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

FORM 10-Q

(Mark One)

x **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2022

Or

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 001-37524

vTv Therapeutics Inc.
(Exact name of registrant as specified in its charter)

Delaware	**47-3916571**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
3980 Premier Dr, Suite 310 **High Point, NC**	**27265**
(Address of principal executive offices)	**(Zip Code)**

(336) 841-0300

(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, par value $0.01 per share	VTVT	NASDAQ Capital Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes x No o

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

Large accelerated filer	o	Accelerated filer	o
Non-accelerated filer	o	Smaller reporting company	x
Emerging growth company	o		

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 13(a) of the Exchange Act. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

Class of Stock	Shares Outstanding as of November 10, 2022
Class A common stock, par value $0.01 per share	81,483,600
Class B common stock, par value $0.01 per share	23,093,860

vTv THERAPEUTICS INC. AND SUBSIDIARIES

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FOR THE QUARTER ENDED SEPTEMBER 30, 2022

PART I – FINANCIAL INFORMATION

The financial statements and other disclosures contained in this report include those of vTv Therapeutics Inc. ("we", the "Company" or the "Registrant"), which is the registrant, and those of vTv Therapeutics LLC ("vTv LLC"), which is the principal operating subsidiary of the Registrant. Unless the context suggests otherwise, references in this Quarterly Report on Form 10-Q to the "Company", "we", "us" and "our" refer to vTv Therapeutics Inc. and its consolidated subsidiaries.

vTv Therapeutics Inc.

Condensed Consolidated Balance Sheets

(in thousands, except number of shares and per share data)

	September 30, 2022 (Unaudited)	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 15,339	$ 13,415
Accounts receivable	57	57
Promissory note receivable	12,091	—
Prepaid expenses and other current assets	1,281	2,049
Current deposits	15	100
Total current assets	28,783	15,621
Property and equipment, net	230	278
Operating lease right-of-use assets	328	402
Long-term investments	6,175	9,173
Total assets	$ 35,516	$ 25,474
Liabilities, Redeemable Noncontrolling Interest and Stockholders' Deficit		
Current liabilities:		
Accounts payable and accrued expenses	$ 6,676	$ 8,023
Current portion of operating lease liabilities	208	184
Current portion of contract liabilities	26	35
Current portion of notes payable	557	256
Total current liabilities	7,467	8,498
Contract liabilities, net of current portion	18,669	—
Operating lease liabilities, net of current portion	333	492
Warrant liability, related party	1,409	1,262
Total liabilities	27,878	10,252
Commitments and contingencies		
Redeemable noncontrolling interest	24,207	24,962
Stockholders' deficit:		
Class A common stock, $0.01 par value; 200,000,000 shares authorized, 81,483,600 and 66,942,777 shares outstanding as of September 30, 2022, and December 31, 2021	815	669
Class B common stock, $0.01 par value; 100,000,000 shares authorized, and 23,093,860 outstanding as of September 30, 2022, and December 31, 2021	232	232
Promissory note receivable for common stock	(4,000)	—
Additional paid-in capital	253,446	238,193
Accumulated deficit	(267,062)	(248,834)
Total stockholders' deficit attributable to vTv Therapeutics Inc.	(16,569)	(9,740)
Total liabilities, redeemable noncontrolling interest and stockholders' deficit	$ 35,516	$ 25,474

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

vTv Therapeutics Inc.

Condensed Consolidated Statements of Operations - Unaudited

(in thousands, except number of shares and per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	**2021**	**2022**	**2021**
Revenue	$ —	$ 3,000	$ 2,009	$ 3,996
Operating expenses:				
Research and development	3,055	2,382	8,393	7,922
General and administrative	2,634	2,221	9,813	6,627
Total operating expenses	5,689	4,603	18,206	14,549
Operating loss	(5,689)	(1,603)	(16,197)	(10,553)
Other income (expense)	403	(1,084)	(2,998)	1,814
Other income (expense) – related party	(324)	1,328	221	611
Interest income	150	—	200	1
Interest expense	(8)	(6)	(9)	(6)
Loss before income taxes and noncontrolling interest	(5,468)	(1,365)	(18,783)	(8,133)
Income tax provision	—	100	200	115
Net loss before noncontrolling interest	(5,468)	(1,465)	(18,983)	(8,248)
Less: net loss attributable to noncontrolling interest	(1,207)	(378)	(4,564)	(2,312)
Net loss attributable to vTv Therapeutics Inc.	$ (4,261)	$ (1,087)	$ (14,419)	$ (5,936)
Net loss attributable to vTv Therapeutics Inc. common shareholders	$ (4,261)	$ (1,087)	$ (14,419)	$ (5,936)
Net loss per share of vTv Therapeutics Inc. Class A common stock, basic and diluted	$ (0.05)	$ (0.02)	$ (0.20)	$ (0.10)
Weighted average number of vTv Therapeutics Inc. Class A common stock, basic and diluted	80,490,121	61,073,280	72,649,531	58,737,170

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

vTv Therapeutics Inc.

Condensed Consolidated Statement of Changes in Redeemable Noncontrolling Interest and Stockholders' Deficit - Unaudited

(in thousands, except number of shares)

For the three months ended September 30, 2022

	Redeemable Noncontrolling Interest	Class A Common Stock Shares	Class A Common Stock Amount	Class B Common Stock Shares	Class B Common Stock Amount	Note Receivable for Common Stock	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balances at June 30, 2022	**$ 15,916**	**77,329,051**	**$ 773**	**23,093,860**	**$ 232**	**$ —**	**$ 243,772**	**$ (253,303)**	**$ (8,526)**
Net loss	(1,207)	—	—	—	—	—	—	(4,261)	(4,261)
Share-based compensation	—	—	—	—	—	—	338	—	338
Issuance of Class A common stock under CinRx purchase agreement, net of offering cost	—	4,154,549	42	—	—	(4,000)	9,336	—	5,378
Change in redemption value of noncontrolling interest	9,498	—	—	—	—	—	—	(9,498)	(9,498)
Balances at September 30, 2022	**$ 24,207**	**81,483,600**	**$ 815**	**23,093,860**	**$ 232**	**$ (4,000)**	**$ 253,446**	**$ (267,062)**	**$ (16,569)**

For the three months ended September 30, 2021

	Redeemable Noncontrolling Interest	Class A Common Stock Shares	Class A Common Stock Amount	Class B Common Stock Shares	Class B Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balances at June 30, 2021	**$ 60,190**	**60,193,967**	**$ 602**	**23,093,860**	**$ 232**	**$ 224,457**	**$ (273,114)**	**$ (47,823)**
Net loss	(378)	—	—	—	—	—	(1,087)	(1,087)
Share-based compensation	—	—	—	—	—	474	—	474
Issuance of Class A common stock under ATM offering	—	6,277,209	63	—	—	11,626	—	11,689
Change in redemption value of noncontrolling interest	(15,202)	—	—	—	—	—	15,202	15,202
Balances at September 30, 2021	**$ 44,610**	**66,471,176**	**$ 665**	**23,093,860**	**$ 232**	**$ 236,557**	**$ (258,999)**	**$ (21,545)**

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

vTv Therapeutics Inc.

Condensed Consolidated Statement of Changes in Redeemable Noncontrolling Interest and Stockholders’ Deficit - Unaudited

(in thousands, except number of shares)

For the nine months ended September 30, 2022

		Class A Common Stock		Class B Common Stock					
	Redeemable Noncontrolling Interest	Shares	Amount	Shares	Amount	Note Receivable for Common Stock	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balances at December 31, 2021	**$ 24,962**	**66,942,777**	**$ 669**	**23,093,860**	**$ 232**	**$ —**	**$ 238,193**	**$ (248,834)**	**$ (9,740)**
Net loss	(4,564)	—	—	—	—	—	—	(14,419)	(14,419)
Share-based compensation	—	—	—	—	—	—	981	—	981
Issuance of Class A common stock to collaboration partner, net of offering costs	—	10,386,274	104	—	—	—	4,936	—	5,040
Issuance of Class A common stock under CinRx purchase agreement, net of offering costs	—	4,154,549	42	—	—	(4,000)	9,336	—	5,378
Change in redemption value of noncontrolling interest	3,809	—	—	—	—	—	—	(3,809)	(3,809)
Balances at September 30, 2022	**$ 24,207**	**81,483,600**	**$ 815**	**23,093,860**	**$ 232**	**$ (4,000)**	**$ 253,446**	**$ (267,062)**	**$ (16,569)**

For the nine months ended September 30, 2021

		Class A Common Stock		Class B Common Stock				
	Redeemable Noncontrolling Interest	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balances at December 31, 2020	**$ 83,895**	**54,050,710**	**$ 541**	**23,094,221**	**$ 232**	**$ 209,161**	**$ (290,036)**	**$ (80,102)**
Net loss	(2,312)	—	—	—	—	—	(5,936)	(5,936)
Share-based compensation	—	—	—	—	—	1,362	—	1,362
Issuance of Class A common stock under ATM offering	—	8,457,546	85	—	—	16,939	—	17,024
Exchange of Class B common stock for Class A common stock	—	361	—	(361)	—	—	—	—
Exercise of stock options	—	20,833	—	—	—	47	—	47
Issuance of Class A common stock under LPC Agreement	—	3,941,726	39	—	—	9,048	—	9,087
Change in redemption value of noncontrolling interest	(36,973)	—	—	—	—	—	36,973	36,973
Balances at September 30, 2021	**$ 44,610**	**66,471,176**	**$ 665**	**23,093,860**	**$ 232**	**$ 236,557**	**$ (258,999)**	**$ (21,545)**

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

vTv Therapeutics Inc.

Condensed Consolidated Statements of Cash Flows - Unaudited

(in thousands)

	Nine Months Ended September 30, 2022	2021
Cash flows from operating activities:		
Net loss before noncontrolling interest	$ (18,983)	$ (8,248)
Adjustments to reconcile net loss before noncontrolling interest to net cash used in operating activities:		
Depreciation expense	69	67
Non-cash interest income	(200)	—
Interest expense	9	—
Share-based compensation expense	981	1,362
Change in fair value of investments	2,998	(1,814)
Change in fair value of warrants, related party	(221)	(611)
Changes in assets and liabilities:		
Accounts receivable	—	(770)
Prepaid expenses and other assets	853	(367)
Accounts payable and accrued expenses	(1,417)	(1,514)
Contract liabilities	6,769	(996)
Net cash used in operating activities	(9,142)	(12,891)
Cash flows from investing activities:		
Purchases of property and equipment	(21)	—
Net cash used in investing activities	(21)	—
Cash flows from financing activities:		
Proceeds from sale of Class A common stock to collaboration partner, net of offering costs	5,040	—
Proceeds from sale of Class A common stock and warrants, net of offering costs	5,746	—
Proceeds from sale of Class A common stock, net of offering costs	—	26,111
Proceeds from exercise of stock options	—	47
Proceeds from debt issuance	776	887
Repayment of notes payable	(475)	(335)
Net cash provided by financing activities	11,087	26,710
Net increase in cash and cash equivalents	1,924	13,819
Total cash and cash equivalents, beginning of period	13,415	5,747
Total cash and cash equivalents, end of period	$ 15,339	$ 19,566
Non-cash activities:		
Change in redemption value of noncontrolling interest	$ 3,809	$ (36,973)
Notes receivable recorded at fair value from collaboration partner	$ 11,891	$ —
Notes receivable for common stock from CinRx purchase agreement	$ 4,000	$ —

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

vTv Therapeutics Inc.

Notes to Condensed Consolidated Financial Statements – Unaudited

(dollar amounts are in thousands, unless otherwise noted)

Note 1: Description of Business, Basis of Presentation and Going Concern

Description of Business

vTv Therapeutics Inc. (the "Company," the "Registrant," "we" or "us") was incorporated in the state of Delaware in April 2015. The Company is a clinical stage pharmaceutical company focused on treating metabolic diseases to minimize their long-term complications through end-organ protection.

Principles of Consolidation

vTv Therapeutics Inc. is a holding company, and its principal asset is a controlling equity interest in vTv Therapeutics LLC ("vTv LLC"), the Company's principal operating subsidiary, which is a clinical stage biopharmaceutical company engaged in the discovery and development of orally administered small molecule drug candidates to fill significant unmet medical needs.

The Company has determined that vTv LLC is a variable-interest entity ("VIE") for accounting purposes and that vTv Therapeutics Inc. is the primary beneficiary of vTv LLC because (through its managing member interest in vTv LLC and the fact that the senior management of vTv Therapeutics Inc. is also the senior management of vTv LLC) it has the power and benefits to direct all of the activities of vTv LLC, which include those that most significantly impact vTv LLC's economic performance. vTv Therapeutics Inc. has therefore consolidated vTv LLC's results pursuant to Accounting Standards Codification Topic 810, "Consolidation" in its Condensed Consolidated Financial Statements. As of September 30, 2022, various holders own non-voting interests in vTv LLC, representing a 22.1% economic interest in vTv LLC, effectively restricting vTv Therapeutics Inc.'s interest to 77.9% of vTv LLC's economic results, subject to increase in the future, should vTv Therapeutics Inc. purchase additional non-voting common units ("vTv Units") of vTv LLC, or should the holders of vTv Units decide to exchange such units (together with shares of Class B common stock) for shares of Class A common stock (or cash) pursuant to the Exchange Agreement (as defined in Note 9). vTv Therapeutics Inc. has provided financial and other support to vTv LLC in the form of its purchase of vTv Units with the net proceeds of the Company's initial public offering ("IPO") in 2015, its registered direct offering in March 2019, and its agreeing to be a co-borrower under the Venture Loan and Security Agreement (the "Loan Agreement") with Horizon Technology Finance Corporation and Silicon Valley Bank (together, the "Lenders") which was entered into in 2016. vTv Therapeutics Inc. entered into the letter agreements with MacAndrews and Forbes Group LLC ("M&F Group"), a related party and an affiliate of MacAndrews & Forbes Incorporated (together with its affiliates "MacAndrews") in December 2017, July 2018, December 2018, March 2019, September 2019, and December 2019 (each a "Letter Agreement" and collectively, the "Letter Agreements"). In addition, vTv Therapeutics Inc. also entered into the Controlled Equity Offering[SM] Sales Agreement (the "Sales Agreement") with Cantor Fitzgerald & Co. ("Cantor Fitzgerald") (the "ATM Offering"), the purchase agreement with Lincoln Park Capital Fund, LLC ("Lincoln Park") (the "LPC Purchase Agreement"), the common stock purchase agreement with G42 Investments AI Holding RSC Ltd ("G42 Investments") (the "G42 Purchase Agreement") and the common stock and warrant purchase agreement with CinPax, LLC and CinRx, LLC, respectively (the "CinRx Purchase Agreement"). vTv Therapeutics Inc. will not be required to provide financial or other support for vTv LLC. However, vTv Therapeutics Inc. will control its business and other activities through its managing member interest in vTv LLC, and its management is the management of vTv LLC. Nevertheless, because vTv Therapeutics Inc. will have no material assets other than its interests in vTv LLC, any financial difficulties at vTv LLC could result in vTv Therapeutics Inc. recognizing a loss.

Going Concern and Liquidity

To date, the Company has not generated any product revenue and has not achieved profitable operations. The continuing development of our drug candidates will require additional financing. From its inception through September 30, 2022, the Company has funded its operations primarily through a combination of private placements of common and preferred equity, research collaboration agreements, upfront and milestone payments for license agreements, debt and equity financings and the completion of its IPO in August 2015. As of September 30, 2022, the Company had an accumulated deficit of $267.1 million and has generated net losses in each year of its existence.

As of September 30, 2022, the Company's liquidity sources included cash and cash equivalents of $15.3 million. To meet our future funding requirements into the fourth quarter of 2023, including funding the on-going and future clinical trials of *TTP399*, we are evaluating several financing strategies, including direct equity investments and the potential licensing and monetization of other Company programs such as *HPP737*. The Company also has promissory notes of $12.5 million and $4.0 million under the G42 Purchase Agreement and CinRx Purchase Agreement payable to the Company, respectively. The G42 promissory note is due on or before May 31, 2023, and the CinRx promissory note is due on or before November 22, 2022 (see Note 9).

The Company may also use its remaining availability of $37.3 million under our Sales Agreement with Cantor Fitzgerald pursuant to which the Company may offer and sell, from time to time shares of the Company's Class A common stock (the "ATM Offering") and the ability to sell an additional 9,437,376 shares of Class A common stock under the LPC Purchase Agreement based on the remaining number of registered shares. However, the ability to use these sources of capital is dependent on a number of factors, including the prevailing market price of and the volume of trading in the Company's Class A common stock. See Note 9 for further details.

These conditions raise substantial doubt about the Company's ability to continue as a going concern. If we are unable to raise additional capital as and when needed, or upon acceptable terms, such failure would have a significant negative impact on our financial condition.

The Company's financial statements have been prepared assuming the Company will continue as a going concern, which contemplates, among other things, the realization of assets and satisfaction of liabilities in the normal course of business. The Condensed Consolidated Financial Statements do not include adjustments to reflect the possible future effects on the recoverability and classification of recorded assets or the amounts of liabilities that might be necessary should the Company be unable to continue as a going concern.

Note 2: Summary of Significant Accounting Policies

Unaudited Interim Financial Information

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The accompanying Condensed Consolidated Balance Sheet as of September 30, 2022, Condensed Consolidated Statements of Operations for the three and nine months ended September 30, 2022, and 2021, Condensed Consolidated Statement of Changes in Redeemable Noncontrolling Interest and Stockholders' Deficit for the three and nine months ended September 30, 2022, and 2021 and Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2022, and 2021 are unaudited. These unaudited financial statements have been prepared in accordance with the rules and regulations of the United States Securities and Exchange Commission ("SEC") for interim financial information. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. These financial statements should be read in conjunction with the audited financial statements and the accompanying notes for the year ended December 31, 2021, contained in the Company's Annual Report on Form 10-K. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and, in the opinion of management, reflect all adjustments (consisting of normal recurring adjustments) necessary to state fairly the Company's financial position as of September 30, 2022, the results of operations for the three and nine months ended September 30, 2022, and 2021 and cash flows for the nine months ended September 30, 2022, and 2021. The December 31, 2021 Condensed Consolidated Balance Sheet included herein was derived from the audited financial statements but does not include all disclosures or notes required by GAAP for complete financial statements.

The financial data and other information disclosed in these notes to the financial statements related to the three and nine months ended September 30, 2022, and 2021 are unaudited. Interim results are not necessarily indicative of results for an entire year.

The Company does not have any components of other comprehensive income recorded within its Condensed Consolidated Financial Statements, and, therefore, does not separately present a statement of comprehensive income in its Condensed Consolidated Financial Statements.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the Company to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

On an ongoing basis, the Company evaluates its estimates, including those related to the grant date fair value of equity awards, the fair value of warrants to purchase shares of its Class A common stock, the fair value of the Class B common stock, the useful lives of property and equipment, the fair value of derivative liabilities, the fair value of the promissory note receivable, and the fair value of the Company's debt, among others. The Company bases its estimates on historical experience and on various other assumptions that it believes to be reasonable, the results of which form the basis for making judgments about the carrying value of assets and liabilities.

Concentration of Credit Risk

Financial instruments that potentially expose the Company to concentrations of credit risk consist principally of cash on deposit with one financial institution. The balances of these cash accounts frequently exceed insured limits.

One customer represented 100% of the revenue earned during the nine months ended September 30, 2022, two customers represented 100% of the revenue earned during the three months ended September 30, 2021 and three customers represented 100% of the revenue earned during the nine months ended September 30, 2021.

Cash and Cash Equivalents

The Company considers any highly liquid investments with an original maturity of three months or less to be cash and cash equivalents.

Investments

Investments in entities in which the Company has no control or significant influence, is not the primary beneficiary, and have a readily determinable fair value are classified as equity investments with readily determinable fair value. The investments are measured at fair value based on a quoted market price per unit in active markets multiplied by the number of units held without consideration of transaction costs (Level 1). Gains and losses are recorded in other income (expense), net on the Consolidated Statements of Operations.

Equity investments without readily determinable fair value include ownership rights that do not provide the Company with control or significant influence and these investments do not have readily determinable fair values. The Company has elected to measure its equity investments without readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment.

Revenue Recognition

The Company uses the revenue recognition guidance established by ASC Topic 606, *Revenue From Contracts With Customers* ("ASC 606"). When an agreement falls under the scope of other standards, such as ASC Topic 808, *Collaborative Arrangements* ("ASC 808"), the Company will apply the recognition, measurement, presentation, and disclosure guidance in ASC 606 to the performance obligations in the agreements if those performance obligations are with a customer. Revenue recognized by analogizing to ASC 606, is recorded as collaboration revenue on the statements of operations.

The majority of the Company's revenue results from its license and collaboration agreements associated with the development of investigational drug products. The Company accounts for a contract when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable. For each contract meeting these criteria, the Company identifies the performance obligations included within the contract. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. The Company then recognizes revenue under each contract as the related performance obligations are satisfied.

The transaction price under the contract is determined based on the value of the consideration expected to be received in exchange for the transferred assets or services. Development, regulatory and sales milestones included in the Company's collaboration agreements are considered to be variable consideration. The amount of variable consideration expected to be received is included in the transaction price when it becomes probable that the milestone will be met. For contracts with multiple performance obligations, the contract's transaction price is allocated to each performance obligation using the Company's best estimate of the standalone selling price of each distinct good or service in the contract. The primary method used to estimate standalone selling price is the expected cost-plus margin approach.

Research and Development

Major components of research and development costs include cash and share-based compensation, costs of preclinical studies, clinical trials and related clinical manufacturing, costs of drug development, costs of materials and supplies, regulatory and compliance costs, fees paid to consultants and other entities that conduct certain research and development activities on the Company’s behalf, facilities costs, and overhead costs. Research and development costs are expensed as incurred.

The Company records accruals based on estimates of the services received, efforts expended, and amounts owed pursuant to contracts with numerous contract research organizations. In the normal course of business, the Company contracts with third parties to perform various clinical study activities in the ongoing development of potential products. The financial terms of these agreements are subject to negotiation and variation from contract to contract and may result in uneven payment flows. Payments under the contracts depend on factors such as the achievement of certain events and the completion of portions of the clinical study or similar conditions. The objective of the Company’s accrual policy is to match the recording of expenses in its financial statements to the actual services received and efforts expended. As such, expense accruals related to clinical studies are recognized based on the Company’s estimate of the degree of completion of the event or events specified in the specific clinical study.

The Company records nonrefundable advance payments it makes for future research and development activities as prepaid expenses. Prepaid expenses are recognized as expense in the Condensed Consolidated Statements of Operations as the Company receives the related goods or services.

Research and development costs that are reimbursed under a cost-sharing arrangement are reflected as a reduction of research and development expense.

Recently Issued Accounting Pronouncements

Fair Value Measurements: In June 2022, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2022-03 *“Fair Value Measurements (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions.”* These amendments clarify that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the equity security and, therefore, is not considered in measuring fair value. This guidance is effective for public business entities for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2023. Early adoption is permitted. The Company has assessed ASU 2022-03 and early adopted the guidance during the second quarter of 2022. The adoption did not have a material impact on the Company's Condensed Consolidated Financial Statements.

Note 3: Collaboration Agreements

G42 Purchase Agreement and Cogna Collaborative and License Agreement

The Company and G42 Investments AI Holding RSC Ltd, a private limited company (“G42 Investments”), entered into a Common Stock Purchase Agreement (the “G42 Purchase Agreement”), pursuant to which the Company sold to G42 Investments 10,386,274 shares of the Company’s Class A common stock, par value $0.01 per share (the “G42 Common Stock) at a price per share of approximately $2.41, for an aggregate purchase price of $25.0 million, which was paid (i) $12.5 million in cash at the closing and (ii) $12.5 million in the form of a promissory note of G42 Investments to be paid at the one-year anniversary of the execution of the G42 Purchase Agreement. As part of the G42 Purchase Agreement, G42 Investments put forward a director as appointee and the Company’s board of directors approved appointing the new director to the Company’s board.

G42 Investments has agreed to certain transfer restrictions (including restrictions on short sales or similar transactions) and restrictions on further acquisitions of shares, in each case subject to specified exceptions. Following the expiration of a lock up period, from the period May 31, 2022 until December 31, 2024 (or if earlier, the date of receipt of U.S. Food and Drug Administration (“FDA”) approval in the U.S. for *TTP399* (the “FDA Approval”) of *TTP399*), the Company has granted to G42 Investments certain shelf and piggyback registration rights with respect to those shares of Class A common stock issued to G42 Investments pursuant to the G42 Purchase Agreement, including the ability to conduct an underwritten offering to resell such shares under certain circumstances. The registration rights include customary cooperation, cut-back, expense reimbursement, and indemnification provisions.

Contemporaneously with the G42 Purchase Agreement, effective on May 31, 2022, the Company entered into a collaboration and license agreement (the “Cogna Agreement”) with Cogna Technology Solutions LLC, an affiliate of G42 Investments (“Cogna”) (“Collaboration Partner”), which requires Cogna to work with the Company in performing Phase 3 clinical trials for the Company’s *TTP399* compound (the “Licensed Product”) as well as jointly creating a global development plan to develop, market, and commercialize *TTP399* in certain countries in the Middle East, Africa, and Central Asia (the “Partner Territory”). Under the terms of the Cogna Agreement, Cogna will obtain rights to the Company’s license of *TTP399*, for purposes of performing Phase 3 clinical trials in the Partner Territory, but will not have access to the various intellectual property (“IP”) related to the license and *TTP399*. Specifically, the Company will share various protocols with Cogna related to conducting the clinical trials and will provide the patient dosages and placebo of *TTP399* needed to conduct the trials. Separately, the Company will conduct its Phase 3 clinical trials for *TTP399* in the U.S. at its own cost that similarly will not be reimbursed. The results of each party's Phase 3 clinical trials will be combined by the Company to seek FDA approval in the U.S. for *TTP399*.

Under the Cogna Agreement, Cogna has the right to develop and commercialize the Licensed Product in the Partner Territory at its own cost once restrictions on the use of the IP have been lifted by the Company. The Cogna Agreement determined which specific countries in the Partner Territory that Cogna may pursue development and commercialization and provides the Company with the ability to determine when Cogna can benefit from this IP through the powers granted to the Company to approve the global development plan. Further, the Company may supply at cost, or Cogna may manufacture, *TTP399* for commercial sale under terms to be agreed upon by the parties at a later date.

The G42 Purchase Agreement also provides for, following the receipt of FDA approval of the Licensed Product, at the option of G42 Investments, either (a) the issuance of the Company's Class A common stock (the "Milestone Shares") having an aggregate value equal to $30.0 million or (b) the payment by the Company of $30.0 million in cash (the "Milestone Cash Payment"). The issuance of the Milestone Shares or the payment of the Milestone Cash Payment, as applicable, are conditioned upon receipt of the FDA Approval and subject to certain limitations and conditions set forth in the G42 Purchase Agreement. There can be no assurance that the FDA Approval will be granted or as to the timing thereof.

Once commercialization takes place in the Partner Territories, the Company will receive royalties of 8% from Cogna on the sale of the Licensed Product for ten years after the first commercial sale of the Licensed Product.

Common stock is generally recorded at fair value at the date of issuance. In determining the fair value of the Class A common stock issued to G42 Investments, the Company considered the closing price of the common stock on the effective date. The Company did not make an adjustment to the fair value for sale restrictions on the stock in accordance with guidance recently adopted in ASU 2022-03. See the "Recently Issued Accounting Guidance" in this 10-Q for details of the ASU. Accordingly, the Company determined that cash consideration of $5.7 million should be recorded as fair value of the Class A common stock at the effective date, utilizing the Class A common stock closing price of $0.55 at the effective date.

A premium was paid on the Class A common stock by G42 Investments of $18.7 million, net of a note receivable discount of $0.6 million. This premium is determined to be the transaction price for all remaining obligations under the agreements, which will be accounted for under ASC 808 or ASC 606 based on determination of the unit of account.

The Company determined that certain commitments under the agreements are in the scope of ASC 808 as both the Company and Cogna are active participants in the clinical trials of the Licensed Product, and both are exposed to significant risks and rewards based on the success of the clinical trials and subsequent FDA approval. Cogna is determined to be a vendor of the Company during the clinical trial phase, working on the Company's behalf to complete R&D activities, and not in a customer capacity. The Company accounted for the commitments related to the clinical trials, which includes transfer of trial protocols, supply of clinical trial dosages, and collaboration on the joint development committee ("JDC") as an ASC 808 unit of account, applying the recognition and measurement principles of ASC 606 by analogy. The Company will recognize collaboration revenue for its development activities under ASC 808 over time based on the estimated period of performance.

By applying the principals in ASC 606 by analogy, the Company identified the performance obligation and considered the timing of satisfaction of the obligation to account for the pattern of revenue recognition. In order to recognize collaboration revenue, generally, the Company would begin satisfying its performance obligation and Cogna would need to be able to use and benefit from delivery of the assets or services. The performance obligation under the agreements that fall within the 808 unit of account are concentrated in the Phase 3 clinical trials. As of September 30, 2022, the Phase 3 clinical trials had not commenced. Accordingly, no collaboration revenue was recognized for the ASC 808 unit of account during the three and nine months ended September 30, 2022.

The Company identified certain commitments that are in the scope of ASC 606 as Cogna's relationship is that of a customer for these commitments. The significant performance obligations that are in the scope of ASC 606 are (1) the development, commercialization and manufacturing license of the IP once restrictions on the use of the IP have been lifted by the Company and (2) a potential material right to a commercial supply agreement. The Company will recognize revenue from the development, commercial and manufacturing license at a point in time when the Company releases the restrictions on the use of the IP, which is expected to be after the Licensed Product is approved by the FDA. The Company will recognize revenue from the material right related to Cogna's ability to purchase the commercial supply at cost as Cogna purchases the commercial supply from the Company, which will occur after the completion of the initial clinical trials (if Cogna decides to purchase the clinical supply from the Company). As a result, the Company has not recognized any revenue under the ASC 606 unit of account during the three and nine months ended September 30, 2022.

As of September 30, 2022, the Company has recognized the cash and a non-interest bearing promissory note receivable of with a principal balance of $12.5 million. The promissory note receivable was classified and accounted for under ASC 310 and was initially measured at its fair value of $11.9 million and will be subsequently remeasured at its amortized cost through its maturity date. The Company also recorded the $18.7 million as deferred revenue in the Consolidated Balance Sheets, as none of the underlying performance obligations had been satisfied as of and for the three and nine months ended September 30, 2022.

Reneo License Agreement

The Company is party to a license agreement with Reneo Pharmaceuticals, Inc. (“Reneo”) (the “Reneo License Agreement”), under which Reneo obtained an exclusive, worldwide, sublicensable license to develop and commercialize the Company’s peroxisome proliferation activated receptor delta (PPAR-δ) agonist program, including the compound *HPP593*, for therapeutic, prophylactic or diagnostic application in humans.

The Company has fully allocated the transaction price to the license and the technology transfer services, which represents a single combined performance obligation because they were not capable of being distinct on their own. The revenue related to this performance obligation was recognized on a straight-line basis over the technology transfer service period.

The revenue related to this performance obligation has been fully recognized and no revenue related to this performance obligation was recognized for the three and nine months ended September 30, 2022. There have been no adjustments to the transaction price for the performance obligations under the Reneo License Agreement during the three and nine months ended September 30, 2022. In the third quarter of 2021, the transaction price for this performance obligation was increased by $2.0 million due to the satisfaction of a development milestone under the Reneo License Agreement. This amount was fully recognized as revenue during the three and nine months ended September 30, 2021, as the related performance obligation was fully satisfied.

Huadong License Agreement

The Company is party to a license agreement with Hangzhou Zhongmei Huadong Pharmaceutical Co., Ltd. (“Huadong”) (the “Huadong License Agreement”), under which Huadong obtained an exclusive and sublicensable license to develop and commercialize the Company’s glucagon-like peptide-1 receptor agonist (“GLP-1r”) program, including the compound *TTP273*, for therapeutic uses in humans or animals, in China and certain other pacific rim countries, including Australia and South Korea (collectively, the “Huadong License Territory”). Additionally, under the Huadong License Agreement, the Company obtained a non-exclusive, sublicensable, royalty-free license to develop and commercialize certain Huadong patent rights and know-how related to the Company’s GLP-1r program for therapeutic uses in humans or animals outside of the Huadong License Territory.

On January 14, 2021, the Company entered into the first amendment to the Huadong License Agreement (the “First Huadong Amendment”) which eliminated the Company’s obligation to sponsor a multi-region clinical trial (the “Phase 2 MRCT”), and corresponding obligation to contribute up to $3.0 million in support of such trial. The amendment also reduced the total potential development and regulatory milestone payments by $3.0 million.

Prior to the First Amendment, the Company had allocated a portion of the transaction price to the obligation to sponsor and conduct a portion of the Phase 2 MRCT. Upon the removal of this performance obligation, the Company evaluated the impact of the modification under the provisions of ASC Topic 606 and performed a reallocation of the transaction price among the remaining performance obligations. This resulted in the recognition of approximately $1.0 million of revenue on a cumulative catch-up basis during the nine months ended September 30, 2021. The majority of the transaction price originally allocated to the Phase 2 MRCT performance obligation was reallocated to the license and technology transfer services combined performance obligation discussed below, which had already been completed. The reallocation of the purchase price in connection with the First Huadong Amendment was made based on the relative estimated selling prices of the remaining performance obligations.

The significant performance obligations under the Huadong License Agreement, as amended, were determined to be (i) the exclusive license to develop and commercialize the Company’s GLP-1r program, (ii) technology transfer services related to the chemistry and manufacturing know-how for a defined period after the effective date, (iii) the Company’s obligation to participate on a joint development committee (the “JDC”), and (iv) other obligations considered to be de minimis in nature.

The Company has determined that the license and technology transfer services related to the chemistry and manufacturing know-how represent a combined performance obligation because they were not capable of being distinct on their own. The Company also determined that there was no discernible pattern in which the technology transfer services would be provided during the transfer service period. As such, the Company recognized the revenue related to this combined performance obligation using the straight-line method over the transfer service period. This combined performance obligation was considered complete as of September 30, 2021. The Company recognized $1.0 million of revenue related to this combined performance obligation during the nine months ended September 30, 2021. During the nine months ended September 30, 2022, the transaction price for this performance obligation was increased by $2.0 million due to the satisfaction of a development milestone under the Huadong License Agreement, as amended. This amount was fully recognized as revenue during the nine months ended September 30, 2022, as the related performance obligation was fully satisfied.

A portion of the transaction price allocated to the obligation to participate in the JDC to oversee the development of products and the Phase 2 MRCT in accordance with the development plan remained deferred as of September 30, 2022, and revenue will be recognized using the proportional performance model over the period of the Company's participation on the JDC. The unrecognized amount of the transaction price allocated to this performance obligation as of September 30, 2022, was de minimis. An immaterial amount of revenue for this performance obligation has been recognized during nine months ended September 30, 2022, and 2021.

Newsoara License Agreement-

The Company is party to a license agreement with Newsoara Biopharma Co., Ltd., ("Newsoara") (the "Newsoara License Agreement") under which Newsoara obtained an exclusive and sublicensable license to develop and commercialize the Company's phosphodiesterase type 4 inhibitors ("PDE4") program, including the compound *HPP737*, in China, Hong Kong, Macau, Taiwan and other pacific rim countries (collectively, the "Newsoara License Territory"). Additionally, under the Newsoara License Agreement, the Company obtained a non-exclusive, sublicensable, royalty-free license to develop and commercialize certain Newsoara patent rights and know-how related to the Company's PDE4 program for therapeutic uses in humans outside of the Newsoara License Territory.

The Company has fully allocated the transaction price to the license and the technology transfer services which represents a single performance obligation because they were not capable of being distinct on their own. The Company recognized revenue for this performance obligation using the straight-line method over the transfer service period. The revenue for this performance obligation has been fully recognized as of September 30, 2022. In the third quarter of 2021, the transaction price for this performance obligation was increased by $1.0 million due to the satisfaction of a development milestone under the Newsoara License Agreement. This amount was fully recognized as revenue during the three and nine months ended September 30, 2021, as the related performance obligation was fully satisfied. No revenue related to this performance obligation was recognized and there have been no changes to the transaction price during the three and nine months ended September 30, 2022.

JDRF Agreement

In August 2017, the Company entered into a research and collaboration agreement with JDRF International (the "JDRF Agreement") to support the funding of the Simplici-T1 Study, a Phase 2 study to explore the effects of *TTP399* in patients with type 1 diabetes. The JDRF Agreement was amended in June 2021 to provide additional funding for the Company's mechanistic study exploring the effects of *TTP399* on ketone body formation during a period of insulin withdrawal in people with type 1 diabetes. Consistent with the terms of the JDRF Agreement, JDRF provided research funding of $3.4 million based on the achievement of research and development milestones, with the total funding provided by JDRF not to exceed approximately one-half of the total cost of the project. Additionally, the Company has the obligation to make certain milestone payments to JDRF upon the commercialization, licensing, sale or transfer of *TTP399* as a treatment for type 1 diabetes.

Payments that the Company receives from JDRF under this agreement were recorded as restricted cash and current liabilities and recognized as an offset to research and development expense, based on the progress of the project, and only to the extent that the restricted cash is utilized to fund such development activities. As of September 30, 2022, the Company had received funding under this agreement of $3.4 million. Research and development costs have been offset by the $3.4 million of cash received over the course of this agreement.

Contract Liabilities

Contract liabilities related to the Company's collaboration agreements consisted of the following (in thousands):

	September 30, 2022	December 31, 2021
Current portion of contract liabilities	$ 26	$ 35
Contract liabilities, net of current portion	18,669	—
Total contract liabilities	$ 18,695	$ 35

Changes in short-term and long-term contract liabilities for the nine months ended September 30, 2022, were as follows:

	Contract Liabilities
Balance on January 1, 2022	$ 35
Reclassification of the beginning contract liabilities to revenue, as the result of performance obligations satisfied	(9)
Consideration received in advance and not recognized as revenue	18,669
Balance on September 30, 2022	$ 18,695

Note 4: Share-Based Compensation

The Company has issued non-qualified stock option awards to management, other key employees, consultants, and non-employee directors. These option awards generally vest ratably over a three-year period and the option awards expire after a term of ten years from the date of grant. As of September 30, 2022, the Company had total unrecognized stock-based compensation expense for its outstanding stock option awards of approximately $2.6 million, which is expected to be recognized over a weighted average period of 2.7 years. The weighted average grant date fair value of options granted during the nine months ended September 30, 2022, and 2021 was $0.68 and $2.21 per option, respectively. The aggregate intrinsic value of the in-the-money awards outstanding at September 30, 2022, was de minimis.

On February 27, 2022, Ms. Deepa Prasad notified the Board of Directors (the "Board") of the Company of her decision to resign from her positions as Chief Executive Officer, President, and Board member, effective as of March 29, 2022, and served in these roles through March 29, 2022 (the "Effective Date"). Ms. Prasad agreed to serve as a Strategic Advisor to the Company for six months after the Effective Date. Ms. Prasad will retain 624,659 of the outstanding options previously granted to her, which will vest at the end of the 15-month period following the Effective Date. As a result of the separation agreement, these options were modified to accelerate vesting at the Effective Date. These options will remain exercisable for the original ten-year period and the remaining 1,873,976 of her options were cancelled. The additional stock compensation expense for the modification during the nine months ended September 30, 2022, was de minimis.

The following table summarizes the activity related to the stock option awards for the nine months ended September 30, 2022:

	Number of Shares	Weighted Average Exercise Price
Awards outstanding at December 31, 2021	7,056,035	$ 3.19
Granted	4,047,333	0.78
Forfeited	(3,384,424)	2.37
Awards outstanding at September 30, 2022	7,718,944	$ 2.28
Options exercisable at September 30, 2022	2,563,810	$ 4.75
Weighted average remaining contractual term	6.3 Years	
Options vested and expected to vest at September 30, 2022	6,664,874	$ 2.49
Weighted average remaining contractual term	8.2 Years	

Compensation expense related to the grants of stock options is included in research and development and general and administrative expense as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Research and development	$ 109	$ 186	$ 289	$ 542
General and administrative	229	288	692	820
Total share-based compensation expense	$ 338	$ 474	$ 981	$ 1,362

Note 5: Investments

In connection with the Reneo License Agreement and the Anteris License Agreement, the Company has received equity ownership interests of less than 20% of the voting equity of the investee. Further, the Company does not have the ability to exercise significant influence over the investees. The investments are classified as long-term investments in the Company's Consolidated Balance Sheets.

Reneo completed its initial public offering in April 2021. Prior to Reneo becoming a publicly traded company, the Company's investment in Reneo did not have a readily determinable fair value and was measured at cost less impairment, adjusted for any changes in observable prices, under the measurement alternative. Subsequent to Reneo's initial public offering, the Company's investment in Reneo is considered to have a readily determinable fair value and, as such, is adjusted to its fair value each period with changes in fair value recognized as a component of net loss.

The Company's investment in Anteris does not have a readily determinable fair value and is measured at cost less impairment, adjusted for any changes in observable prices.

The Company's investments consist of the following:

	September 30, 2022	December 31, 2021
Equity investment with readily determinable fair value:		
Reneo common stock	$ 1,930	$ 4,928
Equity investment without readily determinable fair values assessed under the measurement alternative:		
Anteris preferred stock	4,245	4,245
Total	$ 6,175	$ 9,173

No adjustments have been made to the value of the Company's investment in Anteris since its initial measurement either due to impairment or based on observable price changes. The Company recognized an unrealized gain on its investment in Reneo of $0.4 million and an unrealized loss of $3.0 million for the three and nine months ended September 30, 2022, respectively. The Company recognized an unrealized loss on its investment in Reneo of $1.1 million and an unrealized gain of $1.8 million for the three months and nine months ended September 30, 2021, respectively. These adjustments were recognized as a component of other income/(expense) in the Company's Condensed Consolidated Statements of Operations.

Note 6: Commitments and Contingencies

Legal Matters

From time to time, the Company is involved in various legal proceedings arising in the normal course of business. If a specific contingent liability is determined to be probable and can be reasonably estimated, the Company accrues and discloses the amount. The Company is not currently a party to any material legal proceedings.

Novo Nordisk

In February 2007, the Company entered into an Agreement Concerning Glucokinase Activator Project with Novo Nordisk A/S (the "Novo License Agreement") whereby the Company obtained an exclusive, worldwide, sublicensable license under certain Novo Nordisk intellectual property rights to discover, develop, manufacture, have manufactured, use and commercialize products for the prevention, treatment, control, mitigation or palliation of human or animal diseases or conditions. As part of this license grant, the Company obtained certain worldwide rights to Novo Nordisk's GKA program, including rights to preclinical and clinical compounds such as *TTP399*. This agreement was amended in May 2019 to create milestone payments applicable to certain specific and non-specific areas of therapeutic use. Under the terms of the amended Novo License Agreement, the Company has potential developmental and regulatory milestone payments totaling up to $9.0 million for approval of a product for the treatment of type 1 diabetes, $50.5 million for approval of a product for the treatment of type 2 diabetes, or $115.0 million for approval of a product in any other indication. The Company may also be obligated to pay an additional $75.0 million in potential sales-based milestones, as well as royalty payments, at mid-single digit royalty rates, based on tiered sales of commercialized licensed products. During the fourth quarter of 2021, the Company made a payment of $2.0 million related to the satisfaction of the milestone to complete the phase 2 trials for *TTP399* under this agreement.

Note 7: Leases

The Company leases office space for its headquarters location under an operating lease. This lease commenced in November 2019 after the completion of certain tenant improvements made by the lessor. The lease includes an option to renew for a five-year term as well as an option to terminate after three years, neither of which have been recognized as part of its related right of use assets or lease liabilities as their election was not considered reasonably certain. The Company has notified the lessor that it intends to exercise the early termination option and is negotiating an amendment to the lease. Further, this lease does not include any material residual value guarantee or restrictive covenants.

At each of September 30, 2022, and December 31, 2021, the weighted average incremental borrowing rate for the operating leases held by the Company was 13.1%. At September 30, 2022, and December 31, 2021, the weighted average remaining lease terms for the operating leases held by the Company were 2.3 years and 3.1 years, respectively.

Maturities of lease liabilities for the Company's operating leases as of September 30, 2022, were as follows (in thousands):

2022 (remaining three months)	$	65
2023		268
2024		275
2025		23
2026		—
Thereafter		—
Total lease payments		631
Less: imputed interest		(90)
Present value of lease liabilities	$	541

Operating lease cost and the related operating cash flows for the nine months ended September 30, 2022, and 2021 were immaterial amounts.

Note 8: Redeemable Noncontrolling Interest

The Company is subject to the Exchange Agreement with respect to the vTv Units representing the 22.1% noncontrolling interest in vTv LLC outstanding as of September 30, 2022 (see Note 9). The Exchange Agreement requires the surrender of an equal number of vTv Units and Class B common stock for (i) shares of Class A common stock on a one-for-one basis or (ii) cash (based on the fair market value of the Class A common stock as determined pursuant to the Exchange Agreement), at the Company's option (as the managing member of vTv LLC), subject to customary conversion rate adjustments for stock splits, stock dividends and reclassifications. The exchange value is determined based on a 20-day volume weighted average price of the Class A common stock as defined in the Exchange Agreement, subject to customary conversion rate adjustments for stock splits, stock dividends and reclassifications.

The redeemable noncontrolling interest is recognized at the higher of (1) its initial fair value plus accumulated earnings/losses associated with the noncontrolling interest or (2) the redemption value as of the balance sheet date. At September 30, 2022, and December 31, 2021, the redeemable noncontrolling interest was recorded based on the redemption value as of the balance sheet date of $24.2 million and $25.0 million, respectively.

Changes in the Company's ownership interest in vTv LLC while the Company retains its controlling interest in vTv LLC are accounted for as equity transactions, and the Company is required to adjust noncontrolling interest and equity for such changes. The following is a summary of net income attributable to vTv Therapeutics Inc. and transfers to noncontrolling interest:

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2022	2021	2022	2021
Net loss attributable to vTv Therapeutics Inc. common shareholders	$ (4,261)	$ (1,087)	$ (14,419)	$ (5,936)
(Increase) in vTv Therapeutics Inc. accumulated deficit for purchase of LLC Units as a result of common stock issuances	(1,174)	(2,773)	(103)	(5,298)
Change from net loss attributable to vTv Therapeutics Inc. common shareholders and transfers to noncontrolling interest	$ (5,435)	$ (3,860)	$ (14,522)	$ (11,234)

Note 9: Stockholders' Deficit

Amendment to Certificate of Incorporation

On May 4, 2021, the Company filed an amendment to its Amended and Restated Certificate of Incorporation (the "Charter Amendment") to increase the number of shares of Class A common stock that the Company is authorized to issue from 100,000,000 shares of Class A common stock to 200,000,000 shares of Class A common stock, representing an increase of 100,000,000 shares of authorized Class A common stock, with a corresponding increase in the total authorized common stock, which includes Class A common stock and Class B common stock, from 200,000,000 to 300,000,000, and a corresponding increase in the total authorized capital stock, which includes common stock and preferred stock, from 250,000,000 shares to 350,000,000 shares.

G42 Investments Transaction

On May 31, 2022, the Company and G42 Investments entered in to the G42 Purchase Agreement (see Note 3), pursuant to which the Company agreed to sell to G42 Investments 10,386,274 shares of the Company's Class A common stock, par value $0.01 per share at a price per share of approximately $2.41, for an aggregate purchase price of $25.0 million, consisting of (i) $12.5 million in cash at the closing of the transaction and (ii) $12.5 million in the form of a promissory note of G42 Investments to be paid at the one-year anniversary of the execution of the G42 Purchase Agreement.

CinPax and CinRx Transaction

On July 22, 2022 (the "Transaction Date"), the Company entered into the CinRx Purchase Agreement with CinPax and CinRx, pursuant to which the Company agreed to sell to CinPax 4,154,549 shares of the Company's Class A common stock, par value $0.01 per share (the "Common Stock" and such shares, the "Closing Shares") at a price per share of approximately $2.41, for an aggregate purchase price of $10.0 million, which was paid (i) $6.0 million in cash at the closing of the transaction and (ii) $4.0 million in the form of a non-interest-bearing promissory note with CinPax to be paid at the four-month anniversary of the execution of the CinRx Purchase Agreement. The promissory note receivable was classified and accounted for under ASC 505 as contra-equity. The CinRx Purchase Agreement provides CinPax the right to put forward a director to be approved to sit on vTv's Board of Directors and a board observer, which was subsequently approved by the Company's board.

Common stock is generally recorded at fair value at the date of issuance. In determining the fair value of the Class A common stock issued to CinPax, the Company considered the closing price of the common stock on the Transaction Date. The Company did not make an adjustment to the fair value for sale restrictions on the stock in accordance with guidance recently adopted in ASU 2022-03. See the "Recently Issued Accounting Guidance" in this 10-Q for details of the ASU. Accordingly, the Company determined that cash consideration of $3.0 million should be recorded as fair value of the Class A common stock at the effective date, utilizing the Class A common stock closing price of $0.72 at the effective date.

The CinRx Purchase Agreement also provides CinRx warrants to purchase up to 1,200,000 shares of Common Stock at an initial exercise of price of approximately $0.72 per share (the "CinRx Warrants"). The CinRx Warrants were initially measured at fair value of $0.4 million using the Black Scholes option model at the time of issuance and will be recorded in Warrant liability related party in the Condensed Consolidated Balance Sheets and will be subsequently remeasured at fair value through earnings on a recurring basis. (see Note 13)

The CinRx Warrants will become exercisable by CinRx only if (i) the Company receives approval from the U.S. Food and Drug Administration ("FDA Approval") to market and distribute the pharmaceutical product containing the Company's proprietary candidate, *TTP399* (the "Product"), or (ii) the Company is acquired by a third party, sells all or substantially all of its assets related to the Product to a third party or grants a third party an exclusive license to develop, commercialize and manufacture the Product in the United States (an "Exit Event"). If neither of these events happen within five years of the date of the issuance of the CinRx Warrants, the CinRx Warrants will expire and not be exercisable by CinRx. The exercise price of the CinRx Warrants and the number of shares issuable upon exercise of the CinRx Warrants are subject to adjustments in accordance with the terms of the CinRx Warrants.

Additionally, in conjunction with the CinRx Purchase Agreement the Company and CinRx entered into a Master Service Agreement ("CinRx MSA") whereby CinRx provides the Company with consulting, pre-clinical and clinical trial services, as enumerated in project proposals negotiated between the Company and CinRx from time to time. (see Note 10)

The Company did not identify any other promises in the CinRx Purchase Agreement (aside from the issuance of common shares and the CinRx Warrants) and determined since there is no value ascribed to the CinRx MSA, the right to appoint a member and observer to the board of directors, that the remaining unallocated amount meets the definition of contributed equity and represents the amount in excess of par.

ATM Offering

In April 2020, the Company entered into the Sales Agreement with Cantor Fitzgerald as the sales agent, pursuant to which the Company may offer and sell, from time to time, through Cantor, shares of its Class A common stock, par value $0.01 per share, having an aggregate offering price of up to $13.0 million by any method deemed to be an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act (the "ATM Offering"). The shares are offered and sold pursuant to the Company's shelf registration statement on Form S-3. In no event will the Company sell Class A common stock under this registration statement with a value exceeding more than one-third of the "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 million.

On January 14, 2021, and June 25, 2021, the Company filed a prospectus supplement in connection with the ATM Offering to increase the size of the at-the-market offering pursuant to which the Company may offer and sell, from time to time, through or to Cantor, as sales agent or principal, shares of the Company's Class A common stock, by an aggregate offering price of $5.5 million and $50.0 million, respectively.

During the three and nine months ended September 30, 2021, the Company sold 8,457,546 shares of its Class A common stock under the ATM Offering for net proceeds of $17.0 million.

During the three and nine months ended September 30, 2022, the Company did not sell any shares under the ATM Offering.

Lincoln Park Capital Transaction

On November 24, 2020, the Company entered into the LPC Purchase Agreement and a registration rights agreement (the "Registration Rights Agreement"), pursuant to which the Company has the right to sell to Lincoln Park shares of the Company's Class A common stock having an aggregate value of up to $47.0 million, subject to certain limitations and conditions set forth in the LPC Purchase Agreement. The Company will control the timing and amount of any sales of shares to Lincoln Park. pursuant to the LPC Purchase Agreement. During the three and nine months ended September 30, 2022, the Company did not sell any shares under the LPC Purchase Agreement. During the nine months ended September 30, 2021, the Company sold 3,941,726 shares under the LPC Purchase Agreement for total proceeds of $9.1 million.

Note 10: Related-Party Transactions

MacAndrews & Forbes Incorporated

As of September 30, 2022, subsidiaries and affiliates of MacAndrews & Forbes Incorporated (collectively "MacAndrews") indirectly controlled 23,084,267 shares of the Company's Class B common stock and 36,519,212 shares of the Company's Class A common stock. As a result, MacAndrews' holdings represent approximately 57.0% of the combined voting power of the Company's outstanding common stock.

The Company has entered into several agreements with MacAndrews or its affiliates as further detailed below:

Letter Agreements

The Company has previously entered into the Letter Agreements with MacAndrews. Under the terms of the Letter Agreements, during the one year commitment period beginning on the date of each License Agreement, the Company had the right to sell to MacAndrews shares of its Class A common stock at a specified price per share, and MacAndrews had the right (exercisable up to three times) to require the Company to sell to it shares of Class A common stock at the same price. The commitment period of each of the Letter Agreements has now expired. In addition, in connection with and as a commitment fee for the entrance into certain of these Letter Agreements, the Company also issued MacAndrews warrants (the “Letter Agreement Warrants”) to purchase additional shares of the Company’s Class A common stock.

The Letter Agreement Warrants have been recorded as warrant liability, related party within the Company’s Condensed Consolidated Balance Sheets based on their fair value. The issuance of the Letter Agreement Warrants was considered to be a cost of equity recorded as a reduction to additional paid-in capital.

Exchange Agreement

The Company and MacAndrews are party to an exchange agreement (the “Exchange Agreement”) pursuant to which the vTv Units (along with a corresponding number of shares of the Class B common stock) are exchangeable for (i) shares of the Company’s Class A common stock on a one-for-one basis or (ii) cash (based on the fair market value of the Class A common stock as determined pursuant to the Exchange Agreement), at the Company’s option (as the managing member of vTv LLC), subject to customary conversion rate adjustments for stock splits, stock dividends and reclassifications. Any decision to require an exchange for cash rather than shares of Class A common stock will ultimately be determined by the entire board of directors of vTv Therapeutics Inc. (the “Board of Directors”). As of September 30, 2022, MacAndrews had not exchanged any shares under the provisions of the Exchange Agreement.

Tax Receivable Agreement

The Company and MacAndrews are party to a tax receivable agreement (the “Tax Receivable Agreement”), which provides for the payment by the Company to M&F TTP Holdings Two LLC (“M&F”), as successor in interest to vTv Therapeutics Holdings, LLC (“vTv Therapeutics Holdings”), and M&F TTP Holdings LLC (or certain of its transferees or other assignees) of 85% of the amount of cash savings, if any, in U.S. federal, state and local income tax or franchise tax that the Company actually realizes (or, in some circumstances, the Company is deemed to realize) as a result of (a) the exchange of Class B commons stock, together with the corresponding number of vTv Units, for shares of the Company’s Class A common stock (or for cash), (b) tax benefits related to imputed interest deemed to be paid by the Company as a result of the Tax Receivable Agreement and (c) certain tax benefits attributable to payments under the Tax Receivable Agreement.

As no shares have been exchanged by MacAndrews pursuant to the Exchange Agreement (discussed above), the Company has not recognized any liability, nor has it made any payments pursuant to the Tax Receivable Agreement as of September 30, 2022.

Investor Rights Agreement

The Company is party to an investor rights agreement with M&F, as successor in interest to vTv Therapeutics Holdings (the “Investor Rights Agreement”). The Investor Rights Agreement provides M&F with certain demand, shelf, and piggyback registration rights with respect to its shares of Class A common stock and also provides M&F with certain governance rights, depending on the size of its holdings of Class A common stock. Under the Investor Rights Agreement, M&F was initially entitled to nominate a majority of the members of the Board of Directors and designate the members of the committees of the Board of Directors.

CinRx Pharma, LLC

Master Services Agreement

On July 22, 2022, the Company entered into a Master Services Agreement with CinRx Pharma, LLC (“CinRx”) (the “CinRx MSA”). Under the CinRx MSA, CinRx provides the Company with consulting, pre-clinical and clinical trial services, as enumerated in project proposals negotiated between the Company and CinRx from time to time. As of October 10, 2022, the Company has agreed to pay CinRx fees of up to $0.2 million per month until approximately December 2024 in respect of ongoing agreed project proposals under the CinRx MSA, plus out-of-pocket expenses incurred by CinRx on the Company’s behalf. Dr. Jonathan Isaacsohn, who was appointed as chair of the Company’s board of directors on August 9, 2022, is the President and Chief Executive Officer of CinRx. CinPax, LLC, a subsidiary of CinRx, currently holds 4,154,549 shares of the Company’s Class A Common Stock.

Note 11: Income Taxes

The Company is subject to U.S. federal income taxes as well as state taxes. The Company did not record an income tax provision for the three months ended September 30, 2022. The Company's income tax provision for the nine months ended September 30, 2022, was $0.2 million related to foreign withholding taxes. The Company's income tax provision for the three and nine months ended September 30, 2021 was $0.1 million related to foreign withholding taxes.

Management has evaluated the positive and negative evidence surrounding the realization of its deferred tax assets, including the Company's history of losses, and under the applicable accounting standards determined that it is more-likely-than-not that the deferred tax assets will not be realized. The difference between the effective tax rate of the Company and the U.S. statutory tax rate of 21% on September 30, 2022, is due to the valuation allowance against the Company's expected net operating losses.

As discussed in Note 10, the Company is party to a tax receivable agreement with a related party which provides for the payment by the Company to M&F (or certain of its transferees or other assignees) of 85% of the amount of cash savings, if any, in U.S. federal, state and local income tax or franchise tax that the Company actually realizes (or, in some circumstances, the Company is deemed to realize) as a result of certain transactions. As no transactions have occurred which would trigger a liability under this agreement, the Company has not recognized any liability related to this agreement as of September 30, 2022.

Note 12: Net Loss per Share

Basic loss per share is computed by dividing net loss attributable to vTv Therapeutics Inc. by the weighted average number of shares of Class A common stock outstanding during the period. Diluted loss per share is computed giving effect to all potentially dilutive shares. Diluted loss per share for all periods presented is the same as basic loss per share as the inclusion of potentially issuable shares would be antidilutive.

A reconciliation of the numerator and denominator used in the calculation of basic and diluted net loss per share of Class A common stock is as follows (in thousands, except share and per share amounts):

	For the Three Months Ended September 30, 2022	For the Three Months Ended September 30, 2021	For the Nine Months Ended September 30, 2022	For the Nine Months Ended September 30, 2021
Numerator:				
Net loss	$ (5,468)	$ (1,465)	$ (18,983)	$ (8,248)
Less: Net loss attributable to noncontrolling interests	(1,207)	(378)	(4,564)	(2,312)
Net loss attributable to common shareholders of vTv Therapeutics Inc., basic and diluted	(4,261)	(1,087)	(14,419)	(5,936)
Denominator:				
Weighted average vTv Therapeutics Inc. Class A common stock, basic and diluted	80,490,121	61,073,280	72,649,531	58,737,170
Net loss per share of vTv Therapeutics Inc. Class A common stock, basic and diluted	$ (0.05)	$ (0.02)	$ (0.20)	$ (0.10)

Potentially dilutive securities not included in the calculation of diluted net loss per share are as follows:

	September 30, 2022	September 30, 2021
Class B common stock [(1)]	23,093,860	23,093,860
Common stock options granted under the Plan	7,718,944	4,474,403
Common stock warrants	3,214,503	2,014,503
Total	34,027,307	29,582,766

(1) Shares of Class B common stock do not share in the Company's earnings and are not participating securities. Accordingly, separate presentation of loss per share of Class B common stock under the two-class method has not been provided. Each share of Class B common stock (together with a corresponding vTv Unit) is exchangeable for one share of Class A common stock.

Note 13: Fair Value of Financial Instruments

The carrying amount of certain of the Company's financial instruments, including cash and cash equivalents, net accounts receivable, note receivable, accounts payable, and other accrued liabilities, approximate fair value due to their short-term nature.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The Company evaluates its financial assets and liabilities subject to fair value measurements on a recurring basis to determine the appropriate level in which to classify them for each reporting period. This determination requires significant judgments. The Company determined that the promissory note receivable was level 2 and the fair value measurement was based on the market yield curves. The following table summarizes the conclusions reached regarding fair value measurements as of September 30, 2022, and December 31, 2021 (in thousands):

	Balance at September 30, 2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Equity securities with readily determinable fair value	$ 1,930	$ 1,930	$ —	$ —
Total	$ 1,930	$ 1,930	$ —	$ —
Liabilities:				
Warrant liability, related party [(1)]	$ 1,409	$ —	$ —	$ 1,409
Total	$ 1,409	$ —	$ —	$ 1,409

	Balance at December 31, 2021	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Equity securities with readily determinable fair value	$ 4,928	$ 4,928	$ —	$ —
Total	$ 4,928	$ 4,928	$ —	$ —
Liabilities:				
Warrant liability, related party [(1)]	$ 1,262	$ —	$ —	$ 1,262
Total	$ 1,262	$ —	$ —	$ 1,262

(1) Fair value determined using the Black-Scholes option pricing model. Expected volatility is based on the historical volatility of the Company's common stock over the most recent period. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of valuation.

	Changes in Level 3 instruments for the nine months ended September 30,				
	Balance at January 1	Net Change in fair value included in earnings	Purchases / Issuance	Sales / Repurchases	Balance at September 30,
2022					
Warrant liability, related party	$ 1,262	$ (221)	$ 368	$ —	$ 1,409
Total	$ 1,262	$ (221)	$ 368	$ —	$ 1,409
2021					
Warrant liability, related party	$ 2,871	$ (611)	$ —	$ —	$ 2,260
Total	$ 2,871	$ (611)	$ —	$ —	$ 2,260

During the nine months ended September 30, 2021, Reneo completed its initial public offering. As a result, the fair value of the Company's investment in Reneo's common stock now has a readily determinable market value and is no longer eligible for the practical expedient for investments without readily determinable fair market values. As such, the Company's investment in Reneo is adjusted each reporting period to its fair value based on its most recent closing price, which is considered a Level 1 fair value measurement under the fair value hierarchy.

There were no transfers into or out of level 3 instruments and/or between level 1 and level 2 instruments during the three and nine months ended September 30, 2022. Gains and losses recognized due to the change in fair value of the warrant liability, related party are recognized as a component of other (expense) income, related party in the Condensed Consolidated Statements of Operations.

The fair value of the Letter Agreement Warrants was determined using the Black-Scholes option pricing model or option pricing models based on the Company's current capitalization. Expected volatility is based on the historical volatility of the Company's common stock over the most recent period. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of valuation. Significant inputs utilized in the valuation of the Letter Agreement Warrants as of September 30, 2022, and December 31, 2021, were:

	September 30, 2022		December 31, 2021	
	Range	Weighted Average	Range	Weighted Average
Expected volatility	81.70% - 109.73%	95.51%	82.68% - 142.86%	128.13%
Risk-free interest rate	4.13% - 4.25%	4.20%	0.95% - 1.26%	1.15%

The fair value of the CinRx Warrants was determined using the Black-Scholes option pricing model. Expected volatility is based on the historical volatility of the Company's common stock over the most recent period. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of valuation. Significant inputs utilized in the valuation of the CinRx Warrants as of September 30, 2022, were:

Expected volatility	85.2 %
Expected life of options in years	3.1
Risk-free interest rate	4.3 %
Expected dividend yield	— %

The weighted average expected volatility and risk-free interest rate was based on the relative fair values of the warrants.

Changes in the unobservable inputs noted above would impact the amount of the liability for the Letter Agreement and CinRx Warrants. Increases (decreases) in the estimates of the Company's annual volatility would increase (decrease) the liability and an increase (decrease) in the annual risk-free rate would increase (decrease) the liability.

Note 14: Subsequent Events

The Company evaluated subsequent events through November 10, 2022, and determined that there have been no events that have occurred that would require adjustments to our disclosures or the unaudited condensed consolidated financial statements.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

As used in this Quarterly Report on Form 10-Q, the "Company", the "Registrant", "we" or "us" refer to vTv Therapeutics Inc. and "vTv LLC" refers to vTv Therapeutics LLC. The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and related notes that appear elsewhere in this report. In addition to historical financial information, the following discussion contains 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 elsewhere in this report under "Part II, Other Information—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 of this report. 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.

Company Overview

We are a clinical stage pharmaceutical company focused on treating metabolic and inflammatory diseases to minimize their long-term complications and improve the lives of patients. We have an innovative pipeline of first-in-class small molecule clinical and preclinical drug candidates. Our lead program is *TTP399*, an orally administered, small molecule, liver-selective glucokinase activator ("GKA") for the treatment of type 1 diabetes.

Recent Developments

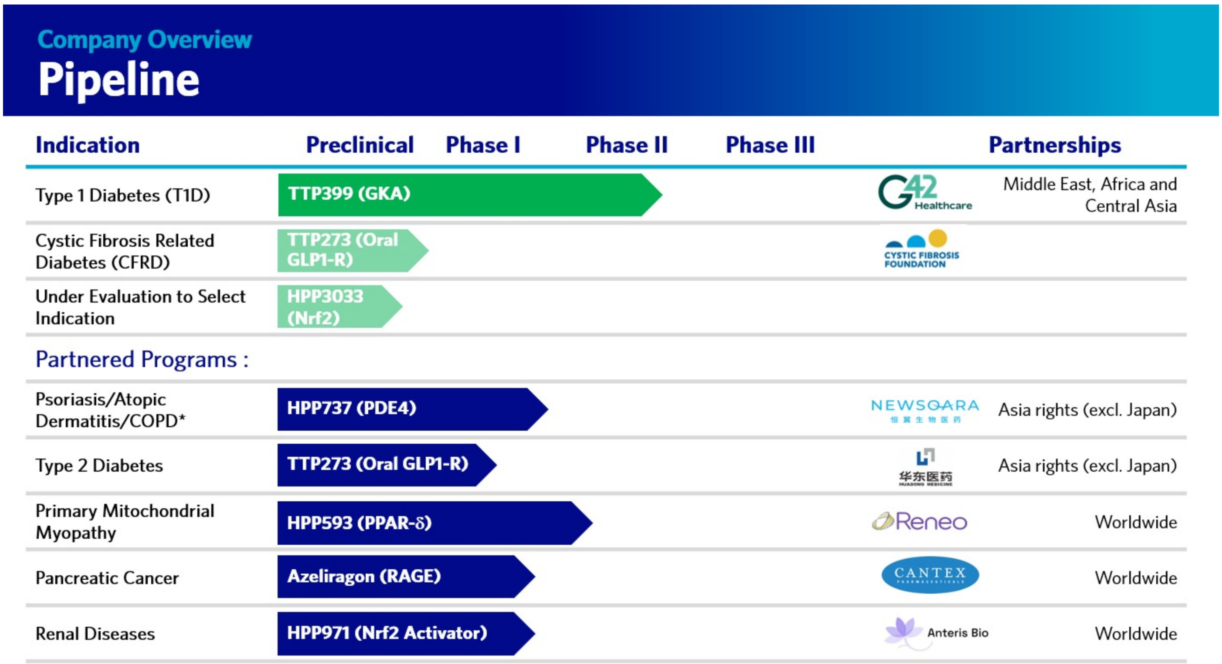
On July 27, 2022, the Company appointed Paul Sekhri as President, Chief Executive Officer (CEO) effective August 1, 2022, and was confirmed as a member of the board of directors on August 9, 2022. Mr. Sekhri brings nearly 30 years of healthcare experience, including serving as President and CEO of several healthcare companies, experience in several senior business development and strategy roles and he has been a director on more than 30 private, public company and non-profit boards.

Based upon the positive results of our Simplici-T1 Study, we requested Breakthrough Therapy Designation ("BTD") with the FDA which was granted in April 2021. In October 2021, we began to implement a strategy to focus our efforts on the continued development of *TTP399* as a potential treatment for patients with type 1 diabetes ("T1D").

After several meetings with the FDA BTD-team, the Company is planning two pivotal, placebo-controlled clinical trials of *TTP399* in subjects with T1D. The studies will recruit a total of approximately 1,000 patients and at least one of the studies will be one year of treatment. The FDA confirmed that the effect size of *TTP399* on events of hypoglycemia as demonstrated in the Phase 2 SimpliciT-1 Study is clinically meaningful and has agreed on the primary endpoint for the studies as the difference between placebo and *TTP399*-treated group in number of hypoglycemia events.

The results of the mechanistic study provided additional evidence to support the idea that treatment with *TTP399* will not increase the risk of diabetic ketoacidosis ("DKA") in patients with T1D. The data demonstrate that in contrast to agents such as SGLT2 inhibitors and GLP-1RAs, *TTP399* does not increase the risk of ketoacidosis when used as an adjunctive therapy to insulin in individuals with T1D. Moreover, these findings support prior studies that demonstrate that *TTP399* improves glucose control and reduces hypoglycemia and suggests a protective effect of *TTP399* against acidosis in people with T1D. Thus, accumulating data suggest that *TTP399* has robust potential as an adjunctive therapy for T1D. Full study results were published in the *Diabetes Obesity and Metabolism* journal in conjunction with the 82nd American Diabetes Association Scientific Sessions on June 6, 2022.

The following table summarizes our drug candidates, their partnership status, and their respective stages of development:



* Chronic obstructive pulmonary disease

Our Type 1 Diabetes Program – *TTP399*

The Company is planning two pivotal, placebo-controlled clinical trials of *TTP399* in subjects with T1D and has engaged with the FDA on the optimal clinical trial designs for these studies. The studies will recruit a total of approximately 1000 patients and at least one of the studies will be one year of treatment. The FDA and the company have agreed on the primary endpoint for the studies as the difference between placebo and *TTP399*-treated group in number of hypoglycemia events. We expect site-specific startup activities and patient enrollment for these pivotal studies to begin in the first quarter of 2023.

In October 2021, we announced positive results of a mechanistic study of *TTP399* in patients with T1D. The study demonstrated that patients with T1D taking *TTP399* experienced no increase in ketone levels relative to placebo during a period of acute insulin withdrawal, indicating no increased risk of ketoacidosis. Consistent with previous clinical studies, improved fasting plasma glucose levels and fewer hypoglycemic events were observed in the *TTP399* treated group during the week of treatment prior to the insulin withdrawal test. The FDA has declined to approve SGLT2 inhibitors as an adjunctive therapy in T1D, with concerns over the potential risks of diabetic ketoacidosis (“DKA”) in focus. DKA can lead to hospitalization and, if untreated, death. To address these concerns, vTv, following the FDA’s recommendation, conducted this mechanistic study to demonstrate that treatment with *TTP399*, a liver-selective glucokinase activator, will not result in increased production of ketones, a precursor to ketoacidosis.

In April 2021, we announced that the FDA granted BTD for *TTP399* as an adjunctive therapy to insulin for the treatment of T1D. This designation provides a sponsor with added support and the potential to expedite development and review timelines for a promising new investigational medicine.

G42 Investments

On May 31, 2022, the Company announced entry into agreements that include a $25.0 million investment by G42 Investments. Under the terms of the agreements, the Company agreed to sell G42 Investments 10,386,274 shares of the Company’s Class A common stock at an issue price of $2.41 per share, with $12.5 million paid in cash at closing, and the remaining amount of $12.5 million payable on May 31, 2023. The agreements also provide for the potential issuance of $30.0 million in additional shares of Class A common stock to G42 Investments (or cash in lieu of such issuance at the option of G42 Investments) if the FDA approves the marketing and sale of a pharmaceutical product containing *TTP399*, a liver selective glucokinase activator, as the active ingredient for treatment of T1D in the United States. The agreements set forth the terms under which the Company and Cogna, an affiliate of G42 Investments, plan to collaborate on clinical trials for pharmaceutical products that contain *TTP399*, including Cogna funding a portion of the Phase 3 clinical trials for *TTP399*, and the Company granting Cogna an exclusive license to develop and commercialize pharmaceutical products containing *TTP399* in a specified territory, principally consisting of the Middle East, Africa and Central Asia.

CinRx Purchase Agreement

On July 25, 2022, the Company announced entry into agreements that include a $10 million investment by CinPax, LLC (“CinPax”), a subsidiary of CinRx Pharma, LLC (“CinRx”). Under the terms of the agreements, CinPax acquired 4,154,549 shares of Class A Common Stock of vTv at an issue price of approximately $2.41 per share, with $6.0 million paid in cash at closing, and the remaining amount of $4.0 million payable on November 22, 2022. The agreements also provide for the issuance of 1,200,000 warrants to CinRx to acquire additional shares of Class A common stock that become exercisable upon agreed vesting triggers (including FDA approval of *TTP399*). In addition to the investment, the Company and CinRx entered into a Master Service Agreement (“MSA”) whereby CinRx provides the Company with consulting, pre-clinical and clinical trial services, as enumerated in project proposals negotiated between the Company and CinRx from time to time.

Holding Company Structure

vTv Therapeutics Inc. is a holding company, and its principal asset is a controlling equity interest in vTv Therapeutics LLC, the principal operating subsidiary. We have determined that vTv LLC is a variable-interest entity (“VIE”) for accounting purposes and that vTv Therapeutics Inc. is the primary beneficiary of vTv LLC because (through its managing member interest in vTv LLC and the fact that the senior management of vTv Therapeutics Inc. is also the senior management of vTv LLC) it has the power to direct all of the activities of vTv LLC, which include those that most significantly impact vTv LLC’s economic performance. vTv Therapeutics Inc. has therefore consolidated vTv LLC’s results under the VIE accounting model in its consolidated financial statements.

Financial Overview

Revenue

To date, we have not generated any revenue from drug sales. Our revenue has been primarily derived from up-front proceeds, milestones and research fees under collaboration and license agreements.

In the future, we may generate revenue from a combination of product sales, license fees, milestone payments and royalties from the sales of products developed under licenses of our intellectual property. We expect that any revenue we generate will fluctuate from quarter to quarter as a result of the timing and amount of license fees, milestone and other payments, and the amount and timing of payments that we receive upon the sale of our products, to the extent any are successfully commercialized. If we fail to complete the development of our drug candidates in a timely manner or obtain regulatory approval for them, our ability to generate future revenue and our results of operations and financial position will be materially adversely affected.

Research and Development Expenses

Since our inception, we have focused our resources on our research and development activities, including conducting preclinical studies and clinical trials, manufacturing development efforts, and activities related to regulatory filings for our drug candidates. We recognize research and development expenses as they are incurred. Our direct research and development expenses consist primarily of external costs such as fees paid to investigators, consultants, central laboratories, and clinical research organizations (“CRO(s)”) in connection with our clinical trials, and costs related to acquiring and manufacturing clinical trial materials. Our indirect research and development costs consist primarily of cash and share-based compensation costs, the cost of employee benefits, and related overhead expenses for personnel in research and development functions. Since we typically use our employee and infrastructure resources across multiple research and development programs such costs are not allocated to the individual projects.

From our inception, including our predecessor companies, through September 30, 2022, we have incurred approximately $608.5 million in research and development expenses.

Our research and development expenses by project for the three and nine months ended September 30, 2022, and 2021 were as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Direct research and development expense:				
TTP399	$ 2,309	$ 729	$ 6,438	$ 1,365
HPP737	(111)	482	(66)	2,249
Azeliragon	52	—	—	887
Other projects	232	97	483	329
Indirect research and development expense	573	1,074	1,538	3,092
Total research and development expense	$ 3,055	$ 2,382	$ 8,393	$ 7,922

We plan to continue to incur significant research and development expenses for the foreseeable future as we continue the development of *TTP399* and further advance the development of our other drug candidates, subject to the availability of additional funding.

The successful development of our clinical and preclinical drug candidates is highly uncertain. At this time, we cannot reasonably estimate the nature, timing, or costs of the efforts that will be necessary to complete the remainder of the development of any of our clinical or preclinical drug candidates or the period, if any, in which material net cash inflows from these drug candidates may commence. This is due to the numerous risks and uncertainties associated with the development of our drug candidates, including:

- the uncertainty of the scope, rate of progress, and expense of our ongoing, as well as any additional, clinical trials and other research and development activities;
- the potential benefits of our candidates over other therapies;
- our ability to market, commercialize, and achieve market acceptance for any of our drug candidates that we are developing or may develop in the future;
- future clinical trial results;
- our ability to enroll patients in our clinical trials;
- the timing and receipt of any regulatory approvals; and
- the filing, prosecuting, defending, and enforcing of patent claims and other intellectual property rights, and the expense of doing so.

A change in the outcome of any of these variables with respect to the development of a drug candidate could mean a significant change in the costs and timing associated with the development of that drug candidate. For example, if the FDA or another regulatory authority were to require us to conduct clinical trials beyond those that we currently anticipate will be required for the completion of clinical development of a drug candidate, or if we experience significant delays in enrollment in any of our clinical trials, we could be required to expend significant additional financial resources and time with respect to the development of that drug candidate.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries, benefits, and related costs for employees in executive, finance, corporate development, human resources, and administrative support functions. Other significant general and administrative expenses include accounting and legal services, expenses associated with obtaining and maintaining patents, cost of various consultants, occupancy costs, and information systems.

Interest Income

The Company’s interest expense is immaterial.

Interest Expense

The Company’s interest expense is immaterial.

Other Income (Expense), Net

Other income/expense primarily consists of unrealized gains or losses attributable to the changes in fair value of the equity investments held by our licensees, as well as the recognition of changes in fair value of the warrants to purchase shares of our Class A common stock held by related parties.

Results of Operations

Comparison of the three months ended September 30, 2022, and 2021

The following table sets forth certain information concerning our results of operations for the periods shown:

(dollars in thousands)	**Three Months Ended September 30,**		
Statement of operations data:	**2022**	**2021**	**Change**
Revenue	$ —	$ 3,000	$ (3,000)
Operating expenses:			
Research and development	3,055	2,382	673
General and administrative	2,634	2,221	413
Total operating expenses	5,689	4,603	1,086
Operating loss	(5,689)	(1,603)	(4,086)
Interest income	150	—	150
Interest expense	(8)	(6)	(2)
Other income, net	79	244	(165)
Loss before income taxes	(5,468)	(1,365)	(4,103)
Income tax provision	—	100	(100)
Net loss before noncontrolling interest	(5,468)	(1,465)	(4,003)
Less: Net loss attributable to noncontrolling interest	(1,207)	(378)	(829)
Net loss attributable to vTv Therapeutics Inc.	$ (4,261)	$ (1,087)	$ (3,174)

Revenue

There was no revenue for the three months ended September 30, 2022. Revenue for the three months ended September 30, 2021, included increases to the transaction prices for the license performance obligations under the license agreement with Newsoara Biopharma Co., Ltd., (“Newsoara”) (the “Newsoara License Agreement”) and Reneo Pharmaceuticals, Inc. (“Reneo) (the “Reneo License agreement”) due to the satisfaction of development milestones.

Research and Development Expenses

Research and development expenses were $3.1 million and $2.4 million for the three months ended September 30, 2022, and 2021, respectively. The increase in research and development expenses during this period of $0.7 million or 28.3%, was primarily driven by i) higher spending on *TTP399* of $1.6 million, due to increases in drug product related costs as well as higher spending on trial preparation costs, partially offset by ii) decreased spending of $0.6 million related to the multiple ascending dose study for *HPP737*, due to its completion in 2021 and iii) decreases in indirect costs and other projects of $0.3 million.

General and Administrative Expenses

General and administrative expenses were $2.6 million and $2.2 million for the three months ended September 30, 2022, and 2021, respectively. The increase in general and administrative expenses during this period of $0.4 million, or 18.6%, was primarily driven by i) increases of $0.5 million in legal expense, ii) increases of $0.4 million other general and administrative costs, partially offset by iii) decreases in payroll costs of $0.5 million due to the reduction in workforce at year-end 2021.

Interest income

Interest income for the three months ended September 30, 2022, of $0.2 million is related to imputed interest on the promissory notes. Interest income for the three months ended September 30, 2021, was insignificant.

Interest Expense

Interest expense for the three months ended September 30, 2022, and 2021, was insignificant.

Other (Expense) / Income

Other expense was $0.1 million for the three months ended September 30, 2022, and was driven by an unrealized gain related to our investment in Reneo as well as the losses related to the change in the fair value of the outstanding warrants to purchase shares of our own stock issued to related parties ("Related Party Warrants"). Other income was $0.2 million for the three months ended September 30, 2021, and was related to the unrealized loss recognized related to our investment in Reneo as well as gains related to the change in the fair value of the outstanding warrants in our own stock held by a related party.

Comparison of the nine months ended September 30, 2022, and 2021

The following table sets forth certain information concerning our results of operations for the periods shown:

(dollars in thousands)	**Nine Months Ended September 30,**		
Statement of operations data:	**2022**	**2021**	**Change**
Revenue	$ 2,009	$ 3,996	$ (1,987)
Operating expenses:			
Research and development	8,393	7,922	471
General and administrative	9,813	6,627	3,186
Total operating expenses	18,206	14,549	3,657
Operating loss	(16,197)	(10,553)	(5,644)
Interest income	200	1	199
Interest expense	(9)	(6)	(3)
Other (expense) income, net	(2,777)	2,425	(5,202)
Loss before income taxes	(18,783)	(8,133)	(10,650)
Income tax provision	200	115	85
Net loss before noncontrolling interest	(18,983)	(8,248)	(10,735)
Less: Net loss attributable to noncontrolling interest	(4,564)	(2,312)	(2,252)
Net loss attributable to vTv Therapeutics Inc.	$ (14,419)	$ (5,936)	$ (8,483)

Revenue

Revenue for the nine months ended September 30, 2022, includes a $2.0 million increase to the transaction price for the license performance obligations under the amended license agreement with Huadong due to the satisfaction of a development milestone. Revenue for the nine months ended September 30, 2021, relates to the reallocation of revenue to the license and technology transfer performance obligation made in connection with the First Huadong Amendment as well as increases to the transaction prices for the license performance obligations under the Newsoara License Agreement and the Reneo License Agreement due to the satisfaction of development milestones.

Research and Development Expenses

Research and development expenses were $8.4 million and $7.9 million for the nine months ended September 30, 2022, and 2021, respectively. The increase in research and development expenses during the period of $0.5 million, or 5.9%, was primarily driven by i) higher spending on *TTP399* of $5.1 million due to increases in drug product related costs as well as higher spending on trial preparation costs, partially offset by ii) a decrease in clinical trial costs of $0.8 million for *azeliragon* which was driven by discontinuance of its development as a potential treatment of Alzheimer's disease in patients with type 2 diabetes, iii) decreased spending of $2.3 million related to the multiple ascending dose study for *HPP737*, due to its completion in 2021, and iii) decreases in indirect costs of $1.5 million primarily related to payroll costs due to the reduction in workforce at year-end of 2021.

General and Administrative Expenses

General and administrative expenses were $9.8 million and $6.6 million for the nine months ended September 30, 2022, and 2021, respectively. The increase of $3.2 million has been primarily driven by i) increases of $3.2 million in legal expense, ii) increases of $0.8 million in severance costs, iii) increases of $1.0 million in other general and administrative costs, partially offset by iv) decreases of $0.1 million in shared based expense, and v) decreases of $1.7 million in payroll costs due to the reduction in workforce at year-end of 2021.

Interest income

Interest income for the nine months ended September 30, 2022, of $0.2 million is related to imputed interest on the promissory note. Interest income for the nine months ended September 30, 2021, was insignificant.

Interest Expense

Interest expense for the nine months ended September 30, 2022, and 2021, was insignificant.

Other Income / (Expense)

Other expense was $2.8 million for the nine months ended September 30, 2022, and is driven by an unrealized loss recognized related to the Company’s investment in Reneo as well as the losses related to the change in the fair value of the outstanding warrants to purchase shares of our own stock issued to related parties. Other income was $2.4 million for the nine months ended September 30, 2021, and was driven by an unrealized gain recognized related to the Company’s investment in Reneo as well as gains related to the change in fair value of the outstanding warrants in our own stock held by a related party.

Liquidity and Capital Resources

Liquidity and Going Concern

As of September 30, 2022, we have an accumulated deficit of $267.1 million as well as a history of negative cash flows from operating activities. We anticipate that we will continue to incur losses for the foreseeable future as we continue our clinical trials. Further, we expect that we will need additional capital to continue to fund our operations. As of September 30, 2022, our liquidity sources included cash and cash equivalents of $15.3 million. In addition to available cash and cash equivalents discussed above, we are evaluating several financing strategies to fund the on-going and future clinical trials of *TTP399*, including direct equity investments and the potential licensing and monetization of other Company programs such as *HPP737*. The Company has a promissory note of $12.5 million under the G42 Purchase Agreement payable to the Company on or before May 31, 2023, and a promissory note of $4.0 million under the CinRx Purchase Agreement payable to the Company on November 22, 2022 (see Note 9).

Based on our current operating plan, we may use the remaining availability of $37.3 million under our Sales Agreement with Cantor Fitzgerald pursuant to which we could offer and sell, from time to time, shares of our Class A common stock under the ATM Offering and our ability to sell approximately 9.4 million shares of Class A common stock to Lincoln Park pursuant and subject to the limitations of the LPC Purchase Agreement. However, the ability to use these sources of capital is dependent on a number of factors, including the prevailing market price of and the volume of trading in our Class A common stock. These factors raise substantial doubt about our ability to continue as a going concern.

ATM Offering

We have entered into the Sales Agreement with Cantor Fitzgerald pursuant to which we may offer and sell, from time to time, through or to Cantor Fitzgerald, as sales agent or principal, shares of our Class A common stock having an aggregate offering price of up to $68.5 million. We are not obligated to sell any shares under the Sales Agreement. Under the terms of the Sales Agreement, we will pay Cantor Fitzgerald a commission of up to 3% of the aggregate proceeds from the sale of shares and reimburse certain legal fees or other disbursements. As of September 30, 2022, we have sold $31.2 million worth of Class A common stock under the ATM Offering for net proceeds of $30.3 million, leaving $37.3 million available to be sold. The shares are offered and sold pursuant to the Company’s shelf registration statement on Form S-3. In no event will we sell Class A common stock under this registration statement with a value exceeding more than one-third of the “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 million.

Lincoln Park Purchase Agreement

We have entered into the LPC Purchase Agreement, pursuant to which we have the right to sell to Lincoln Park shares of the Company’s Class A common stock having an aggregate value of up to $47.0 million. As of September 30, 2022, we have issued 5,331,306 of these shares for gross proceeds of approximately $11.1 million, leaving $35.9 million available to be sold.

Over the 36-month term of the LPC Purchase Agreement, we have the right, but not the obligation, from time to time, in our sole discretion, to direct Lincoln Park to purchase up to 250,000 shares per day (the “Regular Purchase Share Limit”) of the Class A common stock (each such purchase, a “Regular Purchase”). The Regular Purchase Share Limit will increase to 275,000 shares per day if the closing price of the Class A common stock on the applicable purchase date is not below $4.00 per share and will further increase to 300,000 shares per day if the closing price of the Class A common stock on the applicable purchase date is not below $5.00 per share. In any case, Lincoln Park’s maximum obligation under any single Regular Purchase will not exceed $2,000,000. The purchase price for shares of Class A common stock to be purchased by Lincoln Park under a Regular Purchase will be equal to the lower of (in each case, subject to the adjustments described in the LPC Purchase Agreement): (i) the lowest sale price for the Class A common stock on the applicable purchase date and (ii) the arithmetic average of the three lowest closing sales prices for the Class A common stock during the 10 consecutive trading days prior to the purchase date.

If we direct Lincoln Park to purchase the maximum number of shares of Class A common stock that we may sell in a Regular Purchase, then in addition to such Regular Purchase, and subject to certain conditions and limitations in the LPC Purchase Agreement, we may direct Lincoln Park to make an “accelerated purchase” and an “additional accelerated purchase”, each of an additional number of shares of Class A common stock which may not exceed the lesser of: (i) 300% of the number of shares purchased pursuant to the corresponding Regular Purchase and (ii) 30% of the total number of shares of the common stock traded during a specified period on the applicable purchase date as set forth in the LPC Purchase Agreement. The purchase price for such shares will be the lesser of (i) 97% of the volume weighted average price of the Class A common stock over a certain portion of the date of sale as set forth in the LPC Purchase Agreement and (ii) the closing sale price of the Class A common stock on the date of sale (an “Accelerated Purchase”). Under certain circumstances and in accordance with the LPC Purchase Agreement, we may direct Lincoln Park to purchase shares in multiple Accelerated Purchases on the same trading day.

The LPC Purchase Agreement also prohibits us from directing Lincoln Park to purchase any shares of its Class A common stock if those shares, when aggregated with all other shares of Class A common stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park and its affiliates having beneficial ownership, at any single point in time, of more than 9.99% of the then total outstanding shares of Class A common stock as calculated pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended, and Rule 13d-3 thereunder.

Cash Flows

	Nine Months Ended September 30,	
	2022	**2021**
(dollars in thousands)		
Net cash used in operating activities	$ (9,142)	$ (12,891)
Net cash used in investing activities	(21)	—
Net cash provided by financing activities	11,087	26,710
Net increase in cash and cash equivalents	$ 1,924	$ 13,819

Operating Activities

For the nine months ended September 30, 2022, our net cash used in operating activities decreased by $3.7 million from the nine months ended September 30, 2021. The significant contributor to the change in cash used during the year was driven by working capital changes offset by $6.8 million of cash received in excess of the fair value of the Class A common stock issued to G42 investments.

Investing Activities

For the nine months ended September 30, 2022, net cash used in investing activities was insignificant. There were no cash flows from investing activities for the nine months ended September 30, 2021.

Financing Activities

For the nine months ended September 30, 2022, net cash provided by financing activities was driven by sales of our Class A common stock to a collaboration partner and from the CinRx Purchase Agreement. For the nine months ended September 30, 2021, net cash provided by financing activities was driven by sales of shares of our Class A common stock during the nine months ended September 30, 2021.

Future Funding Requirements

To date, we have not generated any revenue from drug product sales. We do not know when, or if, we will generate any revenue from drug product sales. We do not expect to generate revenue from drug sales unless and until we obtain regulatory approval of and commercialize any of our drug candidates. At the same time, we expect our expenses to continue or to increase in connection with our ongoing development activities, particularly as we continue the research, development, and clinical trials of, and seek regulatory approval for, our drug candidates. In addition, subject to obtaining regulatory approval of any of our drug candidates, we expect to incur significant commercialization expenses for product sales, marketing, manufacturing, and distribution. We anticipate that we will need substantial additional funding in connection with our continuing operations.

We plan to finance our operations into the third quarter of 2023 through the use of our cash and cash equivalents and based on current operating plans, we are evaluating several financing strategies to fund the on-going and future clinical trials of *TTP399*, including direct equity investments and the potential licensing and monetization of other Company programs such as *HPP737*. The Company has a promissory note of $12.5 million under the G42 Purchase Agreement payable to the Company on or before May 31, 2023, and a promissory note of $4.0 million under the CinRx Purchase Agreement payable to the Company on November 22, 2022 (see Note 9). The timing of any such transactions is not certain, and we may not be able to complete such transactions on acceptable terms, or at all. Even if we are able to complete such transactions, it may contain restrictions on our operations or cause substantial dilution to our stockholders. We have based our estimates on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect. We have based our estimates on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of our drug candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures necessary to complete the development of our drug candidates. Additionally, we may rely on our ability to sell shares of our Class A common stock pursuant to the ATM Offering and LPC Purchase Agreement. However, the ability to use these sources of capital is dependent on a number of factors, including the prevailing market price of and the volume of trading in the Company’s Class A common stock, and we may use our available capital resources sooner than we currently expect.

Our future capital requirements will depend on many factors, including:

- The progress, costs, results, and timing of our planned trials to evaluate *TTP399* as a potential treatment of T1D;
- the willingness of the FDA to rely upon our completed and planned clinical and preclinical studies and other work, as the basis for review and approval of our drug candidates;
- the outcome, costs, and timing of seeking and obtaining FDA and any other regulatory approvals;
- the number and characteristics of drug candidates that we pursue, including our drug candidates in preclinical development;
- the ability of our drug candidates to progress through clinical development successfully;
- our need to expand our research and development activities;
- the costs associated with securing, establishing, and maintaining commercialization capabilities;
- the costs of acquiring, licensing, or investing in businesses, products, drug candidates and technologies;
- our ability to maintain, expand and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make, or that we may receive, in connection with the licensing, filing, prosecution, defense and enforcement of any patents or other intellectual property rights;
- our need and ability to hire additional management and scientific and medical personnel;
- the effect of competing technological and market developments;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems;
- the economic and other terms, timing and success of our existing licensing arrangements and any collaboration, licensing, or other arrangements into which we may enter in the future;
- the amount of any payments we are required to make to M&F TTP Holdings Two LLC in the future under the Tax Receivable Agreement; and
- the impact and duration of the COVID-19 outbreak / pandemic.

Until such time, if ever, as we can generate substantial revenue from drug sales, we expect to finance our cash needs through a combination of equity offerings, debt financings, marketing and distribution arrangements and other collaborations, strategic alliances, and licensing arrangements. We currently have committed external source of funds available through the ATM Offering, LPC Purchase Agreement and Promissory Notes under the G42 Purchase Agreement and the CinRx Purchase Agreement.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of our common stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. Debt financing and preferred equity financing, if available, may involve agreements that include covenants that will further limit or restrict our ability to take specific actions, such as incurring additional debt, making capital expenditures, or declaring dividends. If we raise additional funds through collaborations, strategic alliances or marketing, distribution, or licensing arrangements with third parties, we may be required to relinquish valuable rights to our technologies, future revenue streams or drug candidates or grant licenses on terms that may not be favorable to us. If we are unable to obtain additional funding, we could be forced to delay, reduce, or eliminate our research and development programs or commercialization efforts, or pursue one or more alternative strategies, such as restructuring, any of which could adversely affect our business prospects.

Off-Balance Sheet Arrangements

As of September 30, 2022, we did not have outstanding any off-balance sheet arrangements as defined under SEC rules.

Discussion of Critical Accounting Policies

For a discussion of our critical accounting policies and estimates, please refer to Part II, Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Annual Report on Form 10-K for the year ended December 31, 2021. There have been no material changes to our critical accounting policies and estimates in 2022.

Forward-Looking Statements

This quarterly report includes certain forward-looking statements within the meaning of the federal securities laws regarding, among other things, our management’s intentions, plans, beliefs, expectations, or predictions of future events, which are considered forward-looking statements. You should not place undue reliance on those statements because they are subject to numerous uncertainties and factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control. Forward-looking statements include information concerning our possible or assumed future results of operations, including descriptions of our business strategy. These statements often include words such as “may,” “will,” “should,” “believe,” “expect,” “outlook”, “anticipate,” “intend,” “plan,” “estimate” or similar expressions. These statements are based upon assumptions that we have made in light of our experience in the industry, as well as our perceptions of historical trends, current conditions, expected future developments and other factors that we believe are appropriate under the circumstances. As you read this quarterly report, you should understand that these statements are not guarantees of performance or results. They involve known and unknown risks, uncertainties, and assumptions, including those described under the heading “Risk Factors” under Item 1A of Part I in our Annual Report on Form 10-K and under Item 1A of Part II of this Quarterly Report on Form 10-Q. Although we believe that these forward-looking statements are based upon reasonable assumptions, you should be aware that many factors, including those described under the heading “Risk Factors” under Item 1A of Part I in our Annual Report on Form 10-K and under Item 1A of Part II of this Quarterly Report on Form 10-Q, could affect our actual financial results or results of operations and could cause actual results to differ materially from those in the forward-looking statements.

Our forward-looking statements made herein are made only as of the date of this quarterly report. We expressly disclaim any intent, obligation or undertaking to update or revise any forward-looking statements made herein to reflect any change in our expectations with regard thereto or any change in events, conditions, or circumstances on which any such statements are based. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements contained in this quarterly report.

Effect of Recent Accounting Pronouncements

See discussion of recent accounting pronouncements in Note 2, “Summary of Significant Accounting Policies”, to the Condensed Consolidated Financial Statements in this Form 10-Q.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

We do not currently have any material interest rate exposure.

Market Risk

Our exposure to market risk is limited to our cash and cash equivalents, all of which have maturities of one year or less. The goals of our investment strategy are preservation of capital, fulfillment of liquidity needs and fiduciary control of cash and investments. We also seek to maximize income from our investments without assuming significant risk. To achieve our goals, we maintain a portfolio of cash equivalents in a financial institution that management believes to be of high credit quality. Because of the short-term maturities of our investments, we do not believe that an increase in market rates would have a material negative impact on the value of our investment portfolio.

Foreign Currency Risk

We do not have any material foreign currency exposure.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our Chief Executive Officer and Chief Accounting Officer, management has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) of the Securities Exchange Act of 1934) as of September 30, 2022. Based upon that evaluation, our Chief Executive Officer and Chief Accounting Officer concluded that, as of September 30, 2022, our disclosure controls and procedures were effective in causing material information relating to us (including our consolidated subsidiaries) to be recorded, processed, summarized, and reported by management on a timely basis and to ensure the quality and timeliness of our public disclosures pursuant to SEC disclosure obligations.

Our management, including our Chief Executive Officer and Chief Accounting Officer, does not expect that our disclosure controls and procedures will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, with the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error and mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of controls.

The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, a control may become inadequate because of changes in conditions or because the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and may not be detected.

Changes to Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Website Availability of Reports and other Corporate Governance Information

The Company maintains a comprehensive corporate governance program, including Corporate Governance Guidelines for its Board of Directors, Board Guidelines for Assessing Director Independence, and charters for its Audit Committee, Nominating and Corporate Governance Committee and Compensation Committee. The Company maintains a corporate investor relations website, www.vtvtherapeutics.com, where stockholders and other interested persons may review, without charge, among other things, corporate governance materials and certain SEC filings, which are generally available on the same business day as the filing date with the SEC on the SEC's website http://www.sec.gov. The contents of our website are not made a part of this Quarterly Report on Form 10-Q.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We are not currently a party to any material legal proceedings.

ITEM 1A. RISK FACTORS

Our risk factors are set forth under the heading "Risk Factors" under Item 1A of Part I in our Annual Report on Form 10-K for the year ended December 31, 2021. There have been no material changes to our risk factors from those previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2021.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

During the three months ended September 30, 2022, the Company issued the following unregistered securities:

In July 2022, the Company sold 4,154,549 shares of the Company's Class A common stock at a price per share of approximately $2.41, for an aggregate purchase price of $10.0 million.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

None.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Description
31.1*	Certification of President and Chief Executive Officer required by Rule 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Accounting Officer required by Rule 13a-14(a)/15d-14(a) under the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of President and Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Chief Accounting Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase
101.DEF	Inline XBRL Taxonomy Extension Definition Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

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

* Filed herewith

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: November 10, 2022

VTV THERAPEUTICS INC.
(Registrant)

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

By: /s/ Barry Brown
Barry Brown
Chief Accounting Officer

Exhibit 31.1

SECTION 302 CERTIFICATION

I, Paul J. Sekhri, certify that:

1. I have reviewed this quarterly report on Form 10-Q of vTv Therapeutics Inc. (the “registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Securities Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: November 10, 2022

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

Exhibit 31.2

SECTION 302 CERTIFICATION

I, Barry Brown, certify that:

1. I have reviewed this quarterly report on Form 10-Q of vTv Therapeutics Inc. (the "registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Securities Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 10, 2022

By: /s/ Barry Brown

Barry Brown

Chief Accounting Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of vTv Therapeutics Inc. (the “Company”) on Form 10-Q for the period ended September 30, 2022, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Paul J. Sekhri, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, in my capacity as an officer of the Company that, to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 10, 2022

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

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of vTv Therapeutics Inc. (the "Company") on Form 10-Q for the period ended September 30, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Barry Brown, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, in my capacity as an officer of the Company that, to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 10, 2022

By: /s/ Barry Brown
Barry Brown
Chief Financial Officer