# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

## 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 33131

(Address of Principal Executive Offices, Including Zip Code)

**2022 Omnibus Incentive Plan** (Full Title of the Plan)

Erez Aminov Chairman and Chief Executive Officer Mira Pharmaceuticals, Inc. 1200 Brickell Avenue, Suite 1950 #1183, Miami, Florida 33131 (786) 432-9792

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies of communications to:

Max Lindenfeld, Esq.
Pearl Cohen Zedek Latzer Baratz LLP
7 Times Square, 19th Floor
New York, New York 10036
Phone: (646) 878-0800

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

	Large accelerated filer □ Accelerated filer □ Non-accelerated filer ⊠	Smaller reporting company ⊠ Emerging growth company ⊠				
inancia	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 revise nancial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.					

#### EXPLANATORY NOTE

This Registration Statement on Form S-8 registers the offer and sale of 5,147,808 shares of common stock, \$0.0001 par value per share, of MIRA Pharmaceuticals, Inc. (the "Company," "we," "us" or "our") for issuance under the Company's 2022 Omnibus Incentive Plan, as amended and restated.

## PART I

## INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.\*

#### Item 2. Registrant Information and Employee Plan Annual Information.\*

\* The information specified in Item 1 and Item 2 of Part I of Form S-8 is omitted from this Registration Statement in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the "Securities Act") and the introductory note to Part I of Form S-8. The documents containing the information specified in Part I of Form S-8 will be delivered to the participants in the equity benefit plans covered by this Registration Statement as specified by Rule 428(b)(1) under the Securities Act.

#### PART II

#### INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 3. Incorporation of Documents by Reference.

The following documents filed by the Company are incorporated herein by reference (except for portions thereof furnished or otherwise not filed with the SEC pursuant to Items 2.02 or 7.01 of Form 8-K and exhibits furnished on such form that relate to such items, which are deemed not to be incorporated by reference into this Registration Statement):

- Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed on April 1, 2024;
- Quarterly Reports on Form 10-Q for the quarter ended March 31, 2024, filed on May 13, 2024, and the quarter ended June 30, 2024, filed on August 13, 2024 and the amendment thereto filed on August 16, 2024;
- Current Reports on Form 8-K, filed on January 17, 2024, March 7, 2024, March 13, 2024, May 29, 2024, June 28, 2024, July 12, 2024, July 19, 2024, July 24, 2024, August 8, 2024, August 9, 2024, August 23, 2024, September 10, 2024, and September 12, 2024;
- The Definitive Proxy Statement on Schedule 14A, filed on July 26, 2024; and
- The description of common stock set forth in the Description of Registrant's Securities, filed as <a href="Exhibit 4.4">Exhibit 4.4</a> to the Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

All other reports and documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits furnished on such form that relate to such items) on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part of this Registration Statement from the date of the filing of such reports and documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document that also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

#### Item 4. Description of Securities.

Not applicable.

## Item 5. Interests of Named Experts and Counsel.

Not applicable.

#### Item 6. Indemnification of Directors and Officers.

The Company's amended and restated articles of incorporation and bylaws provide that it shall indemnify any and all persons that it shall have power to indemnify under the Florida Business Corporation Act ("FBCA") to the fullest extent permitted by law.

Section 607.0831 of the FBCA, provides that a director is not personally liable for monetary damages to the corporation or any other person for any statement, vote, decision to take or not to take action, or any failure to take any action, as a director, unless (1) the director breached or failed to perform his or her duties as a director and (2) the director's breach of, or failure to perform, those duties constitutes (a) a violation of the criminal law, unless the director had reasonable cause to believe his or her conduct was lawful or had no reasonable cause to believe his or her conduct was unlawful, (b) a transaction from which the director derived an improper personal benefit, either directly or indirectly, (c) a circumstance under which the liability provisions of Section 607.0834 of the FBCA are applicable, (d) in a proceeding by or in the right of the corporation to procure a judgment in its favor or by or in the right of a shareholder, conscious disregard for the best interest of the corporation, or willful or intentional misconduct, or (e) in a proceeding by or in the right of someone other than the corporation or a shareholder, recklessness or an act or omission which was committed in bad faith or with malicious purpose or in a manner exhibiting wanton and willful disregard of human rights, safety, or property. A judgment or other final adjudication against a director in any criminal proceeding for a violation of the criminal law estops that director from contesting the fact that his or her breach, or failure to perform, constitutes a violation of the criminal law; but does not estop the director from establishing that he or she had reasonable cause to believe that his or her conduct was lawful or had no reasonable cause to believe that his or her conduct was lawful or had no reasonable cause to believe that his or her conduct was unlawful.

Under Section 607.0851 of the FBCA, a corporation has power to indemnify any person who is a party to any proceeding (other than an action by, or in the right of the corporation), because he or she is or was a director or officer of the corporation against liability incurred in connection with such proceeding, including any appeal thereof, if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. The termination of any proceeding by judgment, order, settlement or conviction or upon a plea of nolo contendere or its equivalent shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he or she reasonably believed to be in, or not opposed to, the best interests of the corporation or, with respect to any criminal action or proceeding, has reasonable cause to believe that his or her conduct was unlawful.

For purposes of the indemnification provisions of the FBCA, "director" or "officer" means an individual who is or was a director or officer, respectively, of a corporation or who, while a director or officer of the corporation, is or was serving at the corporation's request as a director or officer, manager, partner, trustee, employee, or agent of another domestic or foreign corporation, limited liability company, partnership, joint venture, trust, employee benefit plan, or another enterprise or entity and the terms include, unless the context otherwise requires, the estate, heirs, executors, administrators, and personal representatives of a director or officer.

In addition, under Section 607.0851 of the FBCA, a corporation has the power to indemnify any person, who was or is a party to any proceeding by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person is or was a director or officer, against expenses and amounts paid in settlement not exceeding, in the judgment of the board of directors, the estimated expense of litigating the proceeding to conclusion, actually and reasonably incurred in connection with the defense or

settlement of such proceeding, including any appeal thereof. Such indemnification shall be authorized if such person acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification shall be made under this subsection in respect of any claim, issue, or matter as to which such person shall have been adjudged to be liable unless, and only to the extent that, the court in which such proceeding was brought, or any other court of competent jurisdiction, shall determine upon application that, despite the adjudication of liability but in view of all circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which such court shall deem proper.

Section 607.0852 of the FBCA provides that a corporation must indemnify an individual who is or was a director or officer who was wholly successful, on the merits or otherwise, in the defense of any proceeding to which the individual was a party because he or she is or was a director or officer of the corporation against expenses incurred by the individual in connection with the proceeding.

Section 607.0853 of the FBCA provides that a corporation may, before final disposition of a proceeding, advance funds to pay for or reimburse expenses incurred in connection with the proceeding by an individual who is a party to the proceeding because that individual is or was a director or an officer if the director or officer delivers to the corporation a signed written undertaking of the director or officer to repay any funds advanced if (a) the director or officer is not entitled to mandatory indemnification under Section 607.0852; and (b) it is ultimately determined under Section 607.0854 or Section 607.0855 (as described below) that the director or officer has not met the relevant standard of conduct described in Section 607.0851 or the director or officer is not entitled to indemnification under Section 607.0859 (as described below).

Section 607.0854 of the FBCA provides that, unless the corporation's articles of incorporation provide otherwise, notwithstanding the failure of a corporation to provide indemnification, and despite any contrary determination of the board of directors or of the shareholders in the specific case, a director or officer of the corporation who is a party to a proceeding because he or she is or was a director or officer may apply for indemnification or an advance for expenses, or both, to a court having jurisdiction over the corporation which is conducting the proceeding, or to a circuit court of competent jurisdiction. The Company's amended and restated articles of incorporation do not provide any such exclusion. After receipt of an application and after giving any notice it considers necessary, the court may order indemnification or advancement of expenses upon certain determinations of the court.

Section 607.0855 of the FBCA provides that, unless ordered by a court under Section 607.0854, a corporation may not indemnify a director or officer under Section 607.0851 unless authorized for a specific proceeding after a determination has been made that indemnification is permissible because the director or officer has met the relevant standard of conduct set forth in Section 607.0851.

Section 607.0857 of the FBCA also provides that a corporation shall have the power to purchase and maintain insurance on behalf of and for the benefit of any person who is or was a director or officer of the corporation against any liability asserted against the person and incurred by him or her in any such capacity or arising out of his or her status as such, whether or not the corporation would have the power to indemnify or advance expenses to the individual against such liability under the provisions of Section 607.0857.

Section 607.0858 of the FBCA provides that the indemnification provided pursuant to Section 607.0851 and Section 607.0852, and the advancement of expenses provided pursuant to Section 607.0853, are not exclusive. A corporation may, by a provision in its articles of incorporation, bylaws, or any agreement, or by vote of shareholders or disinterested directors, or otherwise, obligate itself in advance of the act or omission giving rise to a proceeding to provide any other or further indemnification or advancement of expenses to any of its directors or officers.

Section 607.0859 of the FBCA provides that, unless ordered by a court under the provisions of Section 607.0854 of the FBCA, a corporation may not indemnify a director or officer under Section 607.0851 or Section 607.0858, or advance expenses to a director or officer under Section 607.0853 or Section 607.0858, if a judgment or other final adjudication establishes that his or her actions, or omissions to act, were material to the cause of action so adjudicated and constitute: (a) willful or intentional misconduct or a conscious disregard for the best interests of the corporation in a proceeding by or in the right of the corporation to procure a judgment in its favor or in a proceeding by or in the right of a shareholder; (b) a transaction in which a director or officer derived an improper personal benefit; (c) a violation of the criminal law, unless the director or officer had reasonable cause to believe his or her conduct was lawful or had no reasonable cause to believe his or her conduct was unlawful; or (d) in the case of a director, a circumstance under which the liability provisions of Section 607.0834 are applicable (relating to unlawful distributions).

These provisions may have the practical effect in certain cases of eliminating the ability of shareholders to collect monetary damages from the Company's directors and officers. The Company believes that these provisions are necessary to attract and retain qualified persons to serve as its directors and officers. There is currently no pending material litigation or proceeding involving any of the Company's directors, officers or employees for which indemnification is sought.

### Item 7. Exemption from Registration Claimed.

Not applicable.

#### Item 8. Exhibits.

Exhibit No.	Description
4.1	Common Stock Purchase Warrant, dated April 28, 2023, between MIRA Pharmaceuticals, Inc. and Bay Shore Trust (incorporated by reference to Exhibit 4.2 to Form S-1 filed July 28, 2023).
4.2	Common Stock Purchase Warrant from the Company to MIRALOGX, dated November 15, 2023 (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed November 20, 2023).
4.3	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).
4.4*	Description of Securities of the Registrant (incorporated by reference to Exhibit 4.4 of the Company's Current Report on Form 10-K filed April 1, 2024).
5.1	Opinion of Pearl Cohen Zedek Latzer Baratz LLP*
23.1	Consent of Cherry Bekaert LLP*
24.1	Power of Attorney (included in the signature page)*
99.1	2022 Omnibus Incentive Plan, as amended and restated (incorporated by reference to Exhibit 10.1 to Form S-1 filed July 28, 2023)
107	Filing Fee Table.
*E1. 11	

\*Filed herewith

#### Item 9. Undertakings.

Ciamaturus

The undersigned Registrant, MIRA Pharmaceuticals, Inc., undertakes:

- (1) to file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
  - (i) to include any prospectus required by Section 10(a)(3) of the Securities Act;
  - to reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Filing Fee" table in the effective Registration Statement; and
  - (iii) to include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

provided, however, that paragraphs (i) and (ii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement;

- (2) that, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and
- (3) to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Sections 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

#### SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Miami, State of Florida, on September 27, 2024.

#### MIRA PHARMACEUTICALS, INC.

By: /s/ Erez Aminov

Name: Erez Aminov

Title: Chairman and Chief Executive Officer

Data

By: /s/ Michelle Yanez
Name: Michelle Yanez
Title: Chief Financial Officer

#### POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Erez Aminov and Michelle Yanez as attorneys-in-fact with full power of substitution, for him or her in any and all capacities, to do any and all acts and all things and to execute any and all instruments which said attorney and agent may deem necessary or desirable to enable the registrant to comply with the Securities Act of 1933, and any rules, regulations and requirements of the Securities and Exchange Commission thereunder, in connection with the registration of common stock of the registrant under this registration statement, including, without limitation, the power and authority to sign the name of each of the undersigned in the capacities indicated below to this registration statement, to any and all amendments or supplements to this registration statement and to any and all instruments or documents filed as part of or in connection with this registration statement or any and all amendments thereto; and each of the undersigned hereby ratifies and confirms all that such attorney and agent shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities set forth on the dates indicated.

T:41.

Signature	Inte	Date
/s/ Erez Aminov Erez Aminov	Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	September 27, 2024
/s/ Michelle Yanez Michelle Yanez	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	September 27, 2024

/s/ Michael Jerman Michael Jerman	Director	September 27, 2024
/s/ Matthew Del Giudice Matthew Del Giudice	Director	September 27, 2024
/s/ Denil Shekat Denil Shekat	Director	September 27, 2024
/s/ Edward MacPherson Edward MacPherson	Director	September 27, 2024

September 26, 2024

Re: MIRA Pharmaceuticals, Inc. - Registration Statement on Form S-8

#### Ladies and Gentleman:

We are rendering this opinion in connection with the Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission (the "Commission") 5,147,808 shares of common stock, par value \$0.0001 per share (the "Shares"), of MIRA Pharmaceuticals, Inc., a Florida corporation (the "Company"), pursuant to the Company's 2022 Omnibus Incentive Plan, (the "Plan").

We have examined: (i) the Registration Statement; (ii) the Company's Third Amended and Restated Articles of Incorporation, as amended and supplemented; (iii) the Company's Amended and Restated Bylaws; and (iv) the Plan.

In addition to the examination outlined above, we have conferred with various officers of the Company and have ascertained or verified, to our satisfaction, such additional facts as we deemed necessary or appropriate for the purposes of this opinion. In our examination, we have assumed the authenticity of all documents submitted to us as originals, the conformity to the original documents of all documents submitted to us as copies, the genuineness of all signatures on documents reviewed by us and the legal capacity of natural persons.

Based on the foregoing, we are of the opinion that the Shares that constitute original issuance shares will be validly issued, fully paid and nonassessable by the Company when the issuance of such Shares has been duly and validly approved by the Board of Directors of the Company and such Shares have been delivered in accordance with the Plan.

We consent to the filing of this opinion as an exhibit to the Registration Statement and we consent to the use of our name wherever it appears in the Registration Statement. In giving this consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Pearl Cohen Zedek Latzer Baratz LLP

#### **Consent of Independent Accountants**

We hereby consent to the incorporation by reference in this Registration Statement of MIRA Pharmaceuticals, Inc., of our report dated April 1, 2024, with respect to our audits of the financial statements of MIRA Pharmaceuticals, Inc. as of December 31, 2023 and 2022 and for each of the years in the two year period ended December 31, 2023. Our report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. We also consent to the reference to us under the heading "Experts" in this Registration Statement.

/s/ Cherry Bekaert LLP

Tampa, Florida September 27, 2024

## Form S-8 (Form Type)

#### MIRA Pharmaceuticals, Inc. (Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered(1)	Proposed Maximum Offering Price Per Share	Maximum Aggregate Offering Price	Fee Rate	unt of stration
	Common Stock, \$0.0001 par value						
	per share, reserved						
	for issuance pursuant						
	to options						
	outstanding under the MIRA						
	Pharmaceuticals, Inc.						
	under the 2022						
	Omnibus Incentive	457(c);					
Equity	Plan	457(h)	5,147,808	\$ 1.085 (2)	\$ 5,585,371.68	\$ 0.0001476	\$ 824.40
Total Offering Amount			5,147,808		\$5,585,371.68		\$ 824.40
Total Fees Previously Paid							_
Total Fee Offsets							_
Net Fee Due							\$ 824.40

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement (the "Registration Statement") shall also cover any additional ordinary shares that become issuable under the MIRA Pharmaceuticals, Inc. 2022 Omnibus Incentive Plan (the "Plan") by reason of any share dividend, share split, recapitalization or other similar transaction.
- (2) The proposed maximum offering price per share is calculated in accordance with Rules 457(c) and 457(h) under the Securities Act, solely for purposes of calculating the registration fee on the basis of \$1.085 per share, the average of the high and low price of the Registrant's Common Stock as reported on the Nasdaq Capital Market on September 25, 2022.