
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM S-8

**REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933**

MATINAS BIOPHARMA HOLDINGS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation or Organization)

46-3011414
(I.R.S. Employer Identification No.)

**1545 Route 206 South, Suite 302
Bedminster, New Jersey 07921
(908) 484-8805**
(Address of Principal Executive Offices) (Zip Code)

MATINAS BIOPHARMA HOLDINGS, INC. 2025 EQUITY INCENTIVE PLAN
(Full Title of the Plan)

**Jerome D. Jabbour
Chief Executive Officer
Matinas BioPharma Holdings, Inc.
1545 Route 206 South, Suite 302
Bedminster, New Jersey 07921**
(Name and Address Including Zip Code, of Agent for Service)
(908) 443-1860
(Telephone Number, Including Area Code, of Agent for Service)

With copies to:

**Michael J. Lerner, Esq.
Steven M. Skolnick, Esq.
Lowenstein Sandler LLP
1251 Avenue of the Americas
New York, New York 10020
Telephone: (212) 262-6700**

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 ☐

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 7(a)(2)(B) of the Securities Act. ☐

**PART I
Information Required in the Section 10(a) Prospectus**

Item 1. Plan Information.

The information called for by Part I of Form S-8 is omitted from this Registration Statement on Form S-8 (this “**Registration Statement**”) and has been or will be sent or given to participating service providers in accordance with Rule 428 of the Securities Act of 1933, as amended (the “**Securities Act**”), and the instructions to Form S-8. In accordance with the rules and regulations of the Securities and Exchange Commission (the “**Commission**”) and the instructions to Form S-8, such documents are not being filed with the

Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information.

Matinas BioPharma Holdings, Inc. (the “*Company*”) will furnish without charge to each person to whom the prospectus is delivered, upon the written or oral request of such person, a copy of any and all of the documents incorporated by reference into this Registration Statement pursuant to Item 3 of Part II hereof, other than exhibits to such documents (unless such exhibits are specifically incorporated by reference in such documents that are incorporated), and the other documents required to be delivered to eligible participants in the Matinas BioPharma Holdings, Inc. 2025 Equity Incentive Plan pursuant to Rule 428(b) under the Securities Act. Those documents are incorporated by reference in the Section 10(a) prospectus. Requests should be directed to:

Matinas BioPharma Holdings, Inc.
1545 Route 206 South, Suite 302
Bedminster, New Jersey 07921
Attention: Chief Financial Officer
Telephone: (908) 443-1860

PART II
Information Required in the Registration Statement

Item 3. Incorporation of Documents by Reference.

The following documents filed by the Company with the Commission pursuant to the Securities Act and the Securities Exchange Act of 1934, as amended (the “*Exchange Act*”), are incorporated herein by reference:

- (a) the Company’s Annual Report on [Form 10-K](#) for the year ended December 31, 2024, filed on April 15, 2025;
- (b) the Company’s Quarterly Report on [Form 10-Q](#) for the quarterly period ended March 31, 2025, filed on May 15, 2025;
- (c) the Company’s Current Reports on Form 8-K, filed on [January 10, 2025](#), [January 24, 2025](#), [February 7, 2025](#), [February 11, 2025](#), [February 13, 2025](#), [March 11, 2025](#), [March 14, 2025](#), [April 4, 2025](#), [April 8, 2025](#), [May 2, 2025](#) and [June 23, 2025](#); and
- (d) the description of the Company’s common stock contained in our Registration Statement on [Form 8-A](#) filed on March 1, 2017, including any amendments and reports filed for the purpose of updating such description, including the description of the common stock included as [Exhibit 4.2](#) to our Annual Report on Form 10-K for the year ended December 31, 2024, filed on April 15, 2025.

All documents filed by the Company pursuant to Section 13(a), 13(c), 14, or 15(d) of the Exchange Act subsequent to the filing of this Registration Statement and prior to the filing of a post-effective amendment, which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing such documents, except as to specific sections of such documents as set forth therein. 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 in any subsequently filed document, which also is deemed to be incorporated by reference herein, modifies or supersedes such 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.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Our Certificate of Incorporation, as amended, and Bylaws provide that we will indemnify our directors, officers, employees and agents to the extent and in the manner permitted by the provisions of the DGCL, as amended from time to time, subject to any permissible expansion or limitation of such indemnification, as may be set forth in any amendment by stockholders or directors resolution.

Any repeal or modification of these provisions approved by our stockholders will be prospective only and will not adversely affect any limitation on the liability of any of our directors or officers existing as of the time of such repeal or modification.

We have director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us, including matters arising under the Securities Act.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

For a list of exhibits, see the Exhibit Index in this Registration Statement, which is incorporated into this Item by reference.

Item 9. Undertakings.

(a) The undersigned Registrant hereby 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 of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the 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 the 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 Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration 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 the registration statement or any material change to such information in the registration statement.

Provided, however, that Paragraphs (a)(1)(i) and (a)(1)(ii) of this section shall 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 Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.

(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.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the 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.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 Securities and Exchange Commission such indemnification is against public policy as expressed in the 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 Act and will be governed by the final adjudication of such issue.

EXHIBIT INDEX

Exhibit Number	Description of Exhibit
5.1	Opinion of Lowenstein Sandler LLP.*
23.1	Consent of EisnerAmper LLP, independent registered public accounting firm.*
23.2	Consent of Lowenstein Sandler LLP (filed as part of Exhibit 5.1).*
24.1	Power of Attorney (included on the signature page to this registration statement on Form S-8).*
99.1	Matinas BioPharma Holdings, Inc. 2025 Equity Incentive Plan (incorporated by reference to Exhibit 10.1. to the Company's Current Report on Form 8-K filed on June 23, 2025).
107	Filing Fee Table*

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 in the City of Bedminster, State of New Jersey, on June 23, 2025.

Matinas BioPharma Holdings, Inc.

By: /s/ Jerome D. Jabbour
Jerome D. Jabbour
Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned officers and directors of Matinas BioPharma Holdings, Inc., a Delaware corporation, do hereby constitute and appoint each of Jerome D. Jabbour and Keith Kucinski as his or her true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments to this Registration Statement on Form S-8), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or

his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Signature	Title	Date
<div><div>/s/ Jerome D. Jabbour</div><div>Jerome D. Jabbour</div></div>	Chairman, Chief Executive Officer & President (Principal Executive Officer)	June 23, 2025
<div><div>/s/ Keith A. Kucinski</div><div>Keith A. Kucinski</div></div>	Chief Financial Officer (Principal Financial and Accounting Officer)	June 23, 2025
<div><div>/s/ Evelyn D'An</div><div>Evelyn D'An</div></div>	Director	June 23, 2025
<div><div>/s/ Keith Murphy</div><div>Keith Murphy</div></div>	Director	June 23, 2025
<div><div>/s/ Edward Neugeboren</div><div>Edward Neugeboren</div></div>	Director	June 23, 2025
<div><div>/s/ Robin L. Smith</div><div>Robin L. Smith</div></div>	Director	June 23, 2025
<div></div>		



June 23, 2025

Matinas BioPharma Holdings, Inc.
1545 Route 206 South
Suite 302
Bedminster, NJ 07921

Re: Form S-8 Registration Statement of Matinas BioPharma Holdings, Inc.

We have acted as counsel for Matinas BioPharma Holdings, Inc., a Delaware corporation (the “Company”), in connection with the Company’s Registration Statement on Form S-8 (the “Registration Statement”) under the Securities Act of 1933, as amended (the “Securities Act”). The Registration Statement relates to the registration of an aggregate of 763,048 shares (the “Shares”) of the Company’s common stock, par value \$0.0001 per share, issuable pursuant to awards under the Matinas BioPharma Holdings, Inc. 2025 Equity Incentive Plan (the “Plan”).

In connection with rendering this opinion, we have examined: (i) the Plan; (ii) the Company’s Certificate of Incorporation, as amended and as currently in effect; (iii) the Company’s Bylaws, as currently in effect; and (iv) such corporate records, agreements, documents and other instruments, and such certificates or comparable documents of public officials and of officers and representatives of the Company, and have made such inquiries of such officers and representatives, as we have deemed relevant and necessary as a basis for the opinion hereinafter set forth.

In such examination, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of all documents submitted to us as originals, the conformity of original documents of all documents submitted to us as certified, conformed or photostatic copies and the authenticity of the originals of such latter documents. As to all questions of fact material to these opinions that have not been independently established, we have relied upon certificates or comparable documents of officers and representatives of the Company.

Based on the foregoing, and subject to the qualifications stated herein, we are of the opinion that the Shares being registered pursuant to the Registration Statement have been duly authorized and, when issued and delivered upon the grant or exercise of awards in accordance with the terms of the Plan, will be validly issued, fully paid and non-assessable.

The opinion expressed herein is limited to the corporate laws of the State of Delaware, and we express no opinion as to the effect on the matters covered by this letter of the laws of any other jurisdiction.

We hereby consent to the filing of a copy of this opinion letter as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act.

Very truly yours,

/s/ Lowenstein Sandler LLP

NEW YORK PALO ALTO NEW JERSEY UTAH WASHINGTON, D.C. Lowenstein Sandler LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement of Matinas BioPharma Holdings, Inc. on Form S-8 to be filed on or about June 23, 2025 of our report dated April 15, 2025, on our audits of the consolidated financial statements as of December 31, 2024 and 2023 and for each of the years in the two-year period ended December 31, 2024, which report was included in the Company's Annual Report on Form 10-K for the year ended December 31, 2024. Our report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern.

/s/ EisnerAmper LLP

EISNERAMPER LLP
Iselin, NJ
June 23, 2025

Calculation of Filing Fee Table

Form S-8
(Form Type)

Matinas BioPharma Holdings, 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 Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, \$0.0001 par value per share	Other	116,500 (2)	\$0.59 (3)	\$ 68,735.00 (3)	0.00015310	\$ 10.53
Equity	Common Stock, \$0.0001 par value per share	Other	646,548 (4)	\$ 0.9085 (5)	\$ 587,388.86 (5)	0.00015310	\$ 89.93
Total Offering Amounts					—	—	\$ 100.46
Total Fee Offsets					—	—	—
Net Fees Due					—	—	\$ 100.46

- (1) Covers 763,048 shares of common stock issuable under the Matinas BioPharma Holdings, Inc. 2025 Equity Incentive Plan (the “2025 Plan”). In addition, pursuant to Rule 416(c) under the Securities Act of 1933, as amended (the “Securities Act”), this registration statement also covers an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plan(s) described herein, as these amounts may be adjusted as a result of stock splits, stock dividends, antidilution provisions, and similar transactions.
- (2) Consists of shares of common stock that may be issued upon exercise of stock options granted pursuant to the 2025 Plan (the “Stock Options”) outstanding as of the date of this registration statement.
- (3) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) promulgated under the Securities Act. The offering price per share and the aggregate offering price for shares issuable upon the exercise of the Stock Options are based upon the weighted average exercise price of the Stock Options.
- (4) Represents shares of common stock reserved for future issuance under the 2025 Plan that are not subject to outstanding options.
- (5) Calculated solely for purposes of this offering under Rules 457(c) and 457(h) of the Securities Act on the basis of the average of the high and low prices of Registrant’s common stock on the NYSE American on June 20, 2025.