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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): March 31, 2015

MATINAS BIOPHARMA HOLDINGS, INC. (Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

(Commission File Number) 46-3011414 (IRS Employer ID Number)

1545 Route 206 South, Suite 302 Bedminster, New Jersey (Address of principal executive offices)

07921 (Zip Code)

Registrant's telephone number, including area code: (908) 443-1860

Not Applicable

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01 Entry into a Material Definitive Agreement.

On March 31, 2015, Matinas BioPharma Holdings, Inc. (the "Company") conducted a closing (the "Closing") of a private placement offering to accredited investors (the "Offering") of the Company's units (the "Units") at a price of \$0.50 per Unit, with each Unit consisting of: (i) one share of the Company's common stock, par value \$0.0001 per share ("Common Stock"), and (ii) a five-year warrant to purchase one share of Common Stock at an exercise price of \$0.75 per share ("Warrants"). The Warrants are callable by the Company following the effectiveness of the registration statement covering the resale of the shares of Common Stock underlying the Warrants if the closing bid price for the Company's Common Stock is at or above \$3.00 per share for the twenty (20) consecutive trading days immediately prior to such a call and provided that the registration statement is current at the time.

In connection with the Closing, the Company entered into definitive subscription agreements (the "Subscription Agreements") with accredited investors (the "Investors") and issued an aggregate of 9,875,000 Units, consisting of an aggregate of 9,875,000 shares of Common Stock and Warrants to purchase an aggregate 9,875,000 shares of Common Stock for aggregate gross proceeds to the Company of \$4,937,500. In connection with the Offering, the Company entered into a Registration Rights Agreement with the Investors pursuant to which the Company has granted the Investors certain registration rights. The Subscription Agreements also contain customary representations, warranties and agreements. The net proceeds to the Company from the Closing, after deducting the placement agent fees described below and other estimated Offering expenses, were approximately \$4.2 million.

The Company entered into a Placement Agency Agreement with a registered broker dealer which acted as the Company's exclusive placement agent (the "Placement Agent") for the Offering. Pursuant to the terms of the Placement Agency Agreement, in connection with the Closing, the Company paid the Placement Agent an aggregate cash fee of \$493,750 and non-accountable expense allowance of \$148,125 and will issue to the Placement Agent or its designees warrants (substantially similar to the Warrants) to purchase 493,750 shares of Common Stock at \$0.50 per share and additional warrants to purchase 493,750 shares of Common Stock at \$0.75 per share.

The securities issued in the Offering as described above, including the Common Stock, Warrants and the placement agent warrants, have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), and were made pursuant to the exemptions from registration provided by Section 4(a)(2) of the Securities Act and/or Rule 506(b) of Regulation D promulgated thereunder. Such securities are therefore restricted in accordance with Rule 144 under the Securities Act.

This Current Report on Form 8-K does not constitute an offer to sell or the solicitation of an offer to buy any security. The securities described herein have not been registered under the Securities Act or applicable state securities laws and may not be offered or sold in the United States or any state thereof absent registration under the Securities Act and applicable state securities laws or an applicable exemption from registration requirements.

The material agreements described in this Current Report on Form 8-K will be filed as exhibits in our next periodic report due to be filed under the Exchange Act.

Item 3.02 Unregistered Sales of Equity Securities.

The number of securities to be issued, the nature of the transaction and the nature and amount of consideration received by the Company are described in Item 1.01 of this Form 8-K, which is incorporated by reference into this Item 3.02.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

MATINAS BIOPHARMA HOLDINGS, INC.

Date: April 6, 2015

/s/ Roelof Rongen Roelof Rongen, President and Chief Executive Officer