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

Delaware No. 46-3011414
(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

1545 Route 206 South, Suite 302
Bedminster, New Jersey 07921
(Address of principal executive offices) (Zip Code)

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

Securities registered pursuant to Section 12(b) of the Act: None

Title of Class: Common Stock, par value $0.0001

Name of Each Exchange on Which Registered: NYSE American

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes [ X] No [ ]

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes [ ] No [ X]

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or Section 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 [ X] No [ ]

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes [ X] No [ ]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant’s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or 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 [ X]
Non-accelerated filer [ ] (Do not check if a smaller reporting company) Smaller reporting company [X] Emerging growth company [X]

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

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

The aggregate market value of the registrant’s voting and non-voting common stock held by non-affiliates of the registrant computed by reference to the price at which the common stock was last sold on June 30, 2017 was approximately $123.1 million.

As of March 2, 2018 there were 93,478,602 shares of the registrant’s common stock, $0.0001 par value, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

None.
This Amendment No. 1 on Form 10-K/A hereby amends the Registrant’s Annual Report on Form 10-K for the fiscal year ended December 31, 2017 (the “Form 10-K”), which the Registrant filed with the Securities and Exchange Commission on March 16, 2018. This amendment is being filed solely to amend and replace Exhibit 23.1 to the Form 10-K, which inadvertently omitted references to certain of the Registrant’s registration statements. In addition, pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), we are including with this Amendment No. 1 certain currently dated certifications. Because no financial statements have been included in this Amendment No. 1 and this Amendment No. 1 does not contain or amend any disclosure with respect to Items 307 and 308 of Regulation S-K, paragraphs 3, 4 and 5 of the certifications have been omitted. We are not including the certifications under Section 906 of the Sarbanes-Oxley Act of 2002 as no financial statements are being filed with this Amendment No. 1.

This Amendment does not affect any other parts of or exhibits to the Form 10-K, and those unaffected parts or exhibits are not included in this Amendment. Except as described above, no other portion of the Form 10-K for the fiscal year ended December 31, 2017 is amended hereby and the Form 10-K continues to speak as of the date of the original filing of the Form 10-K. No modification or update is otherwise being made to any other disclosure or exhibits to such Form 10-K. Accordingly, this Amendment should be read in conjunction with such Form 10-K and the Registrant’s filings made with the Securities and Exchange Commission subsequent to the date of such Form 10-K.
# Exhibit No. | Description
--- | ---
2.1 | Merger Agreement, dated July 11, 2013, by and among the Company, Matinas Merger Sub, Inc., and Matinas BioPharma, Inc. (incorporated by reference to Exhibit 2.1 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014).
2.2 | Agreement and Plan of Merger (the “Merger Agreement”) with Aquarius Biotechnologies, Inc., a Delaware corporation (“Aquarius”), Saffron Merger Sub, Inc., a Delaware corporation and a wholly-owned subsidiary of the Company (“Merger Sub”) and J. Carl Craft, as the stockholder representative (incorporated herein by reference to Exhibit 2.1 to the Company’s Current Report on Form 8-K filed with the SEC on January 30, 2015).
3.1 | Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014).
3.2 | Bylaws (incorporated by reference to Exhibit 3.2 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014).
3.3 | Certificate of Amendment, dated October 29, 2015 to Certificate of Incorporation. (incorporated herein by reference to the Company’s Current Report on Form 8-K filed with the SEC on November 5, 2015).
4.1 | Common Stock Specimen (incorporated by reference to Exhibit 4.1 of the Company’s Annual Report on Form 10-K filed March 31, 2017 with the Securities and Exchange Commission)**
4.2 | Form of Warrant (incorporated by reference to Exhibit 4.1 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014).
4.3 | Form of Placement Agent Warrant (incorporated by reference to Exhibit 4.2 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014).
4.4 | Registration Rights Agreement dated July 30, 2013 (incorporated by reference to Exhibit 4.3 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014).
Form of 2015 Investor Warrant. (incorporated by reference to Exhibit 4.4 to the post-effective amendment No. 1 to Form S-1 filed with the SEC on April 17, 2015.)

Form of 2015 Placement Agent Warrant. (incorporated by reference to Exhibit 4.5 to the post-effective amendment No. 1 to Form S-1 filed with the SEC on April 17, 2015.)

Registration Rights Agreement dated March 31, 2015 between the Company and the investors named therein. (incorporated by reference to Exhibit 4.6 to the post-effective amendment No. 1 to Form S-1 filed with the SEC on April 17, 2015.)

Form of 2016 Placement Agent Warrant (incorporated by reference to Exhibit 4.7 to the Registration Statement on Form S-1 filed with the SEC on November 2, 2016.)

Voting Agreement, dated July 30, 2013, by and among the Company and the stockholders named therein. (incorporated by reference to Exhibit 10.5 to Amendment No. 1 to the Company's Registration Statement on Form S-1 filed with the SEC on February 7, 2014).

Matinas BioPharma Holdings, Inc. Amended and Restated 2013 Equity Compensation Plan (incorporated herein by reference to Exhibit 10.6 to the Company’s Annual Report on Form 10-K filed on March 31, 2015.) †

Form of Incentive Stock Option Agreement (incorporated by reference to Exhibit 10.7 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014). †

Form of Non-Qualified Stock Option Agreement (incorporated by reference to Exhibit 10.8 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014). †

Employment Agreement, dated July 30, 2013, between the Company and Roelof Rongen (incorporated by reference to Exhibit 10.9 to Amendment No. 1 to the Company's Registration Statement on Form S-1 filed with the SEC on February 7, 2014). †

Employment Agreement, dated July 30, 2013, between the Company and Abdel A. Fawzy. (incorporated by reference to Exhibit 10.11 to Amendment No. 1 to the Company's Registration Statement on Form S-1 filed with the SEC on February 7, 2014). †

Employment Agreement effective as of October 4, 2013 between the Company and Jerome D. Jabbour (incorporated by reference to Exhibit 10.12 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014). †

Offer Letter, dated October 31, 2013, between the Company and Gary Gaglione (incorporated by reference to Exhibit 10.13 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014). †

Form of Indemnification Agreement (incorporated by reference to Exhibit 10.14 to Amendment No. 1 to the Company's Registration Statement on Form S-1 filed with the SEC on February 7, 2014). †

Lease, effective as of November 4, 2013, by and between the company and A-K Bedminster Associates, L.P. (incorporated by reference to Exhibit 10.17 to Amendment No. 1 to the Company’s Registration Statement on Form S-1 filed with the SEC on February 7, 2014).

Amended and Restated Exclusive License Agreement dated as of January 29, 2015, by and between Rutgers, the State University of New Jersey and Aquarius Biotechnologies, Inc. (incorporated herein by reference to Exhibit 10.18 to the Company’s Annual Report on Form 10-K filed on March 31, 2015.) +.

10.17 Placement Agency Agreement dated March 19, 2015 between the Company and Aegis Capital Corp. (incorporated herein by reference to Exhibit 10.20 of the Company’s Registration Statement on Form S-1 (Reg. No. 333-193455), filed with the SEC on April 17, 2015).

10.18 Form of Subscription Agreement for the Company’s 2015 private placement. (incorporated herein by reference to Exhibit 10.21 of the Company’s Registration Statement on Form S-1 (Reg. No. 333-193455), filed with the SEC on April 17, 2015).

10.19 Employment Agreement, dated September 1, 2015, between Matinas Biopharma Holdings, Inc. and Raphael J. Mannino. (incorporated herein by reference to Exhibit 10.1 to the Company’s Current Report on Form 8-K filed with the SEC on September 1, 2015).


10.21 Placement Agency Agreement dated June 27, 2016 by and between Matinas BioPharma Holdings, Inc. and Aegis Capital Corp. (incorporated by reference to Exhibit 10.21 to the Registration Statement on Form S-1 filed with the SEC on November 2, 2016.)

10.22 Finder’s Agreement dated July 29, 2016 by and between Matinas BioPharma Holdings, Inc. and Aegis Capital Corp. (incorporated by reference to Exhibit 10.22 to the Registration Statement on Form S-1 filed with the SEC on November 2, 2016.)


10.25 Lease Agreement, dated as of December 15, 2016, by and between CIP II/AR Bridgewater Holdings LLC, and Matinas BioPharma Holdings, Inc. (incorporated herein by reference to Exhibit 10.1 to the Company’s Current Report on Form 8-K filed with the SEC on April 28, 2017)

10.26 Employment Agreement, effective as of April 18, 2017, by and between the Company and Dominick M. DiPaolo (incorporated herein by reference to Exhibit 10.1 to the Company’s Current Report on Form 8-K filed with the SEC on April 18, 2017)†

10.27 Controlled Equity OfferingSM-Sales Agreement, dated April 28, 2017, by and between Matinas BioPharma Holdings, Inc. and Cantor Fitzgerald & Co. (incorporated herein by reference to Exhibit 1.1 to the Company’s Current Report on Form 8-K filed with the SEC on April 28, 2017)


21.1 Subsidiaries Index**

23.1 Consent of EisnerAmper LLP*

31.1 Certification of President and Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*

31.2 Certification of Acting Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*

32.1 Section 1350 Certifications**


+ Confidential treatment has been requested for certain provisions of this Exhibit pursuant to Rule 24b-2 promulgated under the Securities Exchange Act of 1934, as amended.
† Indicates a management contract or compensation plan, contract or arrangement.
* Filed herewith.
** Previously filed.
Pursuant to the requirements of the Securities Act, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Bedminster, State of New Jersey on May 25, 2018.

MATINAS BIOPHARMA HOLDINGS, INC.

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

By: /s/ Gary Gaglione  
Name: Gary Gaglione  
Title: Acting Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<table>
<thead>
<tr>
<th>Person</th>
<th>Capacity</th>
<th>Date</th>
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<tbody>
<tr>
<td>/s/Jerome D. Jabbour</td>
<td>Chief Executive Officer and Director (Principal Executive Officer)</td>
<td>May 25, 2018</td>
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<td>Jerome D. Jabbour</td>
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<tr>
<td>/s/ Gary Gaglione</td>
<td>Acting Chief Financial Officer (Principal Financial and Accounting Officer)</td>
<td>May 25, 2018</td>
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<tr>
<td>Gary Gaglione</td>
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<td>Herbert Conrad</td>
<td>Chairman of the Board</td>
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<tr>
<td>/s/ Matthew A. Wikler</td>
<td>Director</td>
<td>May 25, 2018</td>
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<td>Matthew A. Wikler</td>
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<td>/s/ James S. Scibetta</td>
<td>Director</td>
<td>May 25, 2018</td>
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<td>James S. Scibetta</td>
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<td>/s/ Adam K. Stern</td>
<td>Director</td>
<td>May 25, 2018</td>
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<tr>
<td>/s/ Eric Ende</td>
<td>Director</td>
<td>May 25, 2018</td>
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<td>Eric Ende</td>
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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements of Matinas BioPharma Holdings, Inc. and Subsidiaries on Form S-8 (No(s). 333-198488, 333-203141, 333-210495, 333-215456 and 333-222912) and Form S-3 (No(s). 333-217106) of our reports dated March 16, 2018, on our audits of the consolidated financial statements as of December 31, 2017 and 2016 and for each of the years in the three-year period ended December 31, 2017, which reports is included in this Annual Report on Form 10-K to be filed on or about March 16, 2018.

/s/ EISNERAMPER LLP
Iselin, New Jersey
May 24, 2018
CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

I, Jerome D. Jabbour, certify that:

1. I have reviewed this annual report on Form 10-K/A (Amendment No. 1 to Annual Report on Form 10-K for the fiscal year ended December 31, 2017) of Matinas BioPharma Holdings, Inc.; and

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,

Date: May 25, 2018

/s/Jerome D. Jabbour
Jerome D. Jabbour
Chief Executive Officer
(Principal Executive Officer)
CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

I, Gary Gaglione, certify that:

1. I have reviewed this annual report on Form 10-K/A (Amendment No. 1 to Annual Report on Form 10-K for the fiscal year ended December 31, 2017) of Matinas BioPharma Holdings, Inc.; and

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.

Date: May 25, 2018

/s/ Gary Gaglione
Gary Gaglione
Acting Chief Financial Officer
(Principal Financial and Accounting Officer)