

December 28, 2016

Division of Corporation Finance
U.S. Securities & Exchange Commission
100 F Street, NE
Washington, D.C. 20549
Attn: David L. Orlic

**Re: Matinas BioPharma Holdings, Inc.
Tender Offer Statement on Schedule TO
Filed December 14, 2016
File No. 005-89724**

Dear Mr. Orlic:

On behalf of Matinas BioPharma Holdings, Inc. (the "Company"), we are hereby responding to the letter, dated December 21, 2016 (the "Comment Letter"), from David L. Orlic, Special Counsel, Office of Mergers and Acquisitions (the "Staff") of the Securities and Exchange Commission (the "Commission"), regarding the Company's Tender Offer Statement on Schedule TO, filed on December 14, 2016 (the "Tender Offer Statement").

For ease of reference, set forth below in bold are the comments of the Staff with respect to the Tender Offer Statement, as reflected in the Comment Letter. The Company's response is set forth below each comment. Capitalized terms used herein have the meanings set forth in the Tender Offer Statement unless defined herein.

The Company has authorized us to respond to the Comment Letter as follows:

Exhibit (a)(1)(B)
Important Procedures, page 2

1. Disclosure states that a holder may withdrawal after February 13, 2017, if tenders have not been accepted by that time. We believe this date should be February 10, 2017 pursuant to Rule 13e-4(f)(2)(ii). Please advise.

On behalf of the Company, we advise the Staff that the Company will revise the Tender Offer Statement to correct the date.

Because we do not have any formal commitments ..., page 14

2. Disclosure states that directors and executive officers collectively hold 6,251,492 Original Warrants. Please reconcile this disclosure with that appearing on page 58.

On behalf of the Company, we advise the Staff that the Company will revise the Tender Offer Statement to indicate that directors and executive officers collectively hold 6,551,492 Original Warrants.

Exhibit (a)(1)(C)

Acknowledgments and Representations and Warranties, page 4

3. Representations and warranties (2) through (5), set forth on page 5, appear to operate as disclaimers or waivers of rights and/or to impermissibly restrict participation in the tender offer under Rule 13e-4(f)(8)(i). Please revise to eliminate these representations as a requirement to tender, or provide an analysis as to how these representations do not so operate and are consistent with Rule 13e-4(f)(8)(i).

In response to the Staff's comments, the Company does not believe the representations and warranties (2) through (5), set forth on page 5, operate as disclaimers or waivers of rights and/or to impermissibly restrict participation in the tender offer based on the particular facts of this situation.

The Company issued the Original Warrants in private placement transactions in reliance on the exemption from registration provided by Rule 506 of Regulation D under the Securities Act of 1933 (the "Securities Act") inasmuch as these previous private placement transactions occurred without any form of general solicitation or general advertising. The holders of the Original Warrants (other than the Placement Agent Warrants) previously made substantially the same representations and warranties to the Company in connection with such private placement transactions as are contained in representations (2) through (5). As such, the Company anticipates that the holders of the Original Warrants will have no problem making such representations and warranties again in connection with the offer to amend the Original Warrants. Furthermore, based on discussions with the Placement Agent, the Company anticipates that the holders of the Placement Agent Warrants will also be able to make such representations and warranties in connection with the offer to amend the Original Warrants.

The Company intends to rely on Section 4(a)(2) of the Securities Act, and Rule 506 promulgated thereunder, as an exemption for its offer to amend the Original Warrants and to issue the underlying shares of common stock upon exercise of the amended warrants. The Company has implemented the Offer to Amend and Exercise without any form of general solicitation or general advertising. The Company intends to rely on such representations and warranties in determining that such exemptions are available for its offer to amend the Original Warrants and issue the underlying shares. The Company acknowledges that it cannot exclude any holders who fail to make the representations and warranties (2) through (5), set forth on page 5 of Exhibit (a)(1)(C) and that the Company may be required to cancel its offer to amend the Original Warrants if any holders fail to make such representations and warranties.

However, based on the prior representations and warranties provided by holders in connection with prior private placement transactions and discussions with the Placement Agent with respect to the Placement Agent Warrants, the Company anticipates that each of the holders of the Original Warrants will be able to make the representations and warrants set forth on page 5 of Exhibit (a)(1)(C), and will in fact make such representations and warranties, that the Offer to Amend and Exercise will qualify for an exemption from registration under the Securities Act, and, most importantly for these purposes, that no one will be excluded from participating in the tender offer by reason of the inclusion of these representations and warranties..

If you have any questions with respect to the foregoing, please feel free to call me at (973) 597-2476 or Meredith Prithviraj at (973) 597-2396.

Very truly yours,

/s/ Steven Skolnick

Steven Skolnick
