UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

×	QUARTERLY REPORT PURSUANT	TO SECTION 13 OR 15(d)	OF THE SECURITIES EXCHANGE A	ACT OF 1934
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For the Quarterly Period Ended June 30, 2023

Or

	TRANSITION REPORT PURSUANT TO	SECTION 13 OR 15(d) (OF THE SECURITIES EXCHANGE A	ACT OF 1934
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For the Transition Period from to .

Commission File Number 001-35963

NEUBASE THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware

46-5622433

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

350 Technology Drive, Pittsburgh, PA 15219

(Address of principal executive offices and zip code)

(412) 763-3350

(Registrant's telephone number, including area code)

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

Title of each classCommon Stock, \$0.0001 par value per share

Trading Symbol(s)
NBSE

Name of each exchange on which registered

The Nasdaq Stock Market LLC

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 \boxtimes No \square

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 ($\S232.405$ of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes \boxtimes No \square

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," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer		Accelerated filer	
Non-accelerated filer	\boxtimes	Smaller reporting company	×
		Emerging growth company	

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

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

As of August 11, 2023, 2,362,377 shares of the common stock, par value \$0.0001, of the registrant were outstanding.

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Introductory Note

On April 21, 2023, the Board of Directors of NeuBase Therapeutics, Inc. (together with its subsidiaries, the "Company") approved a change in the Company's fiscal year end from September 30 to December 31, effective for the fiscal year beginning January 1, 2023 and ending December 31, 2023. As a result of the change in year end, the Company filed on June 5, 2023 a Transition Report on Form 10-QT for the period from October 1, 2022 through December 31, 2022. The Company's 2023 fiscal year will run from January 1, 2023 through December 31, 2023.

ITEM 1. FINANCIAL STATEMENTS

NeuBase Therapeutics, Inc. and Subsidiaries Condensed Consolidated Balance Sheets (Unaudited)

(======================================	June 30, 2023			December 31, 2022	
<u>ASSETS</u>					
CURRENT ASSETS					
Cash and cash equivalents	\$	14,747,424	\$	17,386,326	
Prepaid insurance		370,833		188,266	
Other prepaid expenses and current assets		399,414		391,655	
Total current assets		15,517,671		17,966,247	
EQUIPMENT, net		1,509,127		1,934,100	
OTHER ASSETS				- 100 1	
Right-of-use asset, operating lease asset		5,181,436		5,409,574	
Security deposit		125,391		273,215	
Total other assets		5,306,827		5,682,789	
TOTAL ASSETS	\$	22,333,625	\$	25,583,136	
LIABILITIES AND STOCKHOLDERS' EQUITY					
CURRENT LIABILITIES CURRENT LIABILITIES					
Accounts payable	\$	322,131	\$	369,505	
Accrued expenses and other current liabilities	•	1,051,501	•	1,227,656	
Warrant liabilities		4,239,496			
Operating lease liabilities		490,057		469,118	
Finance lease liabilities		20,108		78,987	
Total current liabilities		6,123,293		2,145,266	
Long-term operating lease liability		4,964,011		5,214,074	
TOTAL LIABILITIES		11,087,304		7,359,340	
COMMITMENTS AND CONTINGENCIES					
STOCKHOLDERS' EQUITY					
Preferred stock, \$0.0001 par value; 10,000,000 shares authorized; no shares issued and outstanding as of June 30, 2023 and December 31, 2022		_		_	
Common stock, \$0.0001 par value; 250,000,000 shares authorized; 1,878,146 and 1,657,768 shares issued and outstanding as of June 30, 2023 and December 31, 2022, respectively		188		166	
Additional paid-in capital		125,899,432		125,337,022	
Accumulated deficit		(114,653,299)		(107,113,392)	
TOTAL STOCKHOLDERS' EQUITY		11,246,321		18,223,796	
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$	22,333,625	\$	25,583,136	

NeuBase Therapeutics, Inc. and Subsidiaries Condensed Consolidated Statements of Operations (Unaudited)

	Three Months Ended June 30,				Six Months Ended June 30,				
		2023		2022		2023		2022	
OPERATING EXPENSES									
General and administrative	\$	2,403,661	\$	3,603,999	\$	5,320,976	\$	6,697,712	
Research and development		1,284,284		4,756,609		2,524,530		11,592,279	
Restructuring		_		_		6,727		_	
TOTAL OPERATING EXPENSES		3,687,945		8,360,608		7,852,233		18,289,991	
LOSS FROM OPERATIONS		(3,687,945)		(8,360,608)		(7,852,233)		(18,289,991)	
OTHER INCOME (EXPENSE)									
Interest expense		(730)		(2,819)		(3,084)		(6,135)	
Interest income		116,048		37,147		294,425		40,592	
Loss on issuance of common stock and warrants		(1,311,552)		_		(1,311,552)		_	
Change in fair value of warrant liabilities		1,430,351		_		1,430,351		_	
Other income (expense), net		7,034		(165,437)		(97,814)		(160,212)	
Total other income (expense), net		241,151		(131,109)		312,326		(125,755)	
NET LOSS	\$	(3,446,794)	\$	(8,491,717)	\$	(7,539,907)	\$	(18,415,746)	
BASIC AND DILUTED LOSS PER SHARE	\$	(2.04)	\$	(5.26)	\$	(4.47)	\$	(11.34)	
WEIGHTED AVERAGE SHARES OUTSTANDING:									
BASIC AND DILUTED		1,692,567		1,612,933	_	1,685,034	_	1,623,489	

NeuBase Therapeutics, Inc. and Subsidiaries Condensed Consolidated Statements of Changes in Stockholders' Equity For the Three and Six Months Ended June 30, 2023 and 2022

(Unaudited)

	Comm	on S			Additional Paid-In	1.156	s	Total tockholders'
	Shares Amount		Capital	Accumulated Deficit	Equity			
Balance as of December 31, 2022	1,657,768	\$	166	\$	125,337,022	\$ (107,113,392)	\$	18,223,796
Stock-based compensation expense	_		_		316,689			316,689
Exercise of stock options	32,750		3		718	_		721
Net loss						(4,093,113)		(4,093,113)
Balance as of March 31, 2023	1,690,518	\$	169	\$	125,654,429	\$ (111,206,505)	\$	14,448,093
Stock-based compensation expense	_		_		245,012	· · · · · —		245,012
Issuance of common stock	187,700		19		_	_		19
Cash paid in lieu of fractional shares from reverse stock split	(72)		_		(9)	_		(9)
Net loss	<u>`</u> `		_		<u> </u>	(3,446,794)		(3,446,794)
Balance as of June 30, 2023	1,878,146	\$	188	\$	125,899,432	\$ (114,653,299)	\$_	11,246,321
						 _		
					Additional			Total
	Comm	on S	tock		Paid-In		S	tockholders'
	Shares		Amount		Capital	 Accumulated Deficit		Equity
Balance as of December 31, 2021	1,638,409	\$	164	\$	123,830,758	\$ (76,696,719)	\$	47,134,203
Stock-based compensation expense	_		_		952,828	· · · · · · · · · · · · · · · · · · ·		952,828
Forfeiture of common stock	(25,476)		(3)		3	_		_
Net loss	· · · —				_	(9,924,029)		(9,924,029)
Balance as of March 31, 2022	1,612,933	S	161	\$	124,783,589	\$ (86,620,748)	\$	38,163,002
Stock-based compensation expense			_		641,046			641,046
Net loss	_		_			(8,491,717)		(8,491,717)
Balance as of June 30, 2022	1,612,933	\$	161	\$	125,424,635	\$ (95,112,465)	\$	30,312,331

NeuBase Therapeutics, Inc. and Subsidiaries Condensed Consolidated Statements of Cash Flows (Unaudited)

		Six Months Ended June 30,				
		2023		2022		
Cash flows from operating activities						
Net loss	\$	(7,539,907)	\$	(18,415,746)		
Adjustments to reconcile net loss to net cash used in operating activities				` ' ' '		
Stock-based compensation		561,701		1,593,874		
Loss on issuance of common stock and warrants		1,311,552		_		
Change in fair value of warrant liabilities		(1,430,351)				
Depreciation and amortization		376,310		386,254		
Loss on disposal of fixed assets		53,610		(7,595)		
Amortization of right-of-use assets		228,138		255,707		
Changes in operating assets and liabilities						
Prepaid insurance, other prepaid expenses and current assets		(190,326)		(616,880)		
Security deposit		147,824		(19,600)		
Accounts payable		(47,374)		515,803		
Accrued expenses and other current liabilities		(333,696)		(544,020)		
Operating lease liability		(229,124)		(253,263)		
Net cash used in operating activities		(7,091,643)		(17,105,466)		
Cash flows from investing activities						
Purchase of laboratory and office equipment		(13,447)		(319,029)		
Proceeds received on sale of equipment		8,500		(***,****)		
Net cash used in investing activities		(4,947)		(319,029)		
Cash flows from financing activities	·	<u>, </u>				
Proceeds from issuance of common stock and warrants, net of issuance costs paid		4,515,855		_		
Principal payment of finance lease liability		(58,879)		(54,740)		
Payment in lieu of fractional shares from reverse stock split		(9)				
Proceeds from exercise of stock options		721		_		
Net cash provided by (used in) financing activities		4,457,688		(54,740)		
Net decrease in cash and cash equivalents	<u>'</u>	(2,638,902)		(17,479,235)		
ash and cash equivalents, beginning of period		17,386,326		47,326,060		
Cash and cash equivalents, end of period	\$	14,747,424	\$	29,846,825		
supplemental disclosure of cash flow information:						
Non-cash investing and financing activities:						
Purchases of laboratory and office equipment in accounts payable	\$	13,447	\$	12,243		
Right-of-use asset obtained in exchange for operating lease liabilities	\$		\$	164,613		
Common stock and warrant issuance costs incurred but not paid	\$	157,541	\$	_		

1. Organization, Description of Business and Liquidity

NeuBase Therapeutics, Inc. and its subsidiaries (the "Company" or "NeuBase") has historically been a preclinical-stage biopharmaceutical company developing a modular peptide nucleic acid ("PNA") antisense oligo ("PATrOLTM") platform to address genetic diseases with a single, cohesive approach. NeuBase planned to use its platform to address diseases which have a genetic source, with an initial focus on gene silencing in myotonic dystrophy type 1 ("DM1"), Huntington's disease ("HD"), and oncology.

In October 2022, the Company announced plans to expand its focus to include the advancement of the differentiated gene editing capabilities of its platform.

In August 2023, the Company announced that its Board of Directors (the "Board") had made the determination to halt further development of the Company's programs and to conduct a comprehensive exploration of strategic alternatives focused on maximizing shareholder value. As part of this evaluation process, the Board will explore potential strategic alternatives for the Company that may include, but are not limited to, an acquisition, merger, business combination, or other transaction.

Liquidity and Going Concern

The Company has had no revenues from product sales and has incurred operating losses since inception. As of June 30, 2023, the Company had \$14.7 million in cash and cash equivalents, and during the six months ended June 30, 2023, incurred a loss from operations of \$7.9 million and used \$7.1 million of cash in operating activities.

The Company expects to continue to incur substantial operating losses and negative cash flows from operations for the foreseeable future and may never become profitable. Accordingly, there are material risks and uncertainties that raised substantial doubt about the Company's ability to continue as a going concern. In August 2023, as further discussed below, the Board approved a plan to halt further development of the Company's programs and to conduct a comprehensive exploration of strategic alternatives focused on maximizing shareholder value. This restructuring plan is expected to reduce operating expenses and extend the Company's cash runway into the fourth quarter of calendar year 2025 based on current operating plans and estimates. Management believes it is probable that the restructuring plan will be effectively implemented within the next twelve months and that the restructuring plan, when implemented, will mitigate the conditions that gave rise to substantial doubt about the Company's ability to continue as a going concern. Because the Company has sufficient resources on hand to fund operations through at least the next twelve months from the date these consolidated financial statements were available to be issued, the substantial doubt has been alleviated. There can be no assurance that the Company will be successful in acquiring additional funding, that the Company's projections of its future working capital needs will prove accurate, or that any additional funding would be sufficient to continue operations in future years.

The Company's future liquidity and capital funding requirements will depend on numerous factors, including:

- its ability to raise additional funds to finance its operations;
- its ability to negotiate and consummate any transaction arising from its exploration of strategic alternatives;
- its ability to maintain compliance with the listing requirements of The Nasdaq Capital Market ("Nasdaq");
- litigation expenses and the extent and amount of any indemnification claims;
- the emergence and effect of competing or complementary products;
- its ability to maintain, expand and defend the scope of its intellectual property portfolio, including the amount and timing of any payments the Company may be required to make, or that it may receive, in connection with the licensing, filing, prosecution, defense and enforcement of any patents or other intellectual property rights;
- its ability to retain its current employees and the need and ability to hire additional management and scientific and medical personnel;
- the trading price of its common stock; and
- its ability to increase the number of authorized shares outstanding to facilitate future financing events.

The Company will likely need to raise substantial additional funds through issuance of equity or debt or completion of a licensing transaction for one or more of the Company's pipeline assets. If the Company is unable to maintain sufficient financial resources, its business, financial condition and results of operations will be materially and adversely affected. This could affect future development and business activities and potential future clinical studies and/or other future ventures. Failure to obtain additional equity or debt

financing will have a material, adverse impact on the Company's business operations. There can be no assurance that the Company will be able to obtain the needed financing on acceptable terms or at all. Additionally, any equity financings will likely have a dilutive effect on the holdings of the Company's existing stockholders.

Change in Year End

On April 21, 2023, the Board approved a change in the Company's fiscal year end from September 30 to December 31, effective for the fiscal year beginning January 1, 2023 and ending December 31, 2023. As a result of the change in year end, the Company filed on June 5, 2023 a Transition Report on Form 10-QT for the period from October 1, 2022 through December 31, 2022. The Company's 2023 fiscal year will run from January 1, 2023 through December 31, 2023.

Reverse Stock Split

The Company effected a 1-for-20 reverse stock split of its outstanding shares of common stock on June 14, 2023. The reverse stock split did not change the number of authorized shares of common stock or par value. All references in these condensed consolidated financial statements to shares, share prices, exercise prices, and other per share information in all periods have been adjusted, on a retroactive basis, to reflect the reverse stock split.

2. Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto as of and for the year ended September 30, 2022 included in the Company's Annual Report on Form 10-K (the "Annual Report") filed with the U.S. Securities and Exchange Commission ("SEC") on December 21, 2022. The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated during the consolidation process. The Company manages its operations as a single segment for the purposes of assessing performance and making operating decisions. The accompanying unaudited condensed consolidated financial statements have been prepared by the Company in accordance with accounting principles generally accepted in the United States ("GAAP") for interim financial information and in accordance with the instructions to Form 10-Q and Article 8 of Regulation S-X. Accordingly, certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted. In the opinion of management, the accompanying unaudited condensed consolidated financial statements for the periods presented reflect all adjustments, consisting of only normal, recurring adjustments, necessary to fairly state the Company's financial position, results of operations and cash flows. The unaudited condensed consolidated financial statements for the interim periods are not necessarily indicative of results for the full year. The preparation of these unaudited condensed consolidated financial statements requires the Company to make estimates and judgments that affect the amounts reported in the financial statements and the accompanying notes. The Company's actual results may differ from these estimates under different assumptions or conditions.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. The most significant estimates in the Company's unaudited condensed consolidated financial statements relate to the valuation of stock-based compensation and the valuation allowance of deferred tax assets resulting from net operating losses. These estimates and assumptions are based on current facts, historical experience and various other factors believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities and the recording of expenses that are not readily apparent from other sources.

The Company assesses and updates estimates each period to reflect current information, such as the considerations related to the impacts that the current economic environment could have on its significant accounting estimates. Actual results may differ materially and adversely from these estimates. To the extent there are material differences between the estimates and actual results, the Company's future results of operations will be affected.

Net Loss Per Share

Basic net loss per share is computed by dividing net loss applicable to common stockholders by the weighted average number of shares of common stock outstanding during each period. Diluted net loss per share includes the dilutive effect, if any, from the potential exercise or conversion of securities, such as convertible debt, warrants and stock options that would result in the issuance of incremental shares of common stock. In computing the basic and diluted net loss per share applicable to common stockholders, the weighted average number of shares remains the same for both calculations due to the fact that when a net loss exists, dilutive shares are not included in the calculation as the impact is anti-dilutive.

The following potentially dilutive securities outstanding as of June 30, 2023 and 2022 have been excluded from the computation of diluted weighted average shares outstanding, as they would be anti-dilutive:

	As of Ju	ine 30,
	2023	2022
Common stock purchase options	314,672	410,639
Restricted stock units	19,823	_
Common stock purchase warrants	5,794,071	9,000
	6,128,566	419,639

Common Stock Warrant Liabilities

The Company has issued freestanding warrants to purchase shares of its common stock in connection with its financing activities and accounts for them in accordance with applicable accounting guidance as either liabilities or as equity instruments depending on the specific terms of the warrant agreements. Warrants classified as liabilities are remeasured each period they are outstanding. Any resulting gain or loss related to the change in the fair value of the warrant liabilities is recognized in change in fair value of warrant liabilities, a component of other income (expense) in the Condensed Consolidated Statements of Operations.

The Company estimates the fair value of common stock warrant liabilities using the Black-Scholes Model. The assumptions used in calculating the fair value represent management's best estimates and involve inherent uncertainties and the application of management's judgment.

Fair Value Measurements

Fair value is defined as the price that would be received for sale of an asset or paid for transfer of a liability, in an orderly transaction between market participants at the measurement date. GAAP establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). These tiers include:

- Level 1 defined as observable inputs such as quoted prices (unadjusted) for identical instruments in active markets;
- Level 2 defined as inputs other than quoted prices in active markets that are either directly or indirectly observable such as quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in markets that are not active; and
- Level 3 defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions, such as valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

The following tables present the Company's fair value hierarchy for its warrant liabilities measured at fair value on a recurring basis at June 30, 2023:

			Fair Value Mea as of June 3					
	(1	(Level 1) (Level 2) (Level 3) Total						
Liabilities								
Warrant liabilities	\$	<u> </u>		4,239,496	\$	4,239,496		

The following assumptions were used in determining the fair value of the warrant liabilities as of June 30, 2023:

	As of June 30, 2023
Remaining contractual term (years)	1.5 - 5.5
Common stock price volatility	86.1% - 102.8%
Risk-free interest rate	3.94% - 5.02%
Expected dividend yield	_

The change in fair value of the warrant liabilities for the three and six months ended June 30, 2023 is as follows:

	waiiant
	 Liabilities
Balance as of March 31, 2023	\$ _
Fair value of warrants issued	5,669,847
Change in fair value	 (1,430,351)
Balance as of June 30, 2023	\$ 4,239,496

**/-----

Recent Accounting Pronouncements

In November 2021, the FASB issued ASU No. 2021-10, "Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance," which amends disclosures to increase transparency of government assistance, including (i) the types of assistance, (ii) accounting for the assistance and (iii) the effect of the assistance on an entity's financial statements. The standard is effective for all business entities for annual periods beginning after December 15, 2021; therefore, it will be effective beginning with the Company's financial statements issued for the fiscal year ending December 31, 2023. While the adoption of this guidance will not have an impact on the Company's consolidated balance sheet or statement of operations, the adoption of this guidance may require additional annual disclosures in the Company's financial statements for the fiscal year ending December 31, 2023, which the Company is currently in the process of assessing.

In June 2022, the FASB issued ASU 2022-03, "ASC Subtopic 820 Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions" ("ASU 2022-03"). ASU 2022-03 amends ASC 820 to clarify that a contractual sales restriction is not considered in measuring an equity security at fair value and to introduce new disclosure requirements for equity securities subject to contractual sale restrictions that are measured at fair value. ASU 2022-03 applies to both holders and issuers of equity and equity-linked securities measured at fair value. The amendments in this ASU are effective for the Company in fiscal years beginning after December 15, 2023, and interim periods within those fiscal years. Early adoption is permitted for both interim and annual financial statements that have not yet been issued or made available for issuance. The Company is currently evaluating the impact of this pronouncement on its consolidated financial statements and related disclosures.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments- Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments" ("ASU 2016-13"). This guidance introduces a new model for recognizing credit losses on financial instruments based on an estimate of current expected credit losses. ASU 2016-13 also provides updated guidance regarding the impairment of available-for-sale debt securities and includes additional disclosure requirements. The new guidance is effective for public business entities that meet the definition of a Smaller Reporting Company as defined by the Securities and Exchange Commission for interim and annual periods beginning after December 15, 2022. The Company adopted this guidance as of January 1, 2023, with minimal impact upon adoption.

In August 2020, the FASB issued ASU 2020-06, Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815-40), to simplify the accounting for certain financial instruments with characteristics of liabilities and equity. The FASB reduced the number of accounting models for convertible debt and convertible preferred stock instruments and made certain disclosure amendments to improve the information provided to users. In addition, the FASB amended the derivative guidance for the "own stock" scope exception and certain aspects of the EPS guidance. The Company adopted this new accounting guidance on a prospective basis on January 1, 2023, and the adoption did not have a material effect on its consolidated financial statements.

3. Other Prepaid Expenses and Current Assets

The Company's prepaid expenses and other current assets consisted of the following:

	А	s of June 30, 2023 Unaudited	A	2022 Unaudited
Prepaid research and development expense	\$	_	\$	67,027
Accounts receivable		_		150,000
Other prepaid expenses and other current assets		399,414		174,628
Total	\$	399,414	\$	391,655

4. Equipment

The Company's equipment consisted of the following:

	A	As of June 30, 2023 Unaudited	As	of December 31, 2022 Unaudited
Laboratory equipment	\$	2,964,069	\$	3,048,579
Office equipment		259,978		259,978
Leasehold improvements		31,405		17,958
Total		3,255,452		3,326,515
Accumulated depreciation and amortization		(1,746,325)		(1,392,415)
Equipment, net	\$	1,509,127	\$	1,934,100

Depreciation expense for the three months ended June 30, 2023 and 2022 was approximately \$0.2 million and \$0.2 million, respectively. Depreciation expense for the six months ended June 30, 2023 and 2022 was approximately \$0.4 million and \$0.4 million, respectively.

5. Accrued Expenses and Other Current Liabilities

The Company's accrued expenses and other current liabilities consisted of the following:

	 As of June 30, 2023 Unaudited	As of December 31 2022 Unaudited		
Accrued compensation and benefits	\$ 579,171	\$	171,572	
Accrued consulting settlement	75,000		225,000	
Accrued professional fees	162,435		241,808	
Accrued research and development	10,009		20,684	
Accrued franchise tax	29,680		217,440	
Accrued restructuring	_		316,032	
Other accrued expenses	195,206		35,120	
Total	\$ 1,051,501	\$	1,227,656	

6. Stockholders' Equity

Equity Purchase Agreement

On December 28, 2022, the Company entered into a purchase agreement (the "Equity Purchase Agreement") with Alumni Capital LP, a Delaware limited partnership ("Alumni Capital"), pursuant to which the Company agreed to sell, and Alumni Capital agreed to purchase, upon request of the Company in one or more transactions, a number of shares of the Company's common stock providing aggregate gross proceeds to the Company of up to \$3,000,000 (subject to the right, but not the obligation, of the Company to increase such amount up to \$10,000,000 pursuant to the terms of the Equity Purchase Agreement) (the "Maximum Investment Amount"). The Equity Purchase Agreement expires upon the earlier of the aggregate gross proceeds from the sale of shares of common stock meeting the Maximum Investment Amount or December 28, 2024.

Among other limitations, unless otherwise agreed upon by Alumni Capital, each individual sale of shares of common stock will be limited to a sale of shares of common stock of up to \$500,000 (subject to the right of the Company and Alumni Capital to mutually agree to increase such figure to \$1,000,000) and further limited to no more than the number of shares of common stock that would result in the direct or indirect beneficial ownership by Alumni Capital of more than 9.99% of the then-outstanding shares of common stock. Alumni Capital will purchase the shares of common stock under the Equity Purchase Agreement at the lowest traded price of the common stock during the three (3) business days immediately prior to the date of purchase of the shares of common stock multiplied by 95%.

Upon execution of the Equity Purchase Agreement, the Company issued 7,335 shares of common stock to Alumni Capital. The Company will issue to Alumni Capital, on December 28, 2023, shares of common stock in an amount equal to one-half of one percent (0.5%) of the Investment Amount (as defined in the Equity Purchase Agreement) divided by the closing price of the common stock on the third business day prior to the date of issuance and delivery of such shares of common stock. In addition, the Company will issue to Alumni Capital, on the date of expiration of the Equity Purchase Agreement, shares of common stock in an amount equal to one-half of one percent (0.5%) of the Investment Amount divided by the closing price of the common stock on the third business day prior to the date of issuance and delivery of such shares of common stock. If the Company elects to increase the Maximum Investment Amount, it shall issue to Alumni Capital Increase Commitment Shares (as defined in the Equity Purchase Agreement) (based on each increase of Investment Amount) within five (5) business days of the Company's written notice of such election. The Company recorded the commitment shares issued and future commitment share obligation as additional paid-in capital during the three months ended December 31, 2022.

As of June 30, 2023, the Company has not sold any shares of common stock under the Equity Purchase Agreement.

Concurrent Registered Direct Offering and Private Placements

On June 28, 2023, the Company entered into a securities purchase agreement (the "Registered Direct Purchase Agreement") in connection with a registered direct offering (the "Registered Direct Offering") and concurrent private placement with an institutional investor (the "Registered Direct Purchaser"). On June 28, 2023, the Company also entered into a securities purchase agreement (the "PIPE Purchase Agreement" and, together with the Registered Direct Purchase Agreement, the "Purchase Agreements") and a registration rights agreement (the "Registration Rights Agreement") in connection with a concurrent private placement (the "PIPE Private Placement") with the same institutional investor (the "PIPE Purchaser" and, together with the Registered Direct Purchaser, the "Purchaser").

Pursuant to the Registered Direct Purchase Agreement, the Company agreed to offer and sell in the Registered Direct Offering 187,700 shares of the Company's common stock, \$0.0001 par value per share (the "Common Stock"), and pre-funded warrants (the "Pre-Funded Warrants") to purchase up to an aggregate of 390,997 shares of Common Stock. The Pre-Funded Warrants have an exercise price of \$0.001 per share, are immediately exercisable and can be exercised at any time after their original issuance until such Pre-Funded Warrants are exercised in full. Each share of Common Stock was sold at an offering price of \$2.57 per share, and each Pre-Funded Warrant was sold at an offering price of \$2.569, which is equal to the purchase price per share of Common Stock less \$0.001.

Pursuant to the Registered Direct Purchase Agreement, in a concurrent private placement, the Company also agreed to issue to the Registered Direct Purchaser unregistered long-term warrants (the "RD Series A Warrants") to purchase up to an aggregate of 578,697

shares of Common Stock and unregistered short-term warrants (the "RD Series B Warrants") to purchase up to an aggregate of 578,697 shares of Common Stock. Each RD Series A Warrant has an exercise price of \$2.32 per share, is exercisable immediately upon issuance, and will expire five and one-half years following the date of issuance. Each RD Series B Warrant has an exercise price of \$2.32 per share, is exercisable immediately upon issuance, and will expire 18 months following the date of issuance.

Pursuant to the PIPE Purchase Agreement, the Company agreed to offer and sell in the PIPE Private Placement unregistered pre-funded warrants (the "PIPE Pre-Funded Warrants") to purchase up to an aggregate of 1,366,829 shares of Common Stock, at an offering price of \$2.569. The PIPE Pre-Funded Warrants have an exercise price of \$0.001 per share, are immediately exercisable and can be exercised at any time after their original issuance until such PIPE Pre-Funded Warrants are exercised in full. Pursuant to the PIPE Purchase Agreement, the Company also agreed to issue to the PIPE Purchaser unregistered long-term warrants to purchase up to 1,366,829 shares of Common Stock (the "PIPE Series A Warrants") and unregistered short-term warrants to purchase up to 1,366,829 shares of Common Stock (the "PIPE Series B Warrants"). Each PIPE Series A Warrant has an exercise price of \$2.32 per share, is exercisable immediately upon issuance, and will expire five and one-half years following the date of issuance. Each PIPE Series B Warrant has an exercise price of \$2.32 per share, is exercisable immediately upon issuance, and will expire 18 months following the date of issuance.

The Company received aggregate gross proceeds of approximately \$5.0 million from the Registered Direct Offering and PIPE Private Placement (collectively, the "Offerings"), before deducting placement agent fees and other estimated offering expenses payable by the Company.

Pursuant to an engagement letter, dated as of June 12, 2023, as amended on June 28, 2023 (as amended, the "Engagement Letter"), between the Company and H.C. Wainwright & Co., LLC (the "Placement Agent"), the Company agreed to pay the Placement Agent a cash fee equal to 8.0% of the gross proceeds received from the Purchaser (including a 1.0% management fee) and also agreed to issue to the Placement Agent (or its designees) warrants (the "Placement Agent Warrants") to purchase up to 136,187 shares of Common Stock (which represents 7.0% of the aggregate number of shares of Common Stock, Pre-Funded Warrants and PIPE Pre-Funded Warrants sold in the Offerings) on substantially the same terms as the PIPE Series A Warrants and the PIPE Series B Warrants except that the exercise price of the Placement Agent Warrants is \$3.2125 (or 125% of the offering price per share of Common Stock in the Registered Direct Offering) and an expiration date of June 28, 2028, which is the five-year anniversary of the commencement of the sales pursuant to the Offerings. The Company also agreed to pay the Placement Agent in connection with the Offerings \$75,000 for non-accountable expenses and \$7,389 for clearing fees. Pursuant to the Engagement Letter, the Company also agreed that, upon exercise of any of the RD Series B Warrants or the PIPE Series B Warrants, the Company will pay the Placement Agent to 8.0% of the gross proceeds received from the exercise of the RD Series B Warrants or the PIPE Series B Warrants to purchase a number of shares of Common Stock equal to 7.0% of the aggregate number of shares of Common Stock issued upon such exercise of the RD Series B Warrants or the PIPE Series B Warrants or the PIPE

Warrants

Below is a summary of the Company's issued and outstanding warrants as of June 30, 2023:

Expiration date	 Exercise Price	Warrants Outstanding
July 6, 2023	\$ 174.60	5,256
September 20, 2024	\$ 130.00	3,750
December 30, 2024	\$ 2.32	1,945,526
June 28, 2028	\$ 3.21	136,187
January 2, 2029	\$ 2.32	1,945,526
No expiration date	\$ 0.001	1,757,826
		5,794,071

	Warrants	,	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Life (in years)
Outstanding as of December 31, 2022	9,006	\$	156.03	
Issuances:				
PIPE Series A Warrants	1,366,829		2.32	
PIPE Series B Warrants	1,366,829		2.32	
PIPE Pre-Funded Warrants	1,366,829		0.001	
RD Series A Warrants	578,697		2.32	
RD Series B Warrants	578,697		2.32	
Pre-Funded Warrants	390,997		0.001	
Placement Agent Warrants	136,187		3.21	
Outstanding as of June 30, 2023	5,794,071		1.88	3.5
Exercisable as of June 30, 2023	5,794,071	\$	1.88	3.5

The Company issued approximately 1.4 million PIPE Pre-Funded Warrants and approximately 0.4 million Pre-Funded Warrants at an exercise price of \$0.001 per share. The PIPE Pre-Funded Warrants and Pre-Funded Warrants have no expiration dates.

7. Stock-Based Compensation

As of June 30, 2023, an aggregate of 366,924 shares of common stock were authorized under the Company's 2019 Stock Incentive Plan (the "2019 Plan"), subject to an "evergreen" provision that will automatically increase the maximum number of shares of common stock that may be issued under the term of the 2019 Plan. As of June 30, 2023, 122,328 shares of common stock were available for future grants under the 2019 Plan. As of June 30, 2023, an aggregate of 14,584 shares of common stock were authorized under the Company's 2016 Consolidated Stock Incentive Plan (the "2016 Plan") and 13,334 shares of common stock were available for future grants under the 2016 Plan.

The Company recorded stock-based compensation expense in the following expense categories of its unaudited condensed consolidated statements of operations for the three and six months ended June 30, 2023 and 2022:

	Т	Three Months Ended June 30,				Six Months	Ended June 30,			
		2023		2023 2022		2022		2023		2022
General and administrative	\$	209,522	\$	507,435	\$	481,732	\$	1,062,096		
Research and development		35,490		133,611		79,969		531,778		
Total	\$	245,012	\$	641,046	\$	561,701	\$	1,593,874		

Stock Options

Below is a table summarizing the options issued and outstanding as of and for the six months ended June 30, 2023:

	Stock Options	Weighted- Average Exercise Price Per Share	Weighted- Average Remaining Contractual Life (in years)	Total Aggregate Intrinsic Value
Outstanding at December 31, 2022	365,287	\$ 53.27		
Granted	1,875	4.34		
Exercised	(32,750)	0.02		
Forfeited	(19,740)	94.82		
Outstanding at June 30, 2023	314,672	55.91	6.0	\$ 172,296
Exercisable as of June 30, 2023	240,712	\$ 58.15	5.2	\$ 172,296

As of June 30, 2023, unrecognized compensation costs associated with the stock options of \$1.0 million will be recognized over an estimated weighted average amortization period of 1.1 years.

The intrinsic value of options exercised during the six months ended June 30, 2023 and 2022 was \$0.2 million and \$0.1 million, respectively.

The weighted average grant date fair value of options granted during the six months ended June 30, 2023 and 2022 was \$3.21 and \$26.55, respectively.

Key assumptions used to estimate the fair value of the stock options granted during the six months ended June 30, 2023 and 2022 included:

	Six Months Er	ided June 30,
	2023	2022
Expected term of options (years)	5.4 - 6.1	5.3 - 6.1
Expected common stock price volatility	82.3% - 85.2%	73.7% - 77.2%
Risk-free interest rate	3.5% - 4.0%	1.4% - 3.1%
Expected dividend yield	_	_

Restricted Stock Units

Below is a table summarizing the restricted stock units granted and outstanding as of and for the six months ended June 30, 2023:

	Restricted Stock Units	Weighted- Average Grant Date Fair Value Price	
Unvested as of December 31, 2022		\$	_
Granted	19,823	2	4.00
Forfeited	_		_
Unvested as of June 30, 2023	19,823		4.00
Total unrecognized expense remaining	\$ 65,602		
Weighted-average years expected to be recognized over	1.9		

8. Restructuring

Restructuring charges relate primarily to the Company's strategic restructuring announced in October 2022 to expand its focus to include the advancement of the differentiated gene editing capabilities of its platform. The Company recognized restructuring costs of approximately \$7 thousand during the six months ended June 30, 2023, comprised primarily of contract termination costs.

The following table summarizes activity in the Company's restructuring-related liability during the six months ended June 30, 2023:

	Li	iability at	Restructuring Charges (Six Months Ended			Payments/ Utilization Months Ended	Lia	ability at		
	Decer	December 31, 2022		June 30, 2023)		June 30, 2023)		ine 30, 2023)	June	e 30, 2023
Research and development contract termination costs	\$	311,110	\$	2,490	\$	(313,600)	\$	_		
Other		4,922		4,237		(9,159)		_		
Total Accrued restructuring	\$	316,032	\$	6,727	\$	(322,759)	\$	_		

9. Commitments and Contingencies

Litigation

The Company has become involved in certain legal proceedings and claims which arise in the normal course of business. The Company believes that an adverse outcome is unlikely, and it cannot reasonably estimate the potential loss at this point. If an unfavorable ruling were to occur, there exists the possibility of a material adverse impact on the Company's results of operations, prospects, cash flows, financial position and brand. Costs associated with the Company's involvement in legal proceedings are expensed as incurred.

10. Subsequent Events

In August 2023, the Company announced its intention to explore strategic alternatives. This announcement followed a comprehensive review of the Company's business conducted by the Board. The Board approved a plan to halt further development of the Company's programs and to conduct a comprehensive exploration of strategic alternatives focused on maximizing shareholder value. The Board also approved a reduction in workforce, designed to reduce costs and reallocate resources while maintaining the personnel needed to focus on activities relating to halting further development of the Company's programs and the pursuit of strategic alternatives (the "Restructuring"). The Company informed employees affected by the Restructuring on August 2, 2023, resulting in a reduction of the Company's workforce by approximately 83% across different areas and functions. The Company expects to provide severance payments, adjustments to equity compensation grants and continuation of group health insurance coverage for a specified period to the affected employees. The Company estimates that it will incur approximately \$400,000 of costs in connection with the reduction in workforce related to severance pay and other related termination benefits, and expects to record a significant portion of these charges in the third quarter of calendar year 2023. The Company may also incur other charges or cash expenditures not currently contemplated due to events that may occur as a result of, or associated with, the Restructuring.

On July 19, 2023, 204,997 shares were exercised related to the Pre-Funded Warrants at an exercise price of \$0.001 per share, and on August 3, 2023, 186,000 shares were exercised related to the Pre-Funded Warrants at an exercise price of \$0.001 per share. On August 2, 2023, 93,234 shares were exercised related to employee stock options at an exercise price of \$0.022 per share.

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

Disclosures Regarding Forward-Looking Statements

The following should be read in conjunction with the unaudited condensed consolidated financial statements and the related notes that appear elsewhere in this report as well as in conjunction with the Risk Factors section in our Annual Report on Form 10-K for the fiscal year ended September 30, 2022, as filed with the United States Securities and Exchange Commission ("SEC") on December 21, 2022. This report and our Form 10-K include forward-looking statements made based on current management expectations pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended.

This report includes "forward-looking statements" within the meaning of Section 21E of the Exchange Act. Those statements include statements regarding the intent, belief or current expectations of the Company and its subsidiaries and our management team. Any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ materially from those projected in the forward-looking statements. These risks and uncertainties include but are not limited to those risks and uncertainties set forth in Part II, Item 1A – Risk Factors of this Quarterly Report and in Part I, Item 1A – Risk Factors of our Annual Report on Form 10-K. In light of the significant risks and uncertainties inherent in the forward-looking statements included in this Quarterly Report on Form 10-Q and in our Annual Report on Form 10-K, the inclusion of such statements should not be regarded as a representation by us or any other person that our objectives and plans will be achieved. Further, these forward-looking statements reflect our view only as of the date of this report. Except as required by law, we undertake no obligations to update any forward-looking statements and we disclaim any intent to update forward-looking statements after the date of this report to reflect subsequent developments. Accordingly, you should also carefully consider the factors set forth in other reports or documents that we file from time to time with the SEC.

Overview

We have designed, built, and validated a new technology platform (a peptide nucleic acid antisense oligonucleobase platform, which we call PATrOLTM) that can uniquely Drug the GenomeTM to address the three disease-causing mechanisms (*i.e.*, gain-of-function, change-of-function, or loss-of-function of a gene), without the limitations of early precision genetic medicines. The technology is predicated on synthetic peptide nucleic acid ("PNA") chemistry and can directly engage the genome in a sequence-specific manner and address root causality of diseases. These compounds operate by temporarily engaging the genome (or single and double-stranded RNA targets, if desired) and interacting with cellular machinery that processes mutant genes to halt their ability to manifest a disease.

We have historically focused on developing precision genetic medicines targeting rare, monogenic diseases for which there are no approved therapies, as well as more common genetic disorders, including cancers that are resistant to current therapeutic approaches. Our disclosed pipeline includes therapeutic candidates for the treatment of DM1, HD, as well as cancer-driving point mutations in *KRAS*, G12V and G12D, which are involved in many tumor types and have historically been "undruggable". In October 2022, the Company announced plans to expand its focus to include the advancement of the differentiated gene editing capabilities of its platform.

In August 2023, the Company announced that its Board had made the determination to halt further development of the Company's programs and to conduct a comprehensive exploration of strategic alternatives focused on maximizing shareholder value. As part of this evaluation process, the Board will explore potential strategic alternatives for the Company that may include, but are not limited to, an acquisition, merger, business combination, or other transaction.

The Company expects to incur operating losses and negative cash flows from operations for the foreseeable future. We would need to seek additional equity or debt financing to provide the capital required to maintain or expand our operations.

We have based these estimates on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. Our operating plans and other demands on our cash resources may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned, through public or private equity or debt financings or other capital sources, including, potentially, collaborations, licenses, and other similar arrangements. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

There can be no assurance that we will be able to raise sufficient additional capital on acceptable terms or at all. If such additional financing is not available on satisfactory terms, or is not available in sufficient amounts, we may be required to delay, limit or eliminate the development of business opportunities, and our ability to achieve our business objectives, our competitiveness, and our business, financial condition and results of operations may be materially adversely affected. In addition, we may be required to grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Change in Year End

On April 21, 2023, the Board approved a change in the Company's fiscal year end from September 30 to December 31, effective for the fiscal year beginning January 1, 2023 and ending December 31, 2023. As a result of the change in year end, the Company filed on June 5, 2023 a Transition Report on Form 10-QT for the period from October 1, 2022 through December 31, 2022. The Company's 2023 fiscal year will run from January 1, 2023 through December 31, 2023.

Critical Accounting Estimates and Policies

The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the amounts reported in our unaudited condensed consolidated financial statements and accompanying notes. Management bases its estimates on historical experience, market and other conditions, and various other assumptions it believes to be reasonable. Although these estimates are based on management's best knowledge of current events and actions that may impact us in the future, the estimation process is, by its nature, uncertain given that estimates depend on events over which we may not have control. If market and other conditions change from those that we anticipate, our unaudited condensed consolidated financial statements may be materially affected. In addition, if our assumptions change, we may need to revise our estimates, or take other corrective actions, either of which may also have a material effect in our unaudited condensed consolidated financial statements. We review our estimates, judgments, and assumptions used in our accounting practices periodically and reflect the effects of revisions in the period in which they are deemed to be necessary. We believe that these estimates are reasonable; however, our actual results may differ from these estimates.

Our critical accounting policies and estimates are discussed in our Annual Report on Form 10-K for the fiscal year ended September 30, 2022, and there have been no material changes to such policies or estimates during the six months ended June 30, 2023.

Recent Accounting Pronouncements

Please refer to Note 2, Significant Accounting Policies—Recent Accounting Pronouncements, in Item 1, Financial Statements, for a discussion of recent accounting pronouncements.

Results of Operations

Results of operations for the three months ended June 30, 2023, reflect the following changes from the three months ended June 30, 2022:

	Three Months Ended June 30,						
	2023 2022			Change			
OPERATING EXPENSES							
General and administrative	\$	2,403,661	\$	3,603,999	\$	(1,200,338)	
Research and development		1,284,284		4,756,609		(3,472,325)	
Restructuring		_		_		_	
TOTAL OPERATING EXPENSES		3,687,945		8,360,608		(4,672,663)	
LOSS FROM OPERATIONS		(3,687,945)		(8,360,608)		4,672,663	
OTHER INCOME (EXPENSE)							
Interest expense		(730)		(2,819)		2,089	
Interest income		116,048		37,147		78,901	
Loss on issuance of common stock and warrants		(1,311,552)		_		(1,311,552)	
Change in fair value of warrant liabilities		1,430,351		_		1,430,351	
Other income (expense), net		7,034		(165,437)		172,471	
Total other income (expense), net		241,151		(131,109)		372,260	
NET LOSS	\$	(3,446,794)	\$	(8,491,717)	\$	5,044,923	

During the three months ended June 30, 2023, our operating loss decreased by \$4.7 million compared to the three months ended June 30, 2022. Our net loss decreased by \$5.0 million for the three months ended June 30, 2023, as compared to the three months ended June 30, 2022. Until we are able to generate revenue from product sales, our management expects to continue to incur net losses.

General and Administrative Expenses

General and administrative expenses consist primarily of legal and professional fees, wages and stock-based compensation. General and administrative expenses decreased by \$1.2 million for the three months ended June 30, 2023, as compared to the three months ended June 30, 2022, primarily due to a decrease in consulting and wage expenses.

Research and Development Expenses

The following table summarizes the Company's research and development expenses for the three months ended June 30, 2023 and 2022:

	Three Months Ended June 30,						
		2023 2022			Change		
Research and development							
Professional consultation and other analytical work	\$	290,659	\$	1,745,352	\$	(1,454,693)	
Lab Supplies, chemicals and manufacturing expenses		233,781		1,265,396		(1,031,615)	
Employee wages, benefits, and payroll taxes		376,524		1,135,271		(758,747)	
Stock-based compensation expense		35,405		133,611		(98,206)	
Facility, depreciation and other expenses		347,915		476,979		(129,064)	
Total research and development	\$	1,284,284	\$	4,756,609	\$	(3,472,325)	

The decrease of approximately \$3.5 million of research and development expenses was primarily attributable to \$1.5 million of decreased professional consultation and other analytical work; \$1.0 million of decreased lab supplies, chemicals, and manufacturing expenses; \$0.8 million decrease of employee wages, benefits, and payroll taxes; \$0.1 million of decreased stock-based compensation expense; and \$0.1 million of decreased equipment, depreciation, and facility costs. The overall decrease is primarily related to the Company's strategic restructuring announced in October 2022 to expand its focus to include the advancement of the differentiated gene editing capabilities of its platform. As part of the development pipeline shift to gene editing, the Company deferred preclinical activities for its myotonic dystrophy type 1 (DM1), Huntington's disease (HD), and KRAS programs resulting in the overall decrease in research and development expenses for the three months ended June 30, 2023, as compared to the three months ended June 30, 2022.

Restructuring

No restructuring charges were incurred during the three months ended June 30, 2023 or 2022.

Loss on Issuance of Common Stock and Warrants

For the three months ended June 30, 2023, the loss on issuance of common stock and warrants was approximately \$1.3 million. This loss is attributable to the fair value measurement of the warrant liabilities using a Black-Scholes Model to estimate the common stock warrant liabilities associated with the registered direct and concurrent private placement offering we completed in June 2023. There was no comparable loss for the three months ended June 30, 2022.

Change in Fair Value of Warrant Liabilities

Change in fair value of warrant liabilities of \$1.4 million for the three months ended June 30, 2023 reflects the changes in the warrant liabilities primarily due to changes in our stock price.

Other Income (Expense), net

Other income (expense), net recognized during the three months ended June 30, 2023 was not material. We recognized other income (expense), net of \$0.2 million during the three months ended June 30, 2022 related to the correction of a payroll tax expense credit received in a prior period.

Results of operations for the six months ended June 30, 2023, reflect the following changes from the six months ended June 30, 2022:

	Six Months Ended June 30,				
	2023		2022		Change
OPERATING EXPENSES					
General and administrative	\$ 5,320,976	\$	6,697,712	\$	(1,376,736)
Research and development	2,524,530		11,592,279		(9,067,749)
Restructuring	6,727		_		6,727
TOTAL OPERATING EXPENSES	 7,852,233		18,289,991		(10,437,758)
LOSS FROM OPERATIONS	 (7,852,233)		(18,289,991)		10,437,758
OTHER INCOME (EXPENSE)					
Interest expense	(3,084)		(6,135)		3,051
Interest income	294,425		40,592		253,833
Loss on issuance of common stock and warrants	(1,311,552)		_		(1,311,552)
Change in fair value of warrant liabilities	1,430,351		_		1,430,351
Other income (expense), net	(97,814)		(160,212)		62,398
Total other income (expense), net	312,326		(125,755)		438,081
NET LOSS	\$ (7,539,907)	\$	(18,415,746)	\$	10,875,839

During the six months ended June 30, 2023, our operating loss decreased by \$10.4 million compared to the six months ended June 30, 2022. Our net loss decreased by \$10.9 million for the six months ended June 30, 2023, as compared to the six months ended June 30, 2022. Until we are able to generate revenue from product sales, our management expects to continue to incur net losses.

General and Administrative Expenses

General and administrative expenses consist primarily of legal and professional fees, wages and stock-based compensation. General and administrative expenses decreased by \$1.4 million for the six months ended June 30, 2023, as compared to the six months ended June 30, 2022, primarily due to a decrease in consulting and wage expenses.

Research and Development Expenses

The following table summarizes the Company's research and development expenses for the six months ended June 30, 2023 and 2022:

	Six Months Ended June 30,					
	2023 2022		2022	Change		
Research and development						
Professional consultation and other analytical work	\$	291,059	\$	2,685,378	\$	(2,394,319)
Lab Supplies, chemicals and manufacturing expenses		696,817		5,329,818		(4,633,001)
Employee wages, benefits, and payroll taxes		768,677		2,193,541		(1,424,864)
Stock-based compensation expense		79,884		531,777		(451,893)
Facility, depreciation and other expenses		688,093		851,765		(163,672)
Total research and development	\$	2,524,530	\$	11,592,279	\$	(9,067,749)

The decrease of approximately \$9.1 million of research and development expenses was primarily attributable to \$2.4 million of decreased professional consultation and other analytical work; \$4.6 million of decreased lab supplies, chemicals, and manufacturing expenses; \$1.4 million decrease of employee wages, benefits, and payroll taxes; \$0.5 million of decreased stock-based compensation expense; and \$0.2 million of decreased equipment, depreciation, and facility costs. The overall decrease is primarily related to the Company's strategic restructuring announced in October 2022 to expand its focus to include the advancement of the differentiated gene editing capabilities of its platform. As part of the development pipeline shift to gene editing, the Company deferred preclinical activities for its myotonic dystrophy type 1 (DM1), Huntington's disease (HD), and KRAS programs resulting in the overall decrease in research and development expenses for the six months ended June 30, 2023, as compared to the six months ended June 30, 2022.

Restructuring

Restructuring charges relate primarily to the Company's strategic restructuring announced in October 2022 to expand its focus to include the advancement of the differentiated gene editing capabilities of its platform. The Company recognized restructuring costs of

approximately \$7 thousand during the six months ended June 30, 2023, comprised primarily of contract termination costs. No restructuring charges were incurred during the six months ended June 30, 2022.

The following table summarizes activity in the Company's restructuring-related liability during the six months ended June 30, 2023:

	1	Liability at		estructuring Charges Months Ended		Payments/ Utilization Months Ended	Liability at
	Dece	ember 31, 2022	Ju	ine 30, 2023)	Jı	ine 30, 2023)	June 30, 2023
Research and development contract termination costs	\$	311,110	\$	2,490	\$	(313,600)	\$ _
Other		4,922		4,237		(9,159)	_
Total Accrued restructuring	\$	316,032	\$	6,727	\$	(322,759)	\$ _

Loss on Issuance of Common Stock and Warrants

For the six months ended June 30, 2023, the loss on issuance of common stock and warrants was approximately \$1.3 million. This loss is attributable to the fair value measurement of the warrant liabilities using a Black-Scholes Model to estimate the common stock warrant liabilities associated with the registered direct and concurrent private placement offering we completed in June 2023. There was no comparable loss for the six months ended June 30, 2022

Change in Fair Value of Warrant Liabilities

Change in fair value of warrant liabilities of \$1.4 million for the six months ended June 30, 2023 reflects the changes in the warrant liabilities primarily due to changes in our stock price.

Other Income (Expense), net

We recognized other income (expense), net of \$0.1 million during the six months ended June 30, 2023 primarily related to the buyout of certain leased equipment. We recognized other income (expense), net of \$0.2 million during the six months ended June 30, 2022 related to the correction of a payroll tax expense credit received in a prior period.

Liquidity, Capital Resources, Going Concern, and Financial Condition

We have had no revenues from product sales and have incurred operating losses since inception. As of June 30, 2023, we had cash and cash equivalents of \$14.7 million. We have historically funded our operations through the sale of common stock and the issuance of convertible notes and warrants. We expect to continue to incur significant operating losses for the foreseeable future and may never become profitable. As a result, we will likely need to raise additional capital through one or more of the following: the issuance of additional debt or equity or the completion of a licensing transaction for one or more of our pipeline assets. Accordingly, there are material risks and uncertainties that raised substantial doubt about the Company's ability to continue as a going concern. In August 2023, the Company announced a restructuring plan to reduce its operating expenses and extend its cash runway into the fourth quarter of calendar year 2025 based on current operating plans and estimates. Management believes it is probable that the restructuring plan will be effectively implemented and will mitigate the conditions that gave rise to substantial doubt about the Company's ability to continue as a going concern.

Net working capital decreased from December 31, 2022 to June 30, 2023 by \$6.4 million (from \$15.8 million to \$9.4 million). We expect our annual cash burn to decrease in the fiscal year ending December 31, 2023, due to the restructuring actions that we have implemented since October 2022 and the announcement in August 2023 that we are halting further development of the Company's research programs and exploring strategic alternatives including, but not limited to, an acquisition, merger, business combination, or other transaction.

We entered into a purchase agreement with Alumni Capital in December 2022, pursuant to which Alumni Capital is obligated to purchase up to \$3.0 million of our common stock from time to time at our sole discretion over a 24-month period commencing on December 28, 2022. To date, we have not sold any shares of common stock under the purchase agreement.

At present, we have no bank line of credit. Should we need additional capital in the future, we will be primarily reliant upon a private or public placement of our equity or debt securities, or a strategic transaction, for which there can be no warranty or assurance that we may be successful in such efforts. If we are unable to maintain sufficient financial resources, our business, financial condition and results of operations will be materially and adversely affected. This could affect future development and business activities and potential future

clinical studies and/or other future ventures. Failure to obtain additional equity or debt financing will have a material adverse impact on the Company's business operations. There can be no assurance that we will be able to obtain the financing needed to achieve our goals on acceptable terms or at all. Additionally, any equity financings would likely have a dilutive effect on the holdings of the Company's existing stockholders.

Cash Flow Summary

The following table summarizes selected items in our unaudited condensed consolidated statements of cash flows:

		Six Months Ended June 30,			
		2023 2022			
Net cash used in operating activities	\$	(7,091,643)	\$	(17,105,466)	
Net cash used in investing activities		(4,947)		(319,029)	
Net cash provided by (used in) financing activities	<u></u>	4,457,688		(54,740)	
Net decrease in cash and cash equivalents	\$	(2,638,902)	\$	(17,479,235)	

Operating Activities

Net cash used in operating activities was approximately \$7.1 million for the six months ended June 30, 2023, as compared to approximately \$17.1 million for the six months ended June 30, 2023 was primarily the result of our net loss, an increase in prepaid insurance, the change in fair value of warrant liabilities, a decrease in accrued expenses and other current liabilities, and a decrease in operating lease liability, partially offset by stock-based compensation expense, the loss on issuance of common stock and warrants, depreciation and amortization expenses, and a decrease in security deposit. Net cash used in operating activities in the six months ended June 30, 2022 was primarily the result of our net loss, an increase in prepaid expenses and other current assets, a decrease in accrued expenses and other current liabilities, and a decrease in operating lease liability, partially offset by stock-based compensation expense, depreciation and amortization expenses and an increase in accounts payable.

Investing Activities

Net cash used in investing activities was approximately \$5 thousand for the six months ended June 30, 2023, as compared to \$0.3 million for the six months ended June 30, 2023. Net cash used in investing activities for the six months ended June 30, 2023 was primarily due to the purchase of leasehold improvements, partially offset by proceeds received on sale of lab equipment. Net cash used in investing activities for the six months ended June 30, 2022 was primarily due to the purchase of laboratory and office equipment.

Financing Activities

Net cash provided by financing activities was approximately \$4.5 million for the six months ended June 30, 2023, as compared to net cash used in financing activities of \$0.1 million for the six months ended June 30, 2022. Net cash provided by financing activities for the six months ended June 30, 2023 primarily reflects net proceeds from the June 2023 issuance of common stock and warrants, partially offset by principal payment of our finance lease liability. Net cash used in financing activities for the six months ended June 30, 2022 primarily reflects the principal payment of our finance lease liability.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are a smaller reporting company, as defined by Rule 12b-2 of the Securities Exchange Act of 1934, as amended, 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 and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of June 30, 2023. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that as of June 30, 2023, our disclosure controls and procedures were effective to provide reasonable assurance that the information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to management as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting during the quarterly period ended June 30, 2023.

PART II.

ITEM 1. LEGAL PROCEEDINGS

We have become involved in certain legal proceedings and claims which arise in the normal course of business. If an unfavorable ruling were to occur, there exists the possibility of a material adverse impact on our results of operations, prospects, cash flows, financial position and brand. Costs associated with the Company's involvement in legal proceedings are expensed as incurred.

ITEM 1A. RISK FACTORS

We operate in a dynamic and rapidly changing environment that involves numerous risks and uncertainties. Certain factors may have a material adverse effect on our business, prospects, financial condition and results of operations, and you should carefully consider them. Accordingly, in evaluating our business, in addition to other information contained in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed under the caption "Risk Factors" that appear in Item 1A of our Annual Report on Form 10-K for the year ended September 30, 2022, filed with the U.S. Securities and Exchange Commission ("SEC") on December 21, 2022. Other events that we do not currently anticipate or that we currently deem immaterial may also affect our business, prospects, financial condition and results of operations. Other than the following disclosed risk factors, there have been no material changes from the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended September 30, 2022.

Risks Related to the Company

Unstable market and economic conditions may have serious adverse consequences on our business, financial condition and results of operations.

As widely reported, global credit and financial markets have experienced volatility and disruptions in the past several years, including severely diminished liquidity and credit availability, rising inflation, rising interest rates, declines in consumer confidence, declines in economic growth, increases in unemployment rates, uncertainty about economic stability, failures of certain U.S. and international financial institutions and liquidity concerns at other financial institutions. There can be no assurances that further deterioration in credit and financial markets and confidence in economic conditions will not occur. Our general business strategy may be adversely affected by any such economic downturn, volatile business environment or continued unpredictable and unstable market conditions. If the current equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult, more costly and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and price of the Company's common stock, and could require us to delay or abandon clinical development plans.

We are reviewing strategic alternatives and there can be no assurance that we will be successful in identifying or completing any strategic transaction, that any such strategic transaction will result in additional value for our stockholders or that the process will not have an adverse impact on our business.

On August 3, 2023, we announced that our Board had initiated a process to explore potential strategic alternatives, possibly including, but not limited to, an acquisition, merger, business combination or other transaction, aimed at increasing stockholder value. There can be no assurance that the review of strategic alternatives will result in the identification or consummation of any transaction. Our Board may also determine that our most effective strategy is to continue to execute on our current strategy. The Board has also approved a reduction in workforce, designed to reduce costs and reallocate resources while maintaining the personnel needed to focus on activities relating to halting further development of the Company's programs and the pursuit of strategic alternatives.

The process of reviewing strategic alternatives may be costly, time consuming and disruptive to our business operations and, if we are unable to effectively manage the process, our business, financial condition and results of operations could be adversely affected. We have incurred, and may in the future incur, significant costs associated with identifying, evaluating and negotiating potential strategic alternatives, such as legal, financial advisor and accounting fees and expenses and other related charges. We may also incur additional unanticipated expenses in connection with this process. A considerable portion of these costs will be incurred regardless of whether any such course of action is implemented or transaction is completed, decreasing cash available for use in our business. We do not intend to comment regarding the evaluation of strategic alternatives until such time as we have determined that further disclosure is necessary or appropriate.

There can be no assurance that any potential transaction, or series of transactions, or other strategic alternative, if consummated, will provide greater value to our stockholders than that reflected in the current price of our common stock. Until the review process is concluded, perceived uncertainties related to our future may impact our business performance and volatility in the market price of our common stock and may make it more difficult for us to attract and retain qualified personnel and key employees. Our Board has not set a timetable for the conclusion of this review, nor has it made any definitive decisions related to taking any further actions or potential strategic options at this time or at all.

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

Not applicable.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

Not applicable.

ITEM 6. EXHIBITS

		Incorporated by Reference				
Exhibit		'	File			
Number	Description	Form	Number	Filing Date	Exhibit	
2.1+	Agreement and Plan of Merger and Reorganization, dated as of January 2,					
	2019, by and among Ohr Pharmaceutical, Inc., Ohr Acquisition Corp. and NeuBase Therapeutics. Inc.	0.17	001 25062	1/2/2010	2.1	
	NeuBase Therapeutics, Inc.	8-K	001-35963	1/3/2019	2.1	
2.2	First Amendment to the Agreement and Plan of Merger and					
	Reorganization, dated as of June 27, 2019, by and among Ohr					
	Pharmaceutical, Inc., Ohr Acquisition Corp. and NeuBase Therapeutics,					
	<u>Inc.</u>	8-K	001-35963	7/3/2019	2.1	
3.1	Amended and Restated Certificate of Incorporation of the Company.	8-K	001-35963	7/12/2019	3.1	
3.2	Certificate of Amendment to the Amended and Restated Certificate of					
3.2	Incorporation of NeuBase Therapeutics, Inc., filed with the Secretary of					
	State of the State of Delaware on June 14, 2023.	8 K	001-35963	6/14/2023	3.1	
3.3	Amended and Restated Bylaws of the Company.	8-K	001-35963	9/23/2019	3.1	
4.1	Form of Series A Warrant issued to investors pursuant to the Securities					
4.1	Purchase Agreement, dated December 7, 2016, by and among Ohr					
	Pharmaceutical, Inc. and the purchasers listed therein.	8-K	001-35963	12/8/2016	4.1	
						
4.2	Form of Warrant issued to investors pursuant to the Securities Purchase					
	Agreement, dated as of April 5, 2017, by and among Ohr Pharmaceutical,					
	Inc. and the purchasers listed therein.	8-K	001-35963	4/6/2017	4.1	
4.3	Form of Common Stock Certificate.	S-8	333-233346	8/16/2019	4.17	
4.5	Tom of Common Stock Certificate.	5-0	333-233340	0/10/2019	7.17	
4.4	Form of Series A Common Stock Purchase Warrant issued to investors					
	pursuant to the Securities Purchase Agreements, dated as of June 28,					
	2023, by and among NeuBase Therapeutics, Inc. and the purchasers listed					
	therein.	8-K	001-35963	6/30/2023	4.1	
4.5	Form of Series B Common Stock Purchase Warrant issued to investors					
4.5	pursuant to the Securities Purchase Agreements, dated as of June 28,					
	2023, by and among NeuBase Therapeutics, Inc. and the purchasers listed					
	therein.	8-K	001-35963	6/30/2023	4.2	
4.6	Form of Pre-Funded Common Stock Purchase Warrant (Registered Direct Offering) issued to investors pursuant to the Securities Purchase					
	Agreements, dated as of June 28, 2023, by and among NeuBase					
	Therapeutics, Inc. and the purchasers listed therein.	8-K	001-35963	6/30/2023	4.3	
4.7	Form of Pre-Funded Common Stock Purchase Warrant (PIPE Private					
	<u>Placement) issued to investors pursuant to the Securities Purchase</u>					
	Agreements, dated as of June 28, 2023, by and among NeuBase Therapeutics, Inc. and the purchasers listed therein.	0.17	001 25062	(/20/2022	4.4	
	<u>Therapeutics, Inc. and the purchasers listed therein.</u>	8-K	001-35963	6/30/2023	4.4	
4.8	Form of Placement Agent Common Stock Purchase Warrant issued to					
	investors pursuant to an engagement letter, dated as of June 12, 2023, as					
	amended on June 28, 2023, between the Company and H.C. Wainwright					
	<u>& Co., LLC.</u>	8-K	001-35963	6/30/2023	4.5	
10.1***	Securities Durchase Agreement, detail or of Lune 20, 2022 (Designation					
10.1***	Securities Purchase Agreement, dated as of June 28, 2023 (Registered Direct Offering), by and among NeuBase Therapeutics, Inc. and the					
	purchasers listed therein.	8-K	001-35963	6/30/2023	10.1	
	<u></u>	- -				

		Incorporated by Reference				
Exhibit			File			
Number	Description	Form	Number	Filing Date	Exhibit	
10.2***	Securities Purchase Agreement, dated as of June 28, 2023 (PIPE Private					
	<u>Placement)</u> , by and among NeuBase Therapeutics, Inc. and the purchasers					
	<u>listed therein.</u>	8-K	001-35963	6/30/2023	10.2	
10.3	Registration Rights Agreement, dated as of June 28, 2023, by and among					
	NeuBase Therapeutics, Inc. and the purchaser listed therein	8-K	001-35963	6/30/2023	10.3	
21.14		0.1.4.6	2002			
31.1*	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbar	ies-Oxley Act of	<u>2002.</u>			
31.2*	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbane	os Ovlov Act of	2002			
31.2	ecrification of emer r manetal officer r disuant to section 302 of the Sarban	cs-Oxicy Act of .	<u> 2002.</u>			
32.1**	Certification of Chief Executive Officer and Chief Financial Officer Pursuant	to 18 U.S.C. Sect	tion 1350. As Adopted I	Pursuant to Section 90	06 of the	
32.1	Sarbanes-Oxley Act of 2002.	10 10 0.5.0 500	<u> </u>	arsaan to socion y	70 01 1110	
	<u></u>					
101.INS*	XBRL Instance Document.					
101.SCH*	XBRL Taxonomy Extension Schema Document.					
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.					
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document.					
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document.					
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document.					
	· · · · · · · · · · · · · · · · · · ·					

^{*} Filed herewith.

^{**} Furnished herewith.

*** Non-material schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The Company hereby undertakes to furnish supplemental copies of any of the omitted schedules and exhibits upon request by the SEC.

All schedules and exhibits to the agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule and/or exhibit will be furnished to the SEC upon request.

Date: August 14, 2023

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.

NeuBase Therapeutics, Inc.

/s/ Todd Branning

Todd Branning Chief Financial Officer

(Principal Financial and Accounting Officer)

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

- I, Dietrich Stephan, Ph.D., certify that:
- 1. I have reviewed this Quarterly Report on Form 10-Q of NeuBase 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to
 ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those
 entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By:	/s/ Dietrich Stephan			
	Dietrich Stephan, Ph.D.			
	President and Chief Executive Officer			
	(Principal Executive Officer)			
	Ву:	Dietrich Stephan, Ph.D. President and Chief Executive Officer		

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Todd Branning, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q of NeuBase 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 14, 2023	By:	/s/ Todd Branning
		Todd Branning
		Chief Financial Officer
		(Principal Financial and Accounting Officer)

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER 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 NeuBase Therapeutics, Inc. (the "Company") for the period ended June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to their knowledge that:

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

(2)	The information contained in the Repo	ort fairly presents, in all materia	I respects, the financial condition and	I results of operations of the Com	ipany.
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By: /s/ Dietrich Stephan By: /s/ Todd Branning
Dietrich Stephan, Ph.D.
President and Chief Executive Officer (Principal Executive Officer)
August 14, 2023
August 14, 2023
Sy/Todd Branning
Chief Financial Officer (Principal Financial and Accounting Officer)
August 14, 2023

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

This certification accompanies the Report, is not deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act (whether made before or after the date of the Report), irrespective of any general incorporation language contained in such filing.