, representations and negotiations in respect thereto. No change, modification or waiver of any provision of this Agreement shall be valid unless the same be in writing and signed by the parties hereto, except for any changes permitted without consent under Section 12 or 14 of the Plan.

(k) Governing Law and Venue. This Agreement shall be construed and interpreted in accordance with the laws of the State of Delaware, without regard to principles of conflicts of laws thereof, or principles of conflicts of laws of any other jurisdiction which could cause the application of the laws of any jurisdiction other than the State of Delaware.

(i) Dispute Resolution; Consent to Jurisdiction. All disputes between or among any Persons arising out of or in any way connected with the Plan, this Agreement or the Option shall be solely and finally settled by the Committee, acting in good faith, the determination of which shall be final. Any matters not covered by the preceding sentence shall be solely and finally settled in accordance with the Plan, and the Participant and the Company consent to the personal jurisdiction of the United States Federal and state courts sitting in Wilmington, Delaware as the exclusive jurisdiction with respect to matters arising out of or related to the enforcement of the Committee's determinations and resolution of matters, if any, related to the Plan or this Agreement not required to be resolved by the Committee. Each such Person hereby irrevocably consents to the service of process of any of the aforementioned courts in any such suit, action or proceeding by the mailing of copies thereof by registered or certified mail, postage prepaid, to the last known address of such Person, such service to become effective ten (10) days after such mailing.

(ii) Waiver of Jury Trial. Each party hereto hereby waives, to the fullest extent permitted by applicable law, any right it may have to a trial by jury in any legal proceeding directly or indirectly arising out of or relating to this Agreement or the transactions contemplated (whether based on contract, tort or any other theory). Each party hereto (A) certifies that no representative, agent or attorney of any other party has represented, expressly or otherwise, that such other party would not, in the event of litigation, seek to enforce the foregoing waiver and (B) acknowledges that it and the other parties hereto have been induced to enter into this Agreement by, among other things, the mutual waivers and certifications in this section.

(l) Headings; Gender. The headings of the Sections hereof are provided for convenience only and are not to serve as a basis for interpretation or construction, and shall not constitute a part, of this Agreement. Masculine pronouns and other words of masculine gender shall refer to both men and women as appropriate.

(m) Counterparts. This Agreement may be executed in one or more counterparts (including via facsimile and electronic image scan (pdf)), each of which shall be deemed to be an original, but all of which together shall constitute one and the same instrument and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other parties.



(n) Electronic Signature and Delivery. This Agreement may be accepted by return signature or by electronic confirmation. By accepting this Agreement, the Participant consents to the electronic delivery of prospectuses, annual reports and other information required to be delivered by U.S. Securities and Exchange Commission rules (which consent may be revoked in writing by the Participant at any time upon three (3) business days' notice to the Company, in which case subsequent prospectuses, annual reports and other information will be delivered in hard copy to the Participant).

(o) Electronic Participation in Plan. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means. The Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party designated by the Company.

*[Remainder of page intentionally blank]*

IN WITNESS WHEREOF, this Agreement has been executed by the Company and the Participant as of the day first written above.

VTV THERAPEUTICS INC.

By: \_\_\_\_\_  
Name:  
Title:

\_\_\_\_\_  
[PARTICIPANT]

Subsidiaries of vTv Therapeutics Inc.\*

Legal Name

State of Organization

vTv Therapeutics LLC

Delaware

\* After giving effect to the Reorganization Transactions described under “Prospectus Summary—The Reorganization Transactions” in the accompanying prospectus.

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