UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 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: 001-38707

LogicBio Therapeutics, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**47-1514975**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

65 Hayden Avenue, 2nd Floor, Lexington, MA 02421
(Address of principal executive offices) (Zip code)

(617) 245-0399
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	**LOGC**	**Nasdaq Global 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	☒
		Smaller reporting company	☒
Non-accelerated filer	☐		
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 ☒

As of May 7, 2020, the registrant had 23,351,598 shares of common stock, $0.0001 par value per share, outstanding.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements. All statements other than statements of historical fact are "forward-looking statements" for purposes of this Quarterly Report on Form 10-Q. In some cases, you can identify forward-looking statements by terminology such as "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect," or similar expressions, or the negative or plural of these words or expressions. These forward-looking statements include statements concerning the following:

- the initiation, cost, timing, progress and results of our current and future research and development activities and preclinical studies and potential future clinical trials, including our plans to resolve the clinical hold placed by the U.S. Food and Drug Administration, or the FDA, on the investigational new drug application, or IND, for LB-001;
- potential attributes and benefits of our GeneRide technology platform and our existing or future product candidates;
- our ability to take advantage of the modular nature of our GeneRide platform to simplify and accelerate development of new product candidates;
- the potential benefits of strategic partnership agreements and our ability to enter into selective strategic partnership arrangements;
- the timing of, and our ability to obtain and maintain, regulatory approvals for our existing or future product candidates;
- our ability to quickly and efficiently identify and develop additional product candidates;
- our ability to advance any product candidate into and successfully complete clinical trials;
- our intellectual property position, including with respect to our trade secrets and the duration of our patent protection; and
- our estimates regarding expenses, future revenues, capital requirements, the sufficiency of our current and expected cash resources and our need for additional financing.

These statements are only current predictions and are subject to known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. We discuss many of these risks in greater detail under Part I, Item 1A. Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2019 filed with the Securities and Exchange Commission on March 16, 2020, and under Part II, Item 1A. Risk Factors in this Quarterly Report on Form 10-Q, each as may be amended or updated in our Quarterly Reports on Form 10-Q. In particular, while we expect the COVID-19 pandemic to adversely affect our business operations and financial results, the extent of the impact on our ability to progress with our research, development, manufacturing and regulatory efforts, including our plans to resolve the clinical hold placed by the FDA on the IND for LB-001, and the value of and market for our common stock, will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time, such as the ultimate duration of the pandemic, travel restrictions, quarantines, social distancing and business closure requirements in the United States and in other countries, and the effectiveness of actions taken globally to contain and treat the disease. Any forward-looking statement in this Quarterly Report on Form 10-Q reflects our current view with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to our operations, results of operations, industry and future growth. Given these uncertainties, you should not rely on these forward-looking statements as predictions of future events. We cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

Unless the context otherwise requires, the terms "LogicBio," "LogicBio Therapeutics, Inc.," the "Company," "we," "us," "our" and similar references in this Quarterly Report on Form 10-Q refer to LogicBio Therapeutics, Inc. and its subsidiaries.

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements (Unaudited).

LogicBio Therapeutics, Inc.

Condensed Consolidated Balance Sheets
(In thousands, except share and per share data)

	March 31, 2020	December 31, 2019
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 43,153	$ 33,107
Short-term investments	—	17,540
Prepaid expenses and other current assets	3,038	2,045
Restricted cash	146	146
Total current assets	46,337	52,838
Property and equipment, net	1,591	1,696
Restricted cash	622	622
Operating lease right-of-use asset	199	504
TOTAL ASSETS	$ 48,749	$ 55,660
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 2,181	$ 624
Accrued expenses and other current liabilities	1,934	2,939
Deferred revenue	1,065	—
Total current liabilities	5,180	3,563
Long-term debt, net of issuance costs and discount	9,862	9,810
Total liabilities	15,042	13,373
STOCKHOLDERS' EQUITY:		
Preferred stock, par value of $0.0001 per share; 25,000,000 shares authorized; no shares issued and outstanding as of March 31, 2020 and December 31, 2019.	—	—
Common stock, par value of $0.0001 per share; 175,000,000 shares authorized; 23,216,661 and 23,036,943 shares issued and outstanding as of March 31, 2020 and December 31, 2019, respectively	3	3
Additional paid-in capital	110,529	109,640
Accumulated other comprehensive income	—	14
Accumulated deficit	(76,825)	(67,370)
Total stockholders' equity	33,707	42,287
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 48,749	$ 55,660

See notes to unaudited condensed consolidated financial statements.

LogicBio Therapeutics, Inc.

Condensed Consolidated Statements of Operations
(In thousands, except share and per share data)

	Three Months Ended March 31,	
	2020	**2019**
REVENUE		
Service revenue	$ 1,021	$ —
Total revenue	1,021	—
OPERATING EXPENSES		
Research and development	7,173	5,486
General and administrative	3,192	2,632
Total operating expenses	10,365	8,118
LOSS FROM OPERATIONS	(9,344)	(8,118)
OTHER INCOME (EXPENSE), NET:		
Interest income	167	443
Interest expense	(272)	—
Other expense, net	(6)	—
Total other income (expense), net	(111)	443
Loss before income taxes	(9,455)	(7,675)
Income tax provision	—	(22)
Net loss	$ (9,455)	$ (7,697)
Net loss per share—basic and diluted	$ (0.41)	$ (0.34)
Weighted-average common stock outstanding—basic and diluted	23,175,802	22,313,129

See notes to unaudited condensed consolidated financial statements.

LogicBio Therapeutics, Inc.

Condensed Consolidated Statements of Comprehensive Loss
(In thousands)

	Three Months Ended March 31,	
	2020	2019
Net loss	$ (9,455)	$ (7,697)
Other comprehensive income:		
Unrealized gain on investments	—	9
Foreign currency translation adjustment	—	3
Comprehensive loss	$ (9,455)	$ (7,685)

See notes to unaudited condensed consolidated financial statements.

LogicBio Therapeutics, Inc.

Condensed Consolidated Statements of Stockholders' Equity
(In thousands, except share and per share data)

	Common Stock $0.0001 Par Value		Additional Paid-in	Accumulated Other Comprehensive	Accumulated	Total Stockholders'
	Shares	Amount	Capital	(Loss) Income	Deficit	Equity
BALANCE, January 1, 2019	22,188,393	$ 3	$ 107,473	$ (9)	$ (27,242)	$ 80,225
Vesting of restricted stock	160,337	—	—	—	—	—
Unrealized gain on investments	—	—	—	9	—	9
Foreign currency translation adjustment	—	—	—	3	—	3
Stock-based compensation expense	—	—	276	—	—	276
Net loss	—	—	—	—	(7,697)	(7,697)
BALANCE, March 31, 2019	22,348,730	$ 3	$ 107,749	$ 3	$ (34,939)	$ 72,816
BALANCE, January 1, 2020	23,036,943	$ 3	$ 109,640	$ 14	$ (67,370)	$ 42,287
Vesting of restricted stock	160,340	—	—	—	—	—
Exercise of options	19,378	—	84	—	—	84
Realized gain on investments	—	—	—	(14)	—	(14)
Stock-based compensation expense	—	—	805	—	—	805
Net loss	—	—	—	—	(9,455)	(9,455)
BALANCE, March 31, 2020	23,216,661	$ 3	$ 110,529	$ —	$ (76,825)	$ 33,707

See notes to unaudited condensed consolidated financial statements.

LogicBio Therapeutics, Inc.

Condensed Consolidated Statements of Cash Flows
(In thousands)

	Three Months Ended March 31,	
	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (9,455)	$ (7,697)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation expense	105	39
Net amortization of premiums and discounts on investments	26	(95)
Stock-based compensation expense	805	276
Non-cash interest expense	52	—
Non-cash lease expense	305	274
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(993)	(498)
Other assets	—	(57)
Accounts payable	1,557	201
Accrued expenses and other current liabilities	(1,005)	(675)
Deferred revenue	1,065	—
Net cash used in operating activities	(7,538)	(8,232)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of investments	—	(44,562)
Maturities of investments	17,500	—
Purchase of property and equipment	—	(247)
Net cash provided by (used in) investing activities	17,500	(44,809)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from exercise of stock options	84	—
Net cash provided by financing activities	84	—
Effect on foreign exchange rates on cash and cash equivalents	—	5
NET INCREASE (DECREASE) IN CASH, CASH EQUIVALENTS AND RESTRICTED CASH	10,046	(53,036)
Cash, cash equivalents and restricted cash at beginning of year	33,875	81,052
Cash, cash equivalents and restricted cash at end of period	$ 43,921	$ 28,016
RECONCILIATION OF CASH, CASH EQUIVALENTS AND RESTRICTED CASH		
Cash and cash equivalents	$ 43,153	$ 27,870
Short-term restricted cash	146	146
Long-term restricted cash	622	—
Total cash, cash equivalents and restricted cash	$ 43,921	$ 28,016
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:		
Cash paid for interest	$ 220	$ —
Cash paid for income taxes	$ —	$ 31
SUPPLEMENTAL DISCLOSURE OF NON-CASH ACTIVITIES:		
Right-of-use assets obtained in exchange for operating lease obligation	$ —	$ 1,323
Property and equipment purchases in accounts payable and accrued expenses	$ —	$ 81

See notes to unaudited condensed consolidated financial statements.

1. NATURE OF BUSINESS AND BASIS OF PRESENTATION

Business Overview

LogicBio Therapeutics, Inc. ("LogicBio" or the "Company") was incorporated in 2014 as a Delaware corporation. Its principal offices are in Lexington, Massachusetts. The Company is a genome editing company focused on developing medicines to durably treat rare diseases in pediatric patients with significant unmet medical need, using GeneRide™, its proprietary technology platform. GeneRide technology is designed to precisely and stably integrate corrective genes into a patient's genome to provide a durable therapeutic effect. The Company has demonstrated proof of concept of its therapeutic platform in animal models for a number of diseases and is focusing on its lead product candidate, LB-001, for the treatment of Methylmalonic Acidemia ("MMA"), a life-threatening disease that presents at birth.

In January 2020, the Company announced the submission of an investigational new drug application ("IND") to support the initiation of a Phase 1/2 clinical trial for LB-001 in pediatric patients with MMA, which the FDA has placed on clinical hold. Subsequently, the Company received a letter from the FDA specifying its questions related to the clinical hold. The clinical hold was based on questions that were clinical and nonclinical in nature, including questions related to the studies conducted for the Company's IND filing, but did not relate to chemistry, manufacturing, and controls. The Company expects to have interactions with the FDA regarding their questions through mid-2020, after which the Company plans to provide guidance on the anticipated timing for the initiation of the Phase 1/2 clinical trial for LB-001.

Since its inception, the Company has devoted the majority of its efforts to business planning, research and development, developing markets, raising capital, and recruiting management and technical staff. The Company is subject to a number of risks similar to those of other companies conducting high-risk, early-stage research and development of product candidates. Principal among these risks are a dependency on key individuals and intellectual property, competition from other products and companies, and the technical risks associated with the successful research, development and clinical manufacturing of its product candidates. The Company's success is dependent upon its ability to continue to raise additional capital in order to fund ongoing research and development, meet its obligations and, ultimately, obtain regulatory approval of its products, successfully commercialize its products, generate revenue and attain profitable operations.

COVID-19 Impact

The Company is closely monitoring the COVID-19 pandemic in order to ensure the safety of its personnel and to continue advancing its research and development activities. Since mid-March, the Company has ceased all business travel, non-laboratory employees have been working remotely, and the Company has arranged laboratory employees to work in shifts to continue in-house research and development activities. The Company plans to maintain these or similar restrictions until it believes employees can fully resume such activities in accordance with federal, state and local requirements and guidelines.

The COVID-19 pandemic did not have a material impact on the Company's results of operations, cash flow and financial position as of and for the three months ended March 31, 2020. However, the full extent to which the COVID-19 pandemic will directly or indirectly impact the Company's business, results of operations and financial position will depend on future developments that are uncertain and cannot be accurately predicted.

Liquidity and Capital Resources

During the years ended December 31, 2019 and 2018, the Company incurred net losses of $40,128 and $17,621, respectively, and reported cash used in operations totaling $38,750 and $15,267, respectively. In addition, as of December 31, 2019, the Company had an accumulated deficit of $67,370. The Company expects to continue to generate operating losses and use cash in operations for the foreseeable future. As of March 31, 2020, the Company had cash and cash equivalents of $43,153 which management believes will be sufficient to fund its operating expenses and capital expenditure requirements through the second quarter of 2021. However, based on the Company's operating losses since inception, the expectation of continued operating losses for the foreseeable future, and the need to raise additional capital to finance its future operations, it has been deemed there is substantial doubt about the Company's ability to continue as a going concern within one year from the date these condensed consolidated financial statements are issued.

The Company will require substantial additional capital to fund its research and development and ongoing operating expenses. Management's plans to mitigate this risk include raising additional capital through equity or debt financings, or through

strategic transactions. These plans may also include the possible deferral of certain operating expenses unless and until additional capital is received. There can be no assurance that the Company will be successful in raising additional capital or that such capital, if available, will be on terms that are acceptable to the Company, or that the Company will be successful in deferring certain operating expenses. While there can be no assurance the Company will be able to successfully reduce operating expenses or raise additional capital, management believes its historical success in managing cash flows and obtaining capital will continue in the foreseeable future.

The accompanying condensed consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the ordinary course of business. The condensed consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared by the Company in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") and pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial statements. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted pursuant to such rules and regulations. However, the Company believes that the disclosures are adequate to make the information presented not misleading. These condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements and the notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 16, 2020.

The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements. In the opinion of management, the accompanying unaudited interim condensed consolidated financial statements contain all adjustments which are necessary for a fair statement of the Company's financial position as of March 31, 2020, consolidated results of operations for the three months ended March 31, 2020 and 2019 and cash flows for the three months ended March 31, 2020. Such adjustments are of a normal and recurring nature. The results of operations for the three months ended March 31, 2020 are not necessarily indicative of the results of operations that may be expected for the year ending December 31, 2020.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Significant Accounting Policies

The Company's significant accounting policies are disclosed in the audited consolidated financial statements and the notes thereto, which are included in the Company's Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 16, 2020. Since the date of those financial statements, there have been no material changes to its significant accounting policies other than the Company's significant accounting policy over revenue recognition under ASC 606 (defined below) which is discussed in this note.

Revenue Recognition

To date the Company's only revenue has consisted of service revenue, all of which is attributable to research cost reimbursement under the Company's January 2020 research agreement with Takeda Pharmaceutical Company Limited ("Takeda") for the development of product candidate LB-301 to treat Crigler-Najjar Syndrome (the "Takeda Agreement"). The Company has not generated any revenue from product sales and does not expect to generate any revenue from product sales for the foreseeable future.

The Company recognizes revenue in accordance with Accounting Standards Codification ("ASC") Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). ASC 606 applies to all contracts with customers, except for contracts that are within the scope of other standards, such as leases, insurance, collaboration arrangements and financial instruments. Under ASC 606, the Company recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration the Company expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the Company performs the following five steps:

(i) identification of the promised goods or services in the contract;

(ii) determination of whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract;

(iii) measurement of the transaction price, including the constraint on variable consideration;

(iv) allocation of the transaction price to the performance obligations; and

(v) recognition of revenue when (or as) each performance obligation is satisfied.

If a contract is determined to be within the scope of ASC 606 at inception, the Company assesses the goods or services promised within such contract, determines which of those goods and services are performance obligations, and assesses whether each promised good or service is distinct. The Company may provide options to additional items in such arrangements, which are accounted for as separate contracts when the customer elects to exercise such options, unless the option provides a material right to the customer. The Company determines transaction price based on the amount of consideration the Company expects to receive for transferring the promised goods or services in the contract. Consideration may be fixed, variable, or a combination of both. The Company then allocates the transaction price to each performance obligation based on the relative standalone selling price and recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) control is transferred to the customer and the performance obligation is satisfied.

Amounts received prior to satisfying the revenue recognition criteria are recorded as deferred revenue in the Company's condensed consolidated balance sheets. If the related performance obligation is expected to be satisfied within the next twelve months this will be classified in current liabilities. Amounts recognized as revenue prior to receipt are recorded as contract assets in the Company's balance sheets. If the Company expects to have an unconditional right to receive the consideration in the next twelve months, this will be classified in current assets. A net contract asset or liability is presented for each contract with a customer.

Recently Adopted Accounting Pronouncements

On January 1, 2020, the Company adopted Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") 2016-13, *Measurement of Credit Losses on Financial Instruments*. This ASU requires that credit losses be reported using an expected losses model rather than the incurred losses model that is currently used, and establishes additional disclosures related to credit risks. For available-for-sale debt securities with unrealized losses, the standard requires allowances to be recorded instead of reducing the amortized cost of the investment. The adoption of this standard did not have a material impact on the Company's condensed consolidated financial statements and related disclosures.

Recently Issued Accounting Pronouncements

There have been no new accounting pronouncements or changes to accounting pronouncements during the three months ended March 31, 2020, as compared to the recent accounting pronouncements described in Note 2 of the Company's Annual Report on Form 10-K for the year ended December 31, 2019, which could be expected to materially impact the Company's unaudited condensed consolidated financial statements.

3. FAIR VALUE MEASUREMENTS

The following tables present information about the Company's financial assets measured at fair value on a recurring basis and indicate the level of the fair value hierarchy utilized to determine such fair values:

Description	March 31, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Observable Inputs (Level 3)
Assets				
Money market funds and other cash equivalents	$ 43,153	$ 43,153	$ —	$ —
Total financial assets	$ 43,153	$ 43,153	$ —	$ —

Description	December 31, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Observable Inputs (Level 3)
Assets				
Overnight repurchase agreements	$ 30,001	$ —	$ 30,001	$ —
U.S. Treasury securities	17,540	17,540	—	—
Money market funds and other cash equivalents	1,093	1,093	—	—
Total financial assets	$ 48,634	$ 18,633	$ 30,001	$ —

When developing fair value estimates, the Company maximizes the use of observable inputs and minimizes the use of unobservable inputs. When available, the Company uses quoted market prices to measure fair value. The valuation technique used to measure fair value for the Company's Level 1 and Level 2 assets is a market approach, using prices and other relevant information generated by market transactions involving identical or comparable assets. If market prices are not available, the fair value measurement is based on models that use primarily market-based parameters including yield curves, volatilities, credit ratings and currency rates. In certain cases where market rate assumptions are not available, the Company is required to make judgments about assumptions market participants would use to estimate the fair value of a financial instrument.

The Company did not have any transfers of assets between Level 1 and Level 2 of the fair value measurement hierarchy during the three months ended March 31, 2020.

4. INVESTMENTS

As of March 31, 2020, the Company did not hold any short-term or long-term investments.

As of December 31, 2019, the Company held available-for-sale investments which were included in short-term investments on the condensed consolidated balance sheet and summarized in the table below:

	December 31, 2019			
	Cost Basis	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasury securities	$ 17,526	$ 14	$ —	$ 17,540
Total	$ 17,526	$ 14	$ —	$ 17,540

Certain short-term debt securities with original maturities of less than 90 days are included in cash and cash equivalents on the condensed consolidated balance sheet and are not included in the table above. As of December 31, 2019, all investments had a contractual maturity within one year.

5. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses and other current liabilities at March 31, 2020 and December 31, 2019 consisted of the following:

	March 31, 2020	December 31, 2019
Accrued compensation and benefits	$ 551	$ 1,155
Accrued professional services	959	1,004
Lease liabilities	199	504
Other	225	276
Total accrued expenses and other current liabilities	$ 1,934	$ 2,939

Accrued compensation and benefits consists primarily of accrued bonuses. Accrued professional services consists primarily of consulting services, legal services and services provided by contract research organizations (“CRO”) and contract manufacturing organizations (“CMO”).

6. DEBT

On July 2, 2019 (the "Closing Date"), the Company entered into a loan and security agreement (the "Loan Agreement"), for term loans with Oxford Finance LLC ("Oxford") and Horizon Technology Finance Corporation ("Horizon," and, together with Oxford, the "Lenders"). The Loan Agreement allows the Company to borrow up to $20,000 issuable in two equal tranches (the "Term Loans"). On the Closing Date, the first tranche of $10,000 was drawn down by the Company (the "Term A Loan"). The second tranche of $10,000 will be available to the Company through September 30, 2020, subject to certain clinical milestones (the "Term B Loan").

The outstanding loan balance will accrue interest at the greater of (i) the rate of the one-month U.S. LIBOR rate plus 6.25% and (ii) 8.75%. The Loan Agreement provides for an interest only period until July 1, 2021, followed by thirty-six equal monthly payments of principal and interest continuing through June 1, 2024 (the "Maturity Date"). The Company has the option to prepay the outstanding balance prior to maturity, subject to a prepayment fee of 1.0% to 3.0% depending upon when the prepayment occurs. Upon repayment of the Term Loans, the Company is required to make a final payment to the Lenders equal to 4.5% of the original principal amount of the Term Loans funded which will be accrued by charges to interest expense over the term of the loans using the effective interest method.

In conjunction with the Loan Agreement, the Company issued 15,686 of common stock warrants ("Warrants") to the Lenders at a per share exercise price of $12.75, a maximum contractual term of 10 years and exercisable immediately. The fair value of the Warrants was accounted for as a debt discount and calculated to be approximately $136 using the Black-Scholes method. The Company determined the Warrants met the criteria for equity classification, and, as such, the fair value of the Warrants is recorded as additional paid-in capital on the condensed consolidated balance sheets. Finally, the Company incurred issuance costs of approximately $150. Both the debt discount and issuance costs will be accreted to Notes payable by charges to interest expense over the term of the Term A Loan using the effective interest method.

The Loan Agreement contains customary representations, warranties and covenants and also includes customary events of default. Events of default include, among other things, the Company's failure to pay amounts due, a breach of certain covenants, a material adverse change event, misrepresentations and judgments. Upon the occurrence of an event of default, a default interest rate of an additional 5.00% per annum may be applied to the outstanding loan balances, and the Lenders may declare all outstanding obligations immediately due and payable. Borrowings under the Loan Agreement are collateralized by substantially all the Company's assets, other than its intellectual property, which include maintaining certain cash balances in controlled accounts.

Interest expense was $272 for the three months ended March 31, 2020. The effective rate on the Loan Agreement, including the amortization of the debt discount and issuance costs, and accretion of the final payment, was 9.7% at March 31, 2020. The components of the long-term debt balance are as follows:

	March 31, 2020	December 31, 2019
Notes payable, gross	$ 10,000	$ 10,000
Less: Unamortized debt discount and issuance costs	(235)	(254)
Accretion of final payment fee	97	64
Carrying value of notes payable	9,862	9,810
Less: Current portion of long-term debt	—	—
Long-term debt, net of issuance costs and discount	$ 9,862	$ 9,810

As of March 31, 2020, the estimated future principal payments due were as follows:

	As of March 31, 2020
2020	—
2021	1,945
2022	3,333
2023	3,333
2024	1,389
Total principal payments	$ 10,000

7. STOCK-BASED COMPENSATION

Equity Incentive Plans

In December 2014, the Company adopted the LogicBio Therapeutics, Inc. 2014 Equity Incentive Plan, as amended (the "2014 Plan"), for the issuance of stock options and other stock-based awards. In October 2018, the Company's 2018 Equity Incentive Plan (the "2018 Plan") became effective and as a result, no further awards will be made under the 2014 Plan. The 2018 Plan was established to provide equity-based ownership opportunities for employees and directors, as well as outside consultants and advisors. Any previously granted awards under the 2014 Plan will remain outstanding in accordance with their respective terms.

Under the 2018 Plan, there is an annual increase on January 1 of each year from 2019 until 2028, by the lesser of (i) 4% of the number of shares of common stock outstanding on December 31 of the prior year and (ii) an amount determined by the Board. On January 1, 2020, the Company increased the number of shares available for future grant under the 2018 Plan by 926,786 shares. At March 31, 2020, there were 1,309,885 shares available for future grant under the 2018 Plan.

The 2018 Plan is administered by the Board. The exercise prices, vesting and other restrictions are determined at the discretion of the Board, except that the exercise price per share of stock options may not be less than 100% of the fair market value of the common stock on the date of grant. Stock options awarded under the 2018 Plan expire 10 years after the grant date, unless the Board sets a shorter term. Vesting periods for awards under the 2018 Plan are determined at the discretion of the Board. Incentive stock options granted to employees and shares of restricted stock granted to employees, officers, members of the Board, advisors, and consultants of the Company typically vest over four years. Non-statutory options and shares of restricted stock granted to employees, officers, members of the Board, advisors, and consultants of the Company typically vest over one to four years.

Stock Options

During the three months ended March 31, 2020 and 2019, the Company granted options to purchase 714,203 and 79,123 shares of common stock, respectively, with a weighted-average grant date fair value per share of $4.74 and $6.03, respectively. The Company recorded stock-based compensation expense for options granted of $761 and $210 during the three months ended March 31, 2020 and 2019, respectively. As of March 31, 2020, there were 2,930,587 options outstanding and $7,268 of unrecognized stock-based compensation expense related to unvested stock options to be recognized over a weighted-average period of 3.1 years.

Restricted Common Stock

The Company has granted shares of restricted common stock with time-based and performance-based vesting conditions from time to time. During the three months ended March 31, 2020 and 2019, the Company did not grant any shares of restricted common stock. The Company recorded stock-based compensation expense for restricted common stock granted of $44 and $66 during the three months ended March 31, 2020 and 2019, respectively. As of March 31, 2020, there were 83,047 shares of unvested restricted common stock outstanding and $216 of unrecognized stock-based compensation expense related to unvested restricted common stock to be recognized over a weighted-average period of 1.8 years.

Stock-Based Compensation Expense

Total stock-based compensation expense recorded as research and development and general and administrative expenses, respectively, for employees, directors and non-employees for the three months ended March 31, 2020 and 2019 is as follows:

	Three Months Ended March 31,	
	2020	2019
Research and development	$ 295	$ 155
General and administrative	510	121
Total stock-based compensation expense	$ 805	$ 276

8. STOCKHOLDERS' EQUITY

Open Market Sale Agreement

On November 15, 2019, the Company entered into an Open Market Sale Agreement (the "Open Market Sale Agreement") with Jefferies LLC, as agent ("Jefferies"), pursuant to which the Company may issue and sell shares of its common stock having an

aggregate offering price of up to $50,000 (the “Open Market Shares”) from time to time through Jefferies (the “Open Market Offering”).

Under the Open Market Sale Agreement, Jefferies may sell the Open Market Shares by methods deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Exchange Act of 1934, as amended. The Company may sell the Open Market Shares in amounts and at times to be determined by the Company from time to time subject to the terms and conditions of the Open Market Sale Agreement, but it has no obligation to sell any of the Open Market Shares in the Open Market Offering.

The Company or Jefferies may suspend or terminate the offering of Open Market Shares upon notice to the other party and subject to other conditions. The Company has agreed to pay Jefferies commissions for its services in acting as agent in the sale of the Open Market Shares in the amount of up to 3.0% of gross proceeds from the sale of the Open Market Shares pursuant to the Open Market Sale Agreement. The Company has also agreed to provide Jefferies with customary indemnification and contribution rights.

The Company did not issue any shares under the Open Market Sales Agreement during the quarter ended March 31, 2020. From April 1 through May 7, 2020, the Company issued 51,889 shares of its common stock at an average weighted price of $5.76 per share, resulting in gross proceeds to the Company of $299. Costs associated with the proceeds consist of a 3% cash commission.

9. REVENUE

In January 2020, the Company entered into a research agreement with Takeda for the development of product candidate LB-301 to treat Crigler-Najjar Syndrome. Under the terms of the Takeda Agreement, Takeda will fund all research and development activities related to the development of LB-301 under a pre-agreed upon research plan (the “Research Plan”). The Takeda Agreement also provides Takeda with an exclusive, non-binding option to enter into a license agreement to the LB-301 program upon the exercise of an option (the “License Option”).

The Company assessed the Takeda Agreement in accordance with ASC 606 and concluded that that it represents a contract with a customer and is within the scope of ASC 606. The promised goods and services represent one combined performance obligation and the entire transaction price will be allocated to that single combined performance obligation. In addition, the Company concluded that the License Option does not provide any discounts or other rights. Terms related to an exclusive license negotiated after the exercise of the License Option will be part of a separate contract and reflect applicable standalone selling prices. As such, the Company concluded the License Option is not considered to be a material right.

Under the Takeda Agreement, Takeda is obligated to reimburse the Company for the costs incurred under the Research Plan. Costs incurred are billed by the Company to Takeda from time to time. The Company elected to recognize revenue under the "right to invoice" practical expedient based on the Company's right to invoice Takeda at an amount that approximates the value to the customer and the performance completed to date. For the quarter ended March 31, 2020, the Company recognized $1,021 as service revenue under the Takeda Agreement. Further, as of March 31, 2020, the Company recorded $1,065 as deferred revenue within current liabilities on the Company’s condensed consolidated balance sheets related to the Takeda Agreement.

10. INCOME TAXES

For the three months ended March 31, 2020 and the year ended December 31, 2019, the Company maintained a full valuation allowance on federal and state deferred tax assets since management does not forecast the Company to be in a profitable position in the near future. The income tax provision within the condensed consolidated statements of operations for the three months ended March 31, 2019 related to tax expense of the wholly owned foreign subsidiary, LogicBio Therapeutics Research Ltd, which ceased operations in 2018 and was formally dissolved in November 2019.

11. LOSS PER SHARE

Basic loss per share is computed by dividing net loss by the weighted-average shares of common stock outstanding, without consideration to common stock equivalents:

	Three Months Ended March 31,	
	2020	2019
Numerator:		
Net loss	$ (9,455)	$ (7,697)
Denominator:		
Weighted-average common stock outstanding	23,175,802	22,313,129
Net loss per share — basic and diluted	$ (0.41)	$ (0.34)

The Company's potentially dilutive shares, which include any outstanding stock options, warrants and unvested restricted stock, are considered to be common stock equivalents and are only included in the calculation of diluted net loss when their effect is dilutive.

The Company excluded the following potential common stock equivalents from the computation of diluted net loss per share attributable to common stockholders because including them would have had an anti-dilutive effect for the three months ended March 31, 2020 and 2019.

	March 31, 2020	March 31, 2019
Unvested restricted stock	83,047	724,383
Options to purchase common stock	2,930,587	2,429,562
Term A Loan warrants	15,686	—

12. LEASES

The Company has historically entered into lease arrangements for its facilities and certain equipment. As of March 31, 2020, the Company had one operating lease with required future minimum payments. In applying the guidance under ASC Topic 842 *Leases* ("ASC 842"), the Company determined the classification of this lease to be an operating lease and recorded a right-of-use asset and lease liability as of the effective date. The Company's leases generally do not include termination or purchase options. From time to time, leases may include options to renew the lease after the expiration of the initial lease term. A renewal period is included in the lease term only when it reasonably certain that the Company will exercise such renewal options. As of March 31, 2020, no renewal options existed that the Company felt were reasonably certain of being exercised.

Operating Leases

The following table contains a summary of the lease costs recognized under ASC 842 and other information pertaining to the Company's operating leases for the three months ended March 31, 2020 and 2019:

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2019
Operating leases		
Lease cost		
Operating lease cost	$ 325	$ 274
Variable lease cost	98	42
Total lease cost	$ 423	$ 316
Other year-to-date lease information		
Operating cash flows used for operating leases	$ 321	$ 199
Operating lease liabilities arising from obtaining right-of-use assets	$ —	$ 1,323

The following table contains a summary of the lease liabilities recognized on the Company's condensed consolidated balance sheets as of March 31, 2020 and December 31, 2019:

	As of March 31, 2020	As of December 31, 2019
Other operating lease information		
Operating lease liabilities — short term	$ 199	$ 504
Operating lease liabilities — long term	$ —	$ —
Weighted average remaining lease term	0.6 years	0.7 years
Weighted average discount rate	7.04%	7.04%

The variable lease costs for the three months ended March 31, 2020 include common area maintenance and other operating charges. As the Company's leases do not provide an implicit rate, the Company utilized its incremental borrowing rate based on what it would normally pay to borrow on a collateralized basis over a similar term for an amount equal to the lease payments at the commencement date in determining the present value of lease payments. As of March 31, 2020, the Company classified its short-term operating lease liabilities within accrued expenses and other current liabilities.

Future minimum lease payments under the Company's operating leases as of March 31, 2020 and December 31, 2019, were as follows:

	As of March 31, 2020	As of December 31, 2019
Maturity of lease liabilities		
2020	$ 204	$ 523
Thereafter	—	—
Total lease payments	$ 204	$ 523
Less: imputed interest	(5)	(19)
Total operating lease liabilities	$ 199	$ 504

In November 2019, the Company entered into a lease agreement for office, laboratory and vivarium space located at 65 Hayden Avenue Lexington, Massachusetts ("65 Hayden Ave Lease") to replace the Company's prior headquarters located at 99 Erie Street Cambridge, Massachusetts. Under the terms of the 65 Hayden Ave Lease, the Company will lease approximately 23,901 square feet of space and pay an initial annual base rent of approximately $1,494, which is subject to scheduled annual increases, plus certain operating expenses and taxes. The Company took possession of the space on April 1, 2020 ("Lease Commencement Date") and the lease will continue through July 1, 2025 ("Lease Termination Date"). The Company has an option to extend the lease for a single additional term of 5 years. Upon execution of the 65 Hayden Ave Lease, the Company executed a $622 cash-collateralized letter of credit. Lease payments are anticipated to begin three months after the Lease Commencement Date and will continue in monthly installments through the Lease Termination Date.

The Company will assess the lease classification of the 65 Hayden Ave Lease and commence recognition of the associated rent expense as of the Lease Commencement Date.

13. RELATED PARTIES

From time to time, the Company is or has been party to consulting service agreements with each of its three co-founders. Under the terms of each agreement, the Company pays an annual fee of $68 for research and development consulting services. For the three months ended March 31, 2020, the Company recorded research and development expense of $17 related to consulting services received from Mark Kay, who is one of the co-founders and a member of the Board. For the three months ended March 31, 2019, the Company recorded $51 to research and development expenses under consulting service agreements with its three co-founders.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the unaudited condensed consolidated financial statements and the accompanying notes included in this Quarterly Report on Form 10-Q and the audited consolidated financial information and the notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2019, which was filed with the Securities and Exchange Commission, or SEC, on March 16, 2020.

This discussion contains certain forward-looking statements that involve risks and uncertainties. Forward-looking statements are identified by words such as "believe," "will," "may," "estimate," "continue," "anticipate," "intend," "should," "plan," "expect," "predict," "could," "potentially" or the negative of these terms or similar expressions. You should read these statements carefully because they discuss future expectations, contain projections of future results of operations or financial condition, or state other "forward-looking" information. These statements relate to our future plans, objectives, expectations, intentions and financial performance and the assumptions that underlie these statements. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those anticipated in the forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in the "Risk Factors" section of our Annual Report on Form 10-K and in this Quarterly Report on Form 10-Q. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to our management. These statements, like all statements in this Quarterly Report on Form 10-Q, speak only as of their date, and except as required by law, we undertake no obligation to update or revise these statements in light of future developments. We caution investors that our business and financial performance are subject to substantial risks and uncertainties.

Overview

We are a genome editing company focused on developing medicines to durably treat rare diseases in pediatric patients with significant unmet medical need using GeneRide, our proprietary technology platform. Our GeneRide technology is designed to precisely integrate corrective genes into a patient's genome to provide a stable therapeutic effect. Because GeneRide is designed to have this durable therapeutic effect, we are initially targeting rare liver disorders in pediatric patients where it is critical to provide treatment early in a patient's life before irreversible disease pathology can occur. We have demonstrated proof of concept of our therapeutic platform in animal models for a number of diseases and are focusing on development of our lead product candidate, LB-001, for the treatment of Methylmalonic Acidemia, or MMA, a life-threatening disease that presents at birth.

Based on our GeneRide technology, we are developing our lead product candidate, LB-001, to treat MMA. In January 2020, we announced the submission of an investigational new drug application, or IND, to support the initiation of a Phase 1/2 clinical trial in pediatric patients with MMA, which the FDA has placed on clinical hold. Subsequently, we received a letter from the FDA specifying its questions related to the clinical hold. The clinical hold was based on questions that were clinical and nonclinical in nature, including questions related to the studies conducted for our IND filing, but did not relate to chemistry, manufacturing, and controls. We expect to have interactions with the FDA regarding their questions through mid-2020, after which we plan to provide guidance on the anticipated timing for the initiation of the Phase 1/2 clinical trial for LB-001.

We believe that achieving clinical proof of concept in an inherited liver disease such as MMA will validate our platform technology, including its potential application to other organs and diseases. In January 2020, we announced a research agreement with Takeda Pharmaceutical Company Limited, or Takeda, to further develop LB-301 in Crigler-Najjar syndrome, or CN, the second indication to be pursued using the GeneRide platform. In addition to MMA and CN, we have demonstrated proof of concept of our platform in hemophilia B and alpha-1-antitrypsin deficiency, or A1ATD, animal disease models. We expect to select future product candidates from these genetic diseases or others addressed by targeting the liver initially, and later by targeting the central nervous system, or CNS, and muscle.

Since our inception in 2014, we have devoted the majority of our efforts to business planning, research and development, developing and protecting our intellectual property, raising capital and recruiting management and technical staff. We do not have any products approved for sale and our only revenue has consisted of service revenue related to research cost reimbursement received under the Takeda agreement. As of March 31, 2020, we have raised approximately $9.8 million in net proceeds through the loan and security agreement in July 2019, approximately $72.3 million in net proceeds through our initial public offering, or IPO, in October 2018 and approximately $33.1 million in net proceeds from the sale of our convertible preferred stock in 2016 and 2017. We have incurred significant operating losses since our inception. Our ability to generate product revenue sufficient to achieve profitability will depend on the successful development and commercialization of our product candidate and any future product candidates. Our net loss was $9.5 million for the three months ended March 31, 2020 and our accumulated deficit was $76.8 million as of March 31, 2020. We expect to continue to incur significant expenses and operating losses for the foreseeable future in connection with our ongoing activities.

Impact of COVID-19

We have been actively monitoring the COVID-19 pandemic and its impact globally. Our objectives have remained the same throughout the pandemic: to support the safety of our team members and their families and to continue our research and development activities to develop genetic medicines that have the potential to durably treat rare diseases in patients with significant unmet medical need.

Since mid-March 2020, our non-laboratory employees have been working remotely in order to comply with social distancing and "stay at home" orders as well as applicable guidelines from the U.S. Centers for Disease Control and Prevention, or CDC. Our laboratory employees, whose work must be performed on premises, have been working in shifts to continue our in-house research and manufacturing activities on a decreased basis. We have also ceased all business travel for our employees. We plan to maintain these or similar restrictions on our business activities until we believe our employees can fully resume such business activities in accordance with federal, state and local requirements and guidelines.

Our research, development and manufacturing activities are dependent on our ability to continue our work on premises at our laboratory. We also rely on third parties located in countries that are affected by the COVID-19 pandemic, including the United States, for certain research, development and manufacturing activities. Similar to how we have restricted business activities at our premises, many of these third parties have also limited their staff from working on premises as part of their response to COVID-19. While we believe we and our third party vendors, suppliers and collaborators have largely been able to continue essential business activities to a certain degree, we cannot predict the impact of the progression of the COVID-19 pandemic on future results due to a variety of factors, including the health of our and their employees, our ability to maintain operations, the ability of our third party vendors, suppliers and collaborators to continue operations, any further government and/or public actions taken in response to the pandemic and ultimately the length of the pandemic.

In April 2020, as part of our effort to preserve capital, our leadership team volunteered to accept salary cuts ranging from 15% to 20%. We have also adopted certain other cost-cutting measures aimed at enhancing our capital position. During April and through May 7, 2020, we entered into "at-the-market" sales of our common stock resulting in gross proceeds of approximately $0.3 million. While we intend to continue to evaluate ways to enhance our liquidity and capital position, our efforts will largely depend on future developments that are highly uncertain and cannot be predicted with confidence at this time.

We plan to continue to closely monitor the COVID-19 pandemic in order to ensure the safety of our personnel and to continue advancing our research and development activities.

Components of Results of Operations

Revenue

To date, the Company's only revenue has consisted of research cost reimbursements recognized as service revenue, all of which is attributable to the Company's January 2020 research agreement with Takeda to develop LB-301 in CN. The Company has not generated any revenue from product sales and does not expect to generate any revenue from product sales for the foreseeable future.

Operating Expenses

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for our research activities, including our discovery efforts and the development of our product candidates, and include:

- salaries, benefits and other related costs, including stock-based compensation expense, for personnel engaged in research and development functions;
- license maintenance fees and milestone fees incurred in connection with various license agreements;
- the costs of laboratory supplies and acquiring, developing and manufacturing preclinical study and, eventually, clinical trial materials;
- expenses incurred under agreements with contract research organizations, or CROs, contract manufacturing organizations, or CMOs, as well as academic institutions and consultants that conduct our preclinical studies and other scientific development services;
- facility-related expenses, which include direct depreciation costs and allocated expenses for rent and maintenance of facilities and other operating costs;

- costs of outside consultants, including their fees, stock-based compensation and related travel expenses; and
- costs related to compliance with regulatory requirements.

We expense research and development costs as incurred. Costs for external development activities are recognized based on an evaluation of the progress to completion of specific tasks. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and are reflected in our financial statements as prepaid or accrued research and development expenses.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in our executive, finance, corporate and business development and administrative functions. General and administrative expenses also include professional fees for legal, patent, accounting, auditing, tax and consulting services, travel expenses, and facility-related expenses, which include direct depreciation costs and allocated expenses for rent and maintenance of facilities and other operating costs.

Other Income (Expense), Net

Interest income consists primarily of interest on our cash and cash equivalents and investments. Interest expense consists of interest expense related to the aggregate $10.0 million principal amount of the Term A Loan borrowing under the loan and security agreement in July 2019. A portion of the interest expense on the Term A Loan is non-cash expense relating to the accretion of the debt discount and amortization of issuance costs. In the three months ended March 31, 2020, we recorded $0.3 million in interest expense, of which $0.2 million relates to cash interest paid and the remainder to the accretion of the debt discount and amortization of issuance costs. Other expense, net consists primarily of foreign exchange losses.

Results of Operations

Comparison of the Three Months Ended March 31, 2020 and 2019

The following table summarizes our results of operations for the three months ended March 31, 2020 and 2019:

	Three Months Ended March 31,	
	2020	2019
	(in thousands)	
REVENUE		
Service revenue	$ 1,021	$ —
Total revenue	1,021	—
OPERATING EXPENSES		
Research and development	7,173	5,486
General and administrative	3,192	2,632
Total operating expenses	10,365	8,118
Loss from operations	(9,344)	(8,118)
Other income (expense):		
Other (expense) income, net	(111)	443
Loss before income taxes	(9,455)	(7,675)
Income tax provision	—	(22)
Net loss	$ (9,455)	$ (7,697)

Revenue

The Company's revenue for the three months ended March 31, 2020 consisted solely of the $1.0 million in research cost reimbursements recognized as service revenue under the January 2020 research agreement with Takeda.

Research and Development Expenses

The following table summarizes our research and development expenses for the three months ended March 31, 2020 and 2019:

	Three Months Ended March 31,		
	2020	2019	Increase
	(in thousands)		
LB-001 external development and manufacturing costs	$ 3,494	$ 2,754	$ 740
Personnel-related costs	1,766	1,197	569
Other research and development costs	1,913	1,535	378
Total research and development expenses	$ 7,173	$ 5,486	$ 1,687

Research and development expenses for the three months ended March 31, 2020 were $7.2 million, compared to $5.5 million for the three months ended March 31, 2019. The increase of approximately $1.7 million was primarily due to increases of approximately $0.7 million related to external development and manufacturing expenses for our lead product candidate, LB-001, $0.4 million in other research and development expenses as we increased our overall research and development activities related to general platform development and $0.6 million in personnel-related costs due to an increase in headcount. Personnel-related costs for the three months ended March 31, 2020 included stock-based compensation expense of $0.3 million, compared to $0.2 million for the three months ended March 31, 2019. While there may be fluctuations on a quarterly basis, we expect that our research and development costs will decrease over the next twelve months as we believe that we have already incurred a significant proportion of the LB-001 external development and manufacturing costs needed to bring LB-001 into clinical development.

General and Administrative Expenses

General and administrative expenses were $3.2 million for the three months ended March 31, 2020, compared to $2.6 million for the three months ended March 31, 2019. The increase of approximately $0.6 million was primarily due to an increase in personnel-related costs which include salaries, stock-based compensation and bonus. This increase was due to an increase in headcount, including at the executive level, as well as an increase in stock-based compensation expense. Stock-based compensation expense included in general and administrative expenses was $0.5 million and $0.1 million for the three months ended March 31, 2020 and 2019, respectively. We expect that our general and administrative expenses will remain relatively consistent over the next twelve months, although there may be fluctuations on a quarterly basis.

Other (Expense) Income, Net

Other expense, net was $0.1 million for the three months ended March 31, 2020, compared to other income, net of $0.4 million for the three months ended March 31, 2019. The net decrease was primarily related to a decrease in interest income due to lower interest rates and lower capital resource balances as well as interest expense related to the loan and security agreement.

Liquidity and Capital Resources

Overview

Since our inception and through March 31, 2020, we have not generated any sales revenue and have incurred significant losses and negative cash flows from our operations.

As a result of the uncertainties for our business caused by the COVID-19 pandemic, we have implemented certain measures as part of our effort to preserve capital as described further under the heading "Impact of COVID-19." As of March 31, 2020, we had cash and cash equivalents of $43.2 million, which we believe will be able to fund our operating expenses and capital expenditure requirements through the second quarter of 2021. While we intend to continue to evaluate ways to enhance our liquidity and capital position, our efforts will largely depend on future developments that are highly uncertain and cannot be predicted with confidence at this time. As such, there is substantial doubt about the Company's ability to continue as a going concern within one year of the date these financial statements are filed.

Cash Flows

The following table summarizes our cash flows for the three months ended March 31, 2020 and 2019:

	Three Months Ended March 31,	
	2020	2019
	(in thousands)	
Net cash used in operating activities	$ (7,538)	$ (8,232)
Net cash provided by (used in) investing activities	17,500	(44,809)
Net cash provided by financing activities	84	—
Effect of foreign exchange rates on cash and cash equivalents	—	5
Net increase (decrease) in cash, cash equivalents and restricted cash	$ 10,046	$ (53,036)

Operating Activities

During the three months ended March 31, 2020, net cash used in operating activities was approximately $7.5 million, primarily related to our net loss adjusted for non-cash charges and changes in the components of working capital. The $0.7 million decrease in net cash used in operating activities during the three months ended March 31, 2020 as compared to the three months ended March 31, 2019, was primarily driven by an increase in our deferred revenue related to the January 2020 research agreement with Takeda.

Investing Activities

During the three months ended March 31, 2020, net cash provided by investing activities was $17.5 million as the proceeds from our short-term investments that matured during the period were not reinvested and were instead held as cash and cash equivalents. During the three months ended March 31, 2019, net cash used in investing activities was $44.8 million which primarily related to outflows of our cash and cash equivalents into short-term investments.

Financing Activities

During the three months ended March 31, 2020, net cash provided by financing activities was $0.1 million related to the exercise of stock options. During the three months ended March 31, 2019, there were no net cash inflows or outflows related to financing activities.

Funding Requirements

We expect to continue to incur a significant amount of expenses in connection with our ongoing activities for the foreseeable future. In particular, we will incur significant expenses related to the preclinical activities and clinical trials of our product candidates and any future product candidates.

We expect that our expenses will increase substantially if and as we:

- continue our research and preclinical development of any product candidates from our current or future research programs;
- initiate clinical trials for LB-001 and any other product candidates we identify and develop;
- seek to identify, assess, acquire and/or develop additional research programs and additional product candidates;
- seek marketing approvals for any product candidate that successfully complete clinical trials;
- develop, optimize, scale and validate a manufacturing process and analytical methods for any product candidates we may develop;
- establish and build out internal process and analytical development capabilities and preclinical and clinical grade production;

- obtain market acceptance of any product candidates we may develop as viable treatment options;
- address competing technological and market developments;
- maintain, expand and protect our intellectual property portfolio and provide reimbursement of third-party expenses related to our patent portfolio;
- further develop our GeneRide technology platform;
- hire additional technical, quality, regulatory, clinical, scientific and commercial personnel and add operational, financial and management information systems and personnel, including personnel to support our process and product development, manufacturing and planned future commercialization efforts;
- make royalty, milestone or other payments under current and any future in-license agreements;
- establish and maintain supply chain and manufacturing relationships with third parties that can provide adequate products and services, in both amount, timing and quality, to support clinical development and the market demand for any product candidate for which we obtain regulatory and marketing approval;
- lease and build new facilities, including offices and labs, to support organizational growth;
- validate and build-out a commercial-scale current Good Manufacturing Practices, or cGMP, manufacturing facility; and
- establish a sales, marketing and distribution infrastructure to commercialize any product candidates for which we may obtain marketing approval.

We are unable to estimate the timing and amounts of increased capital outlays and operating expenses associated with completing the research and development of our product candidates because of the numerous risks and uncertainties associated with the development of LB-001 and any other product candidates and programs we may develop and because the extent to which we may enter into collaborations with third parties for development of LB-001 and any other product candidates we may develop is unknown. For example, in January 2020, we announced the submission of an IND to support the initiation of a Phase 1/2 clinical trial in pediatric patients with MMA, which the FDA has placed on clinical hold pending the resolution of certain clinical and nonclinical questions. Our future funding requirements, both near and long-term, will depend on many factors, including:

- the initiation, scope, progress, timing, costs and results of drug discovery, preclinical development, laboratory testing, and planned clinical trials for LB-001 and any other product candidates;
- the outcome, timing and cost of meeting regulatory requirements established by the U.S. Food and Drug Administration, or FDA, and other comparable foreign regulatory authorities, including resolving any potential clinical holds that may be imposed on us;
- the impact of the COVID-19 pandemic on our ability to progress with our research, development, manufacturing and regulatory efforts, including our plans to resolve the clinical hold placed by the FDA on the IND for LB-001;
- the cost of filing, prosecuting, defending and enforcing our patent claims and other intellectual property rights;
- the cost of defending potential intellectual property disputes, including patent infringement actions;
- the achievement of milestones or occurrence of other developments that trigger payments under any of our current agreements or other agreements we may enter into;
- the extent to which we are obligated to reimburse, or entitled to reimbursement of, clinical trial and other research and development costs under future collaboration agreements, if any;
- the effect of competing technological and market developments;
- the cost and timing of completion of clinical or commercial-scale manufacturing activities;
- the extent to which we in-license or acquire other products and technologies;
- our ability to establish and maintain collaborations on favorable terms, if at all;
- the cost of establishing sales, marketing and distribution capabilities for LB-001 and any other product candidates in regions where we choose to commercialize our product candidates, if approved; and
- the initiation, progress, timing and results of our commercialization of LB-001 and any other product candidates, if approved, for commercial sale.

A change in the outcome of any of these variables with respect to the development of a product candidate could mean a significant change in the costs and timing associated with the research and development of that product candidate. For example, if the clinical hold on the IND for LB-001 causes significant delays in the progress of our MMA program, the FDA or another regulatory authority were to require us to conduct preclinical studies or clinical trials beyond those that we anticipate will be required, or if we experience significant trial delays due to patient enrollment or other reasons, we would be required to expend significant additional financial resources and time on preclinical and clinical research and development activities. Any significant delays in our programs may also require us to reevaluate our corporate strategy, resulting in the expenditure of significant resources and time. We may never succeed in obtaining regulatory approval for our product candidates or any future product candidates.

Until such time, if ever, that we can generate product revenue sufficient to achieve profitability, we expect to finance our cash needs through offerings of securities, private equity financing, debt financings, collaborations, government contracts or other strategic transactions. The terms of financing may adversely affect the holdings or the rights of our stockholders. If we are unable to obtain funding, we may be required to delay, limit, reduce or terminate some or all of our research and product development, product portfolio expansion or future commercialization efforts.

At-the-Market Sales of Common Stock

In November 2019, we entered into an open market sale agreement with Jefferies LLC as the sales agent. Under the terms of this sale agreement, we may sell shares of our common stock, from time to time, having an aggregate value of up to $50 million through Jefferies LLC. We did not issue any shares under the sales agreement during the quarter ended March 31, 2020. From April 1 through May 7, 2020, we issued 51,889 shares of our common stock at an average weighted price of $5.76 per share, resulting in gross proceeds to us of $0.3 million. Costs associated with the proceeds consist of a 3% cash commission.

Contractual Obligations and Commitments

We are a smaller reporting company, as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, for this reporting period and are not required to provide additional information on our contractual obligations and commitments pursuant to Item 303 of Regulation S-K.

Policies and Significant Judgments and Estimates

Our condensed consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States. The preparation of our condensed consolidated financial statements and related disclosures requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, costs and expenses, and the disclosure of contingent assets and liabilities in our condensed consolidated financial statements. We base our estimates on historical experience, known trends and events and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates under different assumptions or conditions.

There have been no significant changes to our critical accounting policies from those described in “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” included in our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 16, 2020, other than the significant accounting policy over revenue recognition under ASC 606, which is described further in Note 2 to the financial statements included in this Quarterly Report on Form 10-Q.

Emerging Growth Company Status

The Jumpstart Our Business Startups Act of 2012 permits an “emerging growth company” such as us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies. We have irrevocably elected to “opt out” of this provision and, as a result, we will comply with new or revised accounting standards when they are required to be adopted by public companies that are not emerging growth companies.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements and do not have any holdings in variable interest entities.

Recently Issued Accounting Pronouncements

Refer to Note 2 in the accompanying notes to our unaudited condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q for a discussion of recent accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We are a smaller reporting company, as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, for this reporting period and are not required to provide the information required under this item.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer (principal executive officer) and Chief Financial Officer (principal financial officer), evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2020. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of March 31, 2020, our Chief Executive Officer and our Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended March 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. As a result of the COVID-19 pandemic, certain employees began working remotely in March. Notwithstanding these changes to the working environment, we have not identified any material changes in our internal control over financial reporting. We are continually monitoring and assessing the COVID-19 situation to determine any potential impact on the design and operating effectiveness of our internal controls over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

On March 18, 2020, a purported shareholder class action, *John R. Afinowicz v. LogicBio Therapeutics, Inc., et al.*, was filed in the United States District Court for the District of New Jersey, naming us and certain of our officers as defendants. The lawsuit alleges that we made material misrepresentations and/or omissions of material fact relating to our Investigational New Drug submission for LB-001 in our public disclosures, in violation of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 promulgated thereunder. The complaint seeks certification of a class of purchasers of our common stock during the period from December 3, 2018 through February 10, 2020. The plaintiff seeks unspecified monetary damages on behalf of the putative class and an award of costs and expenses, including attorney's fees. We believe that this action is without merit and intend to defend it vigorously. At this time, no assessment can be made as to the likely outcome of this lawsuit or whether the outcome will be material to us.

Item 1A. Risk Factors.

In addition to the other information set forth in this report, you should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2019, which could materially affect our business, financial condition or future results. The risks described in our Annual Report on Form 10-K may not be the only risks facing the Company. Additional risks and uncertainties not currently known to the Company or that the Company currently deems to be immaterial also may materially adversely affect the Company's business, financial condition and/or operating results.

There have been no material changes from the risk factors previously disclosed in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on March 16, 2020, except as noted below.

Our business has been adversely affected by the ongoing coronavirus pandemic and we expect it to continue to have a negative impact on our business.

In December 2019, a novel strain of coronavirus, referred to as 2019-ncov, COVID-19 coronavirus epidemic, or COVID-19, was reported to have surfaced in Wuhan, China. COVID-19 has since become a global pandemic and has had a significant negative effect on business activities across the world.

Since mid-March 2020, our non-laboratory employees have been working remotely in order to comply with social distancing and "stay at home" orders as well as applicable guidelines from the U.S. Centers for Disease Control and Prevention, or CDC. Our laboratory employees, whose work must be performed on premises, have been working in shifts to continue our in-house research and manufacturing activities on a decreased basis. We have also ceased all business travel for our employees. We plan to maintain these or similar restrictions on our business activities until we believe our employees can fully resume such business activities in accordance with federal, state and local requirements and guidelines. Our productivity and our ability to meet our timelines and goals may be negatively affected if our business activities continue to be subjected to these restrictions.

Our research, development and manufacturing activities are dependent on our ability to continue our work on premises at our laboratory. We also rely on third parties, such as CROs and CMOs, located in areas that are affected by the COVID-19 pandemic for certain research, development and manufacturing activities. Similar to how we have restricted business activities at our premises, many of these third parties have also limited their staff from working on premises as part of their response to the COVID-19 pandemic. The COVID-19 pandemic may have a significant negative effect on our business and future results due to a variety of factors, including the health of our employees, our ability to maintain operations, the ability of our third party vendors, suppliers and collaborators to continue operations, any further government and/or public actions taken in response to the pandemic and ultimately the length of the pandemic. This could lead to supply and other business interruptions with our third-party vendors, suppliers and collaborators, resulting in business/operational disruption which could have a material effect on our business.

Infections and deaths related to COVID-19 have significantly disrupted the United States' healthcare and healthcare regulatory systems. Such disruptions have diverted healthcare resources away from regular activities at a number of institutions where clinical trials are normally conducted. Depending on the duration and severity of the pandemic, our efforts to engage with potential trial sites in start-up and other activities for our planned clinical trials or other studies may be adversely affected. In addition, other known and unknown factors caused by COVID-19 could materially delay other aspects of our clinical trials, including our ability to recruit and retain patients and principal investigators and site staff. Regulatory agencies such as the FDA, which must lift our clinical hold on the IND for LB-001 in MMA prior to the initiation of our interventional clinical trials, may also be disrupted by the pandemic, causing a delay in our plans. Any elongation or de-prioritization of our clinical trials or delay in regulatory review resulting from such disruptions could materially affect the development and study of our product candidates.

Our activities will continue to require a significant expenditure of capital resources. While the full extent of the economic impact brought by and the duration of the COVID-19 pandemic may be difficult to assess or predict, it has resulted in significant disruptions of global financial markets, reducing our ability to access capital. An extended period of disruption in the economy and capital markets could significantly affect our ability to raise additional capital on a timely basis, which would significantly disrupt our programs and also require us to reevaluate our corporate strategy.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Use of Proceeds from Initial Public Offering

On October 23, 2018, we closed our IPO, in which we issued and sold 8,050,000 shares of our common stock, including 1,050,000 shares sold pursuant to the full exercise of the underwriters' option to purchase additional shares, at a public offering price of $10.00 per share for gross proceeds of $80.5 million, before deducting underwriting discounts and commissions and offering expenses payable by us. All of the shares issued and sold in the IPO were registered under the Securities Act pursuant to a Registration Statement on Form S-1 (File No. 333-227523), which was declared effective by the SEC on October 18, 2018. Jefferies LLC, Barclays Capital Inc. and William Blair & Company, L.L.C. acted as joint book-running managers of the offering and as representatives of the underwriters. Chardan Capital Markets, LLC acted as the lead manager for the offering. The offering commenced on October 18, 2018 and did not terminate until the sale of all of the shares offered.

The net offering proceeds to us, after deducting underwriting discounts and offering costs payable by us of an aggregate of approximately $8.2 million, were approximately $72.3 million. No material offering expenses were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning 10.0% or more of any class of our equity securities or to any other affiliates.

There has been no material change in our planned use of the net offering proceeds from our IPO as described in our final prospectus filed with the SEC pursuant to Rule 424(b)(4) on October 22, 2018. We have been using and plan to continue to use the net proceeds from the IPO primarily to fund the development of LB-001 in MMA and for discovery and preclinical development of additional product candidates, and for working capital and general corporate purposes.

Item 6. Exhibits.

EXHIBIT 3.1	—	Fourth Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, File No. 001-38707, filed on October 29, 2018).
EXHIBIT 3.2	—	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K, File No. 001-38707, filed on October 29, 2018).
EXHIBIT 10.1	—	Amended and Restated Executive Employment Agreement, by and between LogicBio Therapeutics, Inc. and Kenneth Huttner.
EXHIBIT 31.1	—	Rule 13a—14(a) / 15d—14(a) Certifications — Chief Executive Officer.
EXHIBIT 31.2	—	Rule 13a—14(a) / 15d—14(a) Certifications — Chief Financial Officer.
EXHIBIT 32.1	—	Section 1350 Certifications.
EXHIBIT 101.INS	—	XBRL Instance Document.
EXHIBIT 101.SCH	—	XBRL Taxonomy Extension Schema Document.
EXHIBIT 101.CAL	—	XBRL Taxonomy Extension Calculation Linkbase Document.
EXHIBIT 101.DEF	—	XBRL Taxonomy Extension Definition Linkbase Document.
EXHIBIT 101.LAB	—	XBRL Taxonomy Extension Label Linkbase Document.
EXHIBIT 101.PRE	—	XBRL Taxonomy Extension Presentation Linkbase Document.

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.

LogicBio Therapeutics, Inc.

Dated: May 11, 2020

By: /s/ Frederic Chereau
Frederic Chereau
President and Chief Executive Officer

Dated: May 11, 2020

By: /s/ Matthias Jaffé
Matthias Jaffé
Chief Financial Officer

Exhibit 10.1

LOGICBIO THERAPEUTICS, INC.

EXECUTIVE EMPLOYMENT AGREEMENT

This Employment Agreement (this **"Agreement")** is entered into as of the last date set forth on the signature page below (the **"Effective Date")** by and between LogicBio Therapeutics, Inc. (the **"Company")** and Kenneth Huttner, M.D. Ph.D. **("Executive").**

1. Duties and Scope of Employment.

(a) Positions and Duties. The Company hereby agrees to employ Executive, initially as its Senior Vice President, Head of Clinical Development, and Executive hereby agrees to serve the Company in such capacity, during the Employment Term. It is the Company's intention to promote the Executive to the position of Chief Medical Officer no later than the end of 2019 providing he has met the responsibilities outlined in this employment agreement; it being understood that in no event shall its failure to so promote Executive constitute a breach of this Agreement. Executive will render such business and professional services in the performance of his duties, consistent with Executive's position within the Company, as will reasonably be assigned to Executive by the Company's President and Chief Executive Officer (the **"CEO")**. The period of Executive's employment under this Agreement is referred to herein as the **"Employment Term."**

(b) Obligations. During the Employment Term, Executive will perform his duties faithfully and to the best of his ability and will devote his full business efforts and time to the Company. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation, or consulting activity for any direct or indirect remuneration without the prior approval of the CEO or the Company's Board of Directors (the **"Board").**

2. At-Will Employment. The parties agree that Executive's employment with the Company will continue to be "at-will" employment and may be terminated at any time with or without cause or notice. However, as described in this Agreement, Executive may be entitled to severance benefits depending on the circumstances of Executive's termination of employment with the Company.

3. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive an annual salary (the **"Base Salary")** of $360,000 as compensation for Executive's services. The Base Salary will be paid periodically in accordance with the Company's normal payroll practices. Executive's Base Salary will be subject to review by the Compensation Committee (the **"Compensation Committee")** of the Board and adjustments to the Base Salary may be made in its discretion.

(b) Bonus. During the Employment Term, Executive will be eligible to receive an annual bonus, with a target annual bonus equal to thirty five percent (35%) of the

Base Salary, upon achievement of certain performance objectives to be determined by the Compensation Committee. The amount, terms and conditions of any annual bonus will be determined by the Compensation Committee in its discretion and any annual bonus will be subject to the terms and conditions of the applicable Company bonus plan, as in effect from time to time. Any earned annual bonus will be paid as soon as reasonably practicable after the Compensation Committee determines that such bonus has been earned, but in no event shall the bonus be paid after the March 15th following the end of the calendar year to which the bonus relates, in accordance with the Company's normal payroll practices. The payment of any annual bonus will be subject to Executive's continued employment through the payment date, except as set forth in Section 6 or 7 below or as otherwise provided in an applicable bonus plan.

(c) Equity Compensation. During the Employment Term, Executive will be eligible to receive equity and equity-based awards in the discretion of the Board or the Compensation Committee and on such terms and conditions as are determined by the Board or the Compensation Committee in its discretion. Any equity and equity-based awards granted to Executive, whether before or after the Effective Date, will be governed by the terms and conditions of the applicable Company equity incentive plan(s), as in effect from time to time, and the award agreements governing such equity or equity-based awards (any such plan and award agreements, collectively, the **"Equity Agreements").**

(d) Employee Benefits. During the Employment Term, Executive will be entitled to participate in the employee benefit plans maintained by the Company as in effect from time to time of general applicability to other senior executives of the Company. The Company reserves the right to cancel or change any of its employee benefit plans at any time.

(e) Indemnification. Executive will be entitled to the same indemnification rights as the Company grants to other senior executives of the Company, subject to the provisions of the Company's by-laws and certificate of incorporation.

4. Vacation. Executive will be entitled to earn paid annual vacation in accordance with Company policy for other senior executive officers, as in effect from time to time.

5. Expenses.

(a) Subject to Section 5(b), the Company will reimburse Executive for all reasonable and necessary expenses incurred by Executive in connection with the performance of Executive's duties hereunder.

(b) Subject to any applicable policy established by the Company as in effect from time to time, the Company will reimburse Executive for expenses incurred pursuant to Section 5(a) upon Executive's having submitted valid receipts to the Company, provided that Executive is an employee of the Company on the date on which the expenses are incurred. Executive's right to payment or reimbursement for expenses hereunder shall be subject to the following additional rules: (i) the amount of expenses eligible for payment or reimbursement during any calendar year shall not affect the expenses eligible for payment or reimbursement in any other calendar year, (ii) payment or reimbursement shall be made not later than December 31 of the calendar year following the calendar year in which the expense or payment was incurred,

and (iii) the right to payment or reimbursement is not subject to liquidation or exchange for any other benefit.

(c) The Company will provide Executive with a one-time sign-on bonus in the amount of $100,000, less any applicable withholdings, to be paid within 30 days following the beginning of the Employment Period, subject to Executive's continuing employment with the Company through such date. In the event of that Executive's employment with the Company (or any parent or subsidiary or successor of the Company) is terminated by the Company for Cause or by

(d) Executive without Good Reason prior to the one year anniversary of the beginning of the Employment Period, Executive agrees to repay to the Company, within thirty (30) days of the date of termination of Executive's employment, an amount equal to one hundred percent (100%) of the sign-on bonus. Executive hereby acknowledges and agrees that the Company may, in its discretion, offset or withhold the amount Executive is required to repay under this Section 5(c) from any other amounts payable to Executive under this Agreement or otherwise.

6. Severance.

(a) Termination for other than Cause, Death or Disability or Resignation for Good Reason. If the Company (or any parent or subsidiary or successor of the Company) terminates Executive's employment with the Company other than for Cause (as defined below) and other than due to Executive's death or Disability (as defined below), or Executive resigns with Good Reason (as defined below), then, subject to Section 8, Executive will be entitled to (i) receive severance pay at a rate equal to Executive's Base Salary, as then in effect, for six (6) months from the date of such termination, which will be paid in equal installments in accordance with the Company's normal payroll practices; (ii) an amount equal to Executive's target annual bonus for the year in which such termination of employment occurs, multiplied by .5, payable in equal installments in accordance with the Company's normal payroll practices over six (6) months from the date of such termination; and (iii) if Executive elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended **("COBRA")** for Executive and his eligible dependents within the time period prescribed pursuant to COBRA, the Company will reimburse Executive for the COBRA premiums for such coverage until the earlier of (A) a period of three (3) months from the last date of employment of Executive with the Company, or (B) the date upon which Executive ceases to be eligible for coverage under COBRA. COBRA reimbursements will be made by the Company to Executive consistent with the Company's normal expense reimbursement policy. However, if the Company determines in its sole discretion that it cannot provide the foregoing COBRA benefits without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act) or incurring additional taxes, the Company will in lieu thereof provide to Executive a taxable monthly payment in an amount equal to the monthly COBRA premium that Executive would be required to pay to continue his group health coverage in effect on the date of his termination of employment (which amount will be based on the premium for the first month of COBRA coverage) for the time period described in clause (A) in equal installments in accordance with the Company's normal payroll practices. In addition to the amounts described above, Executive will be entitled to receive Executive's accrued and unpaid Base Salary through the date Executive's employment terminates, any unreimbursed expenses due under Section 5 of above, and any vested benefits required to be paid or provided under the

terms and conditions of the Company's benefit plans (collectively, the **"Accrued Benefits")** if Executive's employment terminates in the circumstances described in this Section 6(a).

(b) Termination for Cause or Death or Disability; Voluntary Resignation. If Executive's employment with the Company (or any parent or subsidiary or successor of the Company) is terminated voluntarily by Executive without Good Reason, for Cause by the Company or due to Executive's death or Disability, then Executive will be entitled to receive the Accrued Benefits and no further compensation or benefits will be paid to Executive under this Agreement.

(c) Exclusive Remedy. In the event of a termination of Executive's employment with the Company (or any parent or subsidiary or successor of the Company), the provisions of this Section 6 and Section 7 below are intended to be and are exclusive and in lieu of any other rights or remedies to which Executive or the Company may otherwise be entitled in connection with the termination of Executive's employment under any employee compensation or benefit plan which provides benefits in the nature of severance or continuation pay.

7. Termination for other than Cause, Death or Disability or Resignation for Good Reason within 24 months following a Change in Control. If the Company (or any parent or subsidiary or successor of the Company) terminates Executive's employment with the Company other than for Cause (as defined below) and other than due to Executive's death or Disability (as defined below), or Executive resigns with Good Reason (as defined below), in either case, within 24 months following a Change of Control (as defined below) then, subject to Section 8 and in lieu of the payments set forth in Section 6 above, Executive will be entitled to (i) receive a severance payment equal to one times (lx) the sum of (A) Executive's annual Base Salary, as then in effect, and (B) Executive's target annual bonus for the year in which such termination of employment occurs (ii) an amount equal to the monthly COBRA premium that Executive would be required to pay to continue [his] [her] group health coverage in effect on the date of his termination of employment for a period of 9 months (which amount will be based on the premium for the first month of COBRA coverage); and (iv) accelerated vesting as to one hundred percent (100%) of Executive's then outstanding and unvested equity and equity-based awards (with any performance-vesting awards vesting at target levels). All amounts payable under prongs (i) and (ii) of this Section 7 will be paid in a lump sum on the first normal payroll date of the Company following the Release Deadline (as defined below) in accordance with the Company's normal payroll practices. In addition to the amounts described above, Executive will be entitled to receive the Accrued Benefits.

8. Conditions to Receipt of Severance: No Duty to Mitigate.

(a) Separation Agreement and Release of Claims. The receipt of any severance pursuant to Sections 6 or 7 will be subject to Executive signing and not revoking a separation agreement and general release of claims in a form reasonably satisfactory to the Company (the **"Release")** and provided that such Release becomes effective and irrevocable no later than sixty **(60)** days following the termination date (such deadline, the **"Release Deadline").** If the Release does not become effective and irrevocable by the Release Deadline, Executive will forfeit any rights to severance or benefits under this Agreement. In no event will severance payments or benefits be paid or provided until the Release becomes effective and

irrevocable. Subject to Section 8(b), any cash severance pay to which Executive is entitled pursuant to Section 6 or 7 (other than the Accrued Obligations) will be paid, or will begin to be paid, on the first normal payroll date of the Company following the Release Deadline, with such payment to include all amounts that would have been paid prior to such date but for this Section 8(a).

(b) Section 409A.

(i) Notwithstanding anything to the contrary in this Agreement, no severance pay or benefits to be paid or provided to Executive, if any, pursuant to this Agreement that, when considered together with any other payments or benefits, would be considered deferred compensation under Code Section 409A and the final regulations and any guidance promulgated thereunder (collectively, **"Section 409A")** (together, the **"Deferred Payments")** will be paid or otherwise provided until Executive has incurred a "separation from service" within the meaning of Section 409A.

(ii) Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409A at the time of Executive's termination (other than due to death), then the Deferred Payments that are payable within the first six (6) months following Executive's separation from service, will become payable on the first payroll date that occurs on or after the date six (6) months and one (1) day following the date of Executive's separation from service. All subsequent Deferred Payments, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following Executive's separation from service, but prior to the six (6) month anniversary of the separation from service, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Payments will be payable in accordance with the payment schedule applicable to each payment or benefit. Each payment and benefit payable under this Agreement is intended to constitute a separate payment for purposes of Section 1,409A-2(b)(2) of the Treasury Regulations.

(iii) Any amounts paid under this Agreement that satisfies the requirements of the "short-term deferral" rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations will not constitute Deferred Payments for purposes of clause (i) above.

(iv) Any amount paid under this Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to Section 1.409A-1 (b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit (as defined below) will not constitute Deferred Payments for purposes of clause (i) above.

(v) All payments under this Agreement are intended to be exempt from, or comply with, the requirements of Section 409A so that none of the payments and benefits provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. The Company and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to Executive under Section 409A.

In no event will the Company, any of its subsidiaries or affiliates be liable to Executive by reason of any acceleration of income or any additional tax (including any interest and penalties) asserted with respect to the failure of any payments or benefits provided under this Agreement to satisfy the applicable requirements of Section 409A.

(c) Confidential Information Agreement. Executive's continuing receipt of any payments or benefits under Section 6 or 7 will be subject to Executive continuing to comply with the terms of Confidential Information Agreement (as defined in Section 11). In the event Executive breaches the provisions of the Confidential Information Agreement, then all payments and benefits to which Executive may otherwise be entitled pursuant to Sections 6 or 7 will immediately cease.

(d) No Duty to Mitigate. Executive will not be required to mitigate the amount of any payment contemplated by this Agreement, nor will any earnings that Executive may receive from any other source reduce any such payment.

9. Definitions.

(a) Cause. For purposes of this Agreement, **"Cause"** is defined, as determined by the Company in its reasonable judgment, as (i) breach of this Agreement or the Confidential Information Agreement by Executive; (ii) intentional and continued nonperformance or misperformance of Executive's duties or refusal to abide by or comply with the reasonable directives of the CEO or the Board, or the Company's policies and procedures, which, if reasonably susceptible to cure (as determined by the Company), is not cured within fifteen (15) days following Executive's receipt of written notice from the Company describing in reasonable detail the nature of the nonperformance, misperformance or refusal, as applicable; (iii) Executive's gross negligence in the performance of his material duties under this Agreement; (iv) Executive's fraud or willful misconduct with respect to the business or affairs of the Company; (v) Executive's conviction of, or a plea of nolo contendere to, a felony or other crime involving moral turpitude; or (vi) the commission of any act in direct or indirect competition with or materially detrimental to the best interests of Company.

(b) Change of Control. For purposes of this Agreement, **"Change of Control"** is defined as:

(i) the acquisition of the Company by another entity by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger or consolidation or stock transfer, but excluding any such transaction effected primarily for the purpose of changing the domicile of the Company), unless the Company's stockholders of record immediately prior to such transaction or series of related transactions hold, immediately after such transaction or series of related transactions, at least fifty percent (50%) of the voting power of the surviving or acquiring entity *{provided* that the sale by the Company of its securities for the primary purpose of raising additional funds shall not constitute a Change of Control hereunder); or

(ii) a sale, license or other disposition of all or substantially all of the assets, intellectual property or technology of the Company.

Notwithstanding the foregoing provisions of this definition, a transaction will not be deemed a Change of Control unless the transaction qualifies as a "change in control event" within the meaning of Section 409A.

(c) Code. For purposes of this Agreement, **"Code"** means the Internal Revenue Code of 1986, as amended.

(d) Disability. For purposes of this Agreement, **"Disability"** means that Executive has been unable to perform Executive's Company duties as the result of Executive's incapacity due to physical or mental illness for at least twenty-six (26) weeks after the commencement of such incapacity or for one-hundred and eighty (180) days in any consecutive twelve (12) month period, which incapacity is determined by a physician selected by the Company or its insurers and acceptable to Executive or Executive's legal representative (such agreement as to acceptability not to be unreasonably withheld).

(e) Good Reason. For purposes of this Agreement, **"Good Reason"** means Executive's resignation within thirty (30) days following the expiration of any Company cure period (described below) following the occurrence of one or more of the following, without Executive's consent:

(i) a material diminution of Executive's authority, duties, or responsibilities with the Company in effect immediately prior to such assignment;

(ii) a material breach of this Agreement by the Company; or

(iii) a material reduction in Executive's base salary in effect immediately prior to such termination, unless the Company also similarly reduces the base salaries of all other similarly-situated employees of the Company.

Executive will not resign for Good Reason without first providing the Company with written notice of the acts or omissions constituting the grounds for "Good Reason" within ninety (90) days of the initial existence of the grounds for "Good Reason" and a cure period of thirty (30) days following the date of such notice.

(f) Section 409A Limit. For purposes of this Agreement, **"Section 409A Limit"** will mean two (2) times the lesser of: (i) Executive's annualized compensation based upon the annual rate of pay paid to Executive during Executive's taxable year preceding Executive's taxable year of his separation from service as determined under Treasury Regulation Section 1.409A- l(b)(9)(iii)(A)(l) and any Internal Revenue Service guidance issued with respect thereto; or (ii) the maximum amount that may betaken into account under a qualified plan pursuant to Section 401 (a)(17) of the Internal Revenue Code for the year in which Executive's separation from service occurred.

10. Limitation on Payments.

(a) If Executive receives, is provided or may receive or be provided any payment or benefit that constitutes a "parachute payment" (as defined in Section 280G(b)(2) of the Code), and the net after-tax amount of any such parachute payment is less than the net after-

tax amount if the aggregate payments and benefits to be made to Executive were three times Executive's "base amount" (as defined in Section 280G(b)(3) of the Code), less $1.00, then the aggregate of the amounts constituting the parachute payments shall be reduced to an amount equal to three times Executive's base amount, less $1.00. For purposes of determining the "net after-tax amount," the Company will cause to be taken into account all applicable federal, state and local income and employment taxes and the excise taxes (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes). If a reduction pursuant to this Section 10 is to occur, (x) Executive will have no rights to any additional payments and/or benefits that are being reduced, and (y) reduction in payments and/or benefits will occur in the following order: (i) reduction of cash payments, if any, which shall occur in reverse chronological order such that the cash payment owed on the latest date following the occurrence of the event triggering such excise tax will be the first cash payment to be reduced; (ii) cancellation of accelerated vesting of equity awards other than stock options, if any; (iii) cancellation of accelerated vesting of stock options, if any; and (iv) reduction of other payments or benefits, if any, paid or provided to Executive, which shall occur in reverse chronological order such that the payment or benefit owed on the latest date following the occurrence of the event triggering such excise tax will be the first benefit to be reduced. In the event that acceleration of vesting of equity awards or stock options is to be reduced, such acceleration of vesting will be cancelled in the reverse order of the date of grant. If two or more equity awards or stock options are granted on the same date, each award or stock option will be reduced on a pro-rata basis. Notwithstanding, any excise tax imposed will be solely the responsibility of Executive. In no event shall Executive have any discretion with respect to the ordering of his payment reductions.

(b) Unless the Company and Executive otherwise agree in writing, any determination required under this Section 10 will be made in writing by a nationally recognized firm of independent public accountants selected by the Company, the Company's legal counsel or such other person or entity to which the Parties mutually agree (the **"Firm"),** whose determination will be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by this Section 10, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive will furnish to the Firm such information and documents as the Firm may reasonably request in order to make a determination under this Section 10. The Company will bear all costs the Firm may reasonably incur in connection with any calculations contemplated by this Section 10.

11. Confidential Information. Executive agrees that Executive will continue to be bound by the Confidential Information, Invention Assignment, Restricted Activities, and Arbitration Agreement (the **"Confidential Information Agreement")** by and between Executive and the Company, dated as of February 7th, 2019, in accordance with its terms.

12. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, **"successor"** means any person, firm, corporation or other business entity which at any time, whether by

purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

13. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a well established commercial overnight service, or (iii) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

LogicBio Therapeutics, Inc.
700 Main Street
Cambridge, Massachusetts 02139

If to Executive:

at the last residential address known by the Company.

14. Severability. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

15. Arbitration. Executive agrees that any and all controversies, claims, or disputes with anyone (including the Company and any employee, officer, director, stockholder or benefit plan of the Company in their capacity as such or otherwise) arising out of, relating to, or resulting from Executive's service to the Company, shall be subject to arbitration in accordance with the provisions of the Confidential Information Agreement.

16. Integration. This Agreement represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

17. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

18. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

19. Tax Withholding. All payments made pursuant to this Agreement will be subject to withholding of applicable taxes and other legally required amounts.

20. Governing Law. This Agreement will be governed by the laws of the Commonwealth of Massachusetts without regard to any conflict of laws principles that would result in the application of the laws of any other jurisdiction. Executive agrees to submit to the exclusive jurisdiction of the courts of or in the Commonwealth of Massachusetts in connection with any dispute arising out of this Agreement.

21. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

22. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned.

[Signature Page Follows.]

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first above written.

COMPANY:

LOGICBIO THERAPEUTICS, INC.

By: /s/ Frederic Chereau Date: February 7, 2019

Name: Frederic Chereau

Title: President and CEO

EXECUTIVE:

/s/ Kenneth Huttner Date: February 8, 2019
Kenneth Huttner, M.D. and Ph.D.

Exhibit 31.1

Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002

I, Frederic Chereau, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of LogicBio Therapeutics, Inc.;

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 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)) 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 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 11, 2020

By: /s/ Frederic Chereau
Frederic Chereau
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002

I, Matthias Jaffé, certify that:

1. 1.I have reviewed this Quarterly Report on Form 10-Q of LogicBio Therapeutics, Inc.;

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 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)) 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 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 11, 2020

By: /s/ Matthias Jaffé
Matthias Jaffé
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

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

In connection with the Quarterly Report on Form 10-Q of LogicBio Therapeutics, Inc. (the "Company") for the quarter ended March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the company, hereby certifies, pursuant to Section 1350 of Chapter 63 of Title 18, United States Code, that to the best of his 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.

Dated: May 11, 2020

/s/ Frederic Chereau
Frederic Chereau
President and Chief Executive Officer

Dated: May 11, 2020

/s/ Matthias Jaffé
Matthias Jaffé
Chief Financial Officer