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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2024

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

For the transition period from _____to _____

Commission file number 001-41765

MIRA Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Florida	**85-3354547**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
1200 Brickell Avenue, Suite 1950 #1183 Miami, Florida	
(Address of principal executive offices)	**33131 (Zip Code)**

Registrant's telephone number (including area code):
(786) 432-9792

Not Applicable
(Former name, former address and former fiscal year, if changed since last report)

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

Title of each class:	Trading symbol	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	MIRA	The Nasdaq Capital Market

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

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

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

Large accelerated filer	□	Accelerated filer	□
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

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

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

As of August 13, 2024 , there were 14,780,885 shares of company common stock issued and outstanding.

MIRA Pharmaceuticals, Inc.
Quarterly Report on Form 10-Q
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MIRA PHARMACEUTICALS, INC.
CONDENSED BALANCE SHEETS
AS OF JUNE 30, 2024 AND DECEMBER 31, 2023

	June 30, 2024 (unaudited)	December 31, 2023
ASSETS		
Current assets:		
Cash	$ 2,823,781	$ 4,602,566
Other receivables	-	11,862
Prepaid expenses	108,622	243,802
Total current assets	2,932,403	4,858,230
Operating lease, right of use assets	-	5,061
Due from related parties	83,175	69,152
Total assets	**$ 3,015,578**	**$ 4,932,443**
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Trade accounts payable and accrued liabilities	$ 782,140	$ 538,564
Related party accrued interest	14,472	14,472
Current portion of operating lease liabilities	-	5,061
Total current liabilities	796,612	558,097
Total liabilities	796,612	558,097
Stockholders' Deficit		
Preferred Stock, $0.0001 par value, 10,000,000 shares authorized and none issued or outstanding.	-	-
Common Stock, $0.0001 par value; 100,000,000 shares authorized, 14,780,885 shares issued and outstanding at June 30, 2024 and December 31, 2023, respectively.	1,478	1,478
Additional paid-in capital	26,911,646	25,657,930
Accumulated deficit	(24,694,158)	(21,285,062)
Total stockholders' equity (deficit)	2,218,966	4,374,346
Total liabilities and stockholders' equity (deficit)	**$ 3,015,578**	**$ 4,932,443**

See notes to condensed financial statements

MIRA PHARMACEUTICALS, INC.
CONDENSED STATEMENTS OF OPERATIONS
FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2024 AND 2023
(Unaudited)

	Three months ended June 30,		Six Months Ended June 30,	
	2024	**2023**	**2024**	**2023**
Revenues	$ -	$ -	$ -	$ -
Operating costs:				
General and administrative expenses	1,116,260	1,071,239	2,122,170	1,685,475
Related party travel costs	-	-	-	453,550
Research and development expenses	614,462	(101,019)	1,376,738	170,587
Total operating costs	1,730,722	970,220	3,498,908	2,309,612
Interest income (expense), net	39,397	(295,887)	89,812	(297,540)
Net loss attributable to common stockholders	**$ (1,691,325)**	**$ (1,266,107)**	**$ (3,409,096)**	**$ (2,607,152)**
Basic and diluted loss per share	$ (0.11)	$ (0.10)	$ (0.23)	$ (0.20)
Weighted average common stock shares outstanding	14,780,885	13,313,000	14,780,885	13,313,000

See notes to condensed financial statements

MIRA PHARMACEUTICALS, INC.
CONDENSED STATEMENTS OF STOCKHOLDERS' EQUITY
FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2024 AND 2023
(Unaudited)

	Common Stock		Additional Paid-In	Accumulated	Total Stockholders'
	Shares	Amount	Capital	Deficit	Equity (Deficit)
Balances, March 31, 2024	**14,780,885**	**1,478**	**$ 26,158,140**	**$ (23,002,833)**	**$ 3,156,785**
Payment of Short Swing Disgorgement by Bay Shore Trust	-	-	148,703	-	148,703
Stock-based compensation	-	-	604,803	-	604,803
Net loss	-	-	-	**(1,691,325)**	(1,691,325)
Balances, June 30, 2024	**14,780,885**	**1,478**	**26,911,646**	**(24,694,158)**	**2,218,966**
Balances, March 31, 2023	**13,313,000**	**$ 6,657**	**$ 8,847,630**	**$ (10,643,761)**	**$ (1,789,474**
Stock-based compensation	-	-	737,200	-	737,200
Issuance of warrants	-	-	3,515,000	-	3,515,000
Net loss	-	-	-	(1,266,107)	(1,266,107)
Balances, June 30, 2023	**13,313,000**	**$ 6,657**	**$ 13,099,830**	**$ (11,909,868)**	**$ 1,196,619**

	Common Stock		Additional Paid-In	Accumulated	Total Stockholders'
	Shares	Amount	Capital	Deficit	Equity (Deficit)
Balances, January 1, 2024	**14,780,885**	**$ 1,478**	**$ 25,657,930**	**$ (21,285,062)**	**$ 4,374,346**
Payment of Short Swing Disgorgement by Bay Shore Trust	-	-	$ 148,703	-	148,703
Stock-based compensation	-	-	$ 1,105,013	-	1,105,013
Net loss	-	-	-	**$ (3,409,096)**	(3,409,096)
Balances, June 30, 2024	**14,780,885**	**1,478**	**26,911,646**	**$ (24,694,158)**	**$ 2,218,966**
Balances, January 1, 2023	**13,313,000**	**$ 6,657**	**$ 8,699,830**	**$ (9,302,719)**	**$ (596,232)**
Stock-based compensation	-	-	737,200	-	737,200
Sale of common stock, net	-	-	147,800	-	147,800
Issuance of warrants	-	-	3,515,000	-	3,515,000
Net loss	-	-	-	(2,607,152)	(2,607,152)
Balances, June 30, 2023	**13,313,000**	**$ 6,657**	**$ 13,099,830**	**$ (11,909,868)**	**$ 1,196,619**

See notes to condensed financial statements

MIRA PHARMACEUTICALS, INC.
CONDENSED STATEMENTS OF CASH FLOWS
FOR THE SIX MONTHS ENDED JUNE 30, 2024 AND 2023
(Unaudited)

	Six Months Ended June 30,	
	2024	**2023**
Cash flows from Operating activities		
Net loss	$ (3,409,096)	$ (2,607,152)
Adjustments to reconcile net loss to net cash from operations		
Interest expense	-	4,623
Amortization of debt issuance costs		292,917
Stock-based compensation expense	1,105,013	885,000
Change in operating assets and liabilities:		
Accounts payable and accrued liabilities	243,576	(268,983)
Prepaid expenses	135,180	(42,524)
Other receivables	11,862	-
Net cash flows used in operating activities	(1,913,465)	(1,736,119)
Financing activities:		
Advances (to) from affiliates	(14,023)	1,752,971
Deferred offering costs	-	(209,945)
Repayments under related party line of credit	-	(133,062)
Bayshore Trust short-swing disgorgement	148,703	-
Net cash flows provided (used) by financing activities	$ 134,680	$ 1,409,964
Net change in cash	$ (1,778,785)	$ (326,155)
Cash, beginning of year	4,602,566	350,978
Cash, end of period	$ 2,823,781	$ 24,823

See notes to condensed financial statements

Note 1. Description of business and summary of significant accounting policies:

Overview

MIRA Pharmaceuticals, Inc., a Florida corporation ("we," "us," "our," "MIRA," or the "Company"), is a pre-clinical-stage pharmaceutical development company with two neuroscience programs targeting a broad range of neurologic and neuropsychiatric disorders. The Company holds exclusive license rights in the U.S., Canada and Mexico for Ketamir-2, a novel, patent pending oral ketamine analog under pre-clinical investigation to potentially deliver ultra-rapid antidepressant effects, providing hope for individuals battling treatment-resistant depression ("TRD"), major depressive disorder with suicidal ideation ("MDSI"), and potentially post-traumatic stress disorder ("PTSD").

Additionally, the Company's novel oral pharmaceutical marijuana, MIRA-55, is currently under investigation for its potential to alleviate neuropathic pain, as well as anxiety and cognitive decline, symptoms often associated with early-stage dementia. MIRA-55, if approved by the U.S. Food and Drug Administration ("FDA"), could mark a significant advancement in addressing various neuropsychiatric, inflammatory, and neurologic diseases and disorders.

The U.S. Drug Enforcement Administration's ("DEA") scientific reviews of both Ketamir-2 and MIRA-55 concluded that they would not be considered a controlled substance or listed chemical under the Controlled Substances Act ("CSA") and its governing regulations.

The Company is incorporated under the laws of the State of Florida in September 2020 and commenced substantive operations, including our pharmaceutical development program, in late 2020. The Company's accounting and reporting policies conform to accounting principles generally accepted in the United States of America ("GAAP").

As used herein, the Company's Common Stock, par value $0.0001 per share, is referred to as the "Common Stock" and the Company's preferred stock, par value $0.0001 per share, is referred to as the "Preferred Stock".

Operating updates

In early February 2024, the Company made a significant discovery during the manufacturing and scale-up process of its patented molecule known as "MIRA1a," which the Company believed was the molecule used in its pre-clinical trials and had been synthesized by a contract manufacturer. Through this process, the Company identified a novel and improved version of the molecule, which the Company calls MIRA-55.

As part of the Company's due diligence and subsequent testing, which began in late 2023, the Company discovered that the pre-clinical studies the Company conducted, previously attributed to MIRA1a, were in fact performed on MIRA-55. Following this revelation, in early March 2024, the Company promptly filed a provisional patent for MIRA-55, which encompasses all pre-clinical studies. If such patent is issued, the Company will own the patent rights to both MIRA1a and MIRA-55.

Moreover, based on the Company's pre-clinical analyses to date, the Company believes that MIRA-55 is an improvement over MIRA1a in that it displays enhanced potency and potential for efficacy.

Based on the Company's discoveries and pre-clinical studies to date, the Company has decided to advance MIRA-55 as its lead compound for the Company's oral pharmaceutical marijuana drug candidate while still retaining its rights to MIRA1a. As such, the Company's decided not to move MIRA1a forward.

Significant Accounting Policies

There have been no material changes in the Company's significant accounting policies from those previously disclosed in the 2023 Annual Report.

Note 2. Liquidity and capital resources:

In accordance with *Accounting Standards Codification 205-40, Going Concern*, the Company has evaluated whether there are conditions and events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern within one year after the date the financial statements are issued. As of June 30, 2024, the Company had cash of approximately $2.8 million. The Company used approximately $1.9 million of cash in operations during the six months ended June 30, 2024.

Historically, the Company has been primarily engaged in developing MIRA-55 and, more recently, has also been focusing on the development of Ketamir-2. During these activities, the Company sustained substantial losses. The Company's ability to fund ongoing operations and future pre-clinical and clinical trials required for FDA approval is dependent on the Company's ability to obtain significant additional external funding in the near term. Since inception, the Company financed its operations through the sale of Common Stock, and related party financings. Additional sources of financing are being sought by the Company, which are described below. The Company expects to be able to fund operations through the fourth quarter of 2024, with available borrowings from the related-party loan described in Note 4 below. Additional financing will be needed by the Company to fund its operations after such date to continue and complete pre-clinical and clinical development activities and to commercially develop and ultimately launch its product candidates. However, and particularly given the early-stage nature of the Company and the significant time and capital required to implement the Company's business plan, there can be no assurance that any fundraising will be achieved on commercially reasonable terms, if at all.

The Company expects to continue to generate losses in the foreseeable future. The Company's liquidity needs will be determined largely by the budgeted operational expenditures incurred in regard to the progression of its product candidates. The Company does not have sufficient cash and cash equivalents as of the date of filing this Report to support its operations for at least the 12 months following the date the financial statements are issued. These conditions raise substantial doubt about the Company's ability to continue as a going concern through 12 months after the date the accompanying financial statements are issued.

The accompanying financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business, and do not include any adjustments relating to recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

Note 3. License agreement, related party:

MIRALOGX

On November 15, 2023, the Company and MIRALOGX, LLC, a Florida limited liability company ("MIRALOGX") which is a related-party owned by Bay Shore Trust, a significant stockholder of the Company ("Bay Shore Trust"), entered into an exclusive license agreement (the "License Agreement") to develop and commercialize Ketamir-2, a drug product containing 2-(2- chlorophenyl)-2-(methylamino) cyclopentan-1-one as an active agent in the United States, Canada and Mexico (the "Territory"). The exclusive license in the License Agreement includes the right of the Company to sublicense the licensed intellectual property.

Pursuant to the terms of the License Agreement, and subject to the conditions set forth therein, the Company paid MIRALOGX a one-time, nonrefundable payment of $0.1 million upon the signing of the Agreement and will be obligated to pay quarterly royalty payments on sales of the Ketamir-2 in the Territory of 8% of net sales and 8% of other revenue (such as milestone or sublicense payments) from licensed products.

The Company and MIRALOGX have made customary representations and warranties in the License Agreement and have agreed to certain other customary covenants, including confidentiality, cooperation, and indemnity provisions. Either party may terminate the License Agreement for cause if the other party materially breaches or defaults in the performance of its obligations, and, if curable, such material breach remains uncured for 120 days. Unless earlier terminated, the License Agreement will continue in effect until the last to expire of the patent rights licensed pursuant to the License Agreement, unless earlier terminated.

Note 4. Debt, related party:

On November 15, 2023, the Company entered into a Promissory Note and Loan Agreement (the "Loan Agreement") with MIRALOGX.

Pursuant to the Loan Agreement, the Company may borrow up to $3.0 million from MIRALOGX to fund the development of licensed products under the License Agreement (the "Loan").

Together with any Advance Request, the Company shall deliver to the Lender a budget for the requested Advance (the "Budget"). The Budget may only include costs directly associated with preparing an Investigational New Drug ("IND") application for Ketamir-2, exclusive of personnel costs. Any Advances made by MIRALOGX to the Company pursuant to this Loan may be repaid by the Company (together with any and all interest accrued thereon) at any time without penalty or premium in accordance with the terms hereof. Amounts repaid under the Loan may not be reborrowed

The Loan Agreement has a one-year term, and all outstanding principal and accrued but unpaid interest must be repaid in full on November 15, 2024. Interest on the amounts borrowed under the Loan Agreement accrues at an annual fixed rate of 8%. The Company may prepay all or a portion of the outstanding principal and accrued unpaid interest under the Loan Agreement at any time without a prepayment fee. The Company has not borrowed any funds from the MIRALOGX loan as of June 30, 2024.

Bay Shore Trust

In April 2023, the Company entered into a Promissory Note and Loan Agreement with the Bay Shore Trust. Under this Promissory Note and Loan Agreement (the "Bay Shore Note"), the Company had the right to borrow up to an aggregate of $5 million from the Bay Shore Trust at any time up to the second anniversary of the issuance of the Bay Shore Note or, if earlier, upon the completion of the Company's IPO. The Bay Shore Note accrued interest at a rate equal 7% per annum, simple interest, during the first year that the note was outstanding.

On July 20, 2023, the Company entered into a conversion agreement with the Bay Shore Trust under which the Bay Shore Trust had converted, at the time of the IPO, $1.1 million of the outstanding principal balance of the Bay Shore Note into shares of Common Stock at a conversion price equal to the price of the Common Stock sold to the public in the IPO, which resulted in the issuance of 157,170 shares of Common Stock to Bay Shore Trust. On August 14, 2023, the Company paid $1.0 million in full to Bay Shore Trust, which was the amount due. The Company also paid accrued interest of $0.03 million. There is a remaining amount of $0.01 million in accrued interest due to Bay Shore Trust as of June 30, 2024.

Note 5. Related party transactions:

Due from related parties – During the six months ended June 30, 2024, the Company paid payables on behalf of a related party in the amount of $0.024 million.

Shared management- Historically, the Company has shared management with related parties on an as-needed basis, to collaborate and pool resources efficiently. For the six months ended June 30, 2024, the Company incurred $0.010 million in costs related to this arrangement which is recorded in general and administrative expenses.

Shared lease costs- On April 1, 2023 the Company entered into an Agreement For Shared Lease Costs with MIRALOGX, LLC, (the "Shared Agreement") who is a related party for the jet usage. Under the Shared Agreement, the Company agrees to make monthly contributions or payments in accordance with its monthly use of shared aircraft toward rent payments. However, the Company has not used the aircraft after the termination of the lease on March 31, 2023 and there are no minimum payments due without usage

License agreement - See Note 3.

Debt, related party - See Note 4.

Stock settlement agreement - See Note 7

Note 6. Leases:

The Company's former corporate headquarters was located in Baltimore, Maryland, which included a lease for office space. This lease began in November 2021 and ended April 2024. The lease was not renewed after April 2024.

Variable lease costs

Variable lease costs primarily include utilities, property taxes, and other operating costs that are passed on from the lessor. Variable lease costs related to the aircraft include usage expenses, which includes pilot expenses, jet fuel and general flight expenses.

The components of lease expense were as follows:

	Six months ended June 30,	
Lease Costs	**2024**	**2023**
Operating Lease Cost		
Operating Lease	$ 5,092	$ 192,409
Variable Lease Costs	-	309,872
Total Lease Cost	$ 5,092	$ 502,281

Supplemental cash flow information related to leases were as follows:

	Six months ended June 30,	
Other Lease Information	**2024**	**2023**
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	$ 5,092	$ 500,788

Note 7. Stockholders' equity:

Stock-based compensation

The fair value of each option award is estimated on the grant date using the Black-Scholes valuation model that uses assumptions for expected volatility, expected dividends, expected term, and the risk-free interest rate. Expected price volatility is based on the historical volatilities of a peer group as the Company does not have a multi-year trading history for its shares. Industry peers consist of several public companies in the biotech industry similar to the Company in size, stage of life cycle and product indications. The Company intends to continue to consistently apply this process using the same or similar public companies until a sufficient amount of historical information regarding the volatility of the Company's own stock price becomes available, or unless circumstances change such that the identified companies are no longer similar to the Company, in which case, more suitable companies whose share prices are publicly available would be utilized in the calculation.

Expected term of options granted is derived using the "simplified method" which computes expected term as the average of the sum of the vesting term plus contract term. The risk-free rate is based on the 5-year U.S. Treasury yield curve in effect at the time of grant. The Company recognizes forfeitures as they occur.

During the six months ended June 30, 2024, a total of 1,154,000 options to purchase Common Stock, with an aggregate fair market value of approximately $1.1 million were granted to the members of the Company's Board of Directors, executive officers and consultants of the Company. The options have a term of 10 years from the grant date. These option vest over various terms ranging from immediate vesting upon grant to the one year anniversary of the grant date.

The following is option activity during the six months ended June 30, 2024.

	Number of shares	Weighted average exercise price per share	Aggregate intrinsic value
Outstanding as January 1, 2024	1,215,001	$ 5.29	
Options granted	1,154,000	$ 1.07	
Forfeitures	(426,667)	$ 5.00	
Outstanding as June 30, 2024	1,942,334	$ 2.84	$ -

The estimated fair value of stock options on date of grant was $1.1 million. As of June 30, 2024, options exercisable totaled 1,387,891. There are approximately $0.9 million of unrecognized compensation costs related to non-vested share-based compensation awards, which will be expensed through 2025.

Key assumptions used to value stock options during the six months ended June 30, 2024, are as follows:

Expected volatility	77.7%-152.45%
Risk-free interest rate	4.06%-4.24%
Exercise price	$ 0.71 - $1.57
Expected term (in years)	5-6 years
Dividend yield	-

Warrants

The Company has granted warrants to purchase shares of Common Stock. Warrants may be granted to affiliates in connection with certain agreements.

As of June 30, 2024, a cumulative total of 1,763,570 warrants, with exercise prices ranging from $2.00 to $7.00 remain exercisable and outstanding. There were no warrants granted or exercised during the six months ended June 30, 2024.

Earnings Per Share

During the three months and six months ended June 30, 2024 and 2023, outstanding stock options and warrants of 3,705,904 and 1,980,001, respectively, were not included in the computation of diluted earnings per share, because to do so would have had an antidilutive effect.

Stock Settlement Agreement

On April 24, 2024 the Company settled a claim submitted by certain shareholders under Section 16 of the Securities Exchange Act involving the Company that claimed illegal profits were earned on stock transactions involving insiders of the Company. After investigation, the Company informed the insider, Bayshore Trust, of the claim and came to agreement with the shareholders, whereby requiring the disgorgement of profits by the insider back to the Company in the amount of $148,703, which was recorded in additional paid in capital in the accompanying financial statements.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Report contains "forward-looking statements" (as defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act) that reflect our current expectations and views of future events. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential", or "continue" or the negative of these terms or other similar expressions. In particular, statements about our pre-clinical and clinical trials and expectations regarding such trials, the markets in which we operate, including growth of such markets, and our expectations, beliefs, plans, strategies, objectives, prospects, assumptions, or future events or performance contained in this Report generally under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations" are forward-looking statements.

We have based these forward-looking statements on our current expectations, assumptions, estimates and projections. While we believe these expectations, assumptions, estimates, and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risks and uncertainties, many of which are beyond our control. These and other important factors, including those discussed in this Report under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations" may cause our actual results, performance, or achievements to differ materially from any future results, performance or achievements expressed or implied by these forward-looking statements, or could affect our share price. Important factors that could cause actual results or events to differ materially from those expressed in forward-looking statements include, but are not limited to, the following:

- our reliance on related parties for potential funding and our license for Ketamir-2;
- our ability to obtain and maintain regulatory approval of our product candidates;
- our ability to successfully commercialize and market our product candidates, if approved;
- our ability to contract with third-party suppliers, manufacturers and other service providers and their ability to perform adequately;
- the potential market size, opportunity, and growth potential for our product candidates, if approved;
- our ability to obtain additional funding for our operations and development activities;
- the accuracy of our estimates regarding expenses, capital requirements and needs for additional financing;
- the initiation, timing, progress and results of our pre-clinical studies and clinical trials, and our research and development programs;
- the timing of anticipated regulatory filings;
- the timing of availability of data from our clinical trials;

- our future expenses, capital requirements, need for additional financing, and the period over which we believe that our existing cash and cash equivalents will be sufficient to fund our operating expenses and capital expenditure requirements;
- our ability to retain the continued service of our key professionals and to identify, hire and retain additional qualified professionals;
- our ability to advance product candidates into, and successfully complete, clinical trials;
- our ability to recruit and enroll suitable patients in our clinical trials;
- the timing or likelihood of the accomplishment of various scientific, clinical, regulatory, and other product development objectives;
- the pricing and reimbursement of our product candidates, if approved;
- the rate and degree of market acceptance of our product candidates, if approved;
- the implementation of our business model and strategic plans for our business, product candidates, and technology;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates and technology;
- developments relating to our competitors and our industry;
- the development of major public health concerns and the future impact of such concerns on our clinical trials, business operations and funding requirements; and
- other risks and factors listed under "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2023 and elsewhere in this Report.

Given the risks and uncertainties set forth in this Report, you are cautioned not to place undue reliance on such forward-looking statements. The forward-looking statements contained in this Report are not guarantees of future performance and our actual results of operations, financial condition, and liquidity, and the development of the industry in which we operate, may differ materially from the forward-looking statements contained in this Report. In addition, even if our results of operations, financial condition and liquidity, and events in the industry in which we operate, are consistent with the forward-looking statements contained in this Report, they may not be predictive of results or developments in future periods. In evaluating our business, you should carefully consider the information set forth under the heading "Risk Factors" included in our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on April 1, 2024.

Any forward-looking statement that we make in this Report speaks only as of the date of such statement. Except as required by federal securities laws, we do not undertake any obligation to update or revise, or to publicly announce any update or revision to, any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this Report

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

The following discussion and analysis should be read in conjunction with the Condensed Financial Statements and Notes thereto included elsewhere in this Quarterly Report. This discussion contains certain forward-looking statements that involve risks and uncertainties. The Company's actual results and the timing of certain events could differ materially from those discussed in these forward-looking statements as a result of certain factors, including, but not limited to, those set forth herein and elsewhere in this Quarterly Report and in the Company's other filings with the SEC. See "Cautionary Note Regarding Forward Looking Statements" above.

As used in this Management's Discussion and Analysis of Financial Condition and Results of Operations, unless otherwise indicated, the terms "the Company", "we", "us", "our" and similar terminology refer to MIRA Pharmaceuticals, Inc.

Background of the Company

We are a pre-clinical-stage pharmaceutical development company with two neuroscience programs targeting a broad range of neurologic and neuropsychiatric disorders. We hold exclusive license rights in the U.S., Canada and Mexico for ***Ketamir-2***, a novel, patent pending oral ketamine analog under pre-clinical investigation to potentially deliver ultra-rapid antidepressant effects, providing hope for individuals battling TRD, MDSI and potentially PTSD.

Additionally, our novel oral pharmaceutical marijuana molecule, ***MIRA-55***, is being studied for its potential to alleviate neuropathic pain, as well as anxiety and cognitive decline, symptoms commonly associated with early-stage dementia. MIRA-55, if approved by the FDA, could mark a significant advancement in addressing various neuropsychiatric, inflammatory, and neurologic diseases and disorders.

The DEA's scientific review of Ketamir-2 and MIRA-55 concluded that both would not be considered a controlled substance or listed chemical under the CSA and its governing regulations.

We were incorporated under the laws of the State of Florida in September 2020 and commenced substantive operations, including our pharmaceutical development program, in late 2020.

Critical Accounting Estimates

See Note 1 of the Notes to Condensed Financial Statements included in Item 1 of this Report for a summary of significant accounting policies and information on recently issued accounting pronouncements.

Results of Operations

For the three months ended June 30, 2024 compared to the three months ended June 30, 2024

Research and Development Expenses. During the three months ended June 30, 2024, we incurred $0.6 million in research and development expenses, which were primarily related to initial payments for pre-clinical research projects for Ketamir. We incurred $0.3 million in research and development expenses during the three months ended June 30, 2023, which were offset by $0.4 million in research and development credits. The credits were primarily related to toxicology expenses for projects and milestones that were not performed by our vendors.

General and Administrative Expenses. We incurred $1.1 million and $1.0 million in general and administrative expenses during the three months ended June 30, 2024 and June 30, 2023, respectively. General and administrative expenses are composed primarily of compensation, insurance, professional fees, stock-based compensation, administration and other related costs. The decrease is due primarily to a decrease in stock-based compensation expense in 2023.

Interest income (expense). We earned $0.04 million in interest income related to money market accounts in the three months ended June 30, 2024 and incurred $0.3 million in interest expense during the three months ended June 30, 2023. Interest expense during 2023 included $0.29 of debt issuance costs.

For the six months ended June 30, 2024 compared to the six months ended June 30, 2023

Research and Development Expenses. During the six months ended June 30, 2024, we incurred $1.4 million in research and development expenses, which were primarily related to the initial payments for pre-clinical research projects for Ketamir. We incurred $0.6 million in research and development expenses during the six months ended June 30, 2023, which were offset by $0.4M in research and development credits. The credits were primarily related to toxicology expenses for projects and milestones that were not performed by our vendors.

General and Administrative Expenses. We incurred general and administrative expenses of $2.1 million and $1.7 million during the six months ended June 30, 2024 and June 30, 2023, respectively. General and administrative expenses consists of payroll, consulting fees, IT-related costs, legal and accounting costs, office and rent expenses, investor relations and stock-based compensation expenses. The increase is primarily related to stock compensation expense

Related Party Travel Costs. We incurred $0.0 million and $0.5 million in related party travel costs during the six months ended June 30, 2024 and June 30, 2023, respectively. Related party travel costs consisted of a lease and use of an airplane with an entity under common control. The decrease in related party travel costs is due to the termination of the lease in March 2023.

Interest income (expense). We recognized $0.09 million in interest income from money market accounts and $0.3 million in interest expense during the six months ended June 30, 2024 and June 30, 2023, respectively. Interest expense during 2023 included $0.3 of debt issuance costs.

Liquidity and Capital Resources

Sources of Liquidity and Going Concern

Since our inception in September 2020, we have financed our operations primarily through an unsecured line of credit with a major shareholder and an affiliated company, through a private placement of shares of our common stock that occurred during the fourth quarter 2021 and during 2022, and by the proceeds from our completed initial public offering in August 2023. We intend to finance our clinical development programs and working capital needs from existing cash, and potentially new sources of debt and equity financing. We may enter into new licensing and commercial partnership agreements.

Historically, we have been primarily engaged in developing MIRA-55 and, more recently, have also been focusing on the development of Ketamir-2. During these activities, we have sustained substantial losses. Our ability to fund ongoing operations and future pre-clinical and clinical trials required for FDA approval is dependent on our ability to obtain significant additional external funding in the near term. We expect to be able to fund operations through the fourth quarter of 2024, with available borrowings from the related-party loan described in Note 5 in the accompanying financial statements. We will require additional financing and equity raises to fund our operations, to continue and complete pre-clinical and clinical development activities and to commercially develop and ultimately launch our product candidates. However, and particularly given our early-stage nature and the significant time and capital required to implement our business plan, there can be no assurance that any fundraising will be achieved on commercially reasonable terms, if at all.

On August 12, 2024, the Company filed a shelf registration statement on Form S-3 with the SEC. The terms of any offering under the shelf registration statement will be established at the time of such offering and will be described in a prospectus supplement filed with the SEC prior to completion of any such offering

We expect to continue to generate losses in the foreseeable future. Our liquidity needs will be determined largely by the budgeted operational expenditure incurred in regard to the progression of our product candidates. We do not have sufficient cash and cash equivalents as of the date of filing this Report to support our operations for at least the 12 months. These conditions raise substantial doubt about our ability to continue as a going concern through 12 months after the date the financial statements included in this Report are issued.

Cash Flows

The following table provides information regarding our cash flows for the periods presented:

	Six months Ended June 30,	
	2024	**2023**
Net cash flows from:		
Operating activities	$ (1,913,465)	$ (1,736,119)
Financing activities	134,690	1,409,964
Net change in cash	$ (1,788,785)	$ (326,155)

Net Cash Flows from Operating Activities

For the six months ended June 30, 2024, operating activities used $1.9 million of cash, primarily due to a net loss of $3.4 million, offset by $1.1 million in stock-based compensation expense and $0.3 million in accounts payable, accrued and prepaid expenses. Accounts payable, accrued and prepaid expenses were primarily composed of research and development payables, consultant costs, and insurance costs.

For the six months ended June 30, 2023, operating activities used $1.7 million of cash, primarily due to a net loss of $2.6 million and $0.2 million change in accounts payable, offset by $0.3 million in debt issuance cost and accrued expenses and $0.9 million in stock-based compensation expense. Accounts payable, accrued and prepaid expenses were primarily composed of research and development payables, consultant costs, insurance costs and legal expenses.

Net Cash Flows from Financing Activities

For the six months ended June 30, 2024, financing activities used $0.1 million of cash, resulting from $0.02 million in advances to affiliates.

For the six months ended June 30, 2023, financing activities provided $1.4 million of cash, resulting primarily from $1.7 million in advances from affiliate, offset by $0.1 million of repayments under related party line of credit, offset by $0.2 million paid in deferred offering costs.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act, and therefore are not required to provide the information under this item per Item 305(e) of Regulation S-K.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this Quarterly Report, our management, with the participation of our Chief Executive Officer (our principal executive officer) and our Chief Financial Officer (our principal financial officer) (the "Certifying Officers"), conducted evaluations of our disclosure controls and procedures. As defined under Sections 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the term "disclosure controls and procedures" means controls and other procedures of an issuer that are designed to ensure that information required to be disclosed by the issuer in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the rules and forms of the SEC. Disclosure controls and procedures include without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including the Certifying Officers, to allow timely decisions regarding required disclosures.

Readers are cautioned that our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will necessarily prevent all fraud and material error. An internal control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our control have been detected. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any control design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate.

During 2024, the Company has designed and implemented new and enhanced controls to strengthen the Company's internal controls over financial reporting, including hiring additional experienced accounting personnel, among other enhancements. Management believes these enhancements will be sufficient to remediate previously identified material weaknesses. However, the new and enhanced controls have not operated for a sufficient amount of time to conclude that the Company's disclosure controls and procedures were effective. Accordingly, based on this assessment , the Certifying Officers have concluded that our disclosure controls and procedures were not effective as of June 30, 2024

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act, during our second quarter of 2024 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting other than those described above.

Limitations on the Effectiveness of Internal Controls

Our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met. Because of inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within a company have been detected. Our Chief Executive Officer and Chief Financial Officer have concluded, based on their evaluation as of the end of the period covered by this Report that our disclosure controls and procedures were not effective to provide reasonable assurance that the objectives of our disclosure control system were met. The Company plans to remediate the ineffectiveness of its disclosure controls and procedures through implementation of additional levels of review and personnel with increased technical accounting expertise.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we may be named in claims arising in the ordinary course of business. Currently, no legal proceedings, government actions, administrative actions, investigations, or claims are pending against us or involve us that, in the opinion of our management, could reasonably be expected to have a material adverse effect on our business and financial condition.

We anticipate that we will expend significant financial and managerial resources in the defense of our intellectual property rights in the future if we believe that our rights have been violated. We also anticipate that we will expend significant financial and managerial resources to defend against claims that our products and services infringe upon the intellectual property rights of third parties.

Item 1A. Risk Factors.

Our business, financial condition, results of operations and cash flows are subject to, and could be materially adversely affected by, various risks and uncertainties, including, without limitation, those set forth below, any one of which could cause our actual results to vary materially from recent results or our anticipated future results.

We expect to rely on third parties to conduct our pre-clinical trials and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials or failing to comply with regulatory requirements or our pre-clinical protocols.

We currently rely on CROs to conduct our pre-clinical trials, as we currently do not plan to independently conduct pre-clinical trials of any of our product candidates. Our agreements with these CROs, and other third parties might terminate for a variety of reasons, including a failure to perform by the third parties. If we were ever to need to enter into alternative arrangements or if we were to need to change a CRO for an ongoing pre-clinical trial, we might experience delays in our pre-clinical development activities.

Our reliance on CROs for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities for how these activities are performed. Moreover, the FDA requires compliance with standards, commonly referred to as GCPs, for conducting, recording and reporting the results of pre-clinical trials to assure that data and reported results are credible and accurate. Further, these CROs may have relationships with other entities, some of which may be our peers or competitors. If the CROs with whom we work do not successfully carry out their contractual duties, or meet expected deadlines, for any reason, we may be delayed in filing our IND with our product candidates. Our failure or the failure of these third parties to comply with applicable regulatory requirements could also subject us to enforcement action. Moreover, our business may be implicated if any of these third parties violates federal or state laws, regulations and security laws.

We also currently rely on certain foreign or foreign-owned third-party vendors to conduct certain pre-clinical trials of our product candidates. Our engagement with these foreign and foreign-owned vendors may be subject to new U.S. legislation or investigations, such as the proposed BIOSECURE Act, sanctions, trade restrictions and other foreign regulatory requirements, which could cause us to need to identify alternate service providers, or delay our pre-clinical trials, which could adversely affect our financial condition and business prospects.

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

None.

Item 3. Defaults upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

Not applicable.

Item 6. Exhibits.

Number	Description
1.1	At The Market Agreement, dated August 12, 2024, by and between MIRA Pharmaceuticals, Inc. and Rodman & Renshaw LLC. (incorporated by reference to Exhibit 1.2 of the Company's Form S-3 filed on August 12, 2024)
3.1	Third Amended and Restated Articles of Incorporation of MIRA Pharmaceuticals, Inc. (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form S-1 filed June 29, 2023).
3.2	Amended and Restated Bylaws of MIRA Pharmaceuticals, Inc. (incorporated by reference to Exhibit 3.3 of the Company's Current Report on Form S-1/A filed July 14, 2023).
4.1	Representative's Warrant, dated August 7, 2023 (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed August 7, 2023).
4.2	Common Stock Purchase Warrant, dated April 28, 2023, between MIRA Pharmaceuticals, Inc. and Bay Shore Trust (incorporated by reference to Exhibit 4.3 of the Company's Current Report on Form S-1 filed June 29, 2023).
10.1	Employment Agreement, dated April 28, 2023, between MIRA Pharmaceuticals, Inc. and Erez Aminov (incorporated by reference to Exhibit 10.7 of the Company's Current Report on Form S-1 filed June 29, 2023).
10.2	Amendment to Employment Agreement, August 28, 2023, between MIRA Pharmaceuticals, Inc. and Erez Aminov (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed August 31, 2023).
10.3	Employment Agreement, dated April 28, 2023, between MIRA Pharmaceuticals, Inc. and Michelle Yanez. (incorporated by reference to Exhibit 10.8 of the Company's Current Report on Form S-1 filed June 29, 2023).
10.4	Employment Agreement, dated April 28, 2023 between MIRA Pharmaceuticals, Inc. and Chris Chapman. (incorporated by reference to Exhibit 10.9 of the Company's Current Report on Form S-1 filed June 29, 2023).
10.5	Amendment to Employment Agreement, dated August 28, 2023, between MIRA Pharmaceuticals and Dr. Chris Chapman (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed on August 31, 2023).
10.6	Promissory Note and Loan Agreement, dated April 28, 2023, between MIRA Pharmaceuticals, Inc. and Bay Shore Trust. (incorporated by reference to Exhibit 10.10 of the Company's Current Report on Form S-1 filed June 29, 2023).
10.7	Registration Rights Agreement, dated April 28, 2023, between MIRA Pharmaceuticals, Inc. and Bay Shore Trust. (incorporated by reference to Exhibit 10.11 of the Company's Current Report on Form S-1 filed June 29, 2023).
10.8	Agreement for Shared Lease Costs, dated April 1, 2023, between MIRA Pharmaceuticals, Inc., Telomir Pharmaceuticals, Inc., and MIRALOGX LLC. (incorporated by reference to Exhibit 10.12 of the Company's Current Report on Form S-1/A filed July 14, 2023).
10.9	Conversion Agreement, dated July 20, 2023, between MIRA Pharmaceuticals, Inc. and the Bay Shore Trust. (incorporated by reference to Exhibit 10.14 of the Company's Current Report on Form S-1/A filed July 21, 2023).
10.10	Amendment to Employment Agreement, dated May 28, 2024, between MIRA Pharmaceuticals and Erez Aminov
10.11	Amendment to Employment Agreement, dated June 26, 2024, between MIRA Pharmaceuticals and Michelle Yanez (incorporated by reference to Exhibit 10.01 of the Company's Current Report on Form 8-K filed on June 28, 2024).
31.1	Certification of Chief Executive Officer Pursuant to Sarbanes-Oxley Section 302
31.2	Certification of Interim Chief Financial Officer Pursuant to Sarbanes-Oxley Section 302
32.1	Certification Pursuant To 18 U.S.C. Section 1350 (*)
32.2	Certification Pursuant To 18 U.S.C. Section 1350 (*)
101.ins	Inline XBRL Instance Document
101.sch	Inline XBRL Taxonomy Extension Schema Document
101.cal	Inline XBRL Taxonomy Calculation Linkbase Document
101.def	Inline XBRL Taxonomy Definition Linkbase Document
101.lab	Inline XBRL Taxonomy Label Linkbase Document
101.pre	Inline XBRL Taxonomy Presentation Linkbase Document
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2024, formatted in Inline XBRL.
*	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.

SIGNATURES

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

MIRA PHARMACEUTICALS, INC.

Date: August 13, 2024

By: */s/ Erez Aminov*

Erez Aminov
Chairmain & Chief Executive Officer
(Principal Executive Officer)

Date: August 13, 2024

By: */s/ Michelle Yanez*

Michelle Yanez
Chief Financial Officer, Treasurer and Secretary
(Principal Financial Officer)

AMENDMENT NO. 2 TO EMPLOYMENT AGREEMENT

This Amendment No. 2 (the "**Second Amendment**") to the Employment Agreement is made and entered into as of the last date that appears below the Parties' signature lines on the last page of this Second Amendment (the "**Effective Date**"), by and between Erez Aminov, an individual, (the "**Employee**") and MIRA Pharmaceuticals, Inc. (the "**Company**") (each individually, a "**Party**," collectively, the "**Parties**").

WHEREAS, the Parties entered into that certain Employment Agreement, dated April 28, 2023, which was subsequently amended on August 28, 2023 (as amended, the "**Employment Agreement**");

WHEREAS, the Parties hereby desire to amend the Employment Agreement as set forth herein to align the Employee's base salary, severance benefits, and change in control benefits with market standards;

WHEREAS, all capitalized terms used in this Second Amendment that are not defined in this Second Amendment shall have the same meaning as in the Employment Agreement, and all section references are to sections to the Employment Agreement; and

WHEREAS, the Employee desires to be employed by the Company on the terms and conditions in the Employment Agreement as amended by this Second Amendment.

NOW, THEREFORE, in consideration of the mutual covenants, promises, and obligations set forth herein, and good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties agree that the Employment Agreement is hereby amended as follows:

A. Second Amendment To Employment Agreement.

Section 2(e) of the Employment Agreement is hereby deleted in its entirety and replaced with the following:

"In the event of a Termination Without Cause or a Good Reason Resignation, the Employee shall (1) be paid an amount equal to Employee's annual Base Salary (as defined below), which payment shall be made seventy-five percent (75%) in a lump sum within thirty (30) days following the effective date of the general release of claims described below (following any revocation period, the "Release Effective Date") and twenty-five percent (25%) as salary continuation payments in substantially equal installments over the six (6) months following the Release Effective Date in accordance with the Company's customary payroll practices commencing on the first payroll date following the Release Effective Date, and (2) receive twelve (12) months' accelerated vesting of any stock options that are outstanding and unvested as of such termination, such that any outstanding and unvested stock options that would have vested during the twelve- (12) month period following the termination date had Employee remained employed in good standing shall become immediately vested and exercisable for a period of three (3) months post-termination (collectively, the "Severance"). The Severance shall constitute Employee's full and complete entitlement to severance compensation. However, the right to receive such Severance is conditioned upon Employee signing (and not revoking), by the twenty-first (21st) day after Employee's last day of payment, a general release of all claims in a form

provided by the Company releasing all claims against the Company and its officers, directors, stockholders, and affiliates (provided that such release shall exclude Employee's right to receive severance compensation hereunder)."

A new Section 2(h) is hereby added to the Employment Agreement, which shall read as follows:

"In the event of a Termination without Cause or a Good Reason Resignation within eighteen (18) months following a Change of Control (as defined in the MIRA Pharmaceuticals, Inc. 2022 Omnibus Incentive Plan, as amended from time to time), the Employee shall be entitled to receive (1) the product of (A) the sum of (x) the Employee's Base Salary, plus (y) the Employee's target annual bonus, and (B) 1.5, which payment shall be made in a lump sum within thirty (30) days following the Release Effective Date, and (2) twelve (12) months' accelerated vesting of any stock options that are outstanding and unvested as of such termination, such that any outstanding and unvested stock options that would have vested during the twelve- (12) month period following the termination date had Employee remained employed in good standing shall become immediately vested and exercisable for a period of three (3) months post-termination (collectively, the "CIC Severance"). The CIC Severance shall constitute Employee's full and complete entitlement to severance compensation upon a Change of Control. However, the right to receive the CIC Severance is conditioned upon Employee signing (and not revoking), by the twenty-first (21st) day after Employee's last day of payment, a general release of all claims in a form provided by the Company or its successor releasing all claims against the Company, its successor and their respective officers, directors, stockholders, and affiliates (provided that such release shall exclude Employee's right to receive severance compensation hereunder)."

A new Section 2(i) is hereby added to the Employment Agreement, which shall read as follows:

"Notwithstanding anything to the contrary in this Agreement, no compensation or benefits, including without limitation any severance payments or benefits payable under this Section 2, shall be paid to the Employee during the six-month period following the Employee's Separation from Service (within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code")) if the Company determines that paying such amounts at the time or times indicated in this Agreement would be a prohibited distribution under Section 409A(a)(2)(B)(i) of the Code. If the payment of any such amounts is delayed as a result of the previous sentence, then on the first day of the seventh month following the date of Separation from Service (or such earlier date upon which such amount can be paid under Section 409A of the Code without resulting in a prohibited distribution, including as a result of the Employee's death), the Company shall pay the Employee a lump-sum amount equal to the cumulative amount that would have otherwise been payable to the Employee during such period."

Section 3 of the Employment Agreement is hereby deleted in its entirety and replaced with the following:

"**Compensation.** Effective June 1, 2024, and for the subsequent duration of the Term of Employment, the Company shall pay Employee a base salary of $300,000 per annum (the "Base Salary"). The Employee's Base Salary shall be paid monthly after the deduction of appropriate federal, state, and local withholding taxes. Bonus compensation may be paid to Employee in the discretion of the Company's Board of Directors, including at its annual review of Employee's compensation."

A new Section 17 is hereby added to the Employment Agreement, which shall read as follows:

"**Section 409A.** To the extent applicable, this Agreement shall be interpreted in accordance with Section 409A of the Code. Notwithstanding any provision of this Agreement to the contrary, if the Company determines that any compensation or benefits payable under this Agreement may be subject to Section 409A of the Code, the Company shall work in good faith with the Employee to adopt such amendments to this Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Company determines are necessary or appropriate to avoid the imposition of taxes under Section 409A of the Code, including without limitation, actions intended to (i) exempt the compensation and benefits payable under this Agreement from Section 409A of the Code, and/or (ii) comply with the requirements of Section 409A of the Code; provided, however, that this Section 17 shall not create an obligation on the part of the Company to adopt any such amendment, policy or procedure or take any such other action, nor shall the Company have any liability for failing to do so."

B. **No Other Amendments.** Except as specifically set forth in the first amendment to the Employment Agreement and this Second Amendment, there are no other amendments to the Employment Agreement, and the Employment Agreement shall remain unmodified and in full force and effect. Except as specifically amended hereby, all other provisions, terms, and conditions of the Employment Agreement shall remain in full force and effect. In the event of any conflict between the provisions of the Employment Agreement and this Second Amendment, the provisions of this Second Amendment shall govern.

C. **Entire Agreement.** This Second Amendment and the Employment Agreement contain the entire agreement between the Parties with respect to the subject matter hereof and supersede all prior negotiations, understandings, and agreements between the Parties with respect to the subject matter hereof.

D. **Governing Law; Severability.** This Second Amendment will be governed by and construed in accordance with the laws of the State of Florida, without giving effect to that body of laws pertaining to conflict of law. If any provision of this Second Amendment is determined by any court or arbitrator of competent jurisdiction to be invalid, illegal or unenforceable in any respect, such provision will be enforced to the maximum extent possible given the intent of the parties hereto. If such clause or provision cannot be so enforced, such provision shall be stricken from this Second Amendment and the remainder of this Second Amendment shall be enforced as if such invalid, illegal or unenforceable clause or provision had (to the extent not enforceable) never been contained in this Second

Amendment. Notwithstanding the foregoing, if the value of this Second Amendment based upon the substantial benefit of the bargain for any Party is materially impaired, which determination as made by the presiding court or arbitrator of competent jurisdiction shall be binding, then this Second Amendment will not be enforceable against such affected Party and both Parties agree to renegotiate such provision(s) in good faith.

E. **Counterparts.** This Second Amendment may be executed in any number of counterparts, each of which, when so executed and delivered, will be deemed an original, and all of which together shall constitute one and the same agreement. Counterparts may be delivered via facsimile, electronic mail (including .pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties hereto have executed this Second Amendment to the Employment Agreement as of the dates set forth below.

MIRA Pharmaceuticals, Inc.

By: Michelle Yanez
Michelle Yanez
Chief Financial Officer

Dated: 5/29/2024

Employee:

Erez Aminov

Erez Aminov

Dated: 5/28/2024

Exhibit 31.1

Certification of Chief Executive Officer
Pursuant to Rule 13a-14(a)

I, Erez Aminov, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of MIRA PHARMACEUTICALS, INC.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

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

(b) 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

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

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

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

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

Date: August 13, 2024

/s/ Erez Aminov
Erez Aminov
Chairman & Chief Executive Officer

Exhibit 31.2

Certification of Interim Chief Financial Officer
Pursuant to Rule 13a-14(a)

I, Michelle Yanez, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of MIRA PHARMACEUTICALS, INC.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

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

(b) 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

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

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

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

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

Date: August 13, 2024

/s/ Michelle Yanez
Michelle Yanez
Chief Financial Officer, Treasurer and Secretary

Exhibit 32.1

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

In connection with the Quarterly Report of MIRA PHARMACEUTICALS, INC. (the "Company") on Form 10-Q for the period ending June 30, 2024, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Erez Aminov, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. ss.1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

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

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

/s/ Erez Aminov
Erez Aminov
Chairman & Chief Executive Officer
August 13, 2024

Exhibit 32.2

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

In connection with the Quarterly Report of MIRA PHARMACEUTICALS, INC. (the "Company") on Form 10-Q for the period ending June 30, 2024, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michelle Yanez, Chief Financial Officer, Treasurer and Secretary of the Company, certify, pursuant to 18 U.S.C. ss.1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

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

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

/s/ Michelle Yanez
Michelle Yanez
Chief Financial Officer, Treasurer and Secretary
August 13, 2024