UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

×	OUARTERLY REPORT PURSUANT TO	SECTION 13 OR 15(d) OF	THE SECURITIES EXCHAIN	NGE ACT OF 1934

For the Quarterly Period Ended December 31, 2022

Or

п	TRANSITION REPORT PURSUANT TO	SECTION 13 OR 15(d)	OF THE SECURITIES F	EXCHANGE A	ACT OF 1934

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 class

Common Stock, \$0.0001 par value per share

Trading Symbol(s)

Name of each exchange on which registered

NBSE

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	\boxtimes
		Emerging growth company	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 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 \square No \boxtimes

As of February 10, 2023, 33,155,356 shares of the common stock, par value \$0.0001, of the registrant were outstanding.

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PART I.

ITEM 1. FINANCIAL STATEMENTS

NeuBase Therapeutics, Inc. and Subsidiaries Condensed Consolidated Balance Sheets

	December 31, 2022 Unaudited		\$ September 30, 2022 Audited	
ASSETS				
CURRENT ASSETS				
Cash and cash equivalents	\$	17,386,326	\$ 23,152,663	
Prepaid insurance		188,266	319,699	
Other prepaid expenses and current assets		391,655	 1,176,303	
Total current assets		17,966,247	 24,648,665	
EQUIPMENT, net		1,934,100	 2,156,851	
OTHER ASSETS				
Right-of-use asset, operating lease asset		5,409,574	5,614,698	
Security deposit		273,215	273,215	
Total other assets		5,682,789	5,887,913	
TOTAL ASSETS	\$	25,583,136	\$ 32,693,429	
LIABILITIES AND STOCKHOLDERS' EQUITY				
CURRENT LIABILITIES				
Accounts payable	\$	369,505	\$ 1,843,027	
Accrued expenses and other current liabilities		1,227,656	1,662,660	
Operating lease liabilities		469,118	553,066	
Finance lease liabilities		78,987	107,632	
Total current liabilities		2,145,266	4,166,385	
Long-term operating lease liability		5,214,074	5,335,164	
TOTAL LIABILITIES	\$	7,359,340	\$ 9,501,549	
COMMITMENTS AND CONTINGENCIES				
STOCKHOLDERS' EQUITY				
Preferred stock, \$0.0001 par value; 10,000,000 shares authorized; no shares issued and outstanding as of December				
31, 2022 and September 30, 2022	\$	_	\$ _	
Common stock, \$0.0001 par value; 250,000,000 shares authorized; 33,155,356 and 33,008,657 shares issued and outstanding as of December 31, 2022 and September 30, 2022, respectively		3,315	3,300	
Additional paid-in capital		125,333,873	125,932,933	
Accumulated deficit		(107,113,392)	(102,744,353)	
TOTAL STOCKHOLDERS' EQUITY		18,223,796	 23,191,880	
TOTAL STOCKHOLDERS EQUILI		10,223,790	 23,171,000	
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$	25,583,136	\$ 32,693,429	

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

		Three Months ended December 31,				
	2022		2021			
OPERATING EXPENSES						
General and administrative	\$ 2,596,412	\$	2,935,710			
Research and development	1,351,407		4,369,257			
Restructuring	652,451		_			
TOTAL OPERATING EXPENSES	4,600,270		7,304,967			
LOSS FROM OPERATIONS	(4,600,270)		(7,304,967)			
OTHER INCOME (EXPENSE)						
Interest expense	(1,868)		(15,219)			
Interest income	147,604		1,254			
Equity in losses on equity method investment	_		(415,744)			
Other income, net	85,495		5,860			
Total other income (expense), net	231,231		(423,849)			
NET LOSS	\$ (4,369,039)	\$	(7,728,816)			
BASIC AND DILUTED LOSS PER SHARE	\$ (0.13)	\$	(0.24)			
WEIGHTED AVERAGE SHARES OUTSTANDING:						
BASIC AND DILUTED	33,015,035		32,725,718			

NeuBase Therapeutics, Inc. and Subsidiaries Condensed Consolidated Statements of Changes in Stockholders' Equity For the Three Months Ended December 31, 2022 and 2021 (Unaudited)

	Comn	ion Sto	ock	Additional Paid-In			Total Stockholders'
	Shares		Amount	Capital	Ac	cumulated Deficit	Equity
Balance as of September 30, 2021	32,721,493	\$	3,272	\$ 123,034,404	\$	(68,967,903)	\$ 54,069,773
Stock-based compensation expense	_		_	793,204		· · · · · ·	793,204
Issuance of restricted stock for services	4,441		_	_		_	_
Exercise of stock options	42,250		4	38		_	42
Net loss			_	_		(7,728,816)	(7,728,816)
Balance as of December 31, 2021	32,768,184	\$	3,276	\$ 123,827,646	\$	(76,696,719)	\$ 47,134,203
Balance as of September 30, 2022	33,008,657	\$	3,300	\$ 125,932,933	\$	(102,744,353)	\$ 23,191,880
Stock-based compensation expense	· · · · ·			(509,072)		` ' ' _ '	(509,072)
Issuance of common stock and commitment obligation as fee							()
for future financing	146,699		15	(89,988)		_	(89,973)
Net loss				<u> </u>		(4,369,039)	(4,369,039)
Balance as of December 31, 2022	33,155,356	\$	3,315	\$ 125,333,873	\$	(107,113,392)	\$ 18,223,796

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

		Three months ended December 31,		
		2022		2021
Cash flows from operating activities	0	(4.260.020)	e e	(7.720.017)
Net loss	\$	(4,369,039)	\$	(7,728,816)
Adjustments to reconcile net loss to net cash used in operating activities		(500,072)		702 204
Stock-based compensation		(509,072)		793,204
Depreciation and amortization		198,563		181,490
Loss on marketable securities				30
Loss on disposal of fixed assets		65,532		7,595
Equity in losses on equity method investment				415,744
Amortization of right-of-use assets		120,094		102 500
Non-cash expense from right-of-use assets		_		103,599
Changes in operating assets and liabilities		004.501		055.066
Prepaid insurance, other prepaid expenses and current assets		924,581		877,266
Other long-term assets		- (1.406.050)		160,423
Accounts payable		(1,496,850)		(680,142)
Accrued expenses and other current liabilities		(501,649)		665,134
Operating lease liability		(120,008)		(63,973)
Net cash used in operating activities		(5,687,848)		(5,268,446)
Cash flows from investing activities				
Purchase of laboratory and office equipment		(49,844)		(123,876)
Purchase of marketable securities		_		(14,986,818)
Sale of marketable securities				14,986,788
Net cash used in investing activities		(49,844)		(123,906)
Cash flows from financing activities				
Principal payment of financed insurance		_		(148,385)
Principal payment of finance lease liability		(28,645)		(26,632)
Proceeds from exercise of stock options		_		42
Net cash used in financing activities		(28,645)		(174,975)
Net decrease in cash and cash equivalents		(5,766,337)	-	(5,567,327)
Cash and cash equivalents, beginning of period		23,152,663		52,893,387
Cash and cash equivalents, end of period	<u>\$</u>	17,386,326	\$	47,326,060
Cush und cush equivalents, end of period	<u> </u>	<u> </u>	_	, ,
Supplemental disclosure of cash flow information:				
Non-cash investing and financing activities:				
Issuance of common stock and commitment obligation as fee for future financing	\$	30,000	\$	<u></u>
Equity issuance costs, unpaid	\$	59,973	\$	
Sale of laboratory equipment in other prepaid expenses and current assets	\$	8,500	\$	
Impairment of right-of-use asset and lease liability	\$	85,030	\$	_
Purchases of laboratory and office equipment in accounts payable	\$	65,050	\$	65,970
r dichases of laboratory and office equipment in accounts payable	Ψ		Ψ	03,770

1. Organization, Description of Business and Liquidity

NeuBase Therapeutics, Inc. and its subsidiaries (the "Company" or "NeuBase") is developing a modular peptide-nucleic acid ("PNA") antisense oligo ("PATrOLTM") platform to address genetic diseases, with a single, cohesive approach. NeuBase plans 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, and in gene editing applications.

NeuBase is a preclinical-stage biopharmaceutical company and continues to develop its clinical and regulatory strategy with its internal research and development team, with a view toward prioritizing market introduction as quickly as possible. NeuBase's disclosed programs are NT-0100 in HD, NT-0200 in DM1 and NT-0300 in *KRAS*-driven cancers.

The NT-0100 program is a PATrOLTM-enabled therapeutic program being developed to target the mutant expansion in the HD DNA or RNA. The NT-0100 program includes proprietary PNAs which have the potential to be highly selective for the mutant copy of the gene versus the wild-type allele, the expectation being that the resultant therapy will be applicable for all HD patients as it directly targets the expansion itself, and the potential to be delivered systemically and address the brain and whole-body manifestations of the disease. PATrOLTM-enabled drugs also have the unique ability to open DNA and RNA secondary structures and bind to either the primary nucleotide sequences or the secondary and/or tertiary structures.

The NT-0200 program is a PATrOL™-enabled therapeutic program being developed to target the mutant expansion in the DM1 disease RNA. The NT-0200 program has the potential to be highly selective for the mutant transcript versus the wild-type transcribed allele and the expectation to be effective for nearly all DM1 patients as it directly targets the expansion itself.

The NT-0300 program is a PATrOLTM-enabled therapeutic program being developed to target the mutated *KRAS* gene. The program is comprised of candidate compounds that target two activating mutations in the *KRAS* gene at the DNA or RNA levels: G12D and G12V. NeuBase believes these candidate compounds, and subsequent further optimized compounds, have the potential to inhibit transcription and/or translation of the oncogenic mutations and slow or stop tumor growth.

In October 2022, the Company announced plans to expand its focus to include the advancement of the differentiated gene editing capabilities of its platform. The Company is currently identifying and evaluating multiple indications for potential future development.

Liquidity and Going Concern

The Company has had no revenues from product sales and has incurred operating losses since inception. As of December 31, 2022, the Company had \$17.4 million in cash and cash equivalents, and during the three months ended December 31, 2022, incurred a loss from operations of \$4.6 million and used \$5.7 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 October 2022, as further discussed below, the Company announced a restructuring plan to reduce its operating expenses and extend its cash runway into the second quarter of calendar year 2024 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 maintain compliance with the listing requirements of The Nasdaq Capital Market ("Nasdaq")
- the outcome, costs and timing of preclinical and clinical trial results for the Company's current or future product candidates;
- the extent and amount of any indemnification claims;
- 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.

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, the valuation of licenses, the fair value of warrant liabilities 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.

Fair Value Measurements

Fair value measurements are based on the premise that fair value is an exit price representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the following three-tier fair value hierarchy has been used in determining the inputs used in measuring fair value:

Level 1 – Quoted prices in active markets for identical assets or liabilities on the reporting date.

Level 2 – Pricing inputs are based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 – Pricing inputs are generally unobservable and include situations where there is little, if any, market activity for the investment. The inputs into the determination of fair value require management's judgment or estimation of assumptions that market participants would use in pricing the assets or liabilities. The fair values are therefore determined using factors that involve considerable judgment and interpretations, including but not limited to private and public comparables, third-party appraisals, discounted cash flow models, and fund manager estimates.

Financial instruments measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. Management's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the asset or liability. The use of different assumptions and/or estimation methodologies may have a material effect on estimated fair values. Accordingly, the fair value estimates disclosed, or initial amounts recorded, may not be indicative of the amount that the Company or holders of the instruments could realize in a current market exchange.

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 December 31, 2022 and 2021 have been excluded from the computation of diluted weighted average shares outstanding, as they would be anti-dilutive:

	As of Decer	nber 31,
	2022	2021
Common stock purchase options	7,310,686	7,197,404
Restricted stock units	_	10,000
Common stock purchase warrants	180,000	875,312
	7,490,686	8,082,716

Recent Accounting Pronouncements

In May 2021, the Financial Accounting Standards Board ("FASB") issued ASU No. 2021-04, "Earnings Per Share (Topic 260), Debt-Modifications and Extinguishments (Subtopic 470-50), Compensation-Stock Compensation (Topic 718), and Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40)" ("ASU 2021-04"). This guidance reduces diversity in an issuer's accounting for modifications or exchanges of freestanding equity-classified written call options (for example, warrants) that remain equity classified after modification or exchange. ASU 2021-04 provides guidance for a modification or an exchange of a freestanding equity-classified written call option that is not within the scope of another Topic. It specifically addresses: (1) how an entity should treat a modification or exchange; (2) how an entity should measure the effect of a modification or an exchange of a freestanding equity-classified written call option that remains equity classified written call option that remains equity classified after modification or exchange; and (3) how an entity should recognize the effect of a modification or an exchange of a freestanding equity-classified written call option that remains equity classified written call option that remains equity classified after modification or exchange. The Company adopted this guidance as of October 1, 2022, with no impact upon adoption.

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 September 30, 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 September 30, 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. Early adoption is permitted. The Company is currently evaluating the impact of this standard on its consolidated financial statements and related disclosures.

3. Other Prepaid Expenses and Current Assets

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

	December 31, 2022 Unaudited	As of September 30, 2022 Audited		
Prepaid research and development expense	\$ 67,027	\$	805,542	
Accounts receivable	150,000		_	
Franchise tax receivable	_		127,715	
Other prepaid expenses and current assets	174,628		243,046	
Total	\$ 391,655	\$	1,176,303	

4. Equipment

The Company's equipment consisted of the following:

	As	of December 31, 2022 Unaudited	As of September 30, 2022 Audited		
Laboratory equipment	\$	3,048,579	\$	3,175,019	
Office equipment		259,978		259,978	
Leasehold improvements		17,958		17,958	
Total		3,326,515		3,452,955	
Accumulated depreciation and amortization		(1,392,415)		(1,296,104)	
Equipment, net	\$	1,934,100	\$	2,156,851	

Depreciation expense for the three months ended December 31, 2022 and 2021 was approximately \$0.2 million and \$0.2 million, respectively.

5. Accrued Expenses and Other Current Liabilities

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

	December 31, 2022 Unaudited	As of September 30, 2022 Audited	
Accrued compensation and benefits	\$ 171,572	\$	768,324
Accrued consulting settlement	225,000		150,000
Accrued professional fees	241,808		191,516
Accrued research and development	20,684		512,570
Accrued franchise tax	217,440		36,542
Accrued restructuring	316,032		_
Other accrued expenses	35,120		3,708
Total	\$ 1,227,656	\$	1,662,660

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 146,699 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 December 31, 2022, the Company has not sold any shares of common stock under the Equity Purchase Agreement.

Warrants

Below is a summary of the Company's issued and outstanding warrants as of December 31, 2022:

Expiration date		Exercise Price	Per Share	Outstanding
July 6, 2023			8.73	105,000
September 20, 2024			6.50	75,000
				180,000
	<u>Warrants</u>	A H	eighted- average Exercise Per Share	Weighted- Average Remaining Contractual Life (in years)
Outstanding as of September 30, 2022	180,000	\$	7.80	
Expired			_	
Outstanding as of December 31, 2022	180,000		7.80	1.0
Exercisable as of December 31, 2022	180,000	\$	7.80	1.0

Warrante

7. Stock-Based Compensation

As of December 31, 2022, an aggregate of 6,018,136 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 December 31, 2022, 935,495 common shares were available for future grants under the 2019 Plan. As of December 31, 2022, 291,667 shares of common stock were authorized under the Company's 2016 Consolidated Stock Incentive Plan (the "2016 Plan") and 228,041 common shares 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 months ended December 31, 2022 and 2021:

	 Three Months ended December 31,			
	2022	2021		
General and administrative	\$ 276,336	\$	327,131	
Research and development	(785,408)		466,073	
Total	\$ (509,072)	\$	793,204	

Stock-based compensation expense for the three months ended December 31, 2022 and 2021 includes the reversal of expense previously recognized for unvested stock options of \$0.8 million that were forfeited during the period. The stock-based compensation expense benefit included in the Research and development expense category is primarily the result of stock options forfeited in connection with the Company's restructuring, see Note 8.

Stock Options

Below is a table summarizing the options issued and outstanding as of and for the three months ended December 31, 2022:

	Stock Options	1	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life (in years)	Total Aggregate Intrinsic Value
Outstanding at September 30, 2022	7,629,281	\$	3.08		
Granted	390,000		0.28		
Forfeited	(708,595)		5.01		
Outstanding at December 31, 2022	7,310,686		2.66	6.4	\$ 476,723
Exercisable as of December 31, 2022	5,048,630	\$	2.76	5.3	\$ 476,723

As of December 31, 2022, unrecognized compensation costs associated with the stock options of \$1.4 million will be recognized over an estimated weighted average amortization period of 1.1 years.

The intrinsic value of options exercised during the three months ended December 31, 2021 was \$0.1 million. No options were exercised during the three months ended December 31, 2022.

The weighted average grant date fair value of options granted during the three months ended December 31, 2022 and 2021 was \$0.19 and \$2.33, respectively.

Key assumptions used to estimate the fair value of the stock options granted during the three months ended December 31, 2022 and 2021 included:

	Three months End	ded December 31,
	2022	2021
Expected term of options (years)	5.3 – 6.1	5.1 – 6.1
Expected common stock price volatility	79.2% – 82.4%	73.8% - 74.5%
Risk-free interest rate	3.8% - 4.3%	1.1% - 1.4%
Expected dividend yield	_	_

8. Restructuring

Restructuring charges relate primarily to the Company's strategic restructuring to expand its focus to include the advancement of the differentiated gene editing capabilities of its platform. The Company recognized restructuring costs of \$0.7 million during the three months ended December 31, 2022, comprised primarily of contract termination costs of \$0.6 million and termination benefits related to headcount reductions of \$0.1 million. Employee termination benefits were recognized at the date employees were notified and post-employment benefits were accrued as the obligation was probable and estimable.

The following table summarizes activity in the Company's restructuring-related liability during the three months ended December 31, 2022:

	Liability at		Restructuring		Payments/		Liability at	
	September 30, 2022		Charges		ges Utilization		December 31, 202	
Employee-related costs	\$	_	\$	97,627	\$	(97,627)	\$	_
Research and development contract termination costs		_		540,058		(228,948)		311,110
Other		_		14,766		(9,844)		4,922
Total Accrued restructuring	\$		\$	652,451	\$	(336,419)	\$	316,032

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.

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 repeatedly demonstrated in proof-of-concept preclinical animal studies the ability to address multiple disease-causing genes, and different causal mechanisms, to resolve the disease state without the limitations of early genetic medicine technologies. As further validation of our PATrOLTM platform's capabilities, in FY2021 and FY2022, we described data illustrating that our first-in-class platform technology can address various types of causal insults by Drugging the GenomeTM in animal models of a variety of human diseases after patient-friendly routes of administration and does so in a well-tolerated manner.

We are 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. The Company is currently identifying and evaluating multiple indications for potential future development.

We were incorporated under the laws of the State of Delaware on August 4, 2009, as successor to BBM Holdings, Inc. (formerly known as Prime Resource, Inc., which was organized March 29, 2002 as a Utah corporation) pursuant to a reincorporation merger. On August 4, 2009, we reincorporated in Delaware as "Ohr Pharmaceutical, Inc." On July 12, 2019, we completed the merger with NeuBase Corporation (formerly known as NeuBase Therapeutics, Inc.), a Delaware corporation (the "Merger"), and, upon completion of the Merger, we changed our name to "NeuBase Therapeutics, Inc." Since the Merger, we have focused primarily on the development of our proprietary peptide-nucleic acid antisense oligo platform and preclinical-stage therapeutic candidates. Our platform technology and all of our therapeutic candidates are in the preclinical development stage. We have not initiated clinical trials for any of our product candidates, nor have any products been approved for commercial sale, and we have not generated any revenue. To date, we have not completed a clinical trial (including a pivotal clinical trial), obtained marketing approval for any product candidates, manufactured a commercial scale product or arranged for a third party to do so on our behalf, or conducted sales and marketing activities necessary for successful product commercialization. Drug development is also a highly uncertain undertaking and involves a substantial degree of risk. As a result, we have no meaningful historical operations upon which to evaluate our business and prospects and have not yet demonstrated an ability to obtain marketing approval for any of our product candidates or successfully overcome the risks and uncertainties frequently encountered by companies in the pharmaceutical industry. We also have not generated any revenues from collaboration and licensing agreements or product sales to date and continue to incur research and development and other expenses. Our prior losses, combined with expected future losses, have had and will continue to h

For the foreseeable future, we expect to continue to incur operating losses, which we expect will increase significantly from recent historical levels as we advance our gene editing platform, expand our drug development activities, seek regulatory approvals for our product candidates and begin to commercialize them if they are approved by the U.S. Food and Drug Administration (the "FDA"), the European Medicines Agency (the "EMA") or comparable foreign authorities. Even if we succeed in developing and commercializing one or more product candidates, we may never become profitable.

We expect to expend substantial funds in research and development, including preclinical studies and clinical trials for our platform technology and product candidates, and to manufacture and market any product candidates in the event they are approved for commercial sale. We will likely need additional funding to develop or acquire complementary companies, technologies and assets, as well as for working capital requirements and other operating and general corporate purposes. Moreover, an increase in our headcount would dramatically increase our costs in the near and long-term.

Such spending may not yield any commercially viable products. Due to our limited financial and managerial resources, we must focus on a limited number of research programs and product candidates and on specific indications. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities.

Because the successful development of our product candidates is uncertain, we are unable to precisely estimate the actual funds we will require to develop and potentially commercialize them. In addition, we may not be able to generate sufficient revenue, even if we are able to commercialize any of our product candidates, to become profitable

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

In particular, we expect that we will need to obtain additional funding to obtain clinical data from our current pipeline programs. 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.

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 three months ended December 31, 2022.

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 December 31, 2022, reflect the following changes from the three months ended December 31, 2021:

	Three Months E			
	2022 2021		Change	
OPERATING EXPENSES				
General and administrative	\$ 2,596,412	\$ 2,935,710	\$ (339,298)	
Research and development	1,351,407	4,369,257	(3,017,850)	
Restructuring	652,451	_	652,451	
TOTAL OPERATING EXPENSES	4,600,270	7,304,967	(2,704,697)	
LOSS FROM OPERATIONS	(4,600,270)	(7,304,967)	2,704,697	
OTHER INCOME (EXPENSE)				
Interest expense	(1,868)	(15,219)	13,351	
Interest income	147,604	1,254	146,350	
Equity in losses on equity method investment	_	(415,744)	415,744	
Other income, net	85,495	5,860	79,635	
Total other income (expense), net	231,231	(423,849)	655,080	
NET LOSS	\$ (4,369,039)	\$ (7,728,816)	\$ 3,359,777	

During the three months ended December 31, 2022, our operating loss decreased by \$2.7 million compared to the three months ended December 31, 2021. Our net loss decreased by \$3.4 million for the three months ended December 31, 2022, as compared to the three months ended December 31, 2021. 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 \$0.3 million for the three months ended December 31, 2022, as compared to the three months ended December 31, 2021, primarily due to a decrease in wage expenses.

Research and Development Expenses

Research and development expenses consist primarily of professional fees, research, development, manufacturing expenses, wages and stock-based compensation. Due to the Company's restructuring, research and development expenses decreased by \$3.0 million for the three months ended December 31, 2022, as compared to the three months ended December 31, 2021, primarily due to a decrease in research, development, and manufacturing expenses, and wages and stock-based compensation.

Restructuring

Restructuring charges incurred during the three months ended December 31, 2022 relate primarily to the Company's strategic restructuring to expand its focus to include the advancement of the differentiated gene editing capabilities of its platform. The restructuring costs were comprised primarily of contract termination costs of \$0.6 million and termination benefits related to headcount reductions of \$0.1 million. No restructuring charges were incurred during the three months ended December 31, 2021.

Equity in Losses on Equity Method Investment

We account for our investment in DepYmed common shares using the equity method of accounting and record our proportionate share of DepYmed's net income and losses. As of December 31, 2022 and September 30, 2022, the carrying value of the DepYmed investment was \$0 and, as such, the Company did not record its proportionate share of losses during the three months ended December 31, 2022. Equity in losses during the three months ended December 31, 2021 was \$0.4 million.

Other Income, net

We recognized other income of \$0.1 million during the three months ended December 31, 2022 related to the sale of certain research and development materials. Other income recognized during the three months ended December 31, 2021 was not material.

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 December 31, 2022, we had cash and cash equivalents of \$17.4 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 October 2022, the Company announced a restructuring plan to reduce its operating expenses and extend its cash runway into the second quarter of calendar year 2024 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.

Net working capital decreased from September 30, 2022 to December 31, 2022 by \$ 4.7 million (from \$20.5 million to \$15.8 million). We expect our annual cash burn to decrease in the fiscal year ending September 30, 2023, due to the restructuring actions that we have implemented since October 2022. We believe our current cash balance will provide sufficient capital to continue operations into the second calendar quarter of 2024.

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:

	<u></u>	Three months Ended December 31,		
	20	022		2021
Net cash used in operating activities	\$	(5,687,848)	\$	(5,268,446)
Net cash used in investing activities		(49,844)		(123,906)
Net cash used in financing activities		(28,645)		(174,975)
Net decrease in cash and cash equivalents	\$	(5,766,337)	\$	(5,567,327)

Operating Activities

Net cash used in operating activities was approximately \$5.7 million for the three months ended December 31, 2022, as compared to approximately \$5.3 million for the three months ended December 31, 2021. Net cash used in operating activities in the three months ended December 31, 2022, was primarily the result of our net loss, a decrease in accounts payable, accrued expenses and other current liabilities, operating lease liability and a net benefit for stock-based compensation expense, partially offset by depreciation and amortization expenses, and a decrease in prepaid insurance, other prepaid expenses and current assets. Net cash used in operating activities in the three months ended December 31, 2021, was primarily the result of our net loss and a decrease in accounts payable, partially offset by stock-based compensation expense, depreciation and amortization expenses, a decrease in prepaid expenses and other current assets and an increase in accrued expenses and other current liabilities.

Investing Activities

Net cash used in investing activities was approximately \$0.05 million for the three months ended December 31, 2022, as compared to \$0.1 million for the three months ended December 31, 2021. Net cash used in investing activities for the three months ended December 31, 2022 and 2021 was primarily due to the purchase of laboratory and office equipment.

Financing Activities

Net cash used in financing activities was approximately \$0.03 million for the three months ended December 31, 2022, as compared to net cash used in financing activities of \$0.2 million for the three months ended December 31, 2021. Net cash used in financing activities for the three months ended December 31, 2022 primarily reflects principal payment of our finance lease liability. Net cash used in financing activities for the three months ended December 31, 2021 primarily reflects the principal payments of financed insurance and principal payment of our finance lease liability, partially offset by the proceeds received from the exercise of stock options.

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 December 31, 2022. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that as of December 31, 2022, 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 December 31, 2022.

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. 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.

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 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.	Form 8-K	Number 001-35963	Filing Date 1/3/2019	Exhibit 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.					
	Inc.	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	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 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	
10.1	Purchase Agreement, dated December 28, 2022, by and between NeuBase Therapeutics, Inc. and Alumni Capital LP	8-K	001-35963	12/29/2022	10.1	
31.1*	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarban	es-Oxley Act of	<u> 2002.</u>			
31.2*	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbane	es-Oxley Act of	2002.			
32.1**	Certification of Chief Executive Officer and Chief Financial Officer Pursuant Sarbanes-Oxley Act of 2002.	to 18 U.S.C Sec	tion 1350, As Adopted I	Pursuant to Section 90	06 of the	
101.INS* 101.SCH* 101.CAL* 101.DEF* 101.LAB* 101.PRE*	XBRL Instance Document. XBRL Taxonomy Extension Schema Document. XBRL Taxonomy Extension Calculation Linkbase Document. XBRL Taxonomy Extension Definition Linkbase Document. XBRL Taxonomy Extension Label Linkbase Document. XBRL Taxonomy Extension Presentation Linkbase Document.					

^{*} Filed herewith.

^{**} Furnished herewith.

** Furnished herewith.

+ 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.

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.

Date: February 14, 2023 /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:
 - 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: February 14, 2023	By:	/s/ Dietrich Stephan
	_	Dietrich Stephan, Ph.D.
		President and Chief Executive Officer
		(Principal 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: February 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 December 31, 2022 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 Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Dietrich Stephan By: /s/ Todd Branning

Dietrich Stephan, Ph.D. Todd Branning

President and Chief Executive Officer (Principal Executive Officer)

February 14, 2023 February 14, 2023

February 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.