UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form S-3 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) 47-3916571 (I.R.S. Employer Identification Number)

3980 Premier Drive, Suite 310 High Point, NC 27265 (336) 841-0300

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

Steven Tuch Chief Financial Officer 3980 Premier Drive, Suite 310 High Point, NC 27265 (336) 841-0300

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

Copies To:

David S. Rosenthal Dechert LLP 1095 Avenue of the Americas New York, NY 10036-6797 (212) 698-3500

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: \Box

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, other than securities offered only in connection with dividend or interest reinvestment plans, 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. \Box

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. \Box

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

2	npany. See the definitions of "large accelerated filer,"	n accelerated filer, a non-accelerated filer, a smaller reporting compa "accelerated filer," "smaller reporting company," and "emerging gro			
Large accelerated filer		Accelerated filer			
Non-accelerated filer	\boxtimes	Smaller reporting company	\boxtimes		
		Emerging growth company			
If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section $7(a)(2)(B)$ of Securities Act. \Box					
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 registration statement contains two prospectuses:

- a base prospectus covering the offering, issuance and sale by the registrant of up to a maximum aggregate offering price of \$250.0 million of the registrant's Class A common stock, preferred stock, debt securities, warrants, rights and/or units; and
- a sales agreement prospectus covering the offering, issuance and sale of up to a maximum aggregate offering price of \$12,678,712 of Class A common stock from time to time under a Sales Agreement with Cowen and Company, LLC ("TD Cowen"), dated as of February 28, 2024, or the sales agreement. Pursuant to the sales agreement, an aggregate amount of up to \$50.0 million of our Class A common stock may be offered, issued and sold from time to time. The sales agreement prospectus covers a smaller amount of such securities in respect of the limitations imposed by Instruction I.B.6 of Form S-3.

The base prospectus immediately follows this explanatory note. The specific terms of any securities to be offered pursuant to the base prospectus will be specified in a prospectus supplement to the base prospectus.

The prospectus relating to the sales agreement immediately follows the base prospectus. The \$12,678,712 of Class A common stock that may be offered, issued and sold under the sales agreement prospectus is included in the \$250.0 million of securities that may be offered, issued and sold under the base prospectus. Upon termination of the sales agreement with TD Cowen, any portion of the \$12,678,712 included in the sales agreement prospectus that is not sold pursuant to the sales agreement will be available for sale in other offerings pursuant to the base prospectus and a corresponding prospectus supplement, and if no shares are sold under the sales agreement, the full \$250.0 million of securities may be sold in other offerings pursuant to the base prospectus and a corresponding prospectus supplement.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS (Subject to Completion)

Dated April 10, 2024



vTv Therapeutics Inc.

\$250,000,000

Class A Common Stock
Preferred Stock
Debt Securities
Warrants
Rights
Units

This prospectus contains a general description of the securities that we may offer for sale with an aggregate offering price of up to \$250,000,000 from time to time in one or more offerings. Each time we offer and sell any of the securities described in the prospectus, we will provide a supplement to this prospectus that contains specific information about the offering and the amounts, prices and terms of the securities offered. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable anti-dilution provisions. Read this prospectus and any supplement carefully before you invest.

Our Class A common stock is listed on The Nasdaq Capital Market under the symbol "VTVT". On April 9, 2024, the closing price of our Class A common stock on The Nasdaq Capital Market was \$25.00 per share.

We are a "smaller reporting company" under applicable Securities and Exchange Commission rules and are subject to reduced public company reporting requirements.

As of March 21, 2024, our public float, which is equal to the aggregate market value of our outstanding voting and non-voting common stock held by non-affiliates, was approximately \$38,036,139 million, based on 2,432,857 shares of outstanding Class A common stock, of which approximately 1,311,591 shares were held by non-affiliates, and a closing sale price of our Class A common stock of \$29.00 on that date. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities in a public primary offering with a value exceeding one-third of our public float in any 12-month period so long as our public float remains below \$75.0 million.

Investing in our securities involves risks that are referenced under the caption "Risk Factors" on page 8 of this prospectus. You should carefully review the risks and uncertainties described under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference in this prospectus.

THE SECURITIES DESCRIBED IN THIS PROSPECTUS HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is	, 2024 .
The date of this prospectus is	, 2024 .

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ABOUT THIS PROSPECTUS

To understand the terms of the securities offered by this prospectus, you should carefully read this prospectus and any applicable prospectus supplement. You should also read the documents referred to under the heading "Where You Can Find More Information" for information on vTv Therapeutics Inc. and its financial statements. Certain capitalized terms used in this prospectus are defined elsewhere in this prospectus.

This prospectus is part of a registration statement on Form S-3 that vTv Therapeutics Inc., a Delaware corporation, which is also referred to herein as "vTv Therapeutics," "the Company," "our company," "we," "us" and "our," has filed with the U.S. Securities and Exchange Commission, or the SEC, using a "shelf" registration procedure. Under this shelf registration statement, vTv Therapeutics Inc. may offer and sell from time to time any combination of the securities described in this prospectus, with an aggregate initial offering price of up to \$250,000,000. Furthermore, in no event will we sell Class A common stock with a value exceeding more than one-third of our "public float" (the market value of our Class A common stock and any other equity securities that we may issue in the future that are held by non-affiliates) in any 12-calendar month period so long as our public float remains below \$75.0 million.

This prospectus provides you with a general description of the securities we may offer. Each time we offer any securities, we will provide you with a prospectus supplement that will describe the specific amounts, prices and terms of the securities being offered. The prospectus supplement may also add, update or change information contained or incorporated by reference in this prospectus. If there is any inconsistency between the information in this prospectus and any prospectus supplement, you should rely on the information in the prospectus supplement.

WHERE YOU CAN FIND MORE INFORMATION

vTv Therapeutics files annual, quarterly and current reports, proxy statements and other information with the SEC. You may obtain such SEC filings from the SEC's website at http://www.sec.gov.

As permitted by SEC rules, this prospectus does not contain all of the information we have included in the registration statement and the accompanying exhibits and schedules we file with the SEC. You may refer to the registration statement, exhibits and schedules for more information about us and the securities offered. The registration statement, exhibits and schedules are available through the SEC's website.

INCORPORATION BY REFERENCE

In this prospectus, we "incorporate by reference" certain information that we file with the SEC, which means that we can disclose important information to you by referring you to that information. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. The following documents have been filed by us with the SEC and are incorporated by reference into this prospectus:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 13, 2024;
- Our Current Reports on Form 8-K filed with SEC on February 28, 2024, February 28, 2024, March 14, 2024 and March 26, 2024;
- The description of our Class A common stock set forth in our registration statement filed on Form 8-A pursuant to Section 12 of the Exchange Act with the SEC on July 30, 2015, as updated by "Description of Capital Stock" filed as Exhibit 4.7 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, and any amendment or report filed for the purpose of updating that description.

All documents and reports that we file with the SEC (other than any portion of such filings that are furnished under applicable SEC rules rather than filed) under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to the effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of the offering shall be deemed to be incorporated in this prospectus by reference. The information contained on or accessible through our website (http://www.vtvtherapeutics.com) is not incorporated into this prospectus.

You may request a copy of these filings, other than an exhibit to these filings unless we have specifically included or incorporated that exhibit by reference into the filing, from the SEC as described under "Where You Can Find More Information" or, at no cost, by writing or telephoning vTv Therapeutics at the following address:

vTv Therapeutics Inc. Attn: Chief Financial Officer 3980 Premier Drive, Suite 310 High Point, NC 27265 Telephone: (336) 841-0300

You should rely only on the information contained or incorporated by reference in this prospectus, the prospectus supplement, any free writing prospectus that we authorize and any pricing supplement. We have not authorized any person, including any salesman or broker, to provide information other than that provided in this prospectus, any applicable prospectus supplement, any free writing prospectus that we authorize or any pricing supplement. We have not authorized anyone to provide you with different information. We do not take responsibility for, and can provide no assurance as to the reliability of, any information that others may give you. We are not making an offer of the securities in any jurisdiction where the offer is not permitted. You should not assume that the information in this prospectus, any applicable prospectus supplement, any free writing prospectus that we authorize and any pricing supplement or any document incorporated by reference is accurate as of any date other than the date of the applicable document.

Any statement contained in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement, or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

STATEMENTS REGARDING FORWARD-LOOKING INFORMATION

Certain information included in this prospectus or in other materials we have filed or will file with the SEC (as well as information included in oral statements or other written statements made or to be made by us) includes forward-looking statements that reflect our plans, estimates, assumptions and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and in our Annual Report on Form 10-K for the year ended December 31, 2023 under "Part I – Item 1A, Risk Factors." Forward-looking statements include information concerning our possible or assumed future results of operations, business strategies and operations, financing plans, potential growth opportunities, potential market opportunities, potential results of our drug development efforts or trials, and the effects of competition. Forward-looking statements include all statements that are not historical facts and can be identified by terms such as "anticipates," "believes," "could," "seeks," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would" or similar expressions and the negatives of those terms. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Also, forward-looking statements represent our management's plans, estimates, assumptions and beliefs only as of the date made. Except as required by law, we assume no obligation to update these forward-looking statements publicly or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

THE COMPANY

We are a clinical stage biopharmaceutical company focused on the development of orally administered treatments for metabolic and inflammatory diseases to minimize their long-term complications and improve the lives of patients. On February 27, 2024, we closed a private placement, or the Private Placement, of our Class A common stock and pre-funded warrants, pursuant to which we received aggregate gross proceeds of approximately \$51.0 million, before deducting offering expenses payable by us. The securities purchase agreement for the Private Placement, among other things, grants the investors, or the Private Placement Investors, the right to purchase up to an additional \$30.0 million of Class A common stock 18 months following the closing of the Private Placement. We anticipate that the financing will enable us to conduct a Phase 3 clinical trial for our lead product candidate, *cadisegliatin (TTP399)*, an orally administered, small molecule, liver-selective glucokinase activator, or GKA, that is a potential adjunctive therapy to insulin for the treatment of type 1 diabetes.

The U.S. Food and Drug Administration, or FDA, granted Breakthrough Therapy designation in 2021 for *cadisegliatin* as an adjunctive therapy to insulin for the treatment of type 1 diabetes, or T1D. The Breakthrough Therapy designation provides a sponsor with added support and the potential to expedite development and review timelines for a promising new investigational medicine. The Breakthrough Therapy designation for *cadisegliatin* in T1D was supported by the positive results from the Phase 2 SimpliciT-1 Study, a multi-center, randomized, double-blind, adaptive study assessing the safety and efficacy of *cadisegliatin* as an adjunct to insulin therapy in adults with T1D. In this trial, treatment with *cadisegliatin* resulted in a statistically significant improvement in HbA1c relative to placebo and a clinically meaningful decrease (40%) in the frequency of severe and symptomatic hypoglycemia. *cadisegliatin* demonstrated a favorable safety profile, in which abnormal levels of serum or urine ketones were detected less frequently in patients taking *cadisegliatin* than those taking placebo. Moreover, a Phase 1 mechanistic study of *cadisegliatin* in patients with T1D conducted to determine the impact of *cadisegliatin* on ketone body formation showed no increased risk of ketoacidosis with *cadisegliatin* during acute insulin withdrawal in patients with T1D. We have also completed a Phase 1 study in healthy male subjects to investigate the absorption, metabolism, and excretion of [14C]-*cadisegliatin* following single dose oral administration. Ten participants have been dosed and analysis is ongoing.

In May of 2023, the FDA issued new draft guidance on "Diabetes Mellitus: Efficacy Endpoints for Clinical Trials Investigating Antidiabetic Drugs and Biological Products" which, for the first time, permitted the use of hypoglycemia as an endpoint to support a label claim. Consistent with this guidance and with input from the FDA, we have initiated a Phase 3 double-blind, controlled trial to assess the effect of *cadisegliatin* on reducing the frequency of Level 2 hypoglycemia (blood glucose levels are less than 54 mg/dL or 3 mmol/L, regardless of symptoms) and Level 3 hypoglycemia ("severe" hypoglycemia e.g., requiring assistance of another person) in 150 patients with T1D. Participants in the trial will be randomized to two doses of *cadisegliatin* or placebo. Reduction in glycated hemoglobin (HbA1c), a traditional efficacy endpoint in diabetes trials, is a key secondary endpoint to assess the potential of *cadisegliatin* to reduce hyperglycemia, Following the initial assessment of efficacy after six months of treatment, participants will remain on trial for another six months to assess the durability of potential beneficial effects and safety. The study protocol was submitted to the FDA on February 29, 2024. The trial will be conducted in the U.S. only and is expected to complete enrollment by the fourth quarter in 2024 providing top line 1-year data by the first quarter in 2026.

For a description of our business, financial condition, results of operations and other important information regarding us, see our filings with the SEC incorporated by reference in this prospectus. For instructions on how to find copies of the filings incorporated by reference in this prospectus, see "Where You Can Find More Information."

Our principal executive office is located at 3980 Premier Drive, Suite 310, High Point, NC 27265, Telephone (336) 841-0300.

THE SECURITIES WE MAY OFFER

We may offer shares of our Class A common stock and preferred stock, various series of debt securities, warrants and rights to purchase shares of Class A common stock or preferred stock, debt securities or units, as well as units to purchase any of such securities, from time to time under this prospectus, together with any applicable prospectus supplement and related free writing prospectus, at prices and on terms to be determined by market conditions at the time of offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity;
- original issue discount, if any;
- rates and times of payment of interest or dividends, if any;
- redemption, conversion, exchange or sinking fund terms, if any;
- conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange;
- ranking;
- restrictive covenants, if any;
- voting or other rights, if any; and
- important U.S. federal income tax considerations.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

We may sell the securities directly to investors or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

- the names of those underwriters or agents;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the estimated net proceeds to us.

Class A Common Stock

We may offer shares of our Class A common stock, par value \$0.01 per share, either alone or underlying other registered securities convertible into or exercisable for our Class A common stock. Holders of our Class A common stock are entitled to dividends as our board of directors may declare from time to time out of legally available funds, subject to the preferential rights of the holders of any shares of our preferred stock that we may issue in the future. Currently, we do not pay any dividends and we do not have any issued and outstanding preferred stock. Each holder of our Class A common stock is entitled to one vote per share. In this prospectus, we provide a general description of, among other things, the rights and restrictions that apply to holders of our common stock. Our common stock is described in greater detail in this prospectus under "Description of Capital Stock—Common Stock."

Preferred Stock

We may issue shares of preferred stock in one or more classes or series. Our board of directors or a committee designated by our board of directors will determine the dividend, voting and conversion rights and other provisions at the time of sale. The particular terms of each class or series of preferred stock, including redemption privileges, liquidation preferences, voting rights, dividend rights and/or conversion rights, will be more fully described in the applicable prospectus supplement relating to the preferred stock offered thereby. Our preferred stock is described in greater detail in this prospectus under "Description of Capital Stock—Preferred Stock."

Debt Securities

We may offer debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsubordinated debt that we may have and may be secured or unsecured. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all or some portion of our indebtedness. Any convertible debt securities that we issue will be convertible into or exchangeable for our common stock or other securities of ours. Conversion may be mandatory or at the holder's option and would be at prescribed conversion rates.

The debt securities will be issued under one or more documents called indentures, which are contracts between us and a trustee for the holders of the debt securities. In this prospectus, we have summarized certain general features of the debt securities under "Description of Debt Securities." We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the series of debt securities being offered, as well as the complete indentures that contain the terms of the debt securities. A form of an indenture has been filed as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of debt securities being offered will be incorporated by reference into the registration statement of which this prospectus is apart from reports we file with the SEC.

Warrants

We may from time to time offer warrants for the purchase of our common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from those securities

The warrants will be evidenced by warrant certificates issued under one or more warrant agreements, which are contracts between us and an agent for the holders of the warrants. In this prospectus, we have summarized certain general features of the warrants under "Description of Warrants." We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement which includes this prospectus.

Rights

We may from time to time issue rights to purchase shares of our common stock or preferred stock, debt securities or units. The rights may be issued independently or together with other securities and may or may not be transferable by the persons purchasing or receiving the rights. In connection with any rights offering, we may enter into a standby underwriting or other arrangement with one or more underwriters or other persons pursuant to which such underwriters or other persons would purchase any offered securities remaining unsubscribed for after such rights offering. In connection with a rights offering to our stockholders, we would make available a prospectus supplement to our stockholders on or about the record date that we set for receiving rights in such rights offering.

In this prospectus, we have summarized certain general features of the rights under "Description of Rights." We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the series of rights being offered.

Units

We may offer units consisting of common stock, preferred stock, debt securities and/or warrants to purchase any of such securities in one or more series. In this prospectus, we have summarized certain general features of the units under "Description of Units." We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the series of units being offered, as well as the unit agreements that contain the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

We will evidence each series of units by unit certificates that we will issue under a separate agreement. We will enter into the unit agreements with a unit agent. Each unit agent will be a bank or trust company that we select. We will indicate the name and address of the unit agent in the applicable prospectus supplement relating to a particular series of units.

RISK FACTORS

Investing in our securities involves risk. You should carefully consider the specific risks discussed or incorporated by reference in the applicable prospectus supplement, together with all the other information contained in any applicable prospectus supplement or incorporated by reference in this prospectus and the applicable prospectus supplement. You should also consider the risks, uncertainties and assumptions discussed under the caption "Part I — Item 1A, Risk Factors" included in our Annual Report on Form 10-K for the year ended December 31, 2023, which are incorporated by reference in this prospectus, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future.

USE OF PROCEEDS

We will use the net proceeds we receive from the sale of the securities offered by us for general corporate purposes, unless we specify otherwise in the applicable prospectus supplement. General corporate purposes may include additions to working capital, capital expenditures, or repayment of debt.

DESCRIPTION OF CAPITAL STOCK

Capital Stock

Our authorized capital stock consists of 200,000,000 shares of Class A common stock, par value \$0.01 per share, 100,000,000 shares of Class B common stock, par value \$0.01 per share, and 50,000,000 shares of preferred stock, par value \$0.01 per share. As of April 10, 2024, we have approximately 2,432,857 shares of our Class A common stock outstanding, 577,349 shares of our Class B common stock outstanding and no shares of preferred stock outstanding.

Common Stock

Voting. Holders of our Class A common stock and Class B common stock are entitled to one vote for each share held on all matters submitted to stockholders for their vote or approval. The holders of our Class A common stock and Class B common stock vote together as a single class on all matters submitted to stockholders for their vote or approval, except with respect to the amendment of certain provisions of our amended and restated certificate of incorporation that would alter or change the powers, preferences or special rights of the Class B common stock so as to affect them adversely, which amendments must be approved by a majority of the votes entitled to be cast by the holders of the shares affected by the amendment, voting as a separate class, or as otherwise required by applicable law.

Dividends. The holders of Class A common stock are entitled to receive dividends when, as, and if declared by our Board of Directors out of legally available funds. The holders of our Class B common stock do not have any right to receive dividends other than dividends consisting of shares of our Class B common stock paid proportionally with respect to each outstanding share of our Class B common stock.

Liquidation or Dissolution. Upon our liquidation or dissolution, the holders of our Class A common stock are entitled to share ratably in those of our assets that are legally available for distribution to stockholders after payment of liabilities and subject to the prior rights of any holders of preferred stock then outstanding. Other than their par value, the holders of our Class B common stock do not have any right to receive a distribution upon a liquidation or dissolution of our company.

Transferability and Exchange. Subject to the terms of an exchange agreement and the operating agreement of vTv Therapeutics LLC, or vTv LLC, our principal operating subsidiary, units of vTv LLC (along with a corresponding number of shares of our Class B common stock) are exchangeable for (i) shares of our Class A common stock or (ii) cash (based on the market price of the shares of Class A common stock), at our option (as the managing member of vTv LLC). Any decision to require an exchange for cash rather than shares of Class A common stock will ultimately be determined by our entire Board of Directors. Each such exchange will be on a one-for-one equivalent basis, subject to customary conversion rate adjustments for stock splits, stock dividends and reclassifications. Shares of Class B common stock may not be transferred except in connection with an exchange or transfer of units of vTv LLC.

Upon exchange, each share of our Class B common stock will be cancelled.

Preferred Stock

We have been authorized to issue up to 50,000,000 shares of preferred stock. Our board of directors has authorized, subject to limitations prescribed by Delaware law and our amended and restated certificate of incorporation, to determine the terms and conditions of the preferred stock, including whether the shares of preferred stock will be issued in one or more series, the number of shares to be included in each series and the powers, designations, preferences and rights of the shares. Our Board of Directors has also been authorized to designate any qualifications, limitations or restrictions on the shares without any further vote or action by the stockholders. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of our company and may adversely affect the voting and other rights of the holders of our Class A common stock and Class B common stock, which could have an adverse impact on the market price of our Class A common stock. We have no current plan to issue any shares of preferred stock.

Corporate Opportunities

Our amended and restated certificate of incorporation provides that, to the fullest extent permitted by law, the doctrine of "corporate opportunity" will not apply to MacAndrews & Forbes Incorporated, or MacAndrews, any of our non-employee directors who are employees, affiliates or consultants of MacAndrews or its affiliates (other than us or our subsidiaries) or any of their respective affiliates in a manner that would prohibit them from investing in competing businesses or doing business with our clients or customers. See "Risk Factors — Risks Related to our Common Stock — Affiliates of MacAndrews & Forbes Incorporated (together with its affiliates "MacAndrews") has substantial influence over our business, and their interests may differ from our interests or those of our other stockholders" in our Annual Report on Form 10-K for the year ended December 31, 2023, which is incorporated herein by reference.

Anti-Takeover Effects of our Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation and bylaws contain certain provisions that are intended to enhance the likelihood of continuity and stability in the composition of the Board of Directors and which may have the effect of delaying, deferring or preventing a future takeover or change in control of us unless such takeover or change in control is approved by our Board of Directors.

These provisions include:

Action by Written Consent; Special Meetings of Stockholders. Our amended and restated certificate of incorporation provides that, following the date on which MacAndrews ceases to beneficially own more than 50% of our common stock (the "Triggering Event"), stockholder action can be taken only at an annual or special meeting of stockholders and cannot be taken by written consent in lieu of a meeting. Our amended and restated certificate of incorporation and bylaws also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by the chairman or vice-chairman of the board, the chief executive officer, or pursuant to a resolution adopted by a majority of the Board of Directors or, until the Triggering Event, at the request of holders of 50% or more of our outstanding shares of common stock. Except as described above, stockholders will not be permitted to call a special meeting or to require the Board of Directors to call a special meeting.

Advance Notice Procedures. Our bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to the Board of Directors. Stockholders at an annual meeting will only be able to consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the Board of Directors or by a stockholder who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given our Secretary timely written notice, in proper form, of the stockholder's intention to bring that business before the meeting. Although the bylaws do not give the Board of Directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting, the bylaws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of us.

Vacancies and Newly-Created Directorships on the Board of Directors. Our bylaws provide that, subject to certain contractual rights held by MacAndrews and the contractual rights to designate Board of Director nominees held by the Private Placement Investors, the Board of Directors can fill vacancies on the Board of Directors. In addition, the Board of Directors will be permitted to increase the number of directors and fill the vacant positions. These provisions could make it more difficult for shareholders to affect the composition of our Board of Directors.

Authorized but Unissued Shares. Our authorized but unissued shares of common stock and preferred stock will be available for future issuance without stockholder approval. These additional shares may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized but unissued shares of common stock and preferred stock could render more difficult or discourage an attempt to obtain control of a majority of our common stock by means of a proxy contest, tender offer, merger or otherwise.

Business Combinations with Interested Stockholders. We have elected in our amended and restated certificate of incorporation not to be subject to Section 203 of the Delaware General Corporation Law, an antitakeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination, such as a merger, with a person or group owning 15% or more of the corporation's voting stock for a period of three years following the date the person became an interested stockholder, unless (with certain exceptions) the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Accordingly, we will not be subject to any anti-takeover effects of Section 203. Nevertheless, our amended and restated certificate of incorporation contains provisions that have the same effect as Section 203, except that they provide that MacAndrews and its various affiliates, successors and transferees will not be deemed to be "interested stockholders," regardless of the percentage of our voting stock owned by them, and accordingly will not be subject to such restrictions. Further, our Board of Directors resolved that the Private Placement was approved for purposes of the relevant provisions of our amended and restated certificate of incorporation and shall be deemed exempted from any anti-takeover, business combination or control share law or statute binding on us or which could reasonably be expected to become applicable to the Private Placement Investors as a result of the Private Placement. Additionally, the securities purchase agreement for the Private Placement provides that we will not enter into any sale, merger, consolidation, share exchange or similar business combination transaction without the affirmative vote of at least five members of our Board of Directors.

Choice of Forum

Our amended and restated certificate of incorporation provides that the Court of Chancery in the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed to us or our stockholders by our directors, officers or other employees, (iii) any action asserting a claim arising under the Delaware General Corporation Law, our amended and restated certificate of incorporation and amended and restated by-laws or (iv) any action asserting a claim that is governed by the internal affairs doctrine. It is possible that a court could rule that this provision is not applicable or is unenforceable. We may consent in writing to alternative forums. Stockholders will be deemed to have consented to the personal jurisdiction of the state and federal courts located within the State of Delaware and having service of process made on such stockholder's counsel as agent for such stockholder.

Directors' Liability; Indemnification of Directors and Officers

Our amended and restated certificate of incorporation limits the liability of our directors to the fullest extent permitted by the Delaware General Corporation Law and provides that we will provide them with customary indemnification. We expect to enter into customary indemnification agreements with each of our executive officers and directors that provide them, in general, with customary indemnification in connection with their service to us or on our behalf.

Transfer Agent and Registrar

The transfer agent and registrar for our Class A common stock is Equiniti Trust Company, LLC.

Securities Exchange

Our shares of Class A common stock are listed on The Nasdaq Capital Market under the symbol "VTVT".

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplements or free writing prospectuses, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement or free writing prospectus. The terms of any debt securities we offer under a prospectus supplement may differ from the terms we describe below. As of the date of this prospectus, we have no outstanding registered debt securities. Unless the context requires otherwise, whenever we refer to the "indenture," we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We may offer senior debt securities or subordinated debt securities under the indenture and any supplemental indentures that we will enter into with the trustee named in the indenture. We have filed a form of the indenture as an exhibit to the registration statement, of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The indenture will be qualified under the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act").

The following summaries of material provisions of the indenture are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture and any supplemental indentures applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in an officer's certificate or by a supplemental indenture. Debt securities may be issued in separate series without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the debt securities of any series. We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the form of the debt securities of the series;
- the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;

- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion shall be determined;
- the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date or dates, if any, on which, and the price or prices at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency unit in which the debt securities are payable;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple
 thereof:
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for our
 obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt
 securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depositary for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the
 consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;

- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;
- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement the terms under which a series of debt securities may be convertible into or exchangeable for our common stock, our preferred stock or other securities (including securities of a third party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock, our preferred stock or other securities (including securities of a third party) that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indenture or the debt securities, as appropriate. If the debt securities are convertible into or exchangeable for our other securities or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that we may issue:

- if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;
- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise, and the time for payment has not been extended;

- if we fail to observe or perform any other covenant contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the trustee or we and the trustee receive notice from the holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default arises due to the occurrence of certain specified bankruptcy, insolvency or reorganization events, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under the indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity or security satisfactory to it against any loss, liability or expense. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

The indenture provides that if an event of default has occurred and is continuing, the trustee will be required in the exercise of its powers to use the degree of care that a prudent person would use in the conduct of its own affairs. The trustee, however, may refuse to follow any direction that conflicts with law or the indenture, or that the trustee determines is unduly prejudicial to the rights of any other holder of the relevant series of debt securities, or that would involve the trustee in personal liability. Prior to taking any action under the indenture, the trustee will be entitled to indemnification against all costs, expenses and liabilities that would be incurred by taking or not taking such action.

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, a holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made a written request and
 such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense or to be
 incurred in compliance with instituting the proceeding as trustee; and

• the trustee does not institute the proceeding and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities, or other defaults that may be specified in the applicable prospectus supplement.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

Modification of Indenture; Waiver

Subject to the terms of the indenture for any series of debt securities that we may issue, we and the trustee may change the indenture without the consent of any holders with respect to the following specific matters:

- to cure any ambiguity, defect or inconsistency in the indenture;
- to comply with the provisions described above under "Description of Debt Securities—Consolidation, Merger or Sale;"
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided above under "Description of Debt Securities—General" to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment under any indenture by a successor trustee;
- to provide for uncertificated debt securities and to make all appropriate changes for such purpose;
- to add such new covenants, restrictions, conditions or provisions for the benefit of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in the indenture; or
- to make any change that does not adversely affect the interests of any holder of debt securities of any series in any material respect.

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected.

However, subject to the terms of the indenture for any series of debt securities that we may issue or otherwise provided in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may only make the following changes with the consent of each holder of any outstanding debt securities affected:

extending the fixed maturity of any debt securities of any series;

- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any series of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

The indenture may provide that, subject to the terms of the indenture and any limitation otherwise provided in the prospectus supplement applicable to a particular series of debt securities, we may elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- · compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, and any premium and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indenture provides that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depositary named by us and identified in a prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms related to any book-entry securities will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under the indenture, undertakes to perform only those duties as are specifically set forth in the indenture and is under no obligation to exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur. However, upon an event of default under the indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest payment.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indenture and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Ranking of Debt Securities

The subordinated debt securities that we may offer will be unsecured and will be subordinate and junior in priority of payment to certain other indebtedness to the extent described in a prospectus supplement.

The senior debt securities that we may offer will be unsecured and will rank equally in right of payment to all our other senior unsecured debt.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements and free writing prospectuses, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common stock, preferred stock or debt securities and may be issued in one or more series. Warrants may be offered independently or together with common stock, preferred stock or debt securities offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants that we may offer in more detail in the applicable prospectus supplement and any applicable free writing prospectus. The terms of any warrants offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of warrant agreement, if any, including a form of warrant certificate, if any, that describes the terms of the particular series of warrants we are offering before the issuance of the related series of warrants. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to a particular series of warrants. We urge you to read the applicable prospectus supplement and any applicable free writing prospectus related to the particular series of warrants that we sell under this prospectus, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplement the terms relating to a series of warrants, including:

- the title of such securities;
- the offering and exercise price or prices and aggregate number of warrants offered;
- the currency or currencies for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued, and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- if applicable, the minimum or maximum amount of such warrants which may be exercised at any one time;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at which, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which, and the currency in which, these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- the terms of any rights to force the exercise of the warrants;

- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;
- a discussion of any material or special U.S. federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture; or
- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate or agreement representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate or agreement and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate or agreement properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate or agreement are exercised, then we will issue a new warrant certificate or agreement for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Governing Law

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements, and any claim, controversy or dispute arising under or related to the warrants or warrant agreements, will be governed by and construed in accordance with the laws of the State of New York.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

DESCRIPTION OF RIGHTS

The following is a general description of the terms of the rights we may issue from time to time unless we provide otherwise in the applicable prospectus supplement. Particular terms of any rights we offer will be described in the prospectus supplement relating to such rights.

General

We may issue rights to purchase common stock, preferred stock, debt securities or units. Rights may be issued independently or together with other securities and may or may not be transferable by the person purchasing or receiving the rights. In connection with any rights offering to our stockholders, we may enter into a standby underwriting, backstop or other arrangement with one or more underwriters or other persons pursuant to which such underwriters or other persons would purchase any offered securities remaining unsubscribed for after such rights offering. In connection with a rights offering to our stockholders, we would distribute certificates evidencing the rights and a prospectus supplement to our stockholders on or about the record date that we set for receiving rights in such rights offering.

The applicable prospectus supplement will describe the following terms of any rights we may issue, including some or all of the following:

- the title and aggregate number of the rights;
- the subscription price or a formula for the determination of the subscription price for the rights and the currency or currencies in which the subscription price may be payable;
- if applicable, the designation and terms of the securities with which the rights are issued and the number of rights issued with each such security or each principal amount of such security;
- the number or a formula for the determination of the number of the rights issued to each stockholder;
- the extent to which the rights are transferable;
- in the case of rights to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one right;
- in the case of rights to purchase common stock or preferred stock, the type of stock and number of shares of stock purchasable upon exercise of one right;
- the date on which the right to exercise the rights will commence, and the date on which the rights will expire (subject to any extension);
- if applicable, the minimum or maximum amount of the rights that may be exercised at any one time;
- the extent to which such rights include an over-subscription privilege with respect to unsubscribed securities;
- if applicable, the procedures for adjusting the subscription price and number of shares of common stock or preferred stock purchasable upon the exercise of each right upon the occurrence of certain events, including stock splits, reverse stock splits, combinations, subdivisions or reclassifications of common stock or preferred stock;

- the effect on the rights of any merger, consolidation, sale or other disposition of our business;
- the terms of any rights to redeem or call the rights;
- information with respect to book-entry procedures, if any;
- the terms of the securities issuable upon exercise of the rights;
- if applicable, the material terms of any standby underwriting, backstop or other purchase arrangement that we may enter into in connection with the rights offering;
- if applicable, a discussion of certain U.S. Federal income tax considerations; and
- any other terms of the rights, including terms, procedures and limitations relating to the exchange and exercise of the rights.

Exercise of Rights

Each right will entitle the holder to purchase for cash or other consideration such shares of stock or principal amount of securities at the subscription price as shall in each case be set forth in, or be determinable as set forth in, the prospectus supplement relating to the rights offered thereby. Rights may be exercised as set forth in the applicable prospectus supplement beginning on the date specified therein and continuing until the close of business on the expiration date set forth in the prospectus supplement relating to the rights offered thereby. After the close of business on the expiration date, unexercised rights will become void.

Upon receipt of payment and a subscription certificate properly completed and duly executed at the corporate trust office of the subscription agent or any other office indicated in the prospectus supplement, we will, as soon as practicable, forward the securities purchasable upon such exercise. If less than all of the rights represented by such subscription certificate are exercised, a new subscription certificate will be issued for the remaining rights. If we so indicate in the applicable prospectus supplement, holders of the rights may surrender securities as all or part of the exercise price for rights.

We may determine to offer any unsubscribed offered securities directly to stockholders, persons other than stockholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby underwriting, backstop or other arrangements, as set forth in the applicable prospectus supplement.

Prior to exercising their rights, holders of rights will not have any of the rights of holders of the securities purchasable upon subscription, including, in the case of rights to purchase common stock or preferred stock, the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise any voting rights or, in the case of rights to purchase debt securities, the right to receive principal, premium, if any, or interest payments, on the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture.

DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplements and free writing prospectuses, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we sell under this prospectus, as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

We may issue units comprised of one or more debt securities, shares of common stock, shares of preferred stock and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under "Description of Capital Stock," "Description of Debt Securities" and "Description of Warrants" will apply to each unit and to any common stock, preferred stock, debt security or warrant included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

We, the unit agents and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.

PLAN OF DISTRIBUTION

We may offer and sell the securities in any one or more of the following ways:

- to or through underwriters, brokers or dealers;
- directly to one or more other purchasers;
- through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- in "At the Market Offerings," within the meaning of Rule 415(a)(4) of the Securities Act, into an existing trading market;
- through agents on a best-efforts basis; or
- otherwise through a combination of any of the above methods of sale.

In addition, we may enter into option, share lending or other types of transactions that require us to deliver securities to an underwriter, broker or dealer, who will then resell or transfer the securities under this prospectus. We may also enter into hedging transactions with respect to our securities. For example, we may:

- enter into transactions involving short sales of the securities by underwriters, brokers or dealers;
- sell securities short and deliver the shares to close out short positions;
- enter into option or other types of transactions that require us to deliver securities to an underwriter, broker or dealer, who will then resell or transfer the securities under this prospectus; or
- loan or pledge the securities to an underwriter, broker or dealer, who may sell the loaned shares or, in the event of default, sell the pledged shares.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us, or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be identified in the applicable prospectus supplement (or a post-effective amendment). In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

Each time we sell any securities described in this prospectus, we will provide a prospectus supplement that will name any underwriter, dealer or agent involved in the offer and sale of the securities. The prospectus supplement will also set forth the terms of the offering, including:

- the purchase price of the securities and the proceeds we will receive from the sale of the securities;
- any underwriting discounts and other items constituting underwriters' compensation;
- any public offering or purchase price and any discounts or commissions allowed or re-allowed or paid to dealers;

- any commissions allowed or paid to agents;
- any securities exchanges on which the securities may be listed;
- the method of distribution of the securities;
- the terms of any agreement, arrangement or understanding entered into with the underwriters, brokers or dealers; and
- any other information we think is important.

If underwriters or dealers are used in the sale, the securities will be acquired by the underwriters or dealers for their own account. The securities may be sold from time to time by us in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices;
- at varying prices determined at the time of sale; or
- at negotiated prices.

Such sales may be effected:

- in transactions on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in transactions in the over-the-counter market;
- in block transactions in which the broker or dealer so engaged will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction, or in crosses, in which the same broker acts as an agent on both sides of the trade;
- through the writing of options; or
- through other types of transactions.

The securities may be offered to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more of such firms. Unless otherwise set forth in the prospectus supplement, the obligations of underwriters or dealers to purchase the securities offered will be subject to certain conditions precedent and the underwriters or dealers will be obligated to purchase all the offered securities if any are purchased. Any public offering price and any discount or concession allowed or reallowed or paid by underwriters or dealers to other dealers may be changed from time to time.

The securities may be sold directly by us or through agents designated by us from time to time. Any agent involved in the offer or sale of the securities in respect of which this prospectus is delivered will be named, and any commissions payable by us to such agent will be set forth in, the applicable prospectus supplement. Unless otherwise indicated in the applicable prospectus supplement, any such agent will be acting on a best efforts basis for the period of its appointment.

Offers to purchase the securities offered by this prospectus may be solicited, and sales of the securities may be made, by us directly to institutional investors or others, who may be deemed to be underwriters within the meaning of the Securities Act with respect to any resale of the securities. The terms of any offer made in this manner will be included in the prospectus supplement relating to the offer.

If indicated in the applicable prospectus supplement, underwriters, dealers or agents will be authorized to solicit offers by certain institutional investors to purchase securities from us pursuant to contracts providing for payment and delivery at a future date. Institutional investors with which these contracts may be made include, among others:

- · commercial and savings banks;
- insurance companies;
- pension funds;
- investment companies; and
- educational and charitable institutions.

In all cases, these purchasers must be approved by us. Unless otherwise set forth in the applicable prospectus supplement, the obligations of any purchaser under any of these contracts will not be subject to any conditions except that (a) the purchase of the securities stock must not at the time of delivery be prohibited under the laws of any jurisdiction to which that purchaser is subject, and (b) if the securities is also being sold to underwriters, we must have sold to these underwriters the securities not subject to delayed delivery. Underwriters and other agents will not have any responsibility in respect of the validity or performance of these contracts.

Some of the underwriters, dealers or agents used by us in any offering of securities under this prospectus may be customers of, engage in transactions with, and perform services for us, or affiliates of ours, in the ordinary course of business. Underwriters, dealers, agents and other persons may be entitled under agreements which may be entered into with us to indemnification against and contribution toward certain civil liabilities, including liabilities under the Securities Act, and to be reimbursed by us for certain expenses.

Any securities initially sold outside the United States may be resold in the United States through underwriters, dealers or otherwise.

Any underwriters to which offered securities is sold by us for public offering and sale may make a market in such securities, but those underwriters will not be obligated to do so and may discontinue any market making at any time.

The anticipated date of delivery of the securities offered by this prospectus will be described in the applicable prospectus supplement relating to the offering.

Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75.0 million.

To comply with the securities laws of some states, if applicable, the securities may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the securities may not be sold unless they have been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

LEGAL MATTERS

Certain legal matters in connection with the offered securities will be passed upon for us by Dechert LLP, New York, New York.

EXPERTS

The consolidated financial statements of vTv Therapeutics Inc. appearing in vTv Therapeutics Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2023 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.



vTv Therapeutics Inc.

\$250,000,000

Class A Common Stock
Preferred Stock
Debt Securities
Warrants
Rights
Units

PROSPECTUS

, 2024

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, dated April 10, 2024

PROSPECTUS

Up to \$12,678,712



vTv Therapeutics Inc.

Class A Common Stock

We have entered into a sales agreement, or sales agreement, with Cowen and Company, LLC, or TD Cowen, relating to shares of our Class A common stock, \$0.01 par value per share, offered by this prospectus. In accordance with the terms of the sales agreement, from time to time we may offer and sell shares of our Class A common stock having an aggregate gross sales price of up to \$12,678,712 through or to TD Cowen, acting as sales agent or principal, pursuant to this prospectus.

Our Class A common stock is traded on The Nasdaq Capital Market under the symbol "VTVT." On April 9, 2024, the last reported sale price of our Class A common stock as reported on The Nasdaq Capital Market was \$25.00 per share.

As of March 21, 2024, the aggregate market value of the outstanding Class A common stock held by non-affiliates, computed by reference to the price at which our Class A common stock was last sold on March 21, 2024 was \$38,036,139, based on 2,432,857 shares of our outstanding Class A common stock as of March 21, 2024, of which 1,311,591 shares of Class A common stock were held by non-affiliates. During the 12 calendar months prior to and including the date of this prospectus (excluding this offering), we have sold no shares pursuant to General Instruction I.B.6 of Form S-3. After giving effect to these limitations and the current public float of our Class A common stock, we currently may offer and sell shares of our common stock having an aggregate offering price of up to \$12,678,712 under the sales agreement. If our public float increases such that we may sell additional amounts under the sales agreement and the registration statement of which this prospectus is a part, we will file a prospectus supplement prior to making additional sales.

Sales of our Class A common stock, if any, under this prospectus may be made in sales deemed to be an "at-the-market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or the Securities Act. Subject to terms of the sales agreement, TD Cowen is not required to sell any specific number or dollar amounts of securities but will act as our sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between TD Cowen and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

TD Cowen will be entitled to compensation under the terms of the sales agreement at a fixed commission rate of 3.0% of the gross sales price per share sold. In connection with the sale of our Class A common stock on our behalf, TD Cowen will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of TD Cowen will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contributions to TD Cowen against certain civil liabilities, including liabilities under the Securities Act.

Investing in our Class A common stock involves risks that are referenced under the caption "Risk Factors" on page S-5 of this prospectus. We are a "smaller reporting company" and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and our filings with the Securities and Exchange Commission.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

TD Cowen

The date of this prospectus is

, 2024.

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ABOUT THIS PROSPECTUS

This prospectus relates to an offering of our Class A common stock and is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the "SEC"), using a "shelf" registration process. Under this registration statement, we may offer up to \$250,000,000 of our securities. The shares of our Class A common stock that may be sold under this prospectus are included in the \$250,000,000 of our securities that may be sold under the registration statement.

Before buying any of the securities that we are offering, we urge you to carefully read this prospectus, together with the information incorporated by reference as described under "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus. These documents contain important information that you should consider when making your investment decision.

We provide information to you about this offering of our Class A common stock in this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference in this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

Neither we nor TD Cowen have authorized anyone to provide you with information different from that which is contained in or incorporated by reference in this prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. No one is making offers to sell or seeking offers to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus is accurate as of the date on the front cover of this prospectus only and that any information we have incorporated by reference is accurate only as of the date given in the document incorporated by reference, regardless of the time of delivery of this prospectus, any related free writing prospectus, or any sale of our securities. Our business, financial condition, results of operations and prospects may have changed since that date.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference into this prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Unless the context requires otherwise, references in this prospectus to "vTv," "the company," "we," "us" and "our" refer to vTv Therapeutics Inc.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the Securities and Exchange Commission, or the SEC, under the Securities Act of 1933, as amended, or the Securities Act, and do not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference in this prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the internet at the SEC's website at http://www.sec.gov. Our SEC filings are also available free of charge on or through our website at www.vtvtherapeutics.com, as soon as reasonably practicable after we electronically file such material with or otherwise furnish it to the SEC. The information on, or accessible through, our website is not part of, and is not incorporated into, this prospectus and should not be considered part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

In this prospectus, we "incorporate by reference" certain information that we file with the SEC, which means that we can disclose important information to you by referring you to that information. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. The following documents have been filed by us with the SEC and are incorporated by reference into this prospectus:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 13, 2024;
- Our Current Reports on Form 8-K filed with SEC on February 28, 2024, February 28, 2024, March 14, 2024 and March 26, 2024;
- The description of our Class A common stock set forth in our registration statement filed on Form 8-A pursuant to Section 12 of the Exchange Act with the SEC on July 30, 2015, as updated by "Description of Capital Stock" filed as Exhibit 4.7 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, and any amendment or report filed for the purpose of updating that description.

All documents and reports that we file with the SEC (but excluding any information furnished to, rather than filed with, the Commission,) under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act from the date of this prospectus until the completion of the offering under this prospectus shall be deemed to be incorporated in this prospectus by reference. The information contained on or accessible through our website (http://www.vtvtherapeutics.com) is not incorporated into this prospectus.

We will furnish without charge to you, upon written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to:

vTv Therapeutics Inc. Attn: Chief Financial Officer 3980 Premier Drive, Suite 310 High Point, NC 27265 Telephone: (336) 841-0300

Any statement contained in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any prospectus supplement, or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference herein and therein, contain statements that are not strictly historical in nature and are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These forward-looking statements are subject to the "safe harbor" created by Section 27A of the Securities Act and Section 21E of the Exchange Act and may include, but are not limited to, statements about:

- our ability to successfully develop, market, commercialize and achieve market acceptance for any of our product candidates or therapies that we may develop;
- our estimates for future performance;
- our estimates regarding anticipated operating losses, future revenues, capital requirements, liquidity, and our needs for additional financing;
- the progress or success of our research, development and clinical programs, including the application for and receipt of regulatory clearances and approvals;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- our ability to continue our partnerships with third-parties that help develop product candidates;
- competitive companies and products in our industry;
- scientific studies and the conclusions we draw from them; and
- our anticipated use of proceeds from this offering, if any.

In some cases, you can identify forward-looking statements by terms such as "anticipates," "believes," "could," "estimates," "expects," "goal," "intends," "may," "outlook," "plans," "potential," "predicts," "projects," "should," "will," "would," the negative of these words and words or similar expressions intended to identify forward-looking statements. These statements reflect our views as of the date on which they were made with respect to future events and are based on assumptions and subject to risks and uncertainties. The underlying information and expectations are likely to change over time. Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements as actual events or results may differ materially from those projected in the forward-looking statements due to various factors, including, but not limited to, those set forth under the heading "Risk Factors" in this prospectus, in our 2023 Annual Report and in our other filings with the SEC. These forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should understand that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. Before deciding to purchase our securities in this offering, you should carefully consider the risk factors discussed or incorporated by reference herein, in addition to the other information set forth in this prospectus and in the documents incorporated by reference.

PROSPECTUS SUMMARY

This summary does not contain all the information that you should consider before investing in the securities offered by this prospectus. Before making an investment decision, you should carefully read the entire prospectus, including the "Risk Factors" sections, as well as the financial statements and the other information incorporated by reference herein and the information in any free writing prospectus that we may authorize for use in connection with this offering.

Overview

We are a clinical stage biopharmaceutical company focused on the development of orally administered treatments for metabolic and inflammatory diseases to minimize their long-term complications and improve the lives of patients. On February 27, 2024, we closed a private placement, or the Private Placement, of our Class A common stock and pre-funded warrants, pursuant to which we received aggregate gross proceeds of approximately \$51.0 million, before deducting offering expenses payable by us. The securities purchase agreement for the Private Placement, among other things, grants the investors, or the Private Placement Investors, the right to purchase up to an additional \$30.0 million of Class A common stock 18 months following the closing of the Private Placement. We anticipate that the financing will enable us to conduct a Phase 3 clinical trial for our lead product candidate, *cadisegliatin (TTP399)*, an orally administered, small molecule, liver-selective glucokinase activator, or GKA, that is a potential adjunctive therapy to insulin for the treatment of type 1 diabetes.

The U.S. Food and Drug Administration, or FDA, granted Breakthrough Therapy designation in 2021 for *cadisegliatin* as an adjunctive therapy to insulin for the treatment of type 1 diabetes, or T1D. The Breakthrough Therapy designation provides a sponsor with added support and the potential to expedite development and review timelines for a promising new investigational medicine. The Breakthrough Therapy designation for *cadisegliatin* in T1D was supported by the positive results from the Phase 2 SimpliciT-1 Study, a multi-center, randomized, double-blind, adaptive study assessing the safety and efficacy of *cadisegliatin* as an adjunct to insulin therapy in adults with T1D. In this trial, treatment with *cadisegliatin* resulted in a statistically significant improvement in HbA1c relative to placebo and a clinically meaningful decrease (40%) in the frequency of severe and symptomatic hypoglycemia. *Cadisegliatin* demonstrated a favorable safety profile, in which abnormal levels of serum or urine ketones were detected less frequently in patients taking *cadisegliatin* than those taking placebo. Moreover, a Phase 1 mechanistic study of *cadisegliatin* in patients with T1D conducted to determine the impact of *cadisegliatin* on ketone body formation showed no increased risk of ketoacidosis with *cadisegliatin* during acute insulin withdrawal in patients with T1D. We have also completed a Phase 1 study in healthy male subjects to investigate the absorption, metabolism, and excretion of [14C]-*cadisegliatin* following single dose oral administration. Ten participants have been dosed and analysis is ongoing.

In May of 2023, the FDA issued new draft guidance on "Diabetes Mellitus: Efficacy Endpoints for Clinical Trials Investigating Antidiabetic Drugs and Biological Products" which, for the first time, permitted the use of hypoglycemia as an endpoint to support a label claim. Consistent with this guidance and with input from the FDA, we have initiated a Phase 3 double-blind, controlled trial to assess the effect of *cadisegliatin* on reducing the frequency of Level 2 hypoglycemia (blood glucose levels are less than 54 mg/dL or 3 mmol/L, regardless of symptoms) and Level 3 hypoglycemia ("severe" hypoglycemia e.g., requiring assistance of another person) in 150 patients with T1D. Participants in the trial will be randomized to two doses of *cadisegliatin* or placebo. Reduction in glycated hemoglobin (HbA1c), a traditional efficacy endpoint in diabetes trials, is a key secondary endpoint to assess the potential of *cadisegliatin* to reduce hyperglycemia, Following the initial assessment of efficacy after six months of treatment, participants will remain on trial for another six months to assess the durability of potential beneficial effects and safety. The study protocol was submitted to the FDA on February 29, 2024. The trial will be conducted in the U.S. only and is expected to complete enrollment by the fourth quarter in 2024 providing top line 1-year data by the first quarter in 2026.

For a description of our business, financial condition, results of operations and other important information regarding us, see our filings with the SEC incorporated by reference in this prospectus. For instructions on how to find copies of the filings incorporated by reference in this prospectus, see "Where You Can Find More Information."

Corporate Information

Our principal executive office is located at 3980 Premier Drive, Suite 310, High Point, NC 27265, Telephone (336) 841-0300.

The Offering

Issuer vTv Therapeutics Inc.

Class A common stock offered by us Shares of our Class A common stock having an aggregate offering price of up to

\$12,678,712.

Class A common stock to be outstanding following this

offering

Up to 2,592,121 shares of Class A common stock, assuming sales of 507,148 shares of Class A common stock in this offering at an offering price of \$25.00 per share, which was the last reported sale price of our Class A common stock on The Nasdaq Capital Market on April 9, 2024. The actual number of shares issued will vary depending on the

sales price under this offering.

Manner of offering "At the market offering" that may be made from time to time through or to TD Cowen,

as sales agent or principal. See "Plan of Distribution" on page S-11 of this prospectus.

Use of proceeds We intend to use the net proceeds from this offering for general corporate purposes,

including manufacturing expenses, clinical trial expenses, research and development expenses, general and administrative expenses, and other expenses associated with the development of our drug candidates. See "Use of Proceeds" on page S-8 of this

prospectus.

Risk factors Investing in our securities involves a high degree of risk. See "Risk Factors" beginning

on page S-5 of this prospectus and in the documents incorporated by reference herein.

Nasdaq Capital Market symbol "VTVT.

The number of shares of Class A common stock to be outstanding immediately after this offering is based on 2,084,973 shares of our Class A common stock outstanding as of December 31, 2023. Unless otherwise indicated, the number of shares of common stock presented in this prospectus excludes:

- 577,349 shares of Class B common stock issued and outstanding as of December 31, 2023 which are exchangeable on a one-for-one basis for shares of Class A common stock;
- 45,595 shares of Class A common stock issuable upon the exercise of outstanding warrants issued pursuant to certain letter agreements between vTv and MacAndrews & Forbes Group, LLC, dated December 5, 2017 (as amended on October 26, 2018), July 30, 2018 (as amended on October 26, 2018), December 1, 2018, September 26, 2019, and December 23, 2019, with exercise prices between \$61.20 and \$201.60 per share;
- 30,000 shares of Class A common stock issuable upon the exercise of outstanding warrants held by CinRx Pharma, LLC, with an exercise price of \$28.80 per share;
- 950 shares of Class A common stock issuable upon the exercise of outstanding warrants held by Horizon Technology Finance Corporation and Silicon Valley Bank, with an exercise price of \$236.80 per share;
- 7,475 shares of Class A common stock reserved for issuance under our 2015 equity incentive plan;
- 404,427 shares of Class A common stock expected to be reserved for issuance under our 2024 Equity Incentive Plan, if such plan is approved by our shareholders at our 2024 Annual Meeting of Shareholders;

- 249,247 shares of Class A common stock issuable upon the exercise of outstanding options issued pursuant to our 2015 equity incentive plan or inducement award agreements with certain current and former employees, with a weighted average exercise price of \$77.53 per share; and
- 345,573 shares of Class A common stock issuable upon the exercise of outstanding options granted to certain employees on February 27, 2024, with an exercise price of \$11.81 per share.

The number of shares of common stock presented in this prospectus also, unless otherwise indicated, exclude:

- 347,884 shares of Class A common stock issued to certain investors at a price per share of \$11.81 in the Private Placement (and after giving effect to exchange agreements entered into with certain of the Private Placement Investors on March 5, 2024, or the Exchange Agreements); and
- 3,970,587 shares of Class A common stock issuable upon the exercise of the Pre-Funded Warrants, with an exercise price of \$0.01 per Pre-Funded Warrant Share, sold to certain investors in the Private Placement (and after giving effect to the Exchange Agreements).

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks described below and discussed under the section captioned "Risk Factors" contained in our 2023 Annual Report, as well as any amendment or update to our risk factors reflected in subsequent filings with the SEC, which are incorporated by reference in this prospectus, and all other information contained in this prospectus and incorporated by reference in this prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, before purchasing shares of our Class A common stock. These risks and uncertainties are not the only ones facing us. Additional risks and uncertainties that we are unaware of, or that we currently deem immaterial, also may become important factors that affect us. If any of such risks or the risks described below or in our SEC filings occur, our business, financial condition or results of operations could be materially and adversely affected. In that case, the trading price of our Class A common stock could decline, and you may lose some or all of your investment.

Risks Related to This Offering

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

Because we have not designated the amount of net proceeds from this offering to be used for any particular purpose, our management will have broad discretion as to the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of the offering. Our management may use the net proceeds for corporate purposes that may not improve our financial condition or market value.

You may experience immediate and substantial dilution in the net tangible book value per share of the Class A common stock you purchase.

The offering price per share in this offering may exceed the net tangible book value per share of our Class A common stock outstanding prior to this offering. Assuming that an aggregate 507,148 shares of our Class A common stock are sold at a price of \$25.00 per share pursuant to this prospectus, which was the last reported sale price of our Class A common stock on The Nasdaq Capital Market on April 9, 2024, for aggregate gross proceeds of \$12.7 million, after deducting commissions and estimated aggregate offering expenses payable by us, you would experience immediate dilution of \$12.20 per share, representing the difference between our as adjusted pro forma net tangible book value per share as of December 31, 2023 after giving effect to this offering and the assumed offering price.

You may experience further dilution if existing stock options or pre-funded warrants are exercised, or if we issue additional equity securities in future financing transactions.

In order to raise additional capital, we may in the future offer additional shares of our Class A common stock or other securities convertible into or exchangeable for our Class A common stock at prices that may not be the same as the price per share in this offering. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our Class A common stock, or securities convertible or exchangeable into Class A common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

We have a significant number of stock options and pre-funded warrants outstanding. To the extent that these have been or may be exercised, investors purchasing in this offering may experience further. In addition, the sale of shares in this offering and any future sales of a substantial number of shares of our Class A common stock in the public market, or the perception that such sales may occur, could adversely affect the price of our Class A common stock. We cannot predict the effect, if any, that market sales of those shares of Class A common stock, or the perception that those shares may be sold, will have on the market price of our Class A common stock.

We plan to sell shares of our Class A common stock in "at the market offerings" and investors who buy shares of our Class A common stock at different times will likely pay different prices.

Investors who purchase shares of our Class A common stock in this offering at different times will likely pay different prices and may experience different outcomes in their investment results. We will have discretion, subject to the effect of market conditions, to vary the timing, prices, and numbers of shares sold in this offering. Investors may experience a decline in the value of their shares of our Class A common stock. Many factors could have an impact on the market price of our Class A common stock, including the factors described above and those disclosed under "Risk Factors" in our 2023 Annual Report as updated in subsequent reports filed with the SEC.

We do not expect to pay any dividends in the foreseeable future.

In the past, we have not paid dividends on our Class A common stock. We do not currently intend to pay dividends on our Class A common stock and we intend to retain our future earnings, if any, to fund the development and growth of our business. In addition, the terms of certain existing and any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our Class A common stock may be your sole source of gain for the foreseeable future.

Our share price may be volatile, which could subject us to securities class action litigation and result in substantial losses for our stockholders.

The market price of shares of our Class A common stock could be subject to wide fluctuations in response to many risk factors listed in this section and in the documents incorporated by reference herein, and others beyond our control, including:

- results and timing of our clinical trials and receipt of data from the trials;
- the availability of cash or financing to continue our clinical trials and other operations;
- results of clinical trials of our competitors' products;
- failure or discontinuation of any of our research programs;
- delays in the development or commercialization of our potential products;
- regulatory actions with respect to our products or our competitors' products;
- actual or anticipated fluctuations in our financial condition and operating results;
- actual or anticipated changes in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors' operating results or changes in their growth rate;
- competition from existing products or new products that may emerge;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- issuance of new or updated research or reports by securities analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- additions or departures of key management or scientific personnel;
- disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain, maintain, defend or enforce proprietary rights relating to our products and technologies;
- announcement or expectation of additional financing efforts;
- sales of our Class A common stock by us, our insiders or our other stockholders;
- issues in manufacturing our potential products;
- market acceptance of our potential products;
- market conditions for biopharmaceutical stocks in general;
- general economic and market conditions; and
- non-compliance with Nasdaq listing requirements.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our Class A common stock. In addition, such fluctuations could subject us to securities class action litigation, which could result in substantial costs and divert our management's attention from other business concerns, which could potentially harm our business. As a result of this volatility, our stockholders may not be able to sell their Class A common stock at or above the price at which they purchased their shares.

The actual number of shares we will issue under the Sales Agreement, at any one time or in total, is uncertain.

Subject to certain limitations in the sales agreement and compliance with applicable law, we have the discretion to deliver a placement notice to TD Cowen at any time throughout the term of the sales agreement. The number of shares that are sold through TD Cowen under the sales agreement will fluctuate based on the market price of the shares of common stock during the sales period and limits we set with TD Cowen. Because the price of each share sold will fluctuate based on the market price of our common stock during the sales period, it is not possible at this stage to predict the number of shares that will be ultimately issued or the gross proceeds that will be raised in connection with the sale of shares of common stock offered under this prospectus.

USE OF PROCEEDS

We may issue and sell shares of our Class A common stock having aggregate gross sales proceeds of up to \$12,678,712 from time to time. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize the sales agreement with TD Cowen as a source of financing.

We intend to use the net proceeds from this offering for general corporate purposes, including manufacturing expenses, clinical trial expenses, research and development expenses, general and administrative expenses, and other expenses associated with the development of our drug candidates and our other product candidates.

Specifically, we intend to use the net proceeds from this offering, together with our existing cash and cash equivalents, for the direct and indirect costs related to the development of *cadisegliatin*, working capital and general corporate purposes.

We have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds from this offering.

DILUTION

The net tangible book value of our common stock as of December 31, 2023 was approximately \$(18.5) million, or approximately \$(6.97) per share of common stock based upon a total of 2,662,322 shares outstanding as of December 31, 2023, reflective of the combined outstanding 2,087,973 shares of Class A common stock and 577,349 shares of Class B common stock. Net tangible book value per share is equal to our total tangible assets, less our total liabilities, exclusive of the redeemable noncontrolling interest, divided by the total number of shares outstanding. The pro forma net tangible book value of our common stock as of December 31, 2023, after giving effect to the Private Placement, was approximately \$32.4 million, or approximately \$10.78 per share of common stock based upon a total of 3,010,206 shares outstanding as of December 31, 2023, reflective of the combined outstanding 2,432,857 shares of Class A common stock and 577,349 shares of Class B common stock.

After giving effect to the sale by us of our Class A common stock in the aggregate amount of \$12.7 million in this offering at an assumed offering price of \$25.00 per share, which was the last reported sale price of our Class A common stock on The Nasdaq Capital Market on April 9, 2024, and after deducting commissions and estimated offering expenses payable by us, our as adjusted pro forma net tangible book value as of December 31, 2023 would have been approximately \$45.0 million, or \$12.80 per share of common stock. This amount represents an immediate increase in net tangible book value of \$2.02 per share to existing stockholders and an immediate dilution of \$12.20 per share to purchasers in this offering. The following table illustrates the dilution:

Public offering price per share		\$25.00
Net tangible book value per share as of December 31, 2023	(6.97)	
Increase per share attributable to investors in the Private Placement	17.75	
Pro forma net tangible book value per share as of December 31, 2023	10.78	
Increase per share attributable to new investors	2.02	
As adjusted pro forma net tangible book value per share as of December 31, 2023, after giving		
effect to this offering		\$12.80
Dilution per share to new investors purchasing shares in this offering		\$12.20

The table above assumes, for illustrative purposes, that an aggregate of 507,148 shares of our Class A common stock are sold at a price of \$25.00 per share, the last reported sale price of our Class A common stock on The Nasdaq Capital Market on April 9, 2024, for aggregate gross proceeds of \$12.7 million. The shares sold in this offering, if any, will be sold from time to time at various prices. An increase of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$25.00 per share shown in the table above, assuming all of our Class A common stock in the aggregate amount of \$12.7 million during the term of the sales agreement with TD Cowen is sold at that price, would increase our as adjusted net tangible book value per share after the offering to \$12.87 per share and would increase the dilution in net tangible book value per share to new investors to \$13.13 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$25.00 per share shown in the table above, assuming all of our Class A common stock in the aggregate amount of \$12.7 million during the term of the sales agreement with TD Cowen is sold at that price, would increase our as adjusted net tangible book value per share after the offering to \$12.72 per share and would decrease the dilution in net tangible book value per share to new investors to \$11.28 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only and may differ based on the actual offering price and the actual number of shares offered.

The number of shares of common stock expected to be outstanding after this offering included in the table above are based on 2,662,322 shares of common stock outstanding, reflective of the combined outstanding shares of Class A common stock and Class B common stock as of December 31, 2023, and excludes:

45,595 shares of Class A common stock issuable upon the exercise of outstanding warrants issued pursuant to certain letter agreements between vTv and MacAndrews & Forbes Group, LLC, dated December 5, 2017 (as amended on October 26, 2018), July 30, 2018 (as amended on October 26, 2018), December 1, 2018, September 26, 2019, and December 23, 2019, with exercise prices between \$61.20 and \$201.60 per share;

- 30,000 shares of Class A common stock issuable upon the exercise of outstanding warrants held by CinRx Pharma, LLC, with an exercise price of \$28.80 per share;
- 950 shares of Class A common stock issuable upon the exercise of outstanding warrants held by Horizon Technology Finance Corporation and Silicon Valley Bank, with an exercise price of \$236.80 per share;
- 7,475 shares of Class A common stock reserved for issuance under our 2015 equity incentive plan;
- 404,427 shares of Class A common stock expected to be reserved for issuance under our 2024 Equity Incentive Plan, if such plan is approved by our shareholders at our 2024 Annual Meeting of Shareholders;
- 249,247 shares of Class A common stock issuable upon the exercise of outstanding options issued pursuant to our 2015 equity incentive
 plan or inducement award agreements with certain current and former employees, with a weighted average exercise price of \$77.53 per
 share; and
- 345,573 shares of Class A common stock issuable upon the exercise of outstanding options granted to certain employees on February 27, 2024, with an exercise price of \$11.81 per share.

The number of shares of common stock presented in this prospectus also, unless otherwise indicated, exclude:

- 347,884 shares of Class A common stock issued to certain investors at a price per share of \$11.81 in the Private Placement (and after giving effect to the Exchange Agreements); and
- 3,970,587 shares of Class A common stock issuable upon the exercise of the Pre-Funded Warrants, with an exercise price of \$0.01 per Pre-Funded Warrant Share, sold to certain investors in the Private Placement (and after giving effect to the Exchange Agreements).

To the extent that other shares are issued, investors purchasing shares in this offering could experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of those securities could result in further dilution to our stockholders.

PLAN OF DISTRIBUTION

We have entered into a sales agreement with TD Cowen, under which we may issue and sell from time to time up to \$50.0 million of our common stock through or to TD Cowen as our sales agent or principal. Sales of our common stock, if any, will be made at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415 under the Securities Act.

As of March 21, 2024, the aggregate market value of the outstanding Class A common stock held by non-affiliates, computed by reference to the price at which our Class A common stock was last sold on March 21, 2024 was \$38,036,139, based on 2,432,857 shares of our outstanding Class A common stock as of March 21, 2024, of which 1,311,591 shares of Class A common stock were held by non-affiliates. During the 12 calendar months prior to and including the date of this prospectus (excluding this offering), we have sold no shares pursuant to General Instruction I.B.6 of Form S-3. After giving effect to these limitations and the current public float of our Class A common stock, we currently may offer and sell shares of our common stock having an aggregate offering price of up to \$12,678,712 under the sales agreement. If our public float increases such that we may sell additional amounts under the sales agreement and the registration statement of which this prospectus is a part, we will file a prospectus supplement prior to making additional sales.

TD Cowen will offer our common stock subject to the terms and conditions of the sales agreement on a daily basis or as otherwise agreed upon by us and TD Cowen. We will designate the maximum amount of common stock to be sold through TD Cowen on a daily basis or otherwise determine such maximum amount together with TD Cowen. Subject to the terms and conditions of the sales agreement, TD Cowen will use its commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us. We may instruct TD Cowen not to sell common stock if the sales cannot be effected at or above the price designated by us in any such instruction. TD Cowen or we may suspend the offering of our common stock being made through TD Cowen under the sales agreement upon proper notice to the other party. TD Cowen and we each have the right, by giving written notice as specified in the sales agreement, to terminate the sales agreement in each party's sole discretion at any time.

The aggregate compensation payable to TD Cowen as sales agent equals 3.0% of the gross sales price of the shares sold through it pursuant to the sales agreement. In connection with entering into the sales agreement, we have also agreed to reimburse TD Cowen up to \$75,000 of TD Cowen's actual outside legal expenses incurred by TD Cowen in connection with this offering. We estimate that the total expenses of the offering payable by us, excluding commissions payable to TD Cowen under the sales agreement, will be approximately \$400,000.

The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental, regulatory, or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of such common stock.

TD Cowen will provide written confirmation to us following the close of trading on The Nasdaq Capital Market on each day in which common stock is sold through it as sales agent under the sales agreement. Each confirmation will include the number of shares of common stock sold through it as sales agent on that day, the volume weighted average price of the shares sold, the percentage of the daily trading volume and the net proceeds to us.

We will report at least quarterly the number of shares of common stock sold through TD Cowen under the sales agreement, the net proceeds to us and the compensation paid by us to TD Cowen in connection with the sales of common stock.

Until May 28, 2024, settlement for sales of common stock will occur, unless the parties agree otherwise, on the second business day that is also a trading day following the date on which any sales were made in return for payment of the net proceeds to us. After May 28, 2024, settlement for sales of common stock will occur, unless the parties agree otherwise, on the first business day that is also a trading day following the date on which any sales were made in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sales of our common stock on our behalf, TD Cowen will be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation paid to TD Cowen will be deemed to be underwriting commissions or discounts. We have agreed in the sales agreement to provide indemnification and contribution to TD Cowen against certain liabilities, including liabilities under the Securities Act. As sales agent, TD Cowen will not engage in any transactions that stabilize our common stock.

Our common stock is listed on The Nasdaq Capital Market and trades under the symbol "VTVT." The transfer agent of our common stock is American Stock Transfer & Trust Company, LLC.

TD Cowen and/or its affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services they have received and, may in the future receive, customary fees.

LEGAL MATTERS

Certain legal matters in connection with the offered securities will be passed upon for us by Dechert LLP, New York, New York. Certain legal matters will be passed upon for TD Cowen by Paul Hastings LLP, New York, New York.

EXPERTS

The consolidated financial statements of vTv Therapeutics Inc. appearing in vTv Therapeutics Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2023 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

Up to \$12,678,712



Class A Common Stock

PROSPECTUS

TD Cowen

, 2024

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth expenses payable by vTv Therapeutics in connection with the issuance and distribution of the securities being registered, excluding underwriting fees and expenses. All the amounts shown are estimates except for the registration fee paid to the Securities and Exchange Commission and the FINRA filing fee.

SEC registration fee	\$36,900 (\$25,287.63 previously paid))
FINRA filing fee	38,000)
Legal fees and expenses	50,000)*
Accounting fees and expenses	15,000)*
Miscellaneous	5,100)*
Total	\$ 145,000)*

^{*} Estimated.

Item 15. 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 provides 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 provides 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.

We have entered 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 16. Exhibits

Exhibit No.	Description
1.1*	Form of underwriting agreement for Class A common stock.
1.2	Sales Agreement, dated February 28, 2024, by and between vTv Therapeutics Inc. and Cowen and Company, LLC (incorporated by reference from Exhibit 1.1 to the Company's Form 8-K, filed February 28, 2024 (File No. 001-37524)).
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference from Exhibit 3.1 to the Company's Form 8-K, filed August 4, 2015 (File No. 001-37524)).
3.2	Certificate of Amendment to Certificate of Incorporation of vTv Therapeutics Inc. dated May 4, 2021 (incorporated by reference from Exhibit 3.1 to the Company's Form 8-K, filed May 5, 2021 (File No. 001-37524)).
3.3	Certificate of Amendment to Certificate of Incorporation dated as of November 20, 2023 (incorporated by reference from Exhibit 3.3 to the Company's Form 10-K, filed March 13, 2023 (File No. 001-37524)).
3.4	Second Amended and Restated By-laws (incorporated by reference from Exhibit 3.1 to the Company's Form 8-K, filed March 3, 2022 (File No. 001-37524)).
4.1*	Form of certificate of designation with respect to any preferred stock issued hereunder and the related form of preferred stock certificate.
4.2	Form of indenture to be entered into between registrant and a trustee acceptable to the registrant.
4.3*	Form of warrant agreement.
4.4*	Form of warrant certificate.
4.5*	Form of debt security.
4.6*	Form of rights certificate.
4.7*	Form of unit agreement.
4.8*	Form of unit certificate.
5.1	Opinion of Dechert LLP.
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Dechert LLP (contained in Exhibit 5.1).
24.1	Power of Attorney (included in this Registration Statement under "Signatures").
25.1**	Statement of Eligibility of Trustee under the Indenture.
107	Filing Fee Table.

To be filed by Current Report on Form 8-K at the time of issuance and incorporated by reference.

To be filed separately pursuant to Section 305(b)(2) of the Trust Indenture Act of 1939, as amended, and the appropriate rules and regulations thereunder.

ITEM 17. Undertakings

- (a) The undersigned registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended, (the "Securities Act");
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

<u>provided</u>, <u>however</u>, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by a registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment 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) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act to any purchaser:
 - (i) Each prospectus filed by a registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *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 effective date, 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 effective date.

(5) That, for the purpose of determining liability of a 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 such undersigned registrant pursuant to the 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, such 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 such 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 such undersigned registrant or used or referred to by such undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about such undersigned registrant or its securities provided by or on behalf of such undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by such undersigned registrant to the purchaser.
- (6) To file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the SEC under Section 305(b)(2) of the Trust Indenture Act.
- (b) The undersigned registrant hereby further undertakes that, for purposes of determining any liability under the Securities Act, each filing of a registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement 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.
- (c) 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 SEC 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 a registrant of expenses incurred or paid by a director, officer or controlling person of such 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, such 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.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and 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 April 10, 2024.

VTV THERAPEUTICS INC.

By: /s/ Paul J. Sekhri
Paul J. Sekhri
President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below hereby constitutes and appoints Paul J. Sekhri and Steven Tuch, or any of them his true and lawful agent, proxy and attorney in fact, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post effective amendments) to this registration statement (and any additional registration statement related hereto permitted by Rule 462(b) promulgated under the Securities Act of 1933 (and all further amendments, including post-effective amendments, thereto)) together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment, and (iv) take any and all actions which may be necessary or appropriate in connection therewith, granting unto such agent, proxy and attorney in fact full power and authority to do and perform each and every act and thing necessary or appropriate to be done, as fully for all intents and purposes as he might or could do in person, hereby approving, ratifying and confirming all that such agents, proxies and attorneys in fact or any of their substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the following capacities on the dates indicated.

Signature	Title	Date
/s/ Paul J. Sekhri	President, Chief Executive Officer and Executive Chairperson	April 10, 2024
Paul J. Sekhri	(Principal Executive Officer)	
/s/ Steven Tuch	Executive Vice President and Chief Financial Officer	April 10, 2024
Steven Tuch	(Principal Financial Officer)	
/s/ Barry Brown	Chief Accounting Officer	April 10, 2024
Barry Brown	(Principal Accounting Officer)	
/s/ Srinivas Akkaraju	Director	April 10, 2024
Srinivas Akkaraju	_	-
/s/ Raymond Cheong	Director	April 10, 2024
Raymond Cheong	_	•
/s/ Keith Harris	Director	April 10, 2024
Keith Harris	_	1
/s/ Fahed Al Marzooqi	Director	April 10, 2024
Fahed Al Marzooqi	_	Γ ,
/s/ Richard S. Nelson	Executive Vice President and Director	April 10, 2024
Richard S. Nelson		
/s/ Anne Phillips	Director	April 10, 2024
Anne Phillips	_ Director	11pm 10, 2024

VTV THERAPEUTICS INC.,
AS ISSUER,
AND
[TRUSTEE],
AS TRUSTEE,
INDENTURE
DATED AS OF , 20
DEBT SECURITIES

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INDENTURE

INDENTURE, dated as of [], 20[], among VTV THERAPEUTICS INC., a Delaware corporation (the "Company"), and [TRUSTEE], as trustee (the "Trustee"):

WHEREAS, for its lawful corporate purposes, the Company has duly authorized the execution and delivery of this Indenture to provide for the issuance of debt securities (hereinafter referred to as the "Securities"), in an unlimited aggregate principal amount to be issued from time to time in one or more series as in this Indenture provided, as registered Securities without coupons, to be authenticated by the certificate of the Trustee;

WHEREAS, to provide the terms and conditions upon which the Securities are to be authenticated, issued and delivered, the Company has duly authorized the execution of this Indenture; and

WHEREAS, all things necessary to make this Indenture a valid agreement of the Company, in accordance with its terms, have been done.

NOW, THEREFORE, in consideration of the premises and the purchase of the Securities by the holders thereof, it is mutually covenanted and agreed as follows for the equal and ratable benefit of the holders of Securities:

ARTICLE I

DEFINITIONS

Section 1.1 Definitions of Terms.

The terms defined in this Section (except as in this Indenture or any indenture supplemental hereto otherwise expressly provided or unless the context otherwise requires) for all purposes of this Indenture and of any indenture supplemental hereto shall have the respective meanings specified in this Section and shall include the plural as well as the singular. All other terms used in this Indenture that are defined in the Trust Indenture Act of 1939, as amended, or that are by reference in such Act defined in the Securities Act of 1933, as amended (except as herein or any indenture supplemental hereto otherwise expressly provided or unless the context otherwise requires), shall have the meanings assigned to such terms in said Trust Indenture Act and in said Securities Act as in force at the date of the execution of this instrument.

"Authenticating Agent" means an authenticating agent with respect to all or any of the series of Securities appointed by the Trustee pursuant to Section 2.10.

"Bankruptcy Law" means Title 11, U.S. Code, or any similar federal or state law for the relief of debtors.

"Board of Directors" means the Board of Directors of the Company or any duly authorized committee of such Board.

"Board Resolution" means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification.

"Business Day" means, with respect to any series of Securities, any day other than a day on which federal or state banking institutions in the Borough of Manhattan, the City of New York, or in the city of the Corporate Trust Office of the Trustee, are authorized or obligated by law, executive order or regulation to close.

"Certificate" means a certificate signed by any Officer. The Certificate need not comply with the provisions of Section 13.07.

"Company" means vTv Therapeutics Inc., a corporation duly organized and existing under the laws of the State of Delaware, and, subject to the provisions of Article Ten, shall also include its successors and assigns.

"Corporate Trust Office" means the office of the Trustee at which, at any particular time, its corporate trust business shall be principally administered, which office at the date hereof is located at [].

"Custodian" means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

"Default" means any event, act or condition that with notice or lapse of time, or both, would constitute an Event of Default.

"Defaulted Interest" has the meaning set forth in Section 2.03.

"Depositary" means, with respect to Securities of any series for which the Company shall determine that such Securities will be issued as a Global Security, The Depository Trust Company, another clearing agency, or any successor registered as a clearing agency under the Exchange Act, or other applicable statute or regulation, which, in each case, shall be designated by the Company pursuant to either Section 2.01 or 2.11.

"Event of Default" means, with respect to Securities of a particular series, any event specified in Section 6.01, continued for the period of time, if any, therein designated.

"Exchange Act" means the Securities and Exchange Act of 1934, as amended.

"Global Security" means, with respect to any series of Securities, a Security executed by the Company and delivered by the Trustee to the Depositary or pursuant to the Depositary's instruction, all in accordance with the Indenture, which shall be registered in the name of the Depositary or its nominee.

"Governmental Obligations" means securities that are (a) direct obligations of the United States of America for the payment of which its full faith and credit is pledged or (b) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America that, in either case, are not callable or redeemable at the option of the issuer thereof at any time prior to the stated maturity of the Securities, and shall also include a depositary receipt issued by a bank or trust company as custodian with respect to any such Governmental Obligation or a specific payment of principal of or interest on any such Governmental Obligation held by such custodian for the account of the holder of such depositary receipt; provided, however, that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the Governmental Obligation or the specific payment of principal of or interest on the Governmental Obligation evidenced by such depositary receipt.

"herein", "hereof" and "hereunder", and other words of similar import, refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

"Indenture" means this instrument as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into in accordance with the terms hereof.

"Interest Payment Date", when used with respect to any installment of interest on a Security of a particular series, means the date specified in such Security or in a Board Resolution or in an indenture supplemental hereto with respect to such series as the fixed date on which an installment of interest with respect to Securities of that series is due and payable.

"Officer" means, with respect to the Company, the chairman of the Board of Directors, a chief executive officer, a president, a chief financial officer, a chief operating officer, any executive vice president, any senior vice president, any vice president, the treasurer or any assistant treasurer, the controller or any assistant controller or the secretary or any assistant secretary.

"Officer's Certificate" means a certificate signed by any Officer. Each such certificate shall include the statements provided for in Section 13.07, if and to the extent required by the provisions thereof.

"Opinion of Counsel" means an opinion in writing subject to customary exceptions of legal counsel, who may be an employee of or counsel for the Company, that is delivered to the Trustee in accordance with the terms hereof. Each such opinion shall include the statements provided for in Section 13.07, if and to the extent required by the provisions thereof.

"Outstanding", when used with reference to Securities of any series, means, subject to the provisions of Section 8.04, as of any particular time, all Securities of that series theretofore authenticated and delivered by the Trustee under this Indenture, except (a) Securities theretofore canceled by the Trustee or any paying agent, or delivered to the Trustee or any paying agent for cancellation or that have previously been canceled; (b) Securities or portions thereof for the payment or redemption of which moneys or Governmental Obligations in the necessary amount shall have been deposited in trust with the Trustee or with any paying agent (other than the Company) or shall have been set aside and segregated in trust by the Company (if the Company shall act as its own paying agent); provided, however, that if such Securities or portions of such Securities are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as provided in Article Three, or provision satisfactory to the Trustee shall have been made for giving such notice; and (c) Securities in lieu of or in substitution for which other Securities shall have been authenticated and delivered pursuant to the terms of Section 2.07.

"Person" means any individual, corporation, partnership, joint venture, joint-stock company, limited liability company, association, trust, unincorporated organization, any other entity or organization, including a government or political subdivision or an agency or instrumentality thereof.

"Predecessor Security" of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 2.07 in lieu of a lost, destroyed or stolen Security shall be deemed to evidence the same debt as the lost, destroyed or stolen Security.

"Responsible Officer" when used with respect to the Trustee means the chairman of its board of directors, the chief executive officer, the president, any vice president, the secretary, the treasurer, any trust officer, any corporate trust officer or any other officer or assistant officer of the Trustee customarily performing functions similar to those performed by the Persons who at the time shall be such officers, respectively, or to whom any corporate trust matter is referred because of his or her knowledge of and familiarity with the particular subject.

"Securities" means the debt securities authenticated and delivered under this Indenture.

"Securityholder", "holder of Securities", "registered holder", or other similar term, means the Person or Persons in whose name or names a particular Security shall be registered on the books of the Company kept for that purpose in accordance with the terms of this Indenture.

"Security Register" and "Security Registrar" shall have the meanings as set forth in Section 2.05.

"Subsidiary" means, with respect to any Person, (i) any corporation at least a majority of whose outstanding Voting Stock shall at the time be owned, directly or indirectly, by such Person or by one or more of its Subsidiaries or by such Person and one or more of its Subsidiaries, any general partnership, joint venture or similar entity, at least a majority of whose outstanding partnership or similar interests shall at the time be owned by such Person, or by one or more of its Subsidiaries, or by such Person and one or more of its Subsidiaries and (iii) any limited partnership of which such Person or any of its Subsidiaries is a general partner.

"Trustee" means [______], and, subject to the provisions of Article Seven, shall also include its successors and assigns, and, if at any time there is more than one Person acting in such capacity hereunder, "Trustee" shall mean each such Person. The term "Trustee" as used with respect to a particular series of the Securities shall mean the trustee with respect to that series.

"Trust Indenture Act" means the Trust Indenture Act of 1939, as amended.

"Voting Stock", as applied to stock of any Person, means shares, interests, participations or other equivalents in the equity interest (however designated) in such Person having ordinary voting power for the election of a majority of the directors (or the equivalent) of such Person, other than shares, interests, participations or other equivalents having such power only by reason of the occurrence of a contingency.

ARTICLE II

ISSUE, DESCRIPTION, TERMS, EXECUTION, REGISTRATION AND EXCHANGE OF SECURITIES

Section 2.1 Designation and Terms of Securities.

- (a) The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is unlimited. The Securities may be issued in one or more series up to the aggregate principal amount of Securities of that series from time to time authorized by or pursuant to a Board Resolution or pursuant to one or more indentures supplemental hereto. Prior to the initial issuance of Securities of any series, there shall be established in or pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental hereto:
 - (i) the title of the Securities of the series (which shall distinguish the Securities of that series from all other Securities);
- (ii) any limit upon the aggregate principal amount of the Securities of that series that may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of that series);
- (iii) the date or dates on which the principal of the Securities of the series is payable, any original issue discount that may apply to the Securities of that series upon their issuance, the principal amount due at maturity, and the place(s) of payment;
 - (iv) the rate or rates at which the Securities of the series shall bear interest or the manner of calculation of such rate or rates, if any
- (v) the date or dates from which such interest shall accrue, the Interest Payment Dates on which such interest will be payable or the manner of determination of such Interest Payment Dates, the place(s) of payment, and the record date for the determination of holders to whom interest is payable on any such Interest Payment Dates or the manner of determination of such record dates;
 - (vi) the right, if any, to extend the interest payment periods and the duration of such extension;
- (vii) the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the series may be redeemed, in whole or in part, at the option of the Company;
- (viii) the obligation, if any, of the Company to redeem or purchase Securities of the series pursuant to any sinking fund, mandatory redemption, or analogous provisions (including payments made in cash in satisfaction of future sinking fund obligations) or at the option of a holder thereof and the period or periods within which, the price or prices at which, and the terms and conditions upon which, Securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;
 - (ix) the form of the Securities of the series including the form of the Certificate of Authentication for such series;
- (x) if other than denominations of one thousand U.S. dollars (\$1,000) or any integral multiple thereof, the denominations in which the Securities of the series shall be issuable:
- (xi) any and all other terms (including terms, to the extent applicable, relating to any auction or remarketing of the Securities of that series and any security for the obligations of the Company with respect to such Securities) with respect to such series (which terms shall not be inconsistent with the terms of this Indenture, as amended by any supplemental indenture) including any terms which may be required by or advisable under United States laws or regulations or advisable in connection with the marketing of Securities of that series;

(xii) whether the Securities are issuable as a Global Security and, in such case, the terms and the identity of the Depositary for such series;

(xiii) whether the Securities will be convertible into or exchangeable for shares of common stock, preferred stock or other securities of the Company or any other Person and, if so, the terms and conditions upon which such Securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at the Company's option or the holders' option) conversion or exchange features, and the applicable conversion or exchange period;

(xiv) if other than the principal amount thereof, the portion of the principal amount of Securities of the series which shall be payable upon declaration of acceleration of the maturity thereof pursuant to Section 6.01;

(xv) any additional or different Events of Default or restrictive covenants (which may include, among other restrictions, restrictions on the Company's ability or the ability of the Company's Subsidiaries to: incur additional indebtedness; issue additional securities; create liens; pay dividends or make distributions in respect of the capital stock of the Company or the Company's Subsidiaries; redeem capital stock; place restrictions on the Company's Subsidiaries' ability to pay dividends, make distributions or transfer assets; make investments or other restricted payments; sell or otherwise dispose of assets; enter into sale- leaseback transactions; engage in transactions with stockholders or affiliates; issue or sell stock of the Company's Subsidiaries; or effect a consolidation or merger) or financial covenants (which may include, among other financial covenants, financial covenants that require the Company and its Subsidiaries to maintain specified interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios) provided for with respect to the Securities of the series;

(xvi) if other than dollars, the coin or currency in which the Securities of the series are denominated (including, but not limited to, foreign currency);

(xvii) the terms and conditions, if any, upon which the Company shall pay amounts in addition to the stated interest, premium, if any and principal amounts of the Securities of the series to any Securityholder that is not a "United States person" for federal tax purposes; and

(xviii) any restrictions on transfer, sale or assignment of the Securities of the series.

All Securities of any one series shall be substantially identical except as may otherwise be provided in or pursuant to any such Board Resolution or in any indentures supplemental hereto.

If any of the terms of the series are established by action taken pursuant to a Board Resolution of the Company, a copy of an appropriate record of such action shall be certified by the secretary or an assistant secretary of the Company and delivered to the Trustee at or prior to the delivery of the Officer's Certificate of the Company setting forth the terms of the series.

Securities of any particular series may be issued at various times, with different dates on which the principal or any installment of principal is payable, with different rates of interest, if any, or different methods by which rates of interest may be determined, with different dates on which such interest may be payable and with different redemption dates.

Section 2.2 Form of Securities and Trustee's Certificate.

The Securities of any series and the Trustee's certificate of authentication to be borne by such Securities shall be substantially of the tenor and purport as set forth in one or more indentures supplemental hereto or as provided in a Board Resolution, and set forth in an Officer's Certificate, and they may have such letters, numbers or other marks of identification or designation and such legends or endorsements printed, lithographed or engraved thereon as the Company may deem appropriate and as are not inconsistent with the provisions of this Indenture, or as may be required to comply with any law or with any rule or regulation made pursuant thereto or with any rule or regulation of any securities exchange on which Securities of that series may be listed, or to conform to usage.

Section 2.3 Denominations: Provisions for Payment.

The Securities shall be issuable as registered Securities and in the denominations of one thousand U.S. dollars (\$1,000) or any integral multiple thereof, subject to Section 2.01(a)(10).

The Securities of a particular series shall bear interest payable on the dates and at the rate specified with respect to that series. Subject to Section 2.01(a)(16), the principal of and the interest on the Securities of any series, as well as any premium thereon in case of redemption thereof prior to maturity, shall be payable in the coin or currency of the United States of America that at the time is legal tender for public and private debt, at the office or agency of the Company maintained for that purpose. Each Security shall be dated the date of its authentication. Interest on the Securities shall be computed on the basis of a 360-day year composed of twelve 30-day months.

The interest installment on any Security that is payable, and is punctually paid or duly provided for, on any Interest Payment Date for Securities of that series shall be paid to the Person in whose name said Security (or one or more Predecessor Securities) is registered at the close of business on the regular record date for such interest installment. In the event that any Security of a particular series or portion thereof is called for redemption and the redemption date is subsequent to a regular record date with respect to any Interest Payment Date and prior to such Interest Payment Date, interest on such Security will be paid upon presentation and surrender of such Security as provided in Section 3.03.

Any interest on any Security that is payable, but is not punctually paid or duly provided for, on any Interest Payment Date for Securities of the same series (herein called "Defaulted Interest") shall forthwith cease to be payable to the registered holder on the relevant regular record date by virtue of having been such holder; and such Defaulted Interest shall be paid by the Company, at its election, as provided in clause (1) or clause (2) below:

(i) The Company may make payment of any Defaulted Interest on Securities to the Persons in whose names such Securities (or their respective Predecessor Securities) are registered at the close of business on a special record date for the payment of such Defaulted Interest, which shall be fixed in the following manner: the Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each such Security and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon the Trustee shall fix a special record date for the payment of such Defaulted Interest which shall not be more than 15 nor less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such special record date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the special record date therefor to be mailed, first class postage prepaid, to each Securityholder at his or her address as it appears in the Security Register (as hereinafter defined), not less than 10 days prior to such special record date. Notice of the proposed payment of such Defaulted Interest and the special record date therefor having been mailed as aforesaid, such Defaulted Interest shall be paid to the Persons in whose names such Securities (or their respective Predecessor Securities) are registered on such special record date.

(ii) The Company may make payment of any Defaulted Interest on any Securities in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Securities may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

Unless otherwise set forth in a Board Resolution or one or more indentures supplemental hereto establishing the terms of any series of Securities pursuant to Section 2.01 hereof, the term "regular record date" as used in this Section with respect to a series of Securities and any Interest Payment Date for such series shall mean either the fifteenth day of the month immediately preceding the month in which an Interest Payment Date established for such series pursuant to Section 2.01 hereof shall occur, if such Interest Payment Date is the first day of a month, or the first day of a month pate is the fifteenth day of a month, whether or not such date is a Business Day.

Subject to the foregoing provisions of this Section, each Security of a series delivered under this Indenture upon transfer of or in exchange for or in lieu of any other Security of such series shall carry the rights to interest accrued and unpaid, and to accrue, that were carried by such other Security.

Section 2.4 Execution and Authentications.

The Securities shall be signed on behalf of the Company by one of its Officers. Signatures may be in the form of a manual or facsimile signature. The Company may use the facsimile signature of any Person who shall have been an Officer, notwithstanding the fact that at the time the Securities shall be authenticated and delivered or disposed of such Person shall have ceased to be such an officer of the Company. The Securities may contain such notations, legends or endorsements required by law, stock exchange rule or usage. Each Security shall be dated the date of its authentication by the Trustee.

A Security shall not be valid until authenticated manually by an authorized signatory of the Trustee, or by an Authenticating Agent. Such signature shall be conclusive evidence that the Security so authenticated has been duly authenticated and delivered hereunder and that the holder is entitled to the benefits of this Indenture. At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series executed by the Company to the Trustee for authentication, together with a written order of the Company for the authentication and delivery of such Securities, signed by an Officer, and the Trustee in accordance with such written order shall authenticate and deliver such Securities

In authenticating such Securities and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive, if requested, and (subject to Section 7.01) shall be fully protected in relying upon, an Opinion of Counsel stating that the form and terms thereof have been established in conformity with the provisions of this Indenture.

The Trustee shall not be required to authenticate such Securities if the issue of such Securities pursuant to this Indenture will affect the Trustee's own rights, duties or immunities under the Securities and this Indenture or otherwise in a manner that is not reasonably acceptable to the Trustee.

Section 2.5 Registration of Transfer and Exchange.

- (a) Securities of any series may be exchanged upon presentation thereof at the office or agency of the Company designated for such purpose, for other Securities of such series of authorized denominations, and for a like aggregate principal amount, upon payment of a sum sufficient to cover any tax or other governmental charge in relation thereto, all as provided in this Section. In respect of any Securities so surrendered for exchange, the Company shall execute, the Trustee shall authenticate and such office or agency shall deliver in exchange therefor the Security or Securities of the same series that the Securityholder making the exchange shall be entitled to receive, bearing numbers not contemporaneously outstanding.
- (b) The Company shall keep, or cause to be kept, at its office or agency designated for such purpose a register or registers (herein referred to as the "Security Register") in which, subject to such reasonable regulations as it may prescribe, the Company shall register the Securities and the transfers of Securities as in this Article provided and which at all reasonable times shall be open for inspection by the Trustee. The registrar for the purpose of registering Securities and transfer of Securities as herein provided shall be appointed as authorized by Board Resolution (the "Security Registrar").

Upon surrender for transfer of any Security at the office or agency of the Company designated for such purpose, the Company shall execute, the Trustee shall authenticate and such office or agency shall deliver in the name of the transferee or transferees a new Security or Securities of the same series as the Security presented for a like aggregate principal amount.

All Securities presented or surrendered for exchange or registration of transfer, as provided in this Section, shall be accompanied (if so required by the Company or the Security Registrar) by a written instrument or instruments of transfer, in form satisfactory to the Company or the Security Registrar, duly executed by the registered holder or by such holder's duly authorized attorney in writing.

- (c) Except as provided pursuant to Section 2.01 pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental to this Indenture, no service charge shall be made for any exchange or registration of transfer of Securities, or issue of new Securities in case of partial redemption of any series, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge in relation thereto, other than exchanges pursuant to Section 2.06, Section 3.03(b) and Section 9.04 not involving any transfer.
- (d) The Company shall not be required (i) to issue, exchange or register the transfer of any Securities during a period beginning at the opening of business 15 days before the day of the mailing of a notice of redemption of less than all the Outstanding Securities of the same series and ending at the close of business on the day of such mailing, nor (ii) to register the transfer of or exchange any Securities of any series or portions thereof called for redemption, other than the unredeemed portion of any such Securities being redeemed in part. The provisions of this Section 2.05 are, with respect to any Global Security, subject to Section 2.11 hereof.

Section 2.6 Temporary Securities.

Pending the preparation of definitive Securities of any series, the Company may execute, and the Trustee shall authenticate and deliver, temporary Securities (printed, lithographed or typewritten) of any authorized denomination. Such temporary Securities shall be substantially in the form of the definitive Securities in lieu of which they are issued, but with such omissions, insertions and variations as may be appropriate for temporary Securities, all as may be determined by the Company. Every temporary Security of any series shall be executed by the Company and be authenticated by the Trustee upon the same conditions and in substantially the same manner, and with like effect, as the definitive Securities of such series. Without unnecessary delay the Company will execute and will furnish definitive Securities of such series and thereupon any or all temporary Securities of such series may be surrendered in exchange therefor (without charge to the holders), at the office or agency of the Company designated for the purpose, and the Trustee shall authenticate and such office or agency shall deliver in exchange for such temporary Securities an equal aggregate principal amount of definitive Securities of such series, unless the Company advises the Trustee to the effect that definitive Securities need not be executed and furnished until further notice from the Company. Until so exchanged, the temporary Securities of such series shall be entitled to the same benefits under this Indenture as definitive Securities of such series authenticated and delivered hereunder.

Section 2.7 Mutilated, Destroyed, Lost or Stolen Securities.

In case any temporary or definitive Security shall become mutilated or be destroyed, lost or stolen, the Company (subject to the next succeeding sentence) shall execute, and upon the Company's request the Trustee (subject as aforesaid) shall authenticate and deliver, a new Security of the same series, bearing a number not contemporaneously outstanding, in exchange and substitution for the mutilated Security, or in lieu of and in substitution for the Security so destroyed, lost or stolen. In every case the applicant for a substituted Security shall furnish to the Company and the Trustee such security or indemnity as may be required by them to save each of them harmless, and, in every case of destruction, loss or theft, the applicant shall also furnish to the Company and the Trustee evidence to their satisfaction of the destruction, loss or theft of the applicant's Security and of the ownership thereof. The Trustee may authenticate any such substituted Security and deliver the same upon the written request or authorization of any officer of the Company. Upon the issuance of any substituted Security, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

In case any Security that has matured or is about to mature shall become mutilated or be destroyed, lost or stolen, the Company may, instead of issuing a substitute Security, pay or authorize the payment of the same (without surrender thereof except in the case of a mutilated Security) if the applicant for such payment shall furnish to the Company and the Trustee such security or indemnity as they may require to save them harmless, and, in case of destruction, loss or theft, evidence to the satisfaction of the Company and the Trustee of the destruction, loss or theft of such Security and of the ownership thereof.

Every replacement Security issued pursuant to the provisions of this Section shall constitute an additional contractual obligation of the Company whether or not the mutilated, destroyed, lost or stolen Security shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of the same series duly issued hereunder. All Securities shall be held and owned upon the express condition that the foregoing provisions are exclusive with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities, and shall preclude (to the extent lawful) any and all other rights or remedies, notwithstanding any law or statute existing or hereafter enacted to the contrary with respect to the replacement or payment of negotiable instruments or other securities without their surrender.

Section 2.8 Cancellation.

All Securities surrendered for the purpose of payment, redemption, exchange or registration of transfer shall, if surrendered to the Company or any paying agent, be delivered to the Trustee for cancellation, or, if surrendered to the Trustee, shall be cancelled by it, and no Securities shall be issued in lieu thereof except as expressly required or permitted by any of the provisions of this Indenture. On request of the Company at the time of such surrender, the Trustee shall deliver to the Company canceled Securities held by the Trustee. In the absence of such request the Trustee may dispose of canceled Securities in accordance with its standard procedures and deliver a certificate of disposition to the Company. If the Company shall otherwise acquire any of the Securities, however, such acquisition shall not operate as a redemption or satisfaction of the indebtedness represented by such Securities unless and until the same are delivered to the Trustee for cancellation.

Section 2.9 Benefits of Indenture.

Nothing in this Indenture or in the Securities, express or implied, shall give or be construed to give to any Person, other than the parties hereto and the holders of the Securities any legal or equitable right, remedy or claim under or in respect of this Indenture, or under any covenant, condition or provision herein contained; all such covenants, conditions and provisions being for the sole benefit of the parties hereto and of the holders of the Securities.

Section 2.10 Authenticating Agent.

So long as any of the Securities of any series remain Outstanding there may be an Authenticating Agent for any or all such series of Securities which the Trustee shall have the right to appoint. Said Authenticating Agent shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon exchange, transfer or partial redemption thereof, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. All references in this Indenture to the authentication of Securities by the Trustee shall be deemed to include authentication by an Authenticating Agent for such series. Each Authenticating Agent shall be acceptable to the Company and shall be a corporation that has a combined capital and surplus, as most recently reported or determined by it, sufficient under the laws of any jurisdiction under which it is organized or in which it is doing business to conduct a trust business, and that is otherwise authorized under such laws to conduct such business and is subject to supervision or examination by federal or state authorities. If at any time any Authenticating Agent shall cease to be eligible in accordance with these provisions, it shall resign immediately.

Any Authenticating Agent may at any time resign by giving written notice of resignation to the Trustee and to the Company. The Trustee may at any time (and upon request by the Company shall) terminate the agency of any Authenticating Agent by giving written notice of termination to such Authenticating Agent and to the Company. Upon resignation, termination or cessation of eligibility of any Authenticating Agent, the Trustee may appoint an eligible successor Authenticating Agent acceptable to the Company. Any successor Authenticating Agent, upon acceptance of its appointment hereunder, shall become vested with all the rights, powers and duties of its predecessor hereunder as if originally named as an Authenticating Agent pursuant hereto.

Section 2.11 Global Securities.

(a) If the Company shall establish pursuant to Section 2.01 that the Securities of a particular series are to be issued as a Global Security, then the Company shall execute and the Trustee shall, in accordance with Section 2.04, authenticate and deliver, a Global Security that (i) shall represent, and shall be denominated in an amount equal to the aggregate principal amount of, all of the Outstanding Securities of such series, (ii) shall be registered in the name of the Depositary or its nominee, (iii) shall be delivered by the Trustee to the Depositary or pursuant to the Depositary's instruction and (iv) shall bear a legend substantially to the following effect: "Except as otherwise provided in Section 2.11 of the Indenture, this Security may be transferred, in whole but not in part, only to another nominee of the Depositary or to a successor Depositary or to a nominee of such successor Depositary."

(b) Notwithstanding the provisions of Section 2.05, the Global Security of a series may be transferred, in whole but not in part and in the manner provided in Section 2.05, only to another nominee of the Depositary for such series, or to a successor Depositary for such series selected or approved by the Company or to a nominee of such successor Depositary.

(c) If at any time the Depositary for a series of the Securities notifies the Company that it is unwilling or unable to continue as Depositary for such series or if at any time the Depositary for such series shall no longer be registered or in good standing under the Exchange Act, or other applicable statute or regulation, and a successor Depositary for such series is not appointed by the Company within 90 days after the Company receives such notice or becomes aware of such condition, as the case may be, or if an Event of Default has occurred and is continuing and the Company has received a request from the Depositary or from the Trustee, this Section 2.11 shall no longer be applicable to the Securities of such series and the Company will execute, and subject to Section 2.04, the Trustee will authenticate and deliver the Securities of such series in definitive registered form without coupons, in authorized denominations, and in an aggregate principal amount equal to the principal amount of the Global Security of such series in exchange for such Global Security. In addition, the Company may at any time determine that the Securities of any series shall no longer be represented by a Global Security and that the provisions of this Section 2.11 shall no longer apply to the Securities of such series. In such event the Company will execute and, subject to Section 2.04, the Trustee, upon receipt of an Officer's Certificate evidencing such determination by the Company, will authenticate and deliver the Securities of such series in definitive registered form without coupons, in authorized denominations, and in an aggregate principal amount equal to the principal amount of the Global Security of such series in exchange for such Global Security. Upon the exchange of the Global Security for such Securities in definitive registered form without coupons, in authorized denominations, the Global Security shall be canceled by the Trustee. Such Securities in definitive registered form issued in exchange for the Global Security pursuant to this Section 2.11(c) shall be registered in such names and in such authorized denominations as the Depositary, pursuant to instructions from its direct or indirect participants or otherwise, shall instruct the Trustee. The Trustee shall deliver such Securities to the Depositary for delivery to the Persons in whose names such Securities are so registered.

ARTICLE III

REDEMPTION OF SECURITIES AND SINKING FUND PROVISIONS

Section 3.1 Redemption.

The Company may redeem the Securities of any series issued hereunder on and after the dates and in accordance with the terms established for such series pursuant to Section 2.01 hereof.

Section 3.2 Notice of Redemption.

(a) In case the Company shall desire to exercise such right to redeem all or, as the case may be, a portion of the Securities of any series in accordance with any right the Company reserved for itself to do so pursuant to Section 2.01 hereof, the Company shall, or shall cause the Trustee to, give notice of such redemption to holders of the Securities of such series to be redeemed by mailing, first class postage prepaid, a notice of such redemption not less than 30 days and not more than 90 days before the date fixed for redemption of that series to such holders at their last addresses as they shall appear upon the Security Register, unless a shorter period is specified in the Securities to be redeemed. Any notice that is mailed in the manner herein provided shall be conclusively presumed to have been duly given, whether or not the registered holder receives the notice. In any case, failure duly to give such notice to the holder of any Security of any series designated for redemption in whole or in part, or any defect in the notice, shall not affect the validity of the proceedings for the redemption of any other Securities of such series or any other series. In the case of any redemption of Securities prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture, the Company shall furnish the Trustee with an Officer's Certificate evidencing compliance with any such restriction.

Each such notice of redemption shall specify the date fixed for redemption and the redemption price at which Securities of that series are to be redeemed, and shall state that payment of the redemption price of such Securities to be redeemed will be made at the office or agency of the Company, upon presentation and surrender of such Securities, that interest accrued to the date fixed for redemption will be paid as specified in said notice, that from and after said date interest will cease to accrue and that the redemption is from a sinking fund, if such is the case. If less than all the Securities of a series are to be redeemed, the notice to the holders of Securities of that series to be redeemed in part shall specify the particular Securities to be so redeemed.

In case any Security is to be redeemed in part only, the notice that relates to such Security shall state the portion of the principal amount thereof to be redeemed, and shall state that on and after the redemption date, upon surrender of such Security, a new Security or Securities of such series in principal amount equal to the unredeemed portion thereof will be issued.

(b) If less than all the Securities of a series are to be redeemed, the Company shall give the Trustee at least 45 days' notice (unless a shorter notice shall be satisfactory to the Trustee) in advance of the date fixed for redemption as to the aggregate principal amount of Securities of the series to be redeemed, and thereupon the Trustee shall select, by lot or in such other manner as it shall deem appropriate and fair in its discretion and that may provide for the selection of a portion or portions (equal to one thousand U.S. dollars (\$1,000) or any integral multiple thereof) of the principal amount of such Securities of a denomination larger than \$1,000, the Securities to be redeemed and shall thereafter promptly notify the Company in writing of the numbers of the Securities to be redeemed, in whole or in part. The Company may, if and whenever it shall so elect, by delivery of instructions signed on its behalf by an Officer, instruct the Trustee or any paying agent to call all or any part of the Securities of a particular series for redemption and to give notice of redemption in the manner set forth in this Section, such notice to be in the name of the Company or its own name as the Trustee or such paying agent may deem advisable. In any case in which notice of redemption is to be given by the Trustee or any such paying agent, the Company shall deliver or cause to be delivered to, or permit to remain with, the Trustee or such paying agent, as the case may be, such Security Register, transfer books or other records, or suitable copies or extracts therefrom, sufficient to enable the Trustee or such paying agent to give any notice by mail that may be required under the provisions of this Section

Section 3.3 Payment Upon Redemption.

- (a) If the giving of notice of redemption shall have been completed as above provided, the Securities or portions of Securities of the series to be redeemed specified in such notice shall become due and payable on the date and at the place stated in such notice at the applicable redemption price, together with interest accrued to the date fixed for redemption and interest on such Securities or portions of Securities shall cease to accrue on and after the date fixed for redemption, unless the Company shall default in the payment of such redemption price and accrued interest with respect to any such Security or portion thereof. On presentation and surrender of such Securities on or after the date fixed for redemption at the place of payment specified in the notice, said Securities shall be paid and redeemed at the applicable redemption price for such series, together with interest accrued thereon to the date fixed for redemption (but if the date fixed for redemption is an interest payment date, the interest installment payable on such date shall be payable to the registered holder at the close of business on the applicable record date pursuant to Section 2.03).
- (b) Upon presentation of any Security of such series that is to be redeemed in part only, the Company shall execute and the Trustee shall authenticate and the office or agency where the Security is presented shall deliver to the holder thereof, at the expense of the Company, a new Security of the same series of authorized denominations in principal amount equal to the unredeemed portion of the Security so presented.

Section 3.4 Sinking Fund.

The provisions of Sections 3.04, 3.05 and 3.06 shall be applicable to any sinking fund for the retirement of Securities of a series, except as otherwise specified as contemplated by Section 2.01 for Securities of such series.

The minimum amount of any sinking fund payment provided for by the terms of Securities of any series is herein referred to as a "mandatory sinking fund payment," and any payment in excess of such minimum amount provided for by the terms of Securities of any series is herein referred to as an "optional sinking fund payment". If provided for by the terms of Securities of any series, the cash amount of any sinking fund payment may be subject to reduction as provided in Section 3.05. Each sinking fund payment shall be applied to the redemption of Securities of any series as provided for by the terms of Securities of such series.

Section 3.5 Satisfaction of Sinking Fund Payments with Securities.

The Company (i) may deliver Outstanding Securities of a series and (ii) may apply as a credit Securities of a series that have been redeemed either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, in each case in satisfaction of all or any part of any sinking fund payment with respect to the Securities of such series required to be made pursuant to the terms of such Securities as provided for by the terms of such series, provided that such Securities have not been previously so credited. Such Securities shall be received and credited for such purpose by the Trustee at the redemption price specified in such Securities for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly.

Section 3.6 Redemption of Securities for Sinking Fund.

Not less than 45 days prior to each sinking fund payment date for any series of Securities (unless a shorter period shall be satisfactory to the Trustee), the Company will deliver to the Trustee an Officer's Certificate specifying the amount of the next ensuing sinking fund payment for that series pursuant to the terms of the series, the portion thereof, if any, that is to be satisfied by delivering and crediting Securities of that series pursuant to Section 3.05 and the basis for such credit and will, together with such Officer's Certificate, deliver to the Trustee any Securities to be so delivered. Not less than 30 days before each such sinking fund payment date the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 3.02 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 3.02. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Section 3.03.

ARTICLE IV COVENANTS

Section 4.1 Payment of Principal, Premium and Interest.

The Company will duly and punctually pay or cause to be paid the principal of (and premium, if any) and interest on the Securities of that series at the time and place and in the manner provided herein and established with respect to such Securities. Payments of principal on the Securities may be made at the time provided herein and established with respect to such Securities by U.S. dollar check drawn on and mailed to the address of the Securityholder entitled thereto as such address shall appear in the Security Register, or U.S. dollar wire transfer to, a U.S. dollar account (such wire transfer to be made only to a Securityholder of an aggregate principal amount of Securities of the applicable series in excess of U.S. \$2,000,000 and only if such Securities may be made at the time provided herein and established with respect to such Securities by U.S. dollar check mailed to the address of the Securityholder entitled thereto as such address shall appear in the Security Register, or U.S. dollar wire transfer to, a U.S. dollar account (such a wire transfer to be made only to a Securityholder of an aggregate principal amount of Securities of the applicable series in excess of U.S. \$2,000,000 and only if such Securityholder shall have furnished wire instructions in writing to the Security Registrar and the Trustee no later than 15 days prior to the relevant payment date.

Section 4.2 Maintenance of Office or Agency.

So long as any series of the Securities remain Outstanding, the Company agrees to maintain an office or agency with respect to each such series and at such other location or locations as may be designated as provided in this Section 4.02, where (i) Securities of that series may be presented for payment, (ii) Securities of that series may be presented as herein above authorized for registration of transfer and exchange, and (iii) notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be given or served, such designation to continue with respect to such office or agency until the Company shall, by written notice signed by any officer authorized to sign an Officer's Certificate and delivered to the Trustee, designate some other office or agency for such purposes or any of them. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the Trustee as its agent to receive all such presentations, notices and demands. The Company initially appoints the Corporate Trust Office of the Trustee as its paying agent with respect to the Securities.

Section 4.3 Paying Agents.

- (a) If the Company shall appoint one or more paying agents for all or any series of the Securities, other than the Trustee, the Company will cause each such paying agent to execute and deliver to the Trustee an instrument in which such agent shall agree with the Trustee, subject to the provisions of this Section:
- (i) that it will hold all sums held by it as such agent for the payment of the principal of (and premium, if any) or interest on the Securities of that series (whether such sums have been paid to it by the Company or by any other obligor of such Securities) in trust for the benefit of the Persons entitled thereto:
- (ii) that it will give the Trustee notice of any failure by the Company (or by any other obligor of such Securities) to make any payment of the principal of (and premium, if any) or interest on the Securities of that series when the same shall be due and payable;
- (iii) that it will, at any time during the continuance of any failure referred to in the preceding paragraph (a)(2) above, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such paying agent; and
 - (iv) that it will perform all other duties of paying agent as set forth in this Indenture.
- (b) If the Company shall act as its own paying agent with respect to any series of the Securities, it will on or before each due date of the principal of (and premium, if any) or interest on Securities of that series, set aside, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay such principal (and premium, if any) or interest so becoming due on Securities of that series until such sums shall be paid to such Persons or otherwise disposed of as herein provided and will promptly notify the Trustee of such action, or any failure (by it or any other obligor on such Securities) to take such action. Whenever the Company shall have one or more paying agents for any series of Securities, it will, prior to each due date of the principal of (and premium, if any) or interest on any Securities of that series, deposit with the paying agent a sum sufficient to pay the principal (and premium, if any) or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or interest, and (unless such paying agent is the Trustee) the Company will promptly notify the Trustee of this action or failure so to act.
- (c) Notwithstanding anything in this Section to the contrary, (i) the agreement to hold sums in trust as provided in this Section is subject to the provisions of Section 11.05, and (ii) the Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or direct any paying agent to pay, to the Trustee all sums held in trust by the Company or such paying agent, such sums to be held by the Trustee upon the same terms and conditions as those upon which such sums were held by the Company or such paying agent; and, upon such payment by the Company or any paying agent to the Trustee, the Company or such paying agent shall be released from all further liability with respect to such money.

Section 4.4 Appointment to Fill Vacancy in Office of Trustee.

The Company, whenever necessary to avoid or fill a vacancy in the office of Trustee, will appoint, in the manner provided in Section 7.10, a Trustee, so that there shall at all times be a Trustee hereunder.

Section 4.5 Compliance with Consolidation Provisions.

The Company will not, while any of the Securities remain Outstanding, consolidate with or merge into any other Person, in either case where the Company is not the survivor of such transaction, or sell or convey all or substantially all of its property to any other Person unless the provisions of Article Ten hereof are complied with.

ARTICLE V

SECURITYHOLDERS' LISTS AND REPORTS BY THE COMPANY AND THE TRUSTEE

Section 5.1 Company to Furnish Trustee Names and Addresses of Securityholders.

The Company will furnish or cause to be furnished to the Trustee (a) within 15 days after each regular record date (as defined in Section 2.03) a list, in such form as the Trustee may reasonably require, of the names and addresses of the holders of each series of Securities as of such regular record date, provided that the Company shall not be obligated to furnish or cause to furnish such list at any time that the list shall not differ in any respect from the most recent list furnished to the Trustee by the Company and (b) at such other times as the Trustee may request in writing within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished; provided, however, that, in either case, no such list need be furnished for any series for which the Trustee shall be the Security Registrar.

Section 5.2 Preservation of Information; Communications With Securityholders.

- (a) The Trustee shall preserve, in as current a form as is reasonably practicable, all information as to the names and addresses of the holders of Securities contained in the most recent list furnished to it as provided in Section 5.01 and as to the names and addresses of holders of Securities received by the Trustee in its capacity as Security Registrar (if acting in such capacity).
 - (b) The Trustee may destroy any list furnished to it as provided in Section 5.01 upon receipt of a new list so furnished.
- (c) Securityholders may communicate as provided in Section 312(b) of the Trust Indenture Act with other Securityholders with respect to their rights under this Indenture or under the Securities, and, in connection with any such communications, the Trustee shall satisfy its obligations under Section 312(b) of the Trust Indenture Act in accordance with the provisions of Section 312(b) of the Trust Indenture Act.

Section 5.3 Reports by the Company

The Company covenants and agrees to provide (which delivery may be via electronic mail) to the Trustee, after the Company files the same with the Securities and Exchange Commission, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the Securities and Exchange Commission may from time to time by rules and regulations prescribe) that the Company files with the Securities and Exchange Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; provided, however, the Company shall not be required to deliver to the Trustee any materials for which the Company has sought and received confidential treatment by the Securities and Exchange Commission; and provided further, so long as such filings by the Company are available on the Securities and Exchange Commission's Electronic Data Gathering, Analysis and Retrieval System (EDGAR), such filings shall be deemed to have been filed with the Trustee for purposes of this Section 5.03 without any further action required by the Company.

Section 5.4 Reports by the Trustee.

- (a) If required by Section 313(a) of the Trust Indenture Act, the Trustee, within sixty (60) days after each May 1, shall transmit by mail, first class postage prepaid, to the Securityholders, as their names and addresses appear upon the Security Register, a brief report dated as of such May 1, which complies with Section 313(a) of the Trust Indenture Act.
 - (b) The Trustee shall comply with Section 313(b) and 313(c) of the Trust Indenture Act.
- (c) A copy of each such report shall, at the time of such transmission to Securityholders, be filed by the Trustee with the Company, with each securities exchange upon which any Securities are listed (if so listed) and also with the Securities and Exchange Commission. The Company agrees to notify the Trustee when any Securities become listed on any securities exchange.

ARTICLE VI

REMEDIES OF THE TRUSTEE AND SECURITYHOLDERS ON EVENT OF DEFAULT

Section 6.1 Events of Default.

- (a) Whenever used herein with respect to Securities of a particular series, "Event of Default" means any one or more of the following events that has occurred and is continuing:
- (i) the Company defaults in the payment of any installment of interest upon any of the Securities of that series, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by the Company in accordance with the terms of any indenture supplemental hereto shall not constitute a default in the payment of interest for this purpose;
- (ii) the Company defaults in the payment of the principal of (or premium, if any, on) any of the Securities of that series as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to that series; provided, however, that a valid extension of the maturity of such Securities in accordance with the terms of any indenture supplemental hereto shall not constitute a default in the payment of principal or premium, if any;
- (iii) the Company fails to observe or perform any other of its covenants or agreements with respect to that series contained in this Indenture or otherwise established with respect to that series of Securities pursuant to Section 2.01 hereof (other than a covenant or agreement that has been expressly included in this Indenture solely for the benefit of one or more series of Securities other than such series) for a period of 90 days after the date on which written notice of such failure, requiring the same to be remedied and stating that such notice is a "Notice of Default" hereunder, shall have been given to the Company by the Trustee, by registered or certified mail, or to the Company and the Trustee by the holders of at least 25% in principal amount of the Securities of that series at the time Outstanding;
- (iv) the Company pursuant to or within the meaning of any Bankruptcy Law (i) commences a voluntary case, (ii) consents to the entry of an order for relief against it in an involuntary case, (iii) consents to the appointment of a Custodian of it or for all or substantially all of its property or (iv) makes a general assignment for the benefit of its creditors; or
- (v) a court of competent jurisdiction enters an order under any Bankruptcy Law that (i) is for relief against the Company in an involuntary case, (ii) appoints a Custodian of the Company for all or substantially all of its property or (iii) orders the liquidation of the Company, and the order or decree remains unstayed and in effect for 90 days.
- (b) In each and every such case (other than an Event of Default specified in clause (4) or clause (5) above), unless the principal of all the Securities of that series shall have already become due and payable, either the Trustee or the holders of not less than 25% in aggregate principal amount of the Securities of that series then Outstanding hereunder, by notice in writing to the Company (and to the Trustee if given by such Securityholders), may declare the principal of (and premium, if any, on) and accrued and unpaid interest on all the Securities of that series to be due and payable immediately, and upon any such declaration the same shall become and shall be immediately due and payable. If an Event of Default specified in clause (4) or clause (5) above occurs, the principal of and accrued and unpaid interest on all the Securities of that series shall automatically be immediately due and payable without any declaration or other act on the part of the Trustee or the holders of the Securities.
- (c) At any time after the principal of (and premium, if any, on) and accrued and unpaid interest on the Securities of that series shall have been so declared due and payable, and before any judgment or decree for the payment of the moneys due shall have been obtained or entered as hereinafter provided, the holders of a majority in aggregate principal amount of the Securities of that series then Outstanding hereunder, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if: (i) the Company has paid or deposited with the Trustee a sum sufficient to pay all matured installments of interest upon all the Securities of that series and the principal of (and premium, if any, on) any and all Securities of that series that shall have become due otherwise than by acceleration (with interest upon such principal and premium, if any, and, to the extent that such payment is enforceable under applicable law, upon overdue installments of interest, at the rate per annum expressed in the Securities of that series to the date of such payment or deposit) and the amount payable to the Trustee under Section 7.06, and (ii) any and all Events of Default under the Indenture with respect to such series, other than the nonpayment of principal on (and premium, if any, on) and accrued and unpaid interest on Securities of that series that shall not have become due by their terms, shall have been remedied or waived as provided in Section 6.06.

No such rescission and annulment shall extend to or shall affect any subsequent default or impair any right consequent thereon.

(d) In case the Trustee shall have proceeded to enforce any right with respect to Securities of that series under this Indenture and such proceedings shall have been discontinued or abandoned because of such rescission or annulment or for any other reason or shall have been determined adversely to the Trustee, then and in every such case, subject to any determination in such proceedings, the Company and the Trustee shall be restored respectively to their former positions and rights hereunder, and all rights, remedies and powers of the Company and the Trustee shall continue as though no such proceedings had been taken.

Section 6.2 Collection of Indebtedness and Suits for Enforcement by Trustee.

- (a) The Company covenants that (i) in case it shall default in the payment of any installment of interest on any of the Securities of a series, or in any payment required by any sinking or analogous fund established with respect to that series as and when the same shall have become due and payable, and such default shall have continued for a period of 90 days, or (ii) in case it shall default in the payment of the principal of (or premium, if any, on) any of the Securities of a series when the same shall have become due and payable, whether upon maturity of the Securities of a series or upon redemption or upon declaration or otherwise then, upon demand of the Trustee, the Company will pay to the Trustee, for the benefit of the holders of the Securities of that series, the whole amount that then shall have been become due and payable on all such Securities for principal (and premium, if any) or interest, or both, as the case may be, with interest upon the overdue principal (and premium, if any) and (to the extent that payment of such interest is enforceable under applicable law) upon overdue installments of interest at the rate per annum expressed in the Securities of that series; and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, and the amount payable to the Trustee under Section 7.06.
- (b) If the Company shall fail to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, shall be entitled and empowered to institute any action or proceedings at law or in equity for the collection of the sums so due and unpaid, and may prosecute any such action or proceeding to judgment or final decree, and may enforce any such judgment or final decree against the Company or other obligor upon the Securities of that series and collect the moneys adjudged or decreed to be payable in the manner provided by law or equity out of the property of the Company or other obligor upon the Securities of that series, wherever situated.
- (c) In case of any receivership, insolvency, liquidation, bankruptcy, reorganization, readjustment, arrangement, composition or judicial proceedings affecting the Company, or its creditors or property, the Trustee shall have power to intervene in such proceedings and take any action therein that may be permitted by the court and shall (except as may be otherwise provided by law) be entitled to file such proofs of claim and other papers and documents as may be necessary or advisable in order to have the claims of the Trustee and of the holders of Securities of such series allowed for the entire amount due and payable by the Company under the Indenture at the date of institution of such proceedings and for any additional amount that may become due and payable by the Company after such date, and to collect and receive any moneys or other property payable or deliverable on any such claim, and to distribute the same after the deduction of the amount payable to the Trustee under Section 7.06; and any receiver, assignee or trustee in bankruptcy or reorganization is hereby authorized by each of the holders of Securities of such series to make such payments to the Trustee, and, in the event that the Trustee shall consent to the making of such payments directly to such Securityholders, to pay to the Trustee any amount due it under Section 7.06.
- (d) All rights of action and of asserting claims under this Indenture, or under any of the terms established with respect to Securities of that series, may be enforced by the Trustee without the possession of any of such Securities, or the production thereof at any trial or other proceeding relative thereto, and any such suit or proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for payment to the Trustee of any amounts due under Section 7.06, be for the ratable benefit of the holders of the Securities of such series.

In case of an Event of Default hereunder, the Trustee may in its discretion proceed to protect and enforce the rights vested in it by this Indenture by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any of such rights, either at law or in equity or in bankruptcy or otherwise, whether for the specific enforcement of any covenant or agreement contained in the Indenture or in aid of the exercise of any power granted in this Indenture, or to enforce any other legal or equitable right vested in the Trustee by this Indenture or by law.

Nothing contained herein shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Securityholder any plan of reorganization, arrangement, adjustment or composition affecting the Securities of that series or the rights of any holder thereof or to authorize the Trustee to vote in respect of the claim of any Securityholder in any such proceeding.

Section 6.3 Application of Moneys Collected.

Any moneys collected by the Trustee pursuant to this Article with respect to a particular series of Securities shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such moneys on account of principal (or premium, if any) or interest, upon presentation of the Securities of that series, and notation thereon of the payment, if only partially paid, and upon surrender thereof if fully paid:

FIRST: To the payment of reasonable costs and expenses of collection and of all amounts payable to the Trustee under Section 7.06;

SECOND: To the payment of the amounts then due and unpaid upon Securities of such series for principal (and premium, if any) and interest, in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal (and premium, if any) and interest, respectively; and

THIRD: To the payment of the remainder, if any, to the Company or any other Person lawfully entitled thereto.

Section 6.4 Limitation on Suits.

No holder of any Security of any series shall have any right by virtue or by availing of any provision of this Indenture to institute any suit, action or proceeding in equity or at law upon or under or with respect to this Indenture or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless (i) such holder previously shall have given to the Trustee written notice of an Event of Default and of the continuance thereof with respect to the Securities of such series specifying such Event of Default, as hereinbefore provided; (ii) the holders of not less than 25% in aggregate principal amount of the Securities of such series then Outstanding shall have made written request upon the Trustee to institute such action, suit or proceeding in its own name as Trustee hereunder; (iii) such holder or holders shall have offered to the Trustee such reasonable indemnity as it may require against the costs, expenses and liabilities to be incurred therein or thereby; (iv) the Trustee for 90 days after its receipt of such notice, request and offer of indemnity, shall have failed to institute any such action, suit or proceeding and (v) during such 90 day period, the holders of a majority in principal amount of the Securities of that series do not give the Trustee a direction inconsistent with the request.

Notwithstanding anything contained herein to the contrary or any other provisions of this Indenture, the right of any holder of any Security to receive payment of the principal of (and premium, if any) and interest on such Security, as therein provided, on or after the respective due dates expressed in such Security (or in the case of redemption, on the redemption date), or to institute suit for the enforcement of any such payment on or after such respective dates or redemption date, shall not be impaired or affected without the consent of such holder and by accepting a Security hereunder it is expressly understood, intended and covenanted by the taker and holder of every Security of such series with every other such taker and holder and the Trustee, that no one or more holders of Securities of such series shall have any right in any manner whatsoever by virtue or by availing of any provision of this Indenture to affect, disturb or prejudice the rights of the holders of any other of such Securities, or to obtain or seek to obtain priority over or preference to any other such holder, or to enforce any right under this Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all holders of Securities of such series. For the protection and enforcement of the provisions of this Section, each and every Securityholder and the Trustee shall be entitled to such relief as can be given either at law or in equity.

Section 6.5 Rights and Remedies Cumulative; Delay or Omission Not Waiver.

- (a) Except as otherwise provided in Section 2.07, all powers and remedies given by this Article to the Trustee or to the Securityholders shall, to the extent permitted by law, be deemed cumulative and not exclusive of any other powers and remedies available to the Trustee or the holders of the Securities, by judicial proceedings or otherwise, to enforce the performance or observance of the covenants and agreements contained in this Indenture or otherwise established with respect to such Securities.
- (b) No delay or omission of the Trustee or of any holder of any of the Securities to exercise any right or power accruing upon any Event of Default occurring and continuing as aforesaid shall impair any such right or power, or shall be construed to be a waiver of any such default or an acquiescence therein; and, subject to the provisions of Section 6.04, every power and remedy given by this Article or by law to the Trustee or the Securityholders may be exercised from time to time, and as often as shall be deemed expedient, by the Trustee or by the Securityholders.

Section 6.6 Control by Securityholders.

The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding, determined in accordance with Section 8.04, shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee with respect to such series; provided, however, that such direction shall not be in conflict with any rule of law or with this Indenture. Subject to the provisions of Section 7.01, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall, by a Responsible Officer or officers of the Trustee, determine that the proceeding so directed, subject to the Trustee's duties under the Trust Indenture Act, would involve the Trustee in personal liability or might be unduly prejudicial to the Securityholders not involved in the proceeding. The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding affected thereby, determined in accordance with Section 8.04, may on behalf of the holders of all of the Securities of such series waive any past default in the performance of any of the covenants contained herein or established pursuant to Section 2.01 with respect to such series and its consequences, except a default in the payment of the principal of, or premium, if any, or interest on, any of the Securities of that series as and when the same shall become due by the terms of such Securities otherwise than by acceleration (unless such default has been cured and a sum sufficient to pay all matured installments of interest and principal and any premium has been deposited with the Trustee (in accordance with Section 6.01(c)). Upon any such waiver, the default covered thereby shall be deemed to be cured for all purposes of this Indenture and the Company, the Trustee and the holders of the Securities of such series shall be restored to their former positions and rights hereunder, respectively; b

Section 6.7 Undertaking to Pay Costs.

All parties to this Indenture agree, and each holder of any Securities by such holder's acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section shall not apply to any suit instituted by the Trustee, to any suit instituted by any Securityholder, or group of Securityholders, holding more than 10% in aggregate principal amount of the Outstanding Securities of any series, or to any suit instituted by any Securityholder for the enforcement of the payment of the principal of (or premium, if any) or interest on any Security of such series, on or after the respective due dates expressed in such Security or established pursuant to this Indenture.

ARTICLE VII

CONCERNING THE TRUSTEE

Section 7.1 Certain Duties and Responsibilities of Trustee.

- (a) The Trustee, prior to the occurrence of an Event of Default with respect to the Securities of a series and after the curing of all Events of Default with respect to the Securities of that series that may have occurred, shall undertake to perform with respect to the Securities of such series such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants shall be read into this Indenture against the Trustee. In case an Event of Default with respect to the Securities of a series has occurred (that has not been cured or waived), the Trustee shall exercise with respect to Securities of that series such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.
- (b) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that:
- (1) prior to the occurrence of an Event of Default with respect to the Securities of a series and after the curing or waiving of all such Events of Default with respect to that series that may have occurred: (A) the duties and obligations of the Trustee shall with respect to the Securities of such series be determined solely by the express provisions of this Indenture, and the Trustee shall not be liable with respect to the Securities of such series except for the performance of such duties and obligations as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and (B) in the absence of bad faith on the part of the Trustee, the Trustee may with respect to the Securities of such series conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon any certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions that by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture;
- (2) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer or Responsible Officers of the Trustee, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;
- (3) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the holders of not less than a majority in principal amount of the Securities of any series at the time Outstanding relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee under this Indenture with respect to the Securities of that series; and
- (4) none of the provisions contained in this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur personal financial liability in the performance of any of its duties or in the exercise of any of its rights or powers if there is reasonable ground for believing that the repayment of such funds or liability is not reasonably assured to it under the terms of this Indenture or adequate indemnity against such risk is not reasonably assured to it.

.Section 7.2 Certain Rights of Trustee.

Except as otherwise provided in Section 7.01:

- (a) The Trustee may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, approval, bond, security or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;
- (b) Any request, direction, order or demand of the Company mentioned herein shall be sufficiently evidenced by a Board Resolution or an instrument signed in the name of the Company by any authorized officer of the Company (unless other evidence in respect thereof is specifically prescribed herein);
- (c) The Trustee may consult with counsel and the written advice of such counsel or, if requested, any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken or suffered or omitted hereunder in good faith and in reliance thereon;

- (d) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request, order or direction of any of the Securityholders pursuant to the provisions of this Indenture, unless such Securityholders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities that may be incurred therein or thereby; nothing contained herein shall, however, relieve the Trustee of the obligation, upon the occurrence of an Event of Default with respect to a series of the Securities (that has not been cured or waived), to exercise with respect to Securities of that series such of the rights and powers vested in it by this Indenture, and to use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs;
- (e) The Trustee shall not be liable for any action taken or omitted to be taken by it in good faith and believed by it to be authorized or within the discretion or rights or powers conferred upon it by this Indenture;
- (f) The Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, approval, bond, security, or other papers or documents, unless requested in writing so to do by the holders of not less than a majority in principal amount of the Outstanding Securities of the particular series affected thereby (determined as provided in Section 8.04); provided, however, that if the payment within a reasonable time to the Trustee of the costs, expenses or liabilities likely to be incurred by it in the making of such investigation is, in the opinion of the Trustee, not reasonably assured to the Trustee by the security afforded to it by the terms of this Indenture, the Trustee may require reasonable indemnity against such costs, expenses or liabilities as a condition to so proceeding. The reasonable expense of every such examination shall be paid by the Company or, if paid by the Trustee, shall be repaid by the Company upon demand; and
- (g) The Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder.

In addition, the Trustee shall not be deemed to have knowledge of any Default or Event of Default except (1) any Event of Default occurring pursuant to Sections 6.01(a)(1) and 6.01(a)(2) or (2) any Default or Event of Default of which the Trustee shall have received written notification in the manner set forth in this Indenture or a Responsible Officer of the Trustee shall have obtained actual knowledge. Delivery of reports, information and documents to the Trustee under Section 5.03 is for informational purposes only and the information and the Trustee's receipt of the foregoing shall not constitute constructive notice of any information contained therein, or determinable from information contained therein including the Company's compliance with any of their covenants thereunder (as to which the Trustee is entitled to rely exclusively on an Officer's Certificate).

Section 7.3 Trustee Not Responsible for Recitals or Issuance or Securities.

- (a) The recitals contained herein and in the Securities shall be taken as the statements of the Company, and the Trustee assumes no responsibility for the correctness of the same.
 - (b) The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Securities.
- (c) The Trustee shall not be accountable for the use or application by the Company of any of the Securities or of the proceeds of such Securities, or for the use or application of any moneys paid over by the Trustee in accordance with any provision of this Indenture or established pursuant to Section 2.01, or for the use or application of any moneys received by any paying agent other than the Trustee.

Section 7.4 May Hold Securities.

The Trustee or any paying agent or Security Registrar, in its individual or any other capacity, may become the owner or pledgee of Securities with the same rights it would have if it were not Trustee, paying agent or Security Registrar.

Section 7.5 Moneys Held in Trust.

Subject to the provisions of Section 11.05, all moneys received by the Trustee shall, until used or applied as herein provided, be held in trust for the purposes for which they were received, but need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any moneys received by it hereunder except such as it may agree with the Company to pay thereon.

Section 7.6 Compensation and Reimbursement.

(a) The Company covenants and agrees to pay to the Trustee, and the Trustee shall be entitled to, such reasonable compensation (which shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust) as the Company and the Trustee may from time to time agree in writing, for all services rendered by it in the execution of the trusts hereby created and in the exercise and performance of any of the powers and duties hereunder of the Trustee, and, except as otherwise expressly provided herein, the Company will pay or reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any of the provisions of this Indenture (including the reasonable compensation and the expenses and disbursements of its counsel and of all Persons not regularly in its employ), except any such expense, disbursement or advance as may arise from its negligence or bad faith and except as the Company and Trustee may from time to time agree in writing. The Company also covenants to indemnify the Trustee (and its officers, agents, directors and employees) for, and to hold it harmless against, any loss, liability or expense incurred without negligence or bad faith on the part of the Trustee and arising out of or in connection with the acceptance or administration of this trust, including the reasonable costs and expenses of defending itself against any claim of liability in the premises.

(b) The obligations of the Company under this Section to compensate and indemnify the Trustee and to pay or reimburse the Trustee for reasonable expenses, disbursements and advances shall constitute additional indebtedness hereunder. Such additional indebtedness shall be secured by a lien prior to that of the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the benefit of the holders of particular Securities.

Section 7.7 Reliance on Officer's Certificate.

Except as otherwise provided in Section 7.01, whenever in the administration of the provisions of this Indenture the Trustee shall deem it reasonably necessary or desirable that a matter be proved or established prior to taking or suffering or omitting to take any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may, in the absence of negligence or bad faith on the part of the Trustee, be deemed to be conclusively proved and established by an Officer's Certificate delivered to the Trustee and such certificate, in the absence of negligence or bad faith on the part of the Trustee, shall be full warrant to the Trustee for any action taken, suffered or omitted to be taken by it under the provisions of this Indenture upon the faith thereof.

Section 7.8 Disqualification; Conflicting Interests.

If the Trustee has or shall acquire any "conflicting interest" within the meaning of Section 310(b) of the Trust Indenture Act, the Trustee and the Company shall in all respects comply with the provisions of Section 310(b) of the Trust Indenture Act.

Section 7.9 Corporate Trustee Required; Eligibility.

There shall at all times be a Trustee with respect to the Securities issued hereunder which shall at all times be a corporation organized and doing business under the laws of the United States of America or any state or territory thereof or of the District of Columbia, or a corporation or other Person permitted to act as trustee by the Securities and Exchange Commission, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus of at least fifty million U.S. dollars (\$50,000,000), and subject to supervision or examination by federal, state, territorial, or District of Columbia authority.

If such corporation or other Person publishes reports of condition at least annually, pursuant to law or to the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation or other Person shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. The Company may not, nor may any Person directly or indirectly controlling, controlled by, or under common control with the Company, serve as Trustee. In case at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, the Trustee shall resign immediately in the manner and with the effect specified in Section 7.10.

Section 7.10 Resignation and Removal; Appointment of Successor.

- (a) The Trustee or any successor hereafter appointed may at any time resign with respect to the Securities of one or more series by giving written notice thereof to the Company and by transmitting notice of resignation by mail, first class postage prepaid, to the Securityholders of such series, as their names and addresses appear upon the Security Register. Upon receiving such notice of resignation, the Company shall promptly appoint a successor trustee with respect to Securities of such series by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the resigning Trustee and one copy to the successor trustee. If no successor trustee shall have been so appointed and have accepted appointment within 30 days after the mailing of such notice of resignation, the resigning Trustee may petition any court of competent jurisdiction for the appointment of a successor trustee with respect to Securities of such series, or any Securityholder of that series who has been a bona fide holder of a Security or Securities for at least six months may on behalf of himself and all others similarly situated, petition any such court for the appointment of a successor trustee. Such court may thereupon after such notice, if any, as it may deem proper and prescribe, appoint a successor trustee.
 - (b) in case at any time any one of the following shall occur:
- (1) the Trustee shall fail to comply with the provisions of Section 7.08 after written request therefor by the Company or by any Securityholder who has been a bona fide holder of a Security or Securities for at least six months; or
- (2) the Trustee shall cease to be eligible in accordance with the provisions of Section 7.09 and shall fail to resign after written request therefor by the Company or by any such Securityholder; or
- (3) the Trustee shall become incapable of acting, or shall be adjudged a bankrupt or insolvent, or commence a voluntary bankruptcy proceeding, or a receiver of the Trustee or of its property shall be appointed or consented to, or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation; then, in any such case, the Company may remove the Trustee with respect to all Securities and appoint a successor trustee by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the Trustee so removed and one copy to the successor trustee, or any Securityholder who has been a bona fide holder of a Security or Securities for at least six months may, on behalf of that holder and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor trustee. Such court may thereupon after such notice, if any, as it may deem proper and prescribe, remove the Trustee and appoint a successor trustee.
- (c) The holders of a majority in aggregate principal amount of the Securities of any series at the time Outstanding may at any time remove the Trustee with respect to such series by so notifying the Trustee and the Company and may appoint a successor Trustee for such series with the consent of the Company.
- (d) Any resignation or removal of the Trustee and appointment of a successor trustee with respect to the Securities of a series pursuant to any of the provisions of this Section shall become effective upon acceptance of appointment by the successor trustee as provided in Section 7.11.
- (e) Any successor trustee appointed pursuant to this Section may be appointed with respect to the Securities of one or more series or all of such series, and at any time there shall be only one Trustee with respect to the Securities of any particular series.

Section 7.11 Acceptance of Appointment By Successor.

(a) In case of the appointment hereunder of a successor trustee with respect to all Securities, every such successor trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor trustee all the rights, powers, and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor trustee all property and money held by such retiring Trustee hereunder.

(b) In case of the appointment hereunder of a successor trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor trustee shall accept such appointment and which (i) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor trustee relates, (ii) shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (iii) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co- trustees of the same trust, that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee and that no Trustee shall be responsible for any act or failure to act on the part of any other Trustee hereunder; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein, such retiring Trustee shall with respect to the Securities of that or those series to which the appointment of such successor trustee relates have no further responsibility for the exercise of rights and powers or for the performance of the duties and obligations vested in the Trustee under this Indenture, and each such successor trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor trustee relates; but, on request of the Company or any successor trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor trustee, to the extent contemplated by such supplemental indenture, the property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor trustee relates.

- (c) Upon request of any such successor trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section, as the case may be.
- (d) No successor trustee shall accept its appointment unless at the time of such acceptance such successor trustee shall be qualified and eligible under this Article.
- (e) Upon acceptance of appointment by a successor trustee as provided in this Section, the Company shall transmit notice of the succession of such trustee hereunder by mail, first class postage prepaid, to the Securityholders, as their names and addresses appear upon the Security Register. If the Company fails to transmit such notice within ten days after acceptance of appointment by the successor trustee, the successor trustee shall cause such notice to be transmitted at the expense of the Company.

Section 7.12 Merger, Conversion, Consolidation or Succession to Business.

Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to the corporate trust business of the Trustee, including the administration of the trust created by this Indenture, shall be the successor of the Trustee hereunder, provided that such corporation shall be qualified under the provisions of Section 7.08 and eligible under the provisions of Section 7.09, without the execution or filing of any paper or any further act on the part of any of the parties hereto, anything herein to the contrary notwithstanding. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities.

Section 7.13 Preferential Collection of Claims Against the Company.

The Trustee shall comply with Section 311(a) of the Trust Indenture Act, excluding any creditor relationship described in Section 311(b) of the Trust Indenture Act. A Trustee who has resigned or been removed shall be subject to Section 311(a) of the Trust Indenture Act to the extent included therein.

Section 7.14 Notice of Default

If any Default or any Event of Default occurs and is continuing and if such Default or Event of Default is known to a Responsible Officer of the Trustee, the Trustee shall mail to each Securityholder in the manner and to the extent provided in Section 313(c) of the Trust Indenture Act notice of the Default or Event of Default within the earlier of 90 days after it occurs and 30 days after it is known to a Responsible Officer of the Trustee or written notice of it is received by the Trustee, unless such Default or Event of Default has been cured; provided, however, that, except in the case of a default in the payment of the principal of (or premium, if any) or interest on any Security, the Trustee shall be protected in withholding such notice if and so long as the board of directors, the executive committee or a trust committee of directors and/or Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interest of the Securityholders.

ARTICLE VIII

CONCERNING THE SECURITYHOLDERS

Section 8.1 Evidence of Action by Securityholders.

Whenever in this Indenture it is provided that the holders of a majority or specified percentage in aggregate principal amount of the Securities of a particular series may take any action (including the making of any demand or request, the giving of any notice, consent or waiver or the taking of any other action), the fact that at the time of taking any such action the holders of such majority or specified percentage of that series have joined therein may be evidenced by any instrument or any number of instruments of similar tenor executed by such holders of Securities of that series in person or by agent or proxy appointed in writing.

If the Company shall solicit from the Securityholders of any series any request, demand, authorization, direction, notice, consent, waiver or other action, the Company may, at its option, as evidenced by an Officer's Certificate, fix in advance a record date for such series for the determination of Securityholders entitled to give such request, demand, authorization, direction, notice, consent, waiver or other action, but the Company shall have no obligation to do so. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other action may be given before or after the record date, but only the Securityholders of record at the close of business on the record date shall be deemed to be Securityholders for the purposes of determining whether Securityholders of the requisite proportion of Outstanding Securities of that series have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other action, and for that purpose the Outstanding Securities of that series shall be computed as of the record date; provided, however, that no such authorization, agreement or consent by such Securityholders on the record date shall be deemed effective unless it shall become effective pursuant to the provisions of this Indenture not later than six months after the record date.

Section 8.2 Proof of Execution by Securityholders.

Subject to the provisions of Section 7.01, proof of the execution of any instrument by a Securityholder (such proof will not require notarization) or his agent or proxy and proof of the holding by any Person of any of the Securities shall be sufficient if made in the following manner:

- (a) The fact and date of the execution by any such Person of any instrument may be proved in any reasonable manner acceptable to the Trustee.
- (b) The ownership of Securities shall be proved by the Security Register of such Securities or by a certificate of the Security Registrar thereof.

The Trustee may require such additional proof of any matter referred to in this Section as it shall deem necessary.

Section 8.3 Who May Be Deemed Owners.

Prior to the due presentment for registration of transfer of any Security, the Company, the Trustee, any paying agent and any Security Registrar may deem and treat the Person in whose name such Security shall be registered upon the books of the Company as the absolute owner of such Security (whether or not such Security shall be overdue and notwithstanding any notice of ownership or writing thereon made by anyone other than the Security Registrar) for the purpose of receiving payment of or on account of the principal of, premium, if any, and (subject to Section 2.03) interest on such Security and for all other purposes; and neither the Company nor the Trustee nor any paying agent nor any Security Registrar shall be affected by any notice to the contrary.

Section 8.4 Certain Securities Owned by Company Disregarded.

In determining whether the holders of the requisite aggregate principal amount of Securities of a particular series have concurred in any direction, consent or waiver under this Indenture, the Securities of that series that are owned by the Company or any other obligor on the Securities of that series or by any Person directly or indirectly controlling or controlled by or under common control with the Company or any other obligor on the Securities of that series shall be disregarded and deemed not to be Outstanding for the purpose of any such determination, except that for the purpose of determining whether the Trustee shall be protected in relying on any such direction, consent or waiver, only Securities of such series that the Trustee actually knows are so owned shall be so disregarded. The Securities so owned that have been pledged in good faith may be regarded as Outstanding for the purposes of this Section, if the pledgee shall establish to the satisfaction of the Trustee the pledgee's right so to act with respect to such Securities and that the pledgee is not a Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Company or any such other obligor. In case of a dispute as to such right, any decision by the Trustee taken upon the advice of counsel shall be full protection to the Trustee.

Section 8.5 Actions Binding on Future Securityholders.

At any time prior to (but not after) the evidencing to the Trustee, as provided in Section 8.01, of the taking of any action by the holders of the majority or percentage in aggregate principal amount of the Securities of a particular series specified in this Indenture in connection with such action, any holder of a Security of that series that is shown by the evidence to be included in the Securities the holders of which have consented to such action may, by filing written notice with the Trustee, and upon proof of holding as provided in Section 8.02, revoke such action so far as concerns such Security. Except as aforesaid any such action taken by the holder of any Security shall be conclusive and binding upon such holder and upon all future holders and owners of such Security, and of any Security issued in exchange therefor, on registration of transfer thereof or in place thereof, irrespective of whether or not any notation in regard thereto is made upon such Security. Any action taken by the holders of the majority or percentage in aggregate principal amount of the Securities of a particular series specified in this Indenture in connection with such action shall be conclusively binding upon the Company, the Trustee and the holders of all the Securities of that series.

ARTICLE IX

SUPPLEMENTAL INDENTURES

Section 9.1 Supplemental Indentures Without the Consent of Securityholders.

In addition to any supplemental indenture otherwise authorized by this Indenture, the Company and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental hereto (which shall conform to the provisions of the Trust Indenture Act as then in effect), without the consent of the Securityholders, for one or more of the following purposes:

- (a) to cure any ambiguity, defect, or inconsistency herein or in the Securities of any series;
- (b) to comply with Article Ten;
- (c) to provide for uncertificated Securities in addition to or in place of certificated Securities;
- (d) to add to the covenants, restrictions, conditions or provisions relating to the Company for the benefit of the holders of all or any series of Securities (and if such covenants, restrictions, conditions or provisions are to be for the benefit of less than all series of Securities, stating that such covenants, restrictions, conditions or provisions are expressly being included solely for the benefit of such series), to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an Event of Default, or to surrender any right or power herein conferred upon the Company;

- (e) to add to, delete from, or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication, and delivery of Securities, as herein set forth;
 - (f) to make any change that does not adversely affect the rights of any Securityholder in any material respect;
- (g) to provide for the issuance of and establish the form and terms and conditions of the Securities of any series as provided in Section 2.01, to establish the form of any certifications required to be furnished pursuant to the terms of this Indenture or any series of Securities, or to add to the rights of the holders of any series of Securities;
 - (h) to evidence and provide for the acceptance of appointment hereunder by a successor trustee; or
- (i) to comply with any requirements of the Securities and Exchange Commission or any successor in connection with the qualification of this Indenture under the Trust Indenture Act.

The Trustee is hereby authorized to join with the Company in the execution of any such supplemental indenture, and to make any further appropriate agreements and stipulations that may be therein contained, but the Trustee shall not be obligated to enter into any such supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Any supplemental indenture authorized by the provisions of this Section may be executed by the Company and the Trustee without the consent of the holders of any of the Securities at the time Outstanding, notwithstanding any of the provisions of Section 9.02.

Section 9.2 Supplemental Indentures With Consent of Securityholders.

With the consent (evidenced as provided in Section 8.01) of the holders of not less than a majority in aggregate principal amount of the Securities of each series affected by such supplemental indenture or indentures at the time Outstanding, the Company, when authorized by a Board Resolution, and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental hereto (which shall conform to the provisions of the Trust Indenture Act as then in effect) for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of any supplemental indenture or of modifying in any manner not covered by Section 9.01 the rights of the holders of the Securities of such series under this Indenture; provided, however, that no such supplemental indenture shall, without the consent of the holders of each Security then Outstanding and affected thereby, (a) extend the fixed maturity of any Securities of any series, or reduce the principal amount thereof, or reduce the rate or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof or (b) reduce the aforesaid percentage of Securities, the holders of which are required to consent to any such supplemental indenture.

It shall not be necessary for the consent of the Securityholders of any series affected thereby under this Section to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such consent shall approve the substance thereof.

Section 9.3 Effect of Supplemental Indentures.

Upon the execution of any supplemental indenture pursuant to the provisions of this Article or of Section 10.01, this Indenture shall, with respect to such series, be and be deemed to be modified and amended in accordance therewith and the respective rights, limitations of rights, obligations, duties and immunities under this Indenture of the Trustee, the Company and the holders of Securities of the series affected thereby shall thereafter be determined, exercised and enforced hereunder subject in all respects to such modifications and amendments, and all the terms and conditions of any such supplemental indenture shall be and be deemed to be part of the terms and conditions of this Indenture for any and all purposes.

Section 9.4 Securities Affected by Supplemental Indentures.

Securities of any series affected by a supplemental indenture, authenticated and delivered after the execution of such supplemental indenture pursuant to the provisions of this Article or of Section 10.01, may bear a notation in form approved by the Company, provided such form meets the requirements of any securities exchange

upon which such series may be listed, as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of that series so modified as to conform, in the opinion of the Board of Directors, to any modification of this Indenture contained in any such supplemental indenture may be prepared by the Company, authenticated by the Trustee and delivered in exchange for the Securities of that series then Outstanding.

Section 9.5 Execution of Supplemental Indentures.

Upon the request of the Company, accompanied by its Board Resolutions authorizing the execution of any such supplemental indenture, and upon the filing with the Trustee of evidence of the consent of Securityholders required to consent thereto as aforesaid, the Trustee shall join with the Company in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion but shall not be obligated to enter into such supplemental indenture. The Trustee, subject to the provisions of Section 7.01, may receive an Officer's Certificate or, if requested, an Opinion of Counsel as conclusive evidence that any supplemental indenture executed pursuant to this Article is authorized or permitted by, and conforms to, the terms of this Article and that it is proper for the Trustee under the provisions of this Article to join in the execution thereof; provided, however, that such Officer's Certificate or Opinion of Counsel need not be provided in connection with the execution of a supplemental indenture that establishes the terms of a series of Securities pursuant to Section 2.01 hereof.

Promptly after the execution by the Company and the Trustee of any supplemental indenture pursuant to the provisions of this Section, the Trustee shall transmit by mail, first class postage prepaid, a notice, setting forth in general terms the substance of such supplemental indenture, to the Securityholders of all series affected thereby as their names and addresses appear upon the Security Register. Any failure of the Trustee to mail such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture.

ARTICLE X SUCCESSOR ENTITY

Section 10.1 Company May Consolidate, Etc.

Except as provided pursuant to Section 2.01 pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental to this Indenture, nothing contained in this Indenture shall prevent any consolidation or merger of the Company with or into any other Person (whether or not affiliated with the Company) or successive consolidations or mergers in which the Company or its successors or successors shall be a party or parties, or shall prevent any sale, conveyance, transfer or other disposition of the property of the Company or its successor or successors as an entirety, or substantially as an entirety, to any other corporation (whether or not affiliated with the Company or its successor or successors) authorized to acquire and operate the same; provided, however, (a) the Company hereby covenants and agrees that, upon any such consolidation or merger (in each case, if the Company is not the survivor of such transaction), sale, conveyance, transfer or other disposition, the due and punctual payment of the principal of (premium, if any) and interest on all of the Securities of all series in accordance with the terms of each series, according to their tenor, and the due and punctual performance and observance of all the covenants and conditions of this Indenture with respect to each series or established with respect to such series pursuant to Section 2.01 to be kept or performed by the Company shall be expressly assumed, by supplemental indenture (which shall conform to the provisions of the Trust Indenture Act, as then in effect) reasonably satisfactory in form to the Trustee executed and delivered to the Trustee by the entity formed by such consolidation, or into which the Company shall have been merged, or by the entity which shall have acquired such property and (b) in the event that the Securities of any series then Outstanding are convertible into or exchangeable for shares of common stock or other securities of the Company, such entity shall, by such supplemental indenture, make provision so that the Securityholders of Securities of that series shall thereafter be entitled to receive upon conversion or exchange of such Securities the number of securities or property to which a holder of the number of shares of common stock or other securities of the Company deliverable upon conversion or exchange of those Securities would have been entitled had such conversion or exchange occurred immediately prior to such consolidation, merger, sale, conveyance, transfer or other disposition.

Section 10.2 Successor Entity Substituted.

(a) In case of any such consolidation, merger, sale, conveyance, transfer or other disposition and upon the assumption by the successor entity by supplemental indenture, executed and delivered to the Trustee and satisfactory in form to the Trustee, of the obligations set forth under Section 10.01 on all of the Securities of all series Outstanding, such successor entity shall succeed to and be substituted for the Company with the same effect as if it had been named as the Company herein, and thereupon the predecessor corporation shall be relieved of all obligations and covenants under this Indenture and the Securities.

- (b) In case of any such consolidation, merger, sale, conveyance, transfer or other disposition, such changes in phraseology and form (but not in substance) may be made in the Securities thereafter to be issued as may be appropriate.
- (c) Nothing contained in this Article shall require any action by the Company in the case of a consolidation or merger of any Person into the Company where the Company is the survivor of such transaction, or the acquisition by the Company, by purchase or otherwise, of all or any part of the property of any other Person (whether or not affiliated with the Company).

Section 10.3 Evidence of Consolidation, Etc. to Trustee.

The Trustee, subject to the provisions of Section 7.01, may receive an Officer's Certificate and, if requested, an Opinion of Counsel as conclusive evidence that any such consolidation, merger, sale, conveyance, transfer or other disposition, and any such assumption, comply with the provisions of this Article.

ARTICLE XI

SATISFACTION AND DISCHARGE

Section 11.1 Satisfaction and Discharge of Indenture.

If at any time: (a) the Company shall have delivered to the Trustee for cancellation all Securities of a series theretofore authenticated and not delivered to the Trustee for cancellation (other than any Securities that shall have been destroyed, lost or stolen and that shall have been replaced or paid as provided in Section 2.07 and Securities for whose payment money or Governmental Obligations have theretofore been deposited in trust or segregated and held in trust by the Company and thereupon repaid to the Company or discharged from such trust, as provided in Section 11.05); or (b) all such Securities of a particular series not theretofore delivered to the Trustee for cancellation shall have become due and payable, or are by their terms to become due and payable within one year or are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption, and the Company shall deposit or cause to be deposited with the Trustee as trust funds the entire amount in moneys or Governmental Obligations or a combination thereof, sufficient in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay at maturity or upon redemption all Securities of that series not theretofore delivered to the Trustee for cancellation, including principal (and premium, if any) and interest due or to become due to such date of maturity or date fixed for redemption, as the case may be, and if the Company shall also pay or cause to be paid all other sums payable hereunder with respect to such series by the Company then this Indenture shall thereupon cease to be of further effect with respect to such series except for the provisions of Sections 2.03, 2.05, 2.07, 4.01, 4.02, 4.03 and 7.10, that shall survive until the date of maturity or redemption date, as the case may be, and Sections 7.06 and 11.05, that shall survive to such date and thereafter, and the Trustee, on demand of the Co

Section 11.2 Discharge of Obligations.

If at any time all such Securities of a particular series not heretofore delivered to the Trustee for cancellation or that have not become due and payable as described in Section 11.01 shall have been paid by the Company by depositing irrevocably with the Trustee as trust funds moneys or an amount of Governmental Obligations sufficient to pay at maturity or upon redemption all such Securities of that series not theretofore delivered to the Trustee for cancellation, including principal (and premium, if any) and interest due or to become due to such date of maturity or date fixed for redemption, as the case may be, and if the Company shall also pay or cause to be paid all other sums payable hereunder by the Company with respect to such series, then after the date such moneys or Governmental Obligations, as the case may be, are deposited with the Trustee the obligations of the Company under this Indenture with respect to such series shall cease to be of further effect except for the provisions of Sections 2.03, 2.05, 2.07, 4,01, 4.02, 4,03, 7.06, 7.10 and 11.05 hereof that shall survive until such Securities shall mature and be paid.

Thereafter, Sections 7.06 and 11.05 shall survive.

Section 11.3 Deposited Moneys to be Held in Trust.

All moneys or Governmental Obligations deposited with the Trustee pursuant to Sections 11.01 or 11.02 shall be held in trust and shall be available for payment as due, either directly or through any paying agent (including the Company acting as its own paying agent), to the holders of the particular series of Securities for the payment or redemption of which such moneys or Governmental Obligations have been deposited with the Trustee.

Section 11.4 Payment of Moneys Held by Paying Agents.

In connection with the satisfaction and discharge of this Indenture all moneys or Governmental Obligations then held by any paying agent under the provisions of this Indenture shall, upon demand of the Company, be paid to the Trustee and thereupon such paying agent shall be released from all further liability with respect to such moneys or Governmental Obligations.

Section 11.5 Repayment to Company.

Any moneys or Governmental Obligations deposited with any paying agent or the Trustee, or then held by the Company, in trust for payment of principal of or premium, if any, or interest on the Securities of a particular series that are not applied but remain unclaimed by the holders of such Securities for at least two years after the date upon which the principal of (and premium, if any) or interest on such Securities shall have respectively become due and payable, or such other shorter period set forth in applicable escheat or abandoned or unclaimed property law, shall be repaid to the Company on May 31 of each year or upon the Company's request or (if then held by the Company) shall be discharged from such trust; and thereupon the paying agent and the Trustee shall be released from all further liability with respect to such moneys or Governmental Obligations, and the holder of any of the Securities entitled to receive such payment shall thereafter, as a general creditor, look only to the Company for the payment thereof.

ARTICLE XII

IMMUNITY OF INCORPORATORS, STOCKHOLDERS, OFFICERS AND DIRECTORS

Section 12.1 No Recourse.

No recourse under or upon any obligation, covenant or agreement of this Indenture, or of any Security, or for any claim based thereon or otherwise in respect thereof, shall be had against any incorporator, stockholder, officer or director, past, present or future as such, of the Company or of any predecessor or successor corporation, either directly or through the Company or any such predecessor or successor corporation, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that this Indenture and the obligations issued hereunder are solely corporate obligations, and that no such personal liability whatever shall attach to, or is or shall be incurred by, the incorporators, stockholders, officers or directors as such, of the Company or of any predecessor or successor corporation, or any of them, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Securities or implied therefrom; and that any and all such personal liability of every name and nature, either at common law or in equity or by constitution or statute, of, and any and all such rights and claims against, every such incorporator, stockholder, officer or director as such, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Securities or implied therefrom, are hereby expressly waived and released as a condition of, and as a consideration for, the execution of this Indenture and the issuance of such Securities.

ARTICLE XIII

MISCELLANEOUS PROVISIONS

Section 13.1 Effect on Successors and Assigns.

All the covenants, stipulations, promises and agreements in this Indenture made by or on behalf of the Company shall bind its successors and assigns, whether so expressed or not.

Section 13.2 Actions by Successor.

Any act or proceeding by any provision of this Indenture authorized or required to be done or performed by any board, committee or officer of the Company shall and may be done and performed with like force and effect by the corresponding board, committee or officer of any corporation that shall at the time be the lawful successor of the Company.

Section 13.3 Surrender of Company Powers.

The Company by instrument in writing executed by authority of its Board of Directors and delivered to the Trustee may surrender any of the powers reserved to the Company, and thereupon such power so surrendered shall terminate both as to the Company and as to any successor corporation.

Section 13.4 Notices.

Except as otherwise expressly provided herein, any notice, request or demand that by any provision of this Indenture is required or permitted to be given, made or served by the Trustee or by the holders of Securities or by any other Person pursuant to this Indenture to or on the Company may be given or served by being deposited in first class mail, postage prepaid, addressed (until another address is filed in writing by the Company with the Trustee), as follows:

Any notice, election, request or demand by the Company or any Securityholder or by any other Person pursuant to this Indenture to or upon the Trustee shall be deemed to have been sufficiently given or made, for all purposes, if given or made in writing at the Corporate Trust Office of the Trustee

Section 13.5 Governing Law.

This Indenture and each Security shall be deemed to be a contract made under the internal laws of the State of New York, and for all purposes shall be construed in accordance with the laws of said State, except to the extent that the Trust Indenture Act is applicable.

Section 13.6 Treatment of Securities as Debt.

It is intended that the Securities will be treated as indebtedness and not as equity for federal income tax purposes. The provisions of this Indenture shall be interpreted to further this intention.

Section 13.7 Certificates and Opinions as to Conditions Precedent.

- (a) Upon any application or demand by the Company to the Trustee to take any action under any of the provisions of this Indenture, the Company shall furnish to the Trustee an Officer's Certificate stating that all conditions precedent provided for in this Indenture (other than the certificate to be delivered pursuant to Section 13.12) relating to the proposed action have been complied with and, if requested, an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent have been complied with, except that in the case of any such application or demand as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or demand, no additional certificate or opinion need be furnished.
- (b) Each certificate or opinion provided for in this Indenture and delivered to the Trustee with respect to compliance with a condition or covenant in this Indenture shall include (i) a statement that the Person making such certificate or opinion has read such covenant or condition; (ii) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based; (iii) a statement that, in the opinion of such Person, he has made such examination or investigation as is reasonably necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been complied with; and (iv) a statement as to whether or not, in the opinion of such Person, such condition or covenant has been complied with.

Section 13.8 Payments on Business Days.

Except as provided pursuant to Section 2.01 pursuant to a Board Resolution, and set forth in an Officer's Certificate, or established in one or more indentures supplemental to this Indenture, in any case where the date of maturity of interest or principal of any Security or the date of redemption of any Security shall not be a Business Day, then payment of interest or principal (and premium, if any) may be made on the next succeeding Business Day with the same force and effect as if made on the nominal date of maturity or redemption, and no interest shall accrue for the period after such nominal date

Section 13.9 Conflict with Trust Indenture Act.

If and to the extent that any provision of this Indenture limits, qualifies or conflicts with the duties imposed by Sections 310 to 317, inclusive, of the Trust Indenture Act, such imposed duties shall control.

Section 13.10 Counterparts.

This Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

Section 13.11 Separability.

In case any one or more of the provisions contained in this Indenture or in the Securities of any series shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Indenture or of such Securities, but this Indenture and such Securities shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein or therein.

Section 13.12 Compliance Certificates.

The Company shall deliver to the Trustee, within 120 days after the end of each fiscal year during which any Securities of any series were outstanding, an officer's certificate stating whether or not the signers know of any Default or Event of Default that occurred during such fiscal year. Such certificate shall contain a certification from the principal executive officer, principal financial officer or principal accounting officer of the Company that a review has been conducted of the activities of the Company and the Company's performance under this Indenture and that the Company has complied with all conditions and covenants under this Indenture. For purposes of this Section 13.12, such compliance shall be determined without regard to any period of grace or requirement of notice provided under this Indenture. If the officer of the Company signing such certificate has knowledge of such a Default or Event of Default, the certificate shall describe any such Default or Event of Default and its status.

VTV TH	IERAPEUTICS INC.		
By:			
Name:			
Title:		_	
[TRUST	EE], as Trustee		
By:			
Name:		=	

Title:

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed all as of the day and year first above written.



1095 Avenue of the Americas New York, NY 10036-6797 +1 212 698 3500 Main +1 212 698 3599 Fax www.dechert.com

April 10, 2024

vTv Therapeutics Inc. 3980 Premier Drive, Suite 310 High Point, North Carolina 27265

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as special counsel to vTv Therapeutics Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing by the Company of a registration statement on Form S-3 (the "Registration Statement"), filed today with the U.S. Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the proposed public offerings by the Company from time to time of up to \$250,000,000 aggregate amount of the following securities of the Company: (1) shares of Class A common stock, par value \$0.01 per share, of the Company ("Common Stock"); (2) shares of preferred stock, par value \$0.001 per share, of the Company to purchase Common Stock, Preferred Stock, Debt Securities or Units (each as defined below) ("Warrants"); (4) debt securities ("Debt Securities") to be issued pursuant to an indenture between the Company and a trustee to be named therein (the "Trustee") (such indenture, as may be amended or supplemented from time to time, the "Indenture"); (5) rights to purchase Common Stock, Preferred Stock, Debt Securities, or Units of the Company ("Rights"); and (6) units of the Company consisting of any combination of Common Stock, Preferred Stock, Warrants, Debt Securities or Rights ("Units"). The Common Stock, Preferred Stock, Warrants, Debt Securities, Rights and Units are collectively referred to herein as the "Securities."

The Registration Statement provides that the Securities may be offered separately or together, in separate series, in amounts, at prices and on terms as set forth in a prospectus, which was included in the Registration Statement, and which forms a part of the Registration Statement, or to be set forth in one or more supplements to the prospectus included in the Registration Statement (each, a "<u>Prospectus Supplement</u>").

This opinion letter is being furnished to the Company in accordance with the requirements of Item 601(b)(5) under Regulation S-K of the Securities Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement, other than as to the validity of the Securities as set forth below.

In rendering the opinion expressed below, we have examined and relied on originals or copies, certified or otherwise identified to our satisfaction, of such documents, corporate records and other instruments and such agreements, certificates and receipts of public officials, certificates of officers or other representatives of the Company and others, and such other documents as we have deemed necessary or appropriate as a basis for rendering the opinion set forth below, including the following documents:

- (i) the Registration Statement;
- (ii) the Company's Amended and Restated Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on July 29, 2015, and subsequently amended on May 4, 2021 and November 20, 2023 (the "Certificate");
- (iii) the Company's Second Amended and Restated Bylaws, effective as of March 3, 2022 (together with the Certificate, the "Charter");
- (iv) a Certificate of Good Standing with respect to the Company issued by the Secretary of State of the State of Delaware, as of a recent date; and
- (v) the resolutions of the board of directors of the Company, relating to, among other things, the authorization and approval of the preparation and filing of the Registration Statement.

As to the facts upon which this opinion is based, we have relied, to the extent we deem proper, upon certificates of public officials and certificates and written statements of agents, officers, directors, employees and representatives of, and accountants for, the Company and we have assumed in this regard the truthfulness of such certifications and statements. We have not independently established the facts so relied on.

In our examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as original documents, the conformity to original documents of all documents submitted to us as copies, the legal capacity of natural persons who are signatories to the documents examined by us and the legal power and authority of all persons signing on behalf of the parties to all documents (other than the Company). We have further assumed that there has been no oral modification of, or amendment or supplement (including any express or implied waiver, however arising) to, any of the agreements, documents or instruments used by us to form the basis of the opinion expressed below.

On the basis of the foregoing and subject to the assumptions, qualifications and limitations set forth in this letter, we are of the opinion, as of the date hereof, that:

1. The Common Stock, when (a) duly issued and sold in accordance with the Registration Statement and applicable Prospectus Supplement, or upon conversion or exchange of Debt Securities or Preferred Stock or upon exercise of Rights or Warrants as contemplated by the Registration Statement and applicable Prospectus Supplement, and (b) delivered to the purchaser or purchasers thereof against receipt by the Company of such lawful consideration therefor as the Board of Directors (or a duly authorized committee thereof) may determine and at a price per share not less than the per share par value of the Common Stock, will be validly issued, fully paid and non-assessable.

- 2. The Preferred Stock, when (a) duly issued and sold in accordance with the Registration Statement and applicable Prospectus Supplement, or upon conversion or exchange of Debt Securities or upon exercise of Rights or Warrants as contemplated by the Registration Statement and applicable Prospectus Supplement, and (b) delivered to the purchaser or purchasers thereof against receipt by the Company of such lawful consideration therefor as the Board of Directors (or a duly authorized committee thereof) may determine and at a price per share not less than the per share par value of the Preferred Stock, will be validly issued, fully paid and non-assessable.
- 3. The Warrants, when (a) duly executed, issued and sold in accordance with the Registration Statement and applicable Prospectus Supplement and the provisions of an applicable, valid and binding warrant agreement and (b) delivered to the purchaser or purchasers thereof against receipt by the Company of such lawful consideration therefor as the Board of Directors (or a duly authorized committee thereof) may determine, will be valid and binding obligations of the Company enforceable against the Company in accordance with their respective terms.
- 4. The Debt Securities, when (a) duly executed by the Company and authenticated by the applicable Trustee in accordance with the provisions of the valid and binding Indenture (including any amendments or supplements thereto) and issued and sold (x) in accordance with the Registration Statement and applicable Prospectus Supplement or (y) upon conversion or exchange of Preferred Stock or upon exercise of Rights or Warrants as contemplated by the Registration Statement and applicable Prospectus Supplement, and (b) delivered to the purchaser or purchasers thereof against receipt by the Company of such lawful consideration therefor as the Board of Directors (or a duly authorized committee thereof) may determine, will be valid and binding obligations of the Company enforceable against the Company in accordance with their respective terms.
- 5. The Rights, when (a) duly issued in accordance with the Registration Statement and applicable Prospectus Supplement and the provisions of an applicable subscription certificate and any applicable and valid and binding subscription agreement, and (b) delivered to the purchaser or purchasers thereof against receipt by the Company of such lawful consideration therefor as the Board of Directors (or a duly authorized committee thereof) may determine, will be validly issued and binding obligations of the Company enforceable against the Company in accordance with their respective terms.
- 6. The Units, when (a) duly executed, issued and sold in accordance with the Registration Statement and applicable Prospectus Supplement and the provisions of any applicable and valid and binding unit agreement, and (b) delivered to the purchaser or purchasers thereof against receipt by the Company of such lawful consideration therefor as the Board of Directors (or a duly authorized committee thereof) may determine, will be valid and binding obligations of the Company enforceable against the Company in accordance with their respective terms

The opinions set forth herein are subject to the following assumptions, qualifications, limitations and exceptions being true and correct at or before the time of the delivery of any Securities offered pursuant to the Registration Statement and appropriate Prospectus Supplement: (i) the Board of Directors, including any appropriate committee appointed thereby, shall have (x) duly established the terms of the Securities (and in the case of the Units, the Securities that are the components thereof), and (y) duly authorized and taken any other necessary corporate or other action to approve the creation, if applicable, issuance and sale of the Securities and related matters (including with respect to Preferred Stock, the execution, acknowledgment and

vTv Therapeutics Inc. April 10, 2024 Page 4

filing of a Certificate of Designation stating the designation and voting rights, preferences, limitations and special rights, if any, of any such Preferred Stock in accordance with the applicable provisions of the General Corporation Law of the State of Delaware) and any Securities consisting of Common Stock or Preferred Stock, and any Common Stock or Preferred Stock for or into which any other Securities are exercisable, exchangeable or convertible, shall have been duly reserved for issuance and such authorizations and actions have not been rescinded; (ii) the resolutions establishing the definitive terms of and authorizing the Company to register, offer, sell and issue the Securities shall remain in effect and unchanged at all times during which the Securities are offered, sold or issued by the Company; (iii) the definitive terms of each class and series of the Securities not presently provided for in the Registration Statement or the certificate of incorporation of the Company, and the terms of the issuance and sale of the Securities (x) shall have been duly established in accordance with all applicable law and the Charter, the Indenture (including any amendments or supplements thereto), underwriting agreement, warrant agreement, subscription agreement, unit agreement and any other relevant agreement relating to the terms and the offer and sale of the Securities (collectively, the "Documents") and the authorizing resolutions of the Board of Directors, and reflected in appropriate documentation reviewed by us, and (y) shall not violate any applicable law, the Charter or the Documents (subject to the further assumption that such Charter and Documents have not been amended from the date hereof in a manner that would affect the validity of any of the opinions rendered herein), or result in a default under or breach of any agreement or instrument binding upon the Company and so as to comply with any restriction imposed by any court or governmental body having jurisdiction over the Company; (iv) upon issuance of any shares of Preferred Stock or Common Stock, or, in the case of Units, of which shares of Preferred Stock or Common Stock are components, including upon exercise, conversion or exchange of Securities, the total number of shares of Preferred Stock or Common Stock issued and outstanding shall not exceed the total number of shares of Preferred Stock or Common Stock that the Company is then authorized to issue under its certificate of incorporation; (v) the interest rate on the Debt Securities shall not be higher than the maximum lawful rate permitted from time to time under applicable law; (vi) the Securities (including any Securities issuable upon exercise, conversion or exchange of other Securities and, in the case of any Units, the Securities that are components thereof), and any certificates or instruments representing the relevant Securities (including any Securities issuable upon exercise, conversion or exchange of other Securities and, in the case of any Units, the Securities that are components thereof), have been duly authenticated, executed, countersigned, registered and delivered upon payment of the agreed-upon legal consideration therefor and have been duly issued and sold in accordance with any relevant agreement, approved by us and, if applicable, duly executed and delivered by the Company and any other appropriate party; (vii) the Indenture (including any amendments or supplements thereto), warrant agreement, subscription agreement, unit agreement and any other relevant agreement has been duly authorized, executed and delivered by, and will constitute a valid and binding obligation of, each party thereto (other than the Company); (viii) the Registration Statement, as amended (including all necessary post-effective amendments), and any additional registration statement filed under Rule 462, shall be effective under the Securities Act, and such effectiveness shall not have been terminated or rescinded; (ix) an appropriate Prospectus Supplement shall have been prepared, delivered and filed in compliance with the Securities Act and the applicable rules and regulations thereunder describing the Securities offered thereby; (x) the Securities shall be issued and sold in compliance with all federal and state securities laws and solely in the manner stated in the Registration Statement and the applicable Prospectus Supplement and there shall not have occurred any change in law affecting the validity of the opinions rendered herein; (xi) if the Securities will be sold pursuant to a firm commitment underwritten offering, the underwriting agreement with respect to the Securities in the form filed as an exhibit to the Registration Statement or any post-effective amendment thereto, or incorporated by reference therein, has been duly authorized, executed and delivered by the Company and the other parties thereto; (xii) the Indenture (including any amendments or supplements thereto) shall have been duly qualified under the Trust Indenture Act of 1939, as amended; (xiii) each agreement or contract referred to herein but not filed as an exhibit to the Registration Statement as of the date hereof shall be governed by the laws of the State of New York; and (xiv) in the case of an agreement or instrument pursuant to which any Securities are to be issued, there shall be no terms or provisions contained therein which would affect the validity of any of the opinions rendered herein.

vTv Therapeutics Inc. April 10, 2024 Page 5

Any opinion set forth herein as to enforceability of obligations of the Company is subject to: (i) bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium or similar laws now or hereinafter in effect affecting the enforcement of creditors' rights generally, and by general principles of equity (regardless of whether enforcement is sought in a proceeding in equity or at law) and the discretion of the court or other body before which any proceeding may be brought; (ii) provisions of law that may require that a judgment for money damages rendered by a court in the United States be expressed only in United States dollars; (iii) requirements that a claim with respect to any Debt Securities denominated other than in U.S. dollars (or a judgment denominated other than in U.S. dollars in respect of such claim) be converted into U.S. dollars at a rate of exchange prevailing on a date determined pursuant to applicable law; and (iv) governmental authority to limit, delay or prohibit the making of payments outside the United States or in foreign currency or composite currency.

We express no opinion as to the validity, legally binding effect or enforceability of any provision in any agreement or instrument that (i) requires or relates to payment of any interest at a rate or in an amount that a court would determine in the circumstances under applicable law to be higher than the maximum lawful rate permitted from time to time or (ii) relates to governing law and submission by the parties to the jurisdiction of one or more particular courts.

The opinion expressed herein is limited to the General Corporation Law of the State of Delaware. We are members of the bar of the State of New York. We express no opinion concerning the laws of any other jurisdiction, and we express no opinion concerning any state securities or "blue sky" laws, rules or regulations, or any federal, state, local or foreign laws, rules or regulations relating to the offer and/or sale of the Securities. The opinions expressed herein are based upon the law as in effect and the documentation and facts known to us on the date hereof.

This opinion letter has been prepared for your use solely in connection with the Registration Statement. We assume no obligation to advise you of any changes in the foregoing subsequent to the effectiveness of the Registration Statement.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the use of our name in the base prospectus contained therein, under the caption "Legal Matters." In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act and the rules and regulations of the Commission thereunder.

Very truly yours, /s/ Dechert LLP

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-3) and related Prospectuses of vTv Therapeutics Inc. for the registration of Class A common stock and other securities and to the incorporation by reference therein of our report dated March 13, 2024, with respect to the consolidated financial statements of vTv Therapeutics Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2023, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Raleigh, North Carolina April 10, 2024

Calculation of Filing Fee Tables

Form S-3 (Form Type)

vTv Therapeutics, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered(1)	Proposed Maximum Offering Price Per Unit(2)	Maximum Aggregate Offering Price(3)	Fee Rate	Amount of Registration Fee		
	Newly Registered Securities									
Fees to be Paid	Equity	Class A Common Stock, par value \$0.01 per share				I		_		
	Equity	Preferred Stock						_		
	Debt	Debt Securities						_		
	Other	Warrants	_	_	_	_	_	_		
	Other	Rights	_	_	_	_	_	_		
	Other	Units	_	_	_	_	_	_		
	Unallocated (Universal) Shelf	_	Rule 457(o)		_	\$250,000,000	0.00014760	\$36,900		
Fees Previously Paid	_	_	_	_	_	_	_	_		
		Total Offer	\$250,000,000		\$36,900					
		Total Fees P	reviously Pai				_			
		Total F				\$25,287.63				
		Net F			\$11,612.37					

- (1) There are being registered hereunder an indeterminate number of each identified class of securities of vTv Therapeutics, Inc., which securities may be offered and sold, on a primary basis, in such amount as shall result in an aggregate public offering price for all securities of \$250,000,000 after the date hereof. The securities registered hereunder also include such indeterminate amount of debt securities and shares of Class A common stock and shares of preferred stock as may be issued upon conversion or exchange for any other debt securities or preferred stock that provide for conversion or exchange into other securities being registered hereunder. Any securities registered hereunder may be sold separately or as units with other securities registered hereunder. Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall be deemed to cover an indeterminate number of additional securities to be offered as a result of share splits, share dividends or similar transactions.
- (2) With regard to the securities included in the offering made hereby, the proposed maximum offering price per security will be determined from time to time by the registrant in connection with the issuance of the securities registered by this Registration Statement. Prices, when determined, may be in U.S. dollars or the equivalent thereof in one or more foreign currencies, foreign currency units or composite currencies. If any debt securities or shares of preferred stock are issued at an original issue discount, then the amount registered will include the principal or liquidation amount of such securities measured by the initial offering price thereof.
- (3) The Registrant previously filed a Registration Statement on Form S-3 with the Securities and Exchange Commission on March 18, 2021 (File No. 333-254445), which was subsequently amended on April 9, 2021 and declared effective on April 20, 2021 (the "Prior Registration Statement"), that registered an aggregate of \$250,000,000 of shares of Class A Common Stock to be offered by the Registrant from time to time, for which the Registrant paid a filing fee of \$27,275. In connection therewith, \$231,783,991.85 of the securities remain unsold, leaving \$25,287.63 in previously paid fees available for future offset (calculated at the fee rate in effect on the filing date of the Prior Registration Statement). In accordance with Rule 457(p) under the Securities Act, the Registrant is using \$25,287.63 of the unused filing fees to offset the filing fee payable in connection with this filing. Accordingly, a registration fee of \$11,612.37 is due to be paid at this time. Concurrently with the effectiveness of this registration statement, any offering of unsold securities pursuant to the Prior Registration Statement is hereby terminated.

Table 2: Fee Offset Claims and Sources

	Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date R	Fee Offset Claimed ule 457(p)	Security Type Associate with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
Fee Offset Claims		S-3	333-254445	March 18, 2021		\$25,287.63	Equity	Class A common stock, par value \$0.01 per share	N/A	\$231,783,991.85(1)	
Fee Offset Sources		S-3	333-254445		March 18, 2021						\$25,287.63(1)

⁽¹⁾ See Note (3) under Table 1 above.