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

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

Matinas BioPharma Holdings, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware (State of incorporation or organization)

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

Title of each class To be so registered

Common Stock, \$0.0001 par value per share

Securities to be registered pursuant to Section 12(b) of the Act: Common Stock, \$0.0001 per share

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), please check the following box \boxtimes

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), please check the following box

Securities Act registration statement file number to which this form relates:

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

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

> 07921 (Zip Code)

Name of each exchange on which each class is to be registered

NYSE MKT LLC

Item 1. Description of Registrant's Securities to be Registered.

Matinas BioPharma Holdings, Inc. (the "Company") hereby incorporates by reference the description of its securities to be registered hereunder contained in the Prospectus dated November 18, 2016 under "Description of Capital Stock", filed with the U.S. Securities and Exchange Commission (the "SEC") on November 22, 2016 under Rule 424(b)(3), pursuant to the Company's registration statement on Form S-1 (File No. 333-214391), filed with the SEC on November 2, 2016, under the Securities Act of 1933, as amended.

Item 2. Exhibits.

Under the Instructions as to Exhibits with respect to Form 8-A, no exhibits are required to be filed herewith or incorporated by reference herein because no other securities of the Company are registered on the NYSE MKT LLC and the securities registered hereby are not being registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

Matinas BioPharma Holdings, Inc.

Date: March 1, 2017

By: /s/ Roelof Rongen Name: Roelof Rongen

Title: Chief Executive Officer