

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

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended March 31, 2020

Or

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
(State or other jurisdiction of
incorporation or organization)
3980 Premier Dr, Suite 310
High Point, NC
(Address of principal executive offices)

47-3916571
(I.R.S. Employer
Identification No.)

27265
(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 No

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 No

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 Accelerated filer
Non-accelerated filer Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

Class of Stock	Shares Outstanding as of May 7, 2020
Class A common stock, par value \$0.01 per share	44,680,189
Class B common stock, par value \$0.01 per share	23,094,221

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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)

	March 31, 2020 (Unaudited)	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	\$ 406	\$ 1,777
Restricted cash and cash equivalents	2,500	—
Accounts receivable, net	5	5
Prepaid expenses and other current assets	591	806
Current deposits	—	250
Total current assets	3,502	2,838
Restricted cash and cash equivalents, long-term	—	2,500
Property and equipment, net	434	461
Operating lease right-of-use assets	529	543
Long-term investments	2,480	2,480
Long-term deposits	444	444
Total assets	\$ 7,389	\$ 9,266
Liabilities, Redeemable Noncontrolling Interest and Stockholders' Deficit		
Current liabilities:		
Accounts payable and accrued expenses	\$ 7,395	\$ 7,068
Current portion of operating lease liabilities	136	110
Current portion of contract liabilities	31	31
Current portion of notes payable	4,408	6,172
Total current liabilities	11,970	13,381
Contract liabilities, net of current portion	1,025	1,033
Operating lease liabilities, net of current portion	795	831
Warrant liability, related party	2,964	2,601
Other liabilities	260	260
Total liabilities	17,014	18,106
Commitments and contingencies		
Redeemable noncontrolling interest	52,196	40,183
Stockholders' deficit:		
Class A Common Stock, \$0.01 par value; 100,000,000 shares authorized, 44,680,189 and 40,918,522 shares outstanding as of March 31, 2020 and December 31, 2019, respectively	447	409
Class B Common Stock, \$0.01 par value; 100,000,000 shares authorized, and 23,094,221 outstanding as of March 31, 2020 and December 31, 2019	232	232
Additional paid-in capital	190,200	183,858
Accumulated deficit	(252,700)	(233,522)
Total stockholders' deficit attributable to vTv Therapeutics Inc.	(61,821)	(49,023)
Total liabilities, redeemable noncontrolling interest and stockholders' deficit	\$ 7,389	\$ 9,266

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 March 31,	
	2020	2019
Revenue	\$ 8	\$ 921
Operating expenses:		
Research and development	4,204	2,822
General and administrative	2,450	2,386
Total operating expenses	<u>6,654</u>	<u>5,208</u>
Operating loss	(6,646)	(4,287)
Other income	—	—
Other (expense) income – related party	(363)	921
Interest income	12	10
Interest expense	(168)	(626)
Loss before income taxes and noncontrolling interest	<u>(7,165)</u>	<u>(3,982)</u>
Income tax provision	—	—
Net loss before noncontrolling interest	(7,165)	(3,982)
Less: net loss attributable to noncontrolling interest	(2,441)	(1,827)
Net loss attributable to vTv Therapeutics Inc.	<u>\$ (4,724)</u>	<u>\$ (2,155)</u>
Net loss attributable to vTv Therapeutics Inc. common shareholders	<u>\$ (4,724)</u>	<u>\$ (5,883)</u>
Net loss per share of vTv Therapeutics Inc. Class A Common Stock, basic and diluted	<u>\$ (0.11)</u>	<u>\$ (0.26)</u>
Weighted-average number of vTv Therapeutics Inc. Class A Common Stock, basic and diluted	<u>43,462,551</u>	<u>22,862,907</u>

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)

	Redeemable Noncontrolling Interest	Class A Common Stock		Class B Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
		Shares	Amount	Shares	Amount			
Balances at December 31, 2019	\$ 40,183	40,918,522	\$ 409	23,094,221	\$ 232	\$ 183,858	\$ (233,522)	\$ (49,023)
Net loss	(2,441)	—	—	—	—	—	(4,724)	(4,724)
Share-based compensation	—	—	—	—	—	380	—	380
Issuance of Class A Common Stock to a related party under the Letter Agreements	—	3,750,000	38	—	—	5,962	—	6,000
Vesting of restricted stock units	—	11,667	—	—	—	—	—	—
Change in redemption value of noncontrolling interest	14,454	—	—	—	—	—	(14,454)	(14,454)
Balances at March 31, 2020	<u>\$ 52,196</u>	<u>44,680,189</u>	<u>\$ 447</u>	<u>23,094,221</u>	<u>\$ 232</u>	<u>\$ 190,200</u>	<u>\$ (252,700)</u>	<u>\$ (61,821)</u>

For the three months ended March 31, 2019

	Redeemable Noncontrolling Interest	Class A Common Stock		Class B Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
		Shares	Amount	Shares	Amount			
Balances at December 31, 2018	\$ 62,482	20,347,065	\$ 203	23,094,221	\$ 232	\$ 150,595	\$ (233,883)	\$ (82,853)
Net loss	(1,827)	—	—	—	—	—	(2,155)	(2,155)
Share-based compensation	—	—	—	—	—	281	—	281
Issuance of Class A Common Stock under registered direct offering	—	3,636,364	37	—	—	5,406	—	5,443
Issuance of Class A Common Stock to a related party under the Letter Agreements	—	3,260,868	33	—	—	5,967	—	6,000
Vesting of restricted stock units	—	11,666	—	—	—	—	—	—
Change in redemption value of noncontrolling interest	(15,549)	—	—	—	—	—	15,549	15,549
Balances at March 31, 2019	<u>\$ 45,106</u>	<u>27,255,963</u>	<u>\$ 273</u>	<u>23,094,221</u>	<u>\$ 232</u>	<u>\$ 162,249</u>	<u>\$ (220,489)</u>	<u>\$ (57,735)</u>

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)

	Three Months Ended March 31,	
	2020	2019
Cash flows from operating activities:		
Net loss before noncontrolling interest	\$ (7,165)	\$ (3,982)
Adjustments to reconcile net loss before noncontrolling interest to net cash used in operating activities:		
Depreciation expense	27	8
Share-based compensation expense	380	281
Change in fair value of warrants, related party	363	(921)
Amortization of debt discount	47	185
Changes in assets and liabilities:		
Prepaid expenses and other assets	465	1,337
Accounts payable and accrued expenses	331	(1,445)
Contract liabilities	(8)	(913)
Net cash used in operating activities	(5,560)	(5,450)
Cash flows from financing activities:		
Proceeds from issuance of Class A Common Stock to a related party under the Letter Agreements	6,000	6,000
Proceeds from issuance of Class A Common Stock, net of offering costs	—	5,443
Repayment of notes payable	(1,811)	(2,717)
Net cash provided by financing activities	4,189	8,726
Net (decrease) increase in cash, cash equivalents and restricted cash and cash equivalents	(1,371)	3,276
Total cash, cash equivalents and restricted cash and cash equivalents, beginning of period	4,277	4,183
Total cash, cash equivalents and restricted cash and cash equivalents, end of period	\$ 2,906	\$ 7,459
Non-cash activities:		
Change in redemption value of noncontrolling interest	\$ 14,454	\$ (15,549)

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

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 March 31, 2020, various holders own non-voting interests in vTv LLC, representing a 34.1% economic interest in vTv LLC, effectively restricting vTv Therapeutics Inc.’s interest to 65.9% 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 and its registered direct offering in March 2019, 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, and its entrance into the letter agreements, dated as of December 5, 2017, July 30, 2018, December 11, 2018, March 18, 2019, September 26, 2019 and December 23, 2019 with MacAndrews and Forbes Group LLC (the “Letter Agreements”). vTv Therapeutics Inc. will not be required to provide financial or other support for vTv LLC outside of its obligations pertaining to the Loan Agreement as a co-borrower. 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. The creditors of vTv LLC do not have any recourse to the general credit of vTv Therapeutics Inc. except as allowed under the provisions of the Loan Agreement. 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 March 31, 2020, 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 March 31, 2020, the Company had an accumulated deficit of \$252.7 million and has generated net losses in each year of its existence.

As of March 31, 2020, the Company’s liquidity sources included cash and cash equivalents of \$0.4 million and \$4.0 million of remaining funds available under the Letter Agreements. In connection with the amendment to the Company’s Loan Agreement on April 1, 2020, the Company is no longer required to maintain a minimum cash balance until July 1, 2020 and is required to make payments of interest only during this time. This will provide additional funding to the Company on a short-term basis. See Note 14 for further details. Based on the Company’s current operating plan, management believes that its current cash and cash equivalents and the remaining funds available under the Letter Agreements will allow the Company to meet its liquidity requirements into June 2020, which is less than twelve months from the issuance of these Condensed Consolidated Financial Statements. These conditions raise substantial doubt about the Company’s ability to continue as a going concern. The Company is evaluating several financing strategies to provide continued funding which may include additional direct equity investments or future public offerings of our common stock. The timing and availability of such financing is not yet known.

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.

The full extent to which the COVID-19 outbreak / pandemic will directly or indirectly impact our business, results of operations and financial condition, including licensing revenues, expenses, reserves and allowances, manufacturing, clinical trials, research and development costs and employee-related amounts will depend on future developments that are highly uncertain, including as a result of new information that may emerge concerning COVID-19 and the actions taken to contain it or treat COVID-19, as well as the economic impact on local, regional, national and international suppliers and markets.

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 March 31, 2020, Condensed Consolidated Statements of Operations for the three months ended March 31, 2020 and 2019, Condensed Consolidated Statement of Changes in Redeemable Noncontrolling Interest and Stockholders' Deficit for the three months ended March 31, 2020 and 2019 and Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 2020 and 2019 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, 2019 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 March 31, 2020, the results of operations for the three months ended March 31, 2020 and 2019 and cash flows for the three months ended March 31, 2020 and 2019. The December 31, 2019 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 months ended March 31, 2020 and 2019 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, 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 multiple financial institutions. The balances of these cash accounts frequently exceed insured limits.

Two customers represented 100% of the revenue earned during the three months ended March 31, 2019. Revenue for the three months ended March 31, 2020 was insignificant.

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.

Restricted Cash and Cash Equivalents

Restricted cash and cash equivalents as of March 31, 2020 and December 31, 2019 was \$2.5 million at each date. These amounts relate to the minimum balance that the Company must maintain in a deposit account that is pledged to secure the Loan Agreement and is subject to an account control agreement pursuant to the Loan Agreement.

The following table provides a reconciliation of cash, cash equivalents and restricted cash and cash equivalents reported within the Condensed Consolidated Balance Sheets as of March 31, 2020 and December 31, 2019 that sum to the total of the same such amounts shown in the Condensed Consolidated Statements of Cash Flows (in thousands):

	March 31, 2020	December 31, 2019
Cash and cash equivalents	\$ 406	\$ 1,777
Restricted cash and cash equivalents	2,500	—
Restricted cash and cash equivalents, long-term	—	2,500
Total cash, cash equivalents and restricted cash and cash equivalents shown in the consolidated statement of cash flows	<u>\$ 2,906</u>	<u>\$ 4,277</u>

Investments

In connection with the license agreement with Reneo Pharmaceuticals, Inc. (“Reneo”) (the “Reneo License Agreement”), the Company received common stock representing a minority equity interest in Reneo that is classified as a long-term investment in the Company’s Condensed Consolidated Balance Sheets as of March 31, 2020 and December 31, 2019. The Company owns less than 20% of the voting equity of Reneo and does not have the ability to exercise significant influence over Reneo. Since it does not have a readily determinable market value, the Company has elected to measure its investment in Reneo at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment.

No adjustments were made to the value of the Company’s investment in Reneo for the three months ended March 31, 2020 and 2019 either due to impairment or based on observable price changes.

Revenue Recognition

The Company uses the revenue recognition guidance established by ASC Topic 606, “Revenue From Contracts With Customers” (“ASC Topic 606”).

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. Revenue is recognized over the related period over which the Company expects the services to be provided using a proportional performance model or a straight-line method of recognition if there is no discernable pattern over which the services will be provided.

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

There have been no recently accounting pronouncements which are expected to have a material impact on the Company's financial statements.

Note 3: Collaboration Agreements

Reneo License Agreement

The Company is party to 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 as of March 31, 2020. No revenue related to this performance obligation was recognized for the three months ended March 31, 2020. For the three months ended March 31, 2019, the Company recognized revenue related to this performance obligation of \$0.9 million. There have been no adjustments to the transaction price for this performance obligation during the three months ended March 31, 2020 and 2019.

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.

Under the Huadong License Agreement, the Company is also responsible for conducting a Phase 2 multi-region clinical trial (the "Phase 2 MRCT"), should Huadong require it to do so. If conducted, the Phase 2 MRCT will include sites in both the United States and Huadong License Territory for the purpose of assessing the safety and efficacy of *TTP273* in patients with type 2 diabetes. The Phase 2 MRCT will be designed to satisfy the requirements of the China Food and Drug Administration necessary in order for Huadong to begin a Phase 3 clinical trial in China. The Company will also be responsible for contributing up to \$3.0 million in connection with the Phase 2 MRCT.

The significant performance obligations under this license agreement 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 obligation to sponsor and conduct the Phase 2 MRCT, (iv) the Company's obligation to participate on a joint development committee (the "JDC"), and (v) 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 discernable 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. The revenue related to this combined performance obligation has been fully recognized as of March 31, 2020. No revenue related to this combined performance obligation was recognized during the three months ended March 31, 2020 and 2019.

The portion of the transaction price allocated to the obligation to sponsor and conduct a portion of the Phase 2 MRCT was \$1.0 million and remained deferred as of March 31, 2020. Revenue for this performance obligation will be recognized using the proportional performance model over the period during which the Company conducts the Phase 2 MRCT trial. Since the Company has not yet begun the Phase 2 MRCT trial, no revenue for this performance obligation has yet been recognized. The expectation of when, or if, the Phase 2 MRCT trial will begin remains indeterminate.

The portion of the transaction price allocated to the obligation to participate in the joint development committee (the “JDC”) to oversee the development of products and the Phase 2 MRCT in accordance with the development plan remained deferred as of March 31, 2020 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 March 31, 2020 was \$0.1 million. An immaterial amount of revenue for this performance obligation has been recognized during the three months ended March 31, 2020 and 2019.

There have been no adjustments to the transaction price for the performance obligations under the Huadong License Agreement during the three months ended March 31, 2020 and 2019.

Newsora License Agreement

The Company is party to a license agreement with Newsora Biopharma Co., Ltd., (“Newsora”) (the “Newsora License Agreement”) under which Newsora 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 “Newsora License Territory”). Additionally, under the Newsora License Agreement, the Company obtained a non-exclusive, sublicensable, royalty-free license to develop and commercialize certain Newsora patent rights and know-how related to the Company’s PDE4 program for therapeutic uses in humans outside of the Newsora 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 March 31, 2020. No revenue related to this performance obligation was recognized during the three months ended March 31, 2020 and 2019.

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. According to the terms of the JDRF Agreement, JDRF will provide research funding of up to \$3.0 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 will be 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 March 31, 2020, the Company had received funding under this agreement of \$2.7 million. Research and development costs have been offset by a total of \$2.7 million over the course of this agreement.

Contract Liabilities

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

	March 31, 2020	December 31, 2019
Current portion of contract liabilities	\$ 31	\$ 31
Contract liabilities, net of current portion	1,025	1,033
Total contract liabilities	<u>\$ 1,056</u>	<u>\$ 1,064</u>

The change in the Company's contract liabilities for the three months ended March 31, 2020 of an immaterial amount was due to the recognition of amounts included in the contract liability at the beginning of the period.

Note 4: Share-Based Compensation

The Company has issued non-qualified stock option awards to certain employees of the Company. These option awards 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 March 31, 2020, the Company had total unrecognized stock-based compensation expense for its outstanding stock option awards of approximately \$1.2 million, which is expected to be recognized over a weighted average period of 1.8 years. There were no stock option awards granted during the three months ended March 31, 2020. The weighted average grant date fair value of option grants during the three months ended March 31, 2019 was \$1.97 per option. The aggregate intrinsic value of the in-the-money awards outstanding at March 31, 2020 was a de minimis amount.

The Company uses the Black-Scholes option pricing model to calculate the fair value of stock options granted. The fair value of stock options granted was estimated using the following assumptions:

	For the Three Months Ended March 31, 2019
Expected volatility	115.29% - 115.88%
Expected life of option, in years	6.0
Risk-free interest rate	2.47% - 2.64%
Expected dividend yield	0.00%

The following table summarizes the activity related to the stock option awards for the three months ended March 31, 2020:

	Number of Shares	Weighted- Average Exercise Price
Awards outstanding at December 31, 2019	2,531,143	\$ 6.19
Granted	—	—
Forfeited	—	—
Awards outstanding at March 31, 2020	2,531,143	\$ 6.19
Options exercisable at March 31, 2020	1,821,596	\$ 7.70
Weighted average remaining contractual term	6.7 Years	
Options vested and expected to vest at March 31, 2020	2,461,037	\$ 6.31
Weighted average remaining contractual term	7.2 Years	

The following table summarizes the activity related to the RSU awards for the three months ended March 31, 2020:

	Number of Shares	Weighted- Average Grant Date Fair Value
Awards outstanding at December 31, 2019	11,667	\$ 5.81
Vested	(11,667)	5.81
Awards outstanding at March 31, 2020	—	\$ —
RSUs expected to vest at March 31, 2020	—	\$ —

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

	Three Months Ended March 31,	
	2020	2019
Research and development	\$ 133	\$ 65
General and administrative	247	216
Total share-based compensation expense	\$ 380	\$ 281

Note 5: Notes Payable

Notes payable consist of the following (in thousands):

	<u>March 31, 2020</u>	<u>December 31, 2019</u>
Notes payable under the Loan Agreement	\$ 3,229	\$ 4,896
Short-term financing	—	144
Accreted final payment	1,179	1,132
Total notes payable	4,408	6,172
Less: Current portion	(4,408)	(6,172)
Total notes payable, net of current portion	<u>\$ —</u>	<u>\$ —</u>

In October 2016, the Company entered into the Loan Agreement with Horizon Technology Finance Corporation and Silicon Valley Bank, under which the Company and vTv LLC borrowed \$20.0 million. On April 1, 2020, the Company entered into an amendment to the Loan Agreement which extended the maturity dates of the loans and adjusted the minimum cash balance requirements (the “April Amendment”). The details of the April Amendment have been incorporated into these disclosures and are more fully described below and in Note 14.

Each loan tranche bears interest at a floating rate equal to 10.5% plus the amount by which the one-month London Interbank Offer Rate (“LIBOR”) exceeds 0.5%.

The Company borrowed the first tranche of \$12.5 million upon close of the Loan Agreement in October 2016. The first tranche originally required only monthly interest payments until May 1, 2018 followed by equal monthly payments of principal plus accrued interest through the scheduled maturity date on May 1, 2020. In connection with the April Amendment, the maturity date of the first tranche was extended to August 1, 2020. In addition, a final payment for the first tranche loan equal to \$0.8 million originally due on May 1, 2020 was extended to August 1, 2020 as part of the April Amendment, or such earlier date specified in the Loan Agreement. The Company borrowed the second tranche of \$7.5 million in March 2017. The second tranche required only monthly interest payments until October 1, 2018 followed by equal monthly payments of principal plus accrued interest through the scheduled maturity date on October 1, 2020. In connection with the April Amendment, the maturity date of the second tranche was extended to January 1, 2021. In addition, a final payment for the second tranche loan equal to \$0.5 million was originally due on October 1, 2020, or such earlier date specified in the Loan Agreement. In connection with the April Amendment, the due date for this final payment was extended to January 1, 2021, or such earlier date specified in the Loan Agreement, and the total amount of the payment was increased to \$0.6 million. For each of the first and second tranches, the April Amendment requires only monthly interest payments on the outstanding principal balance for the amounts due on April 1, 2020, May 1, 2020 and June 1, 2020. Beginning with the amounts due on July 1, 2020, the Company will resume payment of the principal portion of these loans in accordance with the original amounts due.

If the Company repays all or a portion of the loan prior to the applicable maturity dates, as amended, it will pay the Lenders a prepayment penalty fee, based on a percentage of the then outstanding principal balance equal to 2.0%.

The Company’s obligations under the Loan Agreement are secured by a first priority security interest in substantially all of its assets. The Company has granted the Lenders a first priority security interest in all of the Company’s intellectual property, subject to certain limited exceptions. The Company has agreed not to pledge or otherwise encumber its intellectual property assets, subject to certain exceptions.

The Loan Agreement includes customary affirmative and restrictive covenants, including, but not limited to, restrictions on the payment of dividends or other equity distributions and the incurrence of debt or liens upon the assets of the Company or its subsidiaries. The Loan Agreement does not contain any financial maintenance covenants other than a requirement to maintain a minimum cash balance. As of March 31, 2020, the Company was required to maintain a cash balance of not less than \$2.5 million in a deposit account pledged to secure the Loan Agreement and subject to an account control agreement. In connection with the April Amendment, this requirement was temporarily eliminated for the period beginning April 1, 2020 and ending June 30, 2020. Beginning July 1, 2020, until the repayment of the full amounts due under the Loan Agreement, the Company must maintain a minimum cash balance equal to the lesser of (i) \$1.0 million or (ii) the then-current aggregate outstanding principal balance of the loans. The Loan Agreement includes customary events of default, including payment defaults, covenant defaults, and material adverse change default. Upon the occurrence of an event of default and following any applicable cure periods, a default interest rate of an additional 5.0% will be applied to the outstanding loan balances, and the Lenders may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Loan Agreement.

The costs incurred in connection with the Loan Agreement, along with the allocated fair value of the Warrants issued of \$0.9 million were treated as a debt discount and are offset against the carrying value of the notes payable in the Company’s Condensed Consolidated Balance Sheet as of March 31, 2020 and December 31, 2019. These costs will be recognized as interest expense over

the term of the first tranche using the effective interest method. The final payments for the first and second loan tranches are accrued as additional interest expense, using the effective interest method, over the term of the relevant tranche.

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 we obtained an exclusive, worldwide, sublicensable license under certain Novo Nordisk intellectual property rights to discover, develop, manufacture, 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 Novo License Agreement, the Company has additional potential developmental and regulatory milestone payments totaling up to \$115.0 million for approval of a product. 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.

Huadong License Agreement

Under the terms of the Huadong License Agreement, vTv LLC is obligated to act as the sponsor of the Phase 2 MRCT should Huadong require it to do so. If conducted, the Phase 2 MRCT will include sites in both US and the Huadong License Territory for the purpose of assessing the safety and efficacy of *TTP273* in patients with type 2 diabetes and will be designed to satisfy the requirements of the China Food and Drug Administration necessary in order for Huadong to begin a Phase 3 clinical trial in China. vTv LLC will be responsible for contributing up to \$3.0 million in connection with the Phase 2 MRCT. The expectation of when, or if, the Phase 2 MRCT trial will begin remains indeterminate.

Note 7: Leases

The Company leased its former headquarters location under an operating lease that expired in December 2019. In connection with its adoption of ASC Topic 842, the Company recognized a right of use asset and corresponding operating lease liability of \$0.3 million related to this lease as of January 1, 2019. The Company elected to use the package of practical expedients in implementing ASC Topic 842 under which the Company did not reassess the operating or finance lease classification of its previously existing leases. Further, the Company did not reassess whether expired or existing contracts include leases.

In August 2019, the Company leased new 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 is not considered reasonably certain. Further, this lease does not include any material residual value guarantee or restrictive covenants.

At each of March 31, 2020 and December 31, 2019, the weighted average incremental borrowing rate for the operating leases held by the Company was 13.1%. At March 31, 2020 and December 31, 2019, the weighted average remaining lease terms for the operating leases held by the Company were 4.8 years and 5.1 years, respectively.

Maturities of lease liabilities for the Company's operating leases as of March 31, 2020 were as follows (in thousands):

2020 (remaining nine months)	\$	187
2021		255
2022		261
2023		268
2024		275
Thereafter		23
Total lease payments		1,269
Less: imputed interest		(338)
Present value of lease liabilities	\$	<u>931</u>

Operating lease cost and the related operating cash flows for the three months ended March 31, 2020 and 2019 were immaterial amounts.

Note 8: Redeemable Noncontrolling Interest

The Company is subject to the Exchange Agreement with respect to the vTv Units representing the 34.1% noncontrolling interest in vTv LLC outstanding as of March 31, 2020 (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 March 31, 2020 and December 31, 2019, the redeemable noncontrolling interest was recorded based on the redemption value as of the balance sheet date of \$52.2 million and \$40.2 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 March 31,	
	2020	2019
Net loss attributable to vTv Therapeutics Inc. common shareholders	\$ (4,724)	\$ (5,883)
Increase in vTv Therapeutics Inc. accumulated deficit for purchase of LLC Units as a result of common stock issuances	(2,423)	(7,429)
Change from net loss attributable to vTv Therapeutics Inc. common shareholders and transfers to noncontrolling interest	<u>\$ (7,147)</u>	<u>\$ (13,312)</u>

Note 9: Related-Party Transactions

MacAndrews & Forbes Incorporated

As of March 31, 2020, subsidiaries and affiliates of MacAndrews & Forbes Incorporated (collectively "MacAndrews") indirectly controlled 23,084,267 shares of the Company's Class B Common Stock and 34,106,212 shares of the Company's Class A Common Stock. As a result, MacAndrews' holdings represent approximately 84.4% 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 entered into the Letter Agreements with MacAndrews. Under the terms of the Letter Agreements, the Company has the right to sell to MacAndrews shares of its Class A Common Stock at a specified price per share, and MacAndrews has 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. 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.

Certain terms of these Letter Agreements are set forth in the table below:

	December 11, 2018 Letter Agreement		March 18, 2019 Letter Agreement		September 26, 2019 Letter Agreement		December 23, 2019 Letter Agreement	
Aggregate dollar value to be sold under agreement	\$10.0 million		\$9.0 million		\$10.0 million		\$10.0 million	
Specified purchase price per share	\$	1.84	\$	1.65	\$	1.46	\$	1.60
Expiration date of letter agreement	December 11, 2019		March 18, 2020		September 26, 2020		December 23, 2020	
Shares available to be issued under related warrants	340,534		—		400,990		365,472	
Exercise price of related warrants	\$	2.12	\$	—	\$	1.68	\$	1.84
Expiration date of related warrants	December 11, 2025				September 26, 2026		December 23, 2026	
Total shares issued as of March 31, 2020	5,434,783		5,454,546		6,849,316		3,750,000	
Remaining shares to be issued as of March 31, 2020	—		—		—		2,500,000	

The March 18, 2019 Letter Agreement resulted in a deemed distribution to MacAndrews of \$3.7 million. This deemed distribution was the result of the fair value of the financial instruments issued to MacAndrews exceeding the fair value of the financial instrument received by the Company. This deemed distribution has been reflected as an increase to the net loss attributable to common shareholders of vTv Therapeutics Inc. for computing net loss per share.

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 March 31, 2020, MacAndrews had not exchanged any shares under the provisions of this 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 Common 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 March 31, 2020.

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.

Note 10: 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 March 31, 2020 and 2019.

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% at March 31, 2020 is due to the valuation allowance against the Company’s expected net operating losses.

On March 27, 2020, the Coronavirus Aid, Relief and Economic Security Act (“CARES Act”) was enacted in response to the COVID-19 outbreak / pandemic. The CARES Act made various tax law changes including among other things (i) increased the limitation under IRC Section 163(j) for 2019 and 2020 to permit additional expensing of interest (ii) enacted a technical correction so that qualified improvement property can be immediately expensed under IRC Section 168(k) and (iii) made modifications to the federal net operating loss rules including permitting federal net operating losses incurred in 2018, 2019, and 2020 to be carried back to each of the five preceding taxable years in order to generate a refund of previously paid income taxes. The Company is currently evaluating the impact of the CARES Act but does not expect it to have a material impact on its financial statements as the Company has historically generated federal net operating losses and maintains a full valuation allowance against its deferred tax assets.

As discussed in Note 9, 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 March 31, 2020.

Note 11: 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 March 31,	
	2020	2019
Numerator:		
Net loss	\$ (7,165)	\$ (3,982)
Less: Net loss attributable to noncontrolling interests	(2,441)	(1,827)
Net loss attributable to vTv Therapeutics Inc.	(4,724)	(2,155)
Less: Deemed distribution to related party (Note 9)	—	(3,728)
Net loss attributable to common shareholders of vTv Therapeutics Inc., basic and diluted	(4,724)	(5,883)
Denominator:		
Weighted-average vTv Therapeutics Inc. Class A Common Stock, basic and diluted	43,462,551	22,862,907
Net loss per share of vTv Therapeutics Inc. Class A Common Stock, basic and diluted	\$ (0.11)	\$ (0.26)

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

	March 31, 2020	March 31, 2019
Class B Common Stock (1)	23,094,221	23,094,221
Common stock options granted under the Plan	2,531,143	2,665,860
Restricted stock units	—	11,667
Common stock options granted under Letter Agreements	2,500,000	6,813,244
Common stock warrants	2,014,503	1,248,041
Total	<u>30,139,867</u>	<u>33,833,033</u>

- (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 12: Restructuring

In December 2018, the Company initiated a corporate restructuring to align with a strategic decision to continue the development of its drug candidates using external resources rather than internal resources. The restructuring allowed the Company to reduce costs while continuing to conduct clinical trials, to support existing partnerships that are advancing development of additional assets, and to pursue new licensing and partnership opportunities. This restructuring included a significant reduction in its workforce. The Company completed these restructuring activities in the second quarter of 2019.

During the three months ended March 31, 2019, the Company made cash payments of \$0.3 million related to these severance benefits and recognized an immaterial amount of expense related to this plan. No such amounts were paid nor was any expense recognized related to restructuring activities during the three months ended March 31, 2020.

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, accounts payable and other accrued liabilities approximate fair value due to their short-term nature.

The fair value of the Company's Loan Agreement is considered to approximate its carrying value because it bears interest at a variable interest rate.

The Company measures the value of its investment in Reneo at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment. During the three months ended March 31, 2020, there were no observable price changes in identical or similar investments, nor were there any indications of impairment. As such, the value of the Company's investment in Reneo was not remeasured.

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 following table summarizes the conclusions reached regarding fair value measurements as of March 31, 2020 and December 31, 2019 (in thousands):

	Balance at March 31, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Warrant liability, related party (1)	\$ 2,964	\$ —	\$ —	\$ 2,964
Total	\$ 2,964	\$ —	\$ —	\$ 2,964

	Balance at December 31, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Warrant liability, related party (1)	\$ 2,601	\$ —	\$ —	\$ 2,601
Total	\$ 2,601	\$ —	\$ —	\$ 2,601

(1) Fair value determined using the Black-Scholes option pricing model. Expected volatility is based on a portfolio of selected stocks of companies believed to have market and economic characteristics similar to its own. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of the valuation.

	Changes in Level 3 instruments for the three months ended March 31,				
	Balance at January 1	Net Change in fair value included in earnings	Purchases / Issuance	Sales / Repurchases	Balance at March 31,
2020					
Warrant liability, related party	\$ 2,601	\$ 363	\$ —	\$ —	\$ 2,964
Total	\$ 2,601	\$ 363	\$ —	\$ —	\$ 2,964
2019					
Warrant liability, related party	\$ 2,436	\$ (921)	\$ —	\$ —	\$ 1,515
Total	\$ 2,436	\$ (921)	\$ —	\$ —	\$ 1,515

During the three months ended March 31, 2020 and 2019, the Company recognized a loss of \$0.4 million and a gain of \$0.9 million, respectively related to the change in fair value of the Letter Agreement Warrants. These amounts were recognized as a component of other (expense) income – related party in the Condensed Consolidated Statements of Operations. Significant inputs utilized in the valuation of the Letter Agreement Warrants as of March 31, 2020 and [December 31, 2019] were:

	March 31, 2020	December 31, 2019
Expected volatility	115.04% - 130.17%	110.76% - 123.83%
Risk-free interest rate	0.36% - 0.53%	1.69% - 1.83%

Changes in the unobservable inputs noted above would impact the amount of the liability for the Letter Agreement 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

On April 1, 2020, the Company entered into the April Amendment of the Loan Agreement. The April Amendment provides for a three-month extension in the maturity date of both of the first and second tranches to August 1, 2020 and January 1, 2021, respectively. Further, the Second Amendment requires only monthly interest payments on the outstanding principal balance for the

amounts due on April 1, 2020, May 1, 2020 and June 1, 2020. Beginning with the amounts due on July 1, 2020, the Company will resume payment of the principal portion of these loans in accordance with the original amounts due.

The April Amendment also temporarily eliminates the requirement for the Company to maintain a minimum cash balance for the period beginning April 1, 2020 and ending June 30, 2020. Beginning July 1, 2020, until the repayment of the full amounts due under the Loan Agreement, the Company must maintain a minimum cash balance equal to the lesser of (i) \$1.0 million or (ii) the then-current aggregate outstanding principal balance of the loans.

As consideration for these amendments, the final payment for the second tranche, due upon maturity, has been increased by approximately \$0.2 million.

On April 24, 2020, the Company entered into a Controlled Equity OfferingSM Sales Agreement (the “Sales Agreement”) with Cantor Fitzgerald & Co. (“Cantor Fitzgerald”) pursuant to which the Company may offer and sell, from time to time, through or to Cantor Fitzgerald, as sales agent or principal, shares of the Company’s Class A common stock, par value \$0.01 per share, having an aggregate offering price of up to \$13.0 million (the “ATM Offering”). The Company is not obligated to sell any shares under the Sales Agreement. Under the terms of the Sales Agreement, the Company 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.

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.

Overview

We are a clinical-stage pharmaceutical company focused on treating metabolic diseases to minimize their long-term complications through end-organ protection. We have an innovative pipeline of first-in-class small molecule clinical and pre-clinical drug candidates for the treatment of a wide range of metabolic diseases and their long-term complications. Our pipeline is led by our programs for the treatment of type 1 diabetes (*TTP399*) and for Alzheimer's disease ("AD") (*azeliragon*). We have recently completed the Simplici-T1 Study, an adaptive Phase 1b/2 study supported by JDRF International ("JDRF"), to explore the effects of *TTP399* in patients with type 1 diabetes. In February 2020, we reported positive results from the Phase 2 - Part 2 confirming phase of this study which achieved its primary objective by demonstrating statistically significant improvements in HbA1c (long-term blood sugar) for *TTP399* compared to placebo.

Our second clinical drug candidate in Phase 2 development is *azeliragon* (*TTP488*), an orally administered, small molecule antagonist targeting the receptor for advanced glycation endproducts ("RAGE"). We are currently enrolling patients in a Phase 2 study to evaluate *azeliragon* as a potential treatment of mild-AD in patients with type 2 diabetes (the "Elevage Study"). However, the ongoing effects of the Coronavirus ("COVID-19") pandemic/outbreak may impact the conduct and timing of the Elevage Study as some of the clinical trial sites at which the Elevage Study is taking place have reduced, delayed or suspended activities as precautionary measures, as more further described in the "Impact of COVID-19" section below. Nonetheless, we expect to report some topline results from the Phase 2 portion of the Elevage Study in the first half of 2021 and are considering various strategies to maintain this timeline despite the effects of COVID-19.

We are also planning an adaptive Phase 1b/2 clinical trial assessing the pharmacokinetics, pharmacodynamics, safety and tolerability of *TTP273*, an orally administered non-peptidic agonist that targets the glucagon-like peptide 1 receptor ("GLP-1r"), in patients with cystic fibrosis related diabetes. Finally, we are advancing the non-clinical development of our Nrf2/Bach1 modulators (*HPP971* and *HPP3033*) as a potential treatment of NASH.

In addition to our internal development programs, we are furthering the clinical development of three other programs, a small molecule GLP-1r agonist, a PDE4 inhibitor, and a PPAR-delta agonist, through partnerships with pharmaceutical partners via licensing arrangements.

Impact of COVID-19

We have been actively monitoring the COVID-19 situation and its impact on our business, employees, patients, partners, suppliers and vendors. Our financial results for the three months ended March 31, 2020 were not significantly impacted by COVID-19. While we are continuing the on-going Elevage Study that is underway at sites in the United States and Canada, we expect that COVID-19 precautions may directly and indirectly impact the timeline for this clinical trial, as it has for many other clinical trials. In particular, the reduced, delayed or suspended activities of the clinical trial sites participating in the Elevage Study as precautionary measures in response to COVID-19 may delay screening and enrollment of potential subjects into the study which in turn would have an impact on the timing of completion and announcement of study results. In response, we have worked closely with our IRB and clinical trial sites to implement appropriate responses in light of the remote working arrangements and travel restrictions imposed by various governments. Separately, vTv has made adjustments that allow us to maintain our business operations during the quarter despite current circumstances. Given the scope of the pandemic, we cannot predict the impact of the progression of the COVID-19

outbreak on future clinical trial and financial results due to a variety of factors, including the continued good health of our employees, the ability of our third party suppliers, vendors, manufacturers and partners to continue to operate and provide services, the ability of our clinical trial sites to continue or resume operations, any further government and/or public actions taken in response to the pandemic and the ultimate duration of the COVID-19 outbreak/pandemic.

The following table summarizes our current drug candidates and their respective stages of development:

PROGRAM	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	PARTNER	TERRITORY
TTP399 (GKA)	Type 1 Diabetes					
Azeliragon (RAGE)	Dementia with Diabetes					
TTP273 (GLP1-R)	Cystic Fibrosis Related Diabetes (CFRD)					
Nrf2/Bach1	NASH					
Partnered Programs						
TTP273 (Oral GLP-1r)	Type 2 Diabetes					Asia (*ROW retained)
HPP593 (PPAR-δ)	Fatty Acid Oxidation Disorders					Worldwide
HPP737 (PDE4i)	COPD *					Asia (*ROW retained)

* Chronic obstructive pulmonary disease

Our Type 1 Diabetes Program –TTP399

In light of the positive results of our Simplici-T1 Study, an adaptive Phase 2 clinical trial of TTP399 in adult patients with type 1 diabetes, we requested a Type C meeting with the FDA to discuss the trial design and other requirements for the next stage of development for TTP399. The FDA accepted the Company’s request for a meeting, which will be conducted in the form of written responses.

Holding Company Structure

vTv Therapeutics Inc. is a holding company, and its principal asset is a controlling equity interest in vTv Therapeutics LLC (“vTv 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 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 March 31, 2020, we have incurred approximately \$584.2 million in research and development expenses.

Our research and development expenses by project for the three months ended March 31, 2020 and 2019 were as follows (in thousands):

	Three Months Ended March 31,	
	2020	2019
Direct research and development expense:		
<i>Azeliragon</i>	\$ 2,401	\$ 703
<i>TTP399</i>	400	600
Other projects	70	191
Indirect research and development expense	1,333	1,328
Total research and development expense	<u>\$ 4,204</u>	<u>\$ 2,822</u>

We plan to continue to incur significant research and development expenses for the foreseeable future as we continue the development of *TTP399* and *azeliragon* 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 regulatory approvals, if any; 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 Expense

Interest expense primarily consists of cash and non-cash interest expense related to our Loan Agreement. Cash interest on the Loan Agreement is recognized at a floating interest rate equal to 10.5% plus the amount by which the one-month London Interbank Offer Rate (“LIBOR”) exceeds 0.5%. Non-cash interest expense represents the amortization of the costs incurred in connection with the Loan Agreement, the allocated fair value of the warrants to purchase shares of our Class A Common Stock issued in connection with the Loan Agreement (the “Warrants”) and the accretion of the final interest payments (which will be paid in cash upon loan maturity), all of which are recognized in our Condensed Consolidated Statement of Operations using the effective interest method.

Results of Operations

Comparison of the three months ended March 31, 2020 and 2019

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

(dollars in thousands)	Three Months Ended March 31,		
Statement of operations data:	2020	2019	Change
Revenue	\$ 8	\$ 921	\$ (913)
Operating expenses:			
Research and development	4,204	2,822	1,382
General and administrative	2,450	2,386	64
Total operating expenses	6,654	5,208	1,446
Operating loss	(6,646)	(4,287)	(2,359)
Interest income	12	10	2
Interest expense	(168)	(626)	458
Other (expense) income, net	(363)	921	(1,284)
Loss before income taxes	(7,165)	(3,982)	(3,183)
Income tax provision	—	—	—
Net loss before noncontrolling interest	(7,165)	(3,982)	(3,183)
Less: net loss attributable to noncontrolling interest	(2,441)	(1,827)	(614)
Net loss attributable to vTv Therapeutics Inc.	<u>\$ (4,724)</u>	<u>\$ (2,155)</u>	<u>\$ (2,569)</u>

Revenue

Revenue was insignificant for the three months ended March 31, 2020 and \$0.9 million for the three months ended March 31, 2019. During each of these periods, our revenue was related to the recognition of amounts realized from license performance obligations. For the three months ended March 31, 2019, the revenue recognized related to the amortization of amounts deferred at the initiation of our license agreement with Reneo Pharmaceuticals, Inc which were related to the transfer of technology performance obligations.

Research and Development Expenses

Research and development expenses were \$4.2 million and \$2.8 million for the three months ended March 31, 2020 and 2019, respectively. The increase in research and development expenses during the period of \$1.4 million, or 49.0%, was primarily due to an increase in clinical trial costs of \$1.7 million for *azeliragon* which was mainly driven by the increased cost for the Elevage study as we have continued to enroll patients in this study since its initiation in the second quarter of 2019.

General and Administrative Expenses

General and administrative expenses were consistent between the three-month periods at \$2.5 million and \$2.4 million for the three months ended March 31, 2020 and 2019, respectively.

Interest Expense

Interest expense was \$0.2 million and \$0.6 million for the three months ended March 31, 2020 and 2019, respectively. The decrease in interest expense was driven by lower principal balances outstanding in the 2020 period based on the scheduled monthly principal payments under the Loan Agreement. Interest expense relates to the cash and non-cash interest for our Loan Agreement which bears interest at 10.5% plus the amount by which the one-month LIBOR exceeds 0.5%.

Liquidity and Capital Resources

Liquidity and Going Concern

As of March 31, 2020, we have an accumulated deficit of \$252.7 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 March 31, 2020, our liquidity sources included cash and cash equivalents of \$0.4 million and \$4.0 million of remaining funds available under the letter agreement entered into with MacAndrews and Forbes Group LLC (“MacAndrews”) in December 2019. Note however, that we entered into a Second Amendment to the Loan Agreement on April 1, 2020 which temporarily eliminated the minimum cash balance requirement until July 1, 2020 thereby enabling the use of an additional \$2.5 million of funds in the short-term. See the “Debt Transaction” section below for further details of the effect of this amendment. Further, on April 24, 2020, we entered into a Controlled Equity OfferingSM Sales Agreement (the “Sales Agreement”) with Cantor Fitzgerald & Co. (“Cantor Fitzgerald”) pursuant to which the Company may offer and sell, from time to time shares of the Company’s Class A Common Stock having an aggregate value of up to \$13.0 million (the “ATM Offering”). See the “ATM Offering” section below for further details. Based on our current operating plan, we believe that our current cash and cash equivalents, remaining funds available under the Letter Agreements, and availability under the ATM Offering, if utilized, will allow us to meet our liquidity requirements into September 2020. Consequentially, there is substantial doubt about our ability to continue as a going concern. In addition to available cash and cash equivalents and available funds discussed above, we are seeking possible additional partnering opportunities for our GKA, GLP-1r and other drug candidates which we believe may provide additional cash for use in our operations and the continuation of the clinical trials for our drug candidates.

We are currently enrolling patients in the Elevage Study and are planning additional trial(s) of *TTP399* in patients with type 1 diabetes. In order to complete these trials and continue the Company’s operations, we will require additional financing. We are evaluating several financing strategies to provide continued funding which may include additional direct equity investments or future public offerings of our common stock. The timing and availability of such financing is not yet known.

ATM Offering

On April 24, 2020, we entered into the Sales Agreement with Cantor Fitzgerald pursuant to which the Company may offer and sell, from time to time, through or to Cantor Fitzgerald, as sales agent or principal, shares of the Company’s Class A common stock having an aggregate offering price of up to \$13.0 million. The Company is not obligated to sell any shares under the Sales Agreement. Under the terms of the Sales Agreement, the Company 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.

Letter Agreements

We have entered into the Letter Agreements with MacAndrews. Under the terms of the Letter Agreements, we have the right to sell to MacAndrews shares of Class A Common Stock at a specified price per share, and MacAndrews has the right (exercisable up to three times) to require us to sell to it shares of Class A Common Stock at the same price. In addition, in connection with the entrance into certain of these Letter Agreements, we also issued MacAndrews warrants (the “Letter Agreement Warrants”) to purchase additional shares of our Class A Common Stock.

Certain terms of these Letter Agreements are set forth in the table below:

	December 11, 2018 Letter Agreement	March 18, 2019 Letter Agreement	September 26, 2019 Letter Agreement	December 23, 2019 Letter Agreement
Aggregate dollar value to be sold under agreement	\$10.0 million	\$9.0 million	\$10.0 million	\$10.0 million
Specified purchase price per share	\$ 1.84	\$ 1.65	\$ 1.46	\$ 1.60
Expiration date of letter agreement	December 11, 2019	March 18, 2020	September 26, 2020	December 23, 2020
Shares available to be issued under related warrants	340,534	—	400,990	365,472
Exercise price of related warrants	\$ 2.12	\$ —	\$ 1.68	\$ 1.84
Expiration date of related warrants	December 11, 2025		September 26, 2026	December 23, 2026
Total shares issued as of March 31, 2020	5,434,783	5,454,546	6,849,316	3,750,000
Remaining shares to be issued as of March 31, 2020	—	—	—	2,500,000

Debt Transaction

In October 2016, we and vTv LLC entered into the Loan Agreement with Horizon Technology Finance Corporation and Silicon Valley Bank, under which we have borrowed \$20.0 million. This agreement was amended on April 1, 2020 to extend the maturity dates of the loans and adjusted the minimum cash balance requirements (the “April Amendment”). Each loan tranche bears interest at a floating rate equal to 10.5% plus the amount by which the one-month LIBOR exceeds 0.5%. As of May 7, 2020, \$3.2 million aggregate principal balance remains outstanding under the Loan Agreement. Additionally, each tranche includes a final interest payment due at its maturity which are further detailed below.

We borrowed the first tranche of \$12.5 million upon the close of the Loan Agreement in October 2016. The first tranche originally required only monthly interest payments until May 1, 2018, followed by equal monthly payments of principal plus accrued interest through the scheduled maturity date on May 1, 2020. In connection with the April Amendment, the maturity date of the first tranche was extended to August 1, 2020. In addition, a final payment for the first tranche loan equal to \$0.8 million will be due on August 1, 2020, or such earlier date specified in the Loan Agreement, as amended. We borrowed the second tranche of \$7.5 million in March 2017. The second tranche required only monthly interest payments until October 1, 2018, followed by equal monthly payments of principal plus accrued interest through the scheduled maturity date on October 1, 2020. In connection with the April Amendment, the maturity date of the second tranche was extended to January 1, 2021. In addition, a final payment for the second tranche loan equal to \$0.5 million was originally due on October 1, 2020, or such earlier date specified in the Loan Agreement. In connection with the April Amendment, the due date for this final payment was extended to January 1, 2021, or such earlier date specified in the Loan Agreement, and the total amount of the payment was increased to \$0.6 million. For each of the first and second tranches, the April Amendment requires only monthly interest payments on the outstanding principal balance for the amounts due on April 1, 2020, May 1, 2020 and June 1, 2020. Beginning with the amounts due on July 1, 2020, the Company will resume payment of the principal portion of these loans in accordance with the original amounts due.

If we repay all or a portion of the loan prior to the applicable maturity date, we will pay the Lenders a prepayment penalty fee, based on a percentage of the then outstanding principal balance equal to 2.0%.

In connection with the Loan Agreement, we issued to the Lenders warrants to purchase shares of our Class A common stock (the “Warrants”). On October 28, 2016, we issued Warrants to purchase 152,580 shares of our Class A common stock at a per share exercise price of \$6.39 per share, which aggregate exercise price represents 6.0% of the principal amount borrowed under the first tranche of the Loan Agreement and 3.0% of the amount available under the second tranche of the Loan Agreement. On March 24, 2017, in connection with the funding of the second tranche, we issued Warrants to purchase 38,006 shares of our Class A common stock at a per share exercise price of \$5.92 per share, which aggregate exercise price represents 3.0% of the principal amount of the second tranche. The Warrants will expire seven years from their date of issuance.

The Loan Agreement includes customary affirmative and restrictive covenants, including, but not limited to, restrictions on the payment of dividends or other equity distributions and the incurrence of debt or liens upon the assets of the Company or its subsidiaries. The Loan Agreement does not contain any financial maintenance covenants other than a requirement to maintain a minimum cash balance. As of March 31, 2020, the Company was required to maintain a cash balance of not less than \$2.5 million in a deposit account pledged to secure the Loan Agreement and subject to an account control agreement. In connection with the April

Amendment, this requirement was temporarily eliminated for the period beginning April 1, 2020 and ending June 30, 2020. Beginning July 1, 2020, until the repayment of the full amounts due under the Loan Agreement, the Company must maintain a minimum cash balance equal to the lesser of (i) \$1.0 million or (ii) the then-current aggregate outstanding principal balance of the loans. The Loan Agreement includes customary events of default, including payment defaults, covenant defaults and material adverse change default. Upon the occurrence of an event of default and following any applicable cure periods, a default interest rate of an additional 5% will be applied to the outstanding loan balances, and the Lenders may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Loan Agreement. As a result of the termination of the STEADFAST Study, we granted the Lenders a first priority security interest in all of our intellectual property, subject to certain limited exceptions.

Cash Flows

	Three Months Ended March 31,	
	2020	2019
<i>(dollars in thousands)</i>		
Net cash used in operating activities	\$ (5,560)	\$ (5,450)
Net cash provided by investing activities	—	—
Net cash provided by financing activities	4,189	8,726
Net (decrease) increase in cash and cash equivalents	<u>\$ (1,371)</u>	<u>\$ 3,276</u>

Operating Activities

For the three months ended March 31, 2020, our net cash used in operating activities increased \$0.1 million from the three months ended March 31, 2019 as increased losses in the 2020 period were offset by working capital changes.

Investing Activities

There were no cash flows from investing activities for the three months ended March 31, 2020 and 2019.

Financing Activities

For the three months ended March 31, 2020, net cash provided by financing activities decreased by \$4.5 million from the three months ended March 31, 2019, driven by decreases in funding from equity issuances given the registered direct offering that occurred in the first quarter of 2019. Further, repayments under the Loan Agreement decreased as fewer principal payments were made in the 2020 period due to the impact of April Amendment to the Loan Agreement.

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.

Based on our current operating plan, we believe that our current cash and cash equivalents, the remaining funding committed under the Letter Agreements and the amounts available under our ATM Offering, if fully utilized, will allow us to meet our liquidity requirements into September 2020. In addition to the available cash and cash equivalents and other sources of liquidity, we are seeking possible additional partnering opportunities for our GKA, GLP-1r and other drug candidates which we believe may provide additional cash for use in our operations and the continuation of the clinical trials for our drug candidates. We are also evaluating several financing strategies to fund the clinical trials of *TTP399* and *azeliragon*, including direct equity investments and future public offerings of our common stock. The timing and availability of such financing are not yet known. 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.

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

- The progress, costs, results and timing of our planned registrational trial(s) to evaluate *TTP399* as a potential treatment of type 1 diabetes and our sequential Phase 2/3 trials to evaluate *azeliragon* as a potential treatment of mild-AD in patients with type 2 diabetes;
- 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 do not currently have any committed external source of funds other than those available through the Letter Agreements. We may however, be able to utilize our ATM Offering to provide an additional \$13.0 million of funds upon the sale of our Class A common stock. In addition, we are evaluating several financing strategies to fund the on-going and future clinical trials of *TTP399* and *azeliragon*, including direct equity investments and future public offerings of our common stock. 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, which could adversely affect our business prospects.

Off-Balance Sheet Arrangements

We have entered into the Letter Agreements with MacAndrews and Forbes Group LLC which, as of March 31, 2020, provide us the right to sell to MacAndrews an additional 2,500,000 shares of our Class A Common Stock at a price of \$1.60 per share. Further, MacAndrews has the right (exercisable up to three times) to require us to sell to it an equal number of shares of Class A Common Stock at the same price. As of March 31, 2020, we had received funding of \$55.0 million under the Letter Agreements and, in exchange, had issued a total of 31,290,546 shares of our Class A Common Stock.

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, 2019. There have been no material changes to our critical accounting policies and estimates in 2020.

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

Our Loan Agreement bears interest at a floating rate equal to 10.5% plus the amount by which the one-month LIBOR exceeds 0.5%. A one percent increase in the variable rate of interest on the Loan Agreement would increase interest expense by an insignificant amount on an annual basis based on the amounts currently outstanding. We do not currently hedge our 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 and investments in a variety of securities that management believes to be of high credit quality. The securities in our investment portfolio are not leveraged and are, due to their short-term nature, subject to minimal interest rate risk. 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 Financial 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 March 31, 2020. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of March 31, 2020, 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 Financial 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

In addition to the risk factors listed below and the other information in this report, investors should carefully consider the risk factors 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, 2019.

The widespread outbreak of an illness or any other communicable disease, or any other public health crisis, could adversely affect our business, results of operations and financial condition.

We could be negatively affected by the widespread outbreak of an illness or any other communicable disease, or any other public health crisis that results in economic and trade disruptions, including the disruption of global supply chains. In March 2020, the World Health Organization declared COVID-19 a pandemic. The COVID-19 pandemic has negatively impacted the global economy, disrupted global supply chains, and created significant volatility and disruption of financial markets. Due to the spread of COVID-19,

many countries around the world and jurisdictions in the United States have imposed quarantines and restrictions on travel and mass gatherings to slow the spread of the virus. Further, “non-essential” businesses have been required to close operations or shift to a remote working environment.

Due to the various restrictions put into effect by governments around the world, including the United States and Canada, health professionals may reduce staffing and reduce or postpone meetings with clients in response to the spread of an infectious disease. Such events may result in a period of business disruption, and in reduced operations, any of which could materially affect our business, financial condition and results of operations.

Quarantines, stay-at-home orders and other limitations can disrupt our research and administrative functions, regardless of whether we are actually forced to close our own facilities. Similar disruptions may also affect other organizations and persons that we collaborate with or whose services we are dependent on. The need for our employees and business partners to work remotely also creates greater potential for risks related to cybersecurity, confidentiality and data privacy.

With respect to the COVID-19 outbreak specifically, such outbreak could also potentially affect the operations of the FDA, EMA or other health authorities, which could result in delays in meetings related to planned clinical trials. Further, it may also slow potential enrollment of our ongoing clinical trials. The COVID-19 outbreak and mitigation measures also have had, and may continue to have, an adverse impact on global economic conditions which could have an adverse effect on our business and financial condition, including impairing our ability to raise capital when needed.

Although, as of the date of this Quarterly Report on Form 10-Q, we do not expect any material impact on our long-term activity, the extent to which the COVID-19 outbreak impacts our business and operations will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity of the virus and the actions to contain its impact. As a result, there can be no assurance as to the manner and extent to which the COVID-19 outbreak (or other large-scale disruption) could impact our operations, results and financial condition.

The recent outbreak of COVID-19 may materially and adversely affect our clinical trials, the operations of our licensees and our financial results.

The extent to which COVID-19 may impact our clinical trials will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the duration of the outbreak, the severity of COVID-19, or the effectiveness of actions to contain and treat for COVID-19. The continued spread of COVID-19 globally could adversely impact our clinical trial operations in the United States and Canada, including our ability to recruit and retain patients in our ongoing Elevage trial. COVID-19 may also affect the employees and operations of third-party contract research organizations located in affected geographies that we rely upon to carry out such enrollments and trials. Further, it may delay the initiation of any additional clinical trials we are planning for which we require additional approval or are seeking guidance from the FDA or other regulatory agencies. The negative impacts of COVID-19 in these instances may result in delays to our operational plans, increases in our operating expenses, and may have a material adverse effect on our financial results.

Additionally, COVID-19 may hinder the ability of our license partners to continue the development of our licensed product candidates. This may result in the delay or the inability of the partners to execute on their development plans which, in turn, may cause delays in or the inability to achieve the clinical, regulatory and sales milestones which trigger payments to us under the terms of our license agreements. This may have a material adverse effect on our financial results and operations as the related milestone payments may not be received at the expected time, if at all.

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

There were no sales of unregistered equity securities during the three months ended March 31, 2020 that have not previously been included in a Current Report on Form 8-K.

Our ability to pay dividends is restricted by our Loan Agreement. See “Management's Discussion and Analysis of Financial Condition and Results of Operations”.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

None.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Description
10.1	<u>Second Amendment of Venture Loan and Security Agreement and Consent, dated as of April 1, 2020, by and among the Company, vTv Therapeutics LLC, Horizon Funding Trust 2019-1 and Silicon Valley Bank.</u>
31.1	<u>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.</u>
31.2	<u>Certification of Chief Financial 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.</u>
32.1	<u>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.</u>
32.2	<u>Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Document
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

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: May 7, 2020

VTV THERAPEUTICS INC.
(Registrant)

By: /s/ Stephen L. Holcombe
Stephen L. Holcombe
President and Chief Executive Officer

By: /s/ Rudy C. Howard
Rudy C. Howard
Chief Financial Officer

SECOND AMENDMENT OF VENTURE LOAN AND SECURITY AGREEMENT

This SECOND AMENDMENT OF VENTURE LOAN AND SECURITY AGREEMENT (this “Agreement”), dated as of April 1, 2020, is entered into by and among vTv THERAPEUTICS INC. (“VTV INC”), vTv THERAPEUTICS LLC (“VTV LLC” and collectively with VTV INC, “Co-Borrowers”), HORIZON FUNDING TRUST 2019-1 (“Horizon Trust”), as assignee of HORIZON TECHNOLOGY FINANCE CORPORATION (“Horizon”), SILICON VALLEY BANK, (“SVB”, and collectively with Horizon Trust “Lenders”) and Horizon as Collateral Agent.

RECITALS

- A. Co-Borrowers, Lenders and Collateral Agent are parties to a certain Venture Loan and Security Agreement dated as of October 28, 2016 (as amended, restated, supplemented or otherwise modified from time to time, the “Loan Agreement”) pursuant to which, among other things, (i) Horizon provided a loan to Co-Borrowers as evidenced by a certain Secured Promissory Note (Loan A) executed by Co-Borrowers in favor of Horizon, dated October 28, 2016, in the original principal amount of Six Million Two Hundred Fifty Thousand and 00/100 Dollars (\$6,250,000.00) (“Loan A Note”), (ii) SVB provided a loan to Co-Borrowers as evidenced by a certain Secured Promissory Note (Loan B) executed by Co-Borrowers in favor of SVB dated October 28, 2016, in the original principal amount of Six Million Two Hundred Fifty Thousand and 00/100 Dollars (\$6,250,000.00) (“Loan B Note”), (iii) Horizon provided a loan to Co-Borrowers as evidenced by a certain Secured Promissory Note (Loan C) executed by Co-Borrowers in favor of Horizon, dated March 24, 2017, in the original principal amount of Three Million Seven Hundred Fifty Thousand and 00/100 Dollars (\$3,750,000.00) (“Loan C Note”), (iv) SVB provided a loan to Co-Borrowers as evidenced by a certain Secured Promissory Note (Loan D) executed by Co-Borrowers in favor of SVB, dated March 24, 2017, in the original principal amount of Three Million Seven Hundred Fifty Thousand and 00/100 Dollars (\$3,750,000.00) (“Loan D Note” and collectively with the Loan A Note, the Loan B Note and the Loan C Note, the “Notes”) and (v) Lenders and Horizon have been granted a security interest in all assets of the Co-Borrowers.
- B. Horizon assigned all of its right, title and interest in and to the Loan A Note and the Loan C Note to Horizon Funding 2019-1 LLC pursuant to that certain Assignment dated as of August 13, 2019.
- C. Horizon Funding 2019-1 LLC assigned all of its right, title and interest in and to the Loan A Note and the Loan C Note to Horizon Trust pursuant to that certain Assignment dated as of August 13, 2019.
- D. Co-Borrowers have now requested that Lenders revise the repayment schedule of the Notes.
- E. Lenders are willing to grant such request, but only to the extent, and in accordance with the terms, and subject to the conditions, set forth herein.
-

AGREEMENT

NOW, THEREFORE, in consideration of the above recitals and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Co-Borrowers, Lenders and Horizon hereby agree as follows:

1. Definitions; Interpretation. Unless otherwise defined herein, all capitalized terms used herein and defined in the Loan Agreement shall have the respective meanings given to those terms in the Loan Agreement. Other rules of construction set forth in the Loan Agreement, to the extent not inconsistent with this Agreement, apply to this Agreement and are hereby incorporated by reference.

2. Confirmation. Each Co-Borrower hereby acknowledges and agrees that: (i) the Loan Agreement sets forth the legal, valid, binding and continuing obligations of such Co-Borrower to Lenders, (ii) the Obligations to Lenders under the Loan Agreement are secured by validly perfected security interests in all assets of such Co-Borrower, the effectiveness and validity of which are hereby confirmed and (iii) no Co-Borrower has any cause of action, claim, defense or set-off against any Lender or any of their respective affiliates and subsidiaries, officers, directors, employees, shareholders, agents and representatives ("Related Parties") in any way regarding or relating to the Loan Agreement or such Lender's or their respective Related Parties' actions thereunder and to the extent any such cause of action, claim, defense or set-off ever existed, whether foreseen or unforeseen, it is waived and such Lender and their respective Related Parties are released from any such causes of action, claims, defenses or rights of set-off of each Co-Borrower.

3. Amendments to Loan Agreement.

(a) Co-Borrowers and Lenders hereby agree that the definition of "Maturity Date" appearing in Section 1.1 of the Loan Agreement is hereby deleted in its entirety and is replaced with the following:

"Maturity Date" means, (a) with respect to Loan A and Loan B, August 1, 2020, and (b) with respect to Loan C and Loan D, January 1, 2021, or if earlier, the date of acceleration of such Loan following an Event of Default or the date of prepayment, whichever is applicable."

(b) Co-Borrowers and Lenders hereby agree that Section 2.2(a) of the Loan Agreement is hereby deleted in its entirety and replaced with the following:

"(a) Scheduled Payments. Co-Borrowers shall make a payment of accrued interest and principal in repayment of each Loan in the amounts and on the Payment Dates as set forth in the Note applicable to such Loan (collectively, the "Scheduled Payments"). Co-Borrowers shall make such Scheduled Payments commencing on the date set forth in the Note applicable to such Loan and continuing thereafter on the first Business Day of each calendar month (each a "Payment Date") through the Maturity Date applicable to such Loan. In any event, all unpaid principal and accrued interest on each Loan shall be due and payable in full on the Maturity Date applicable to each Loan."

- (c) Co-Borrowers and Lender hereby agree that Section 2.2(g) of the Loan Agreement is hereby deleted in its entirety and replaced with the following:

“(g) Final Payment.

(i) Loan A Final Payment. Co-Borrowers shall pay to Horizon a payment in the amount of Three Hundred Seventy Five Thousand Dollars (\$375,000) (the “Loan A Final Payment”) upon the earlier of (A) payment in full of the principal balance of Loan A, (B) an Event of Default and demand by any Lender of payment in full of Loan A or (C) the Maturity Date applicable to Loan A, as applicable.

(ii) Loan B Final Payment. Co-Borrowers shall pay to SVB a payment in the amount of Three Hundred Seventy Five Thousand Dollars (\$375,000) (the “Loan B Final Payment”) upon the earlier of (A) payment in full of the principal balance of Loan B, (B) an Event of Default and demand by any Lender of payment in full of Loan B or (C) the Maturity Date applicable to Loan B, as applicable.

(iii) Loan C Final Payment. Co-Borrowers shall pay to Horizon a payment in the amount of Three Hundred Eighteen Thousand Seven Hundred Fifty Dollars (\$318,750) (the “Loan C Final Payment”) upon the earlier of (A) payment in full of the principal balance of Loan C, (B) an Event of Default and demand by any Lender of payment in full of Loan C or (C) the Maturity Date applicable to Loan C, as applicable.

(iv) Loan D Final Payment. Co-Borrowers shall pay to SVB a payment in the amount of Three Hundred Eighteen Thousand Seven Hundred Fifty Dollars (\$318,750) (the “Loan D Final Payment”) upon the earlier of (A) payment in full of the principal balance of Loan D, (B) an Event of Default and demand by any Lender of payment in full of Loan D or (C) the Maturity Date applicable to Loan D, as applicable.

All final payments under this subsection (g) shall be fully earned as of April 1, 2020, constitute a portion of the Obligations, and be secured by all Collateral.”

- (d) Co-Borrowers and Lenders hereby agree that Section 6.15 of the Loan Agreement shall be deleted in its entirety and replaced with the following:

“6.15 Minimum Cash Covenant.

- (a) Co-Borrowers shall, during the period commencing as of December 20, 2017 and continuing through March 31, 2020, maintain at all times not less than Two Million Five Hundred Thousand and 00/100 Dollars (\$2,500,000.00) in the aggregate on deposit in deposit accounts subject to Account Control Agreements.
- (b) Co-Borrowers shall, during the period commencing on April 1, 2020 and continuing through June 30, 2020, not be required to maintain any specified

amount of cash on deposit in deposit accounts subject to Account Control Agreements.

- (c) Co-Borrowers shall, during the period commencing on July 1, 2020 and continuing until the repayment in full of the Obligations, maintain at all times aggregate cash on deposit in deposit accounts subject to Account Control Agreements in amounts equal to the lesser of (i) One Million Dollars (\$1,000,000) or (ii) the then-current aggregate outstanding principal balance of all Loans.”

4. Amended and Restated Notes. The Notes are hereby amended and restated in their entirety as set forth in Exhibit A attached hereto and made a part hereof (the “Amended and Restated Notes”). All references to Note or Notes in the Loan Agreement and the other Loan Documents shall mean the Amended and Restated Notes.

5. Representations and Warranties.

- (a) At and as of the date of this Agreement and both prior to and after giving effect to this Agreement, each of the representations and warranties contained in the Loan Agreement is true and correct in all material respects (except where such representations and warranties expressly relate to an earlier date, in which case such representations and warranties are true and correct in all material respects as of such earlier date).
- (b) Each Co-Borrower has all necessary power and authority to execute, deliver, and perform in accordance with the terms thereof, this Agreement. Each Co-Borrower has all requisite power and authority to own and operate its Property and to carry on its business as now conducted.
- (c) No Default or Event of Default has occurred under the Loan Agreement or the other Loan Documents and is continuing or will exist after giving effect to this Agreement.

6. Conditions to Effectiveness. Each Lender’s consent and agreement herein is expressly conditioned on the following:

- (a) Each Co-Borrower executing and delivering to Lenders a duly executed copy of this Agreement;
- (b) Each Co-Borrower executing and delivering to Lenders each original Amended and Restated Note;
- (c) Each of the representations and warranties made in this Agreement shall be true and correct on and as of the date hereof as if made on and as of such date, both before and after giving effect to this Agreement;

(d) Co-Borrower's payment of each Lender's legal expenses incurred in connection with the drafting, negotiation and execution of this Agreement in an amount not to exceed Four Thousand Five Hundred Dollars (\$4,500); and

(e) No Default or Event of Default has occurred and is continuing.

7. Effect of Agreement. On and after the date hereof, each reference to the Loan Agreement in the Loan Agreement or in any other document shall mean the Loan Agreement as amended by this Agreement. Except as expressly provided hereunder, the execution, delivery and effectiveness of this Agreement shall not operate as a waiver of any right, power, or remedy of any Lender, nor constitute a waiver of any provision of the Loan Agreement. Except to the limited extent expressly provided herein, nothing contained herein shall, or shall be construed to (nor shall the Co-Borrowers ever argue to the contrary) (i) modify the Loan Agreement or any other Loan Document (ii) modify, waive, impair, or affect any of the covenants, agreements, terms, and conditions thereof, or (iii) waive the due keeping, observance and/or performance thereof, each of which is hereby ratified and confirmed by the Co-Borrowers. Except as amended above, the Loan Agreement remains in full force and effect.

8. Headings. Headings in this Agreement are for convenience of reference only and are not part of the substance hereof.

9. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without reference to conflicts of law rules.

10. Counterparts. This Agreement may be executed in any number of counterparts, including by electronic or facsimile transmission, each of which when so delivered shall be deemed an original, but all such counterparts taken together shall constitute but one and the same instrument.

11. Integration. This Agreement and the Loan Documents constitute and contain the entire agreement of Co-Borrowers, Horizon and Lenders with respect to their respective subject matters, and supersede any and all prior agreements, correspondence and communications.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, Co-Borrowers and Lenders have caused this SECOND AMENDMENT OF VENTURE LOAN AND SECURITY AGREEMENT to be executed as of the day and year first above written.

CO-BORROWER:

vTv THERAPEUTICS INC.

By: /s/ Rudy C. Howard
Name: Rudy C. Howard
Title: Chief Financial Officer

CO-BORROWER:

vTv THERAPEUTICS LLC

By: /s/ Rudy C. Howard
Name: Rudy C. Howard
Title: Chief Financial Officer

LENDER:

HORIZON FUNDING TRUST 2019-1

By: Horizon Technology Finance Corporation, its agent

By: /s/ Robert D. Pomeroy, Jr.
Name: Robert D. Pomeroy, Jr.
Title: Chief Executive Officer

LENDER:

SILICON VALLEY BANK

By: /s/ Jocelyn Hartmann
Name: Jocelyn Hartmann
Title: Director

COLLATERAL AGENT:

HORIZON TECHNOLOGY FINANCE CORPORATION

By: /s/ Robert D. Pomeroy, Jr.
Name: Robert D. Pomeroy, Jr.
Title: Chief Executive Officer

[Signature page to Second Amendment of Venture Loan and Security Agreement]

EXHIBIT A

Amended and Restated Notes

(See attached)

SECTION 302 CERTIFICATION

I, Stephen L. Holcombe, 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: May 7, 2020

By: /s/ Stephen L. Holcombe
Stephen L. Holcombe
President and Chief Executive Officer

SECTION 302 CERTIFICATION

I, Rudy C. Howard, 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: May 7, 2020

By: /s/ Rudy C. Howard
Rudy C. Howard
Chief Financial Officer

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 March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Stephen L. Holcombe, 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: May 7, 2020

By: /s/ Stephen L. Holcombe
Stephen L. Holcombe
President and Chief Executive Officer

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 March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Rudy C. Howard, 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: May 7, 2020

By: /s/ Rudy C. Howard
Rudy C. Howard
Chief Financial Officer