

---

---

**United States  
Securities and Exchange Commission  
Washington, D.C. 20549**

**SCHEDULE 14A**

**Proxy Statement Pursuant to Section 14(a) of the  
Securities Exchange Act of 1934**

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement  
 Confidential, For Use of the Commission Only (as permitted by Rule 14a-6(e)(2))  
 Definitive Proxy Statement  
 Definitive Additional Materials  
 Soliciting Materials Pursuant to Rule 14a-12

---

**MATINAS BIOPHARMA HOLDINGS, INC.**

(Name of Registrant as Specified in Its Charter)

---

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.  
 Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

- (1) Title of each class of securities to which transaction applies:  
\_\_\_\_\_
- (2) Aggregate number of securities to which transaction applies:  
\_\_\_\_\_
- (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):  
\_\_\_\_\_
- (4) Proposed maximum aggregate value of transaction:  
\_\_\_\_\_
- (5) Total fee paid:  
\_\_\_\_\_

- Fee paid previously with preliminary materials:  
 Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

- (1) Amount Previously Paid:  
\_\_\_\_\_
- (2) Form, Schedule or Registration Statement No.:  
\_\_\_\_\_
- (3) Filing Party:  
\_\_\_\_\_
- (4) Date Filed:  
\_\_\_\_\_
- 
-

**MATINAS BIOPHARMA HOLDINGS, INC.**

**1545 ROUTE 206 SOUTH  
SUITE 302  
BEDMINSTER NJ 07921**

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS**

**To be held on November 1, 2019**

To the Stockholders of  
Matinas BioPharma Holdings, Inc.

**NOTICE IS HEREBY GIVEN** that the Annual Meeting of Stockholders of Matinas BioPharma Holdings, Inc. (the "Company") will be held at the offices of Lowenstein Sandler LLP, located at One Lowenstein Drive, Roseland, NJ 07068, on November 1, 2019, beginning at 9 a.m. local time. At the Annual Meeting, stockholders will act on the following matters:

- To elect seven directors to serve until the next Annual Meeting of Stockholders and until their respective successors shall have been duly elected and qualified;
- To ratify the appointment of EisnerAmper LLP as our independent registered public accounting firm for the year ending December 31, 2019;
- To approve an amendment to the Company's certificate of incorporation, as amended, to increase the Company's authorized shares of common stock from 250,000,000 to 500,000,000; and
- To consider any other matters that may properly come before the Annual Meeting.

Only stockholders of record of our common stock at the close of business on September 9, 2019 are entitled to receive notice of and to vote at the Annual Meeting or any postponement or adjournment thereof.

Your vote is important. Whether you plan to attend the meeting or not, you may vote your shares by marking, signing, dating and mailing the enclosed proxy card in the envelope provided. If you attend the meeting and prefer to vote in person, you may do so even if you have already voted your shares. You may revoke your proxy in the manner described in the proxy statement at any time before it has been voted at the meeting.

By Order of the Board of Directors

*/s/ Jerome D. Jabbour*

Jerome D. Jabbour  
Chief Executive Officer

September 24, 2019  
Bedminster, New Jersey

---

MATINAS BIOPHARMA HOLDINGS, INC.  
1545 ROUTE 206 SOUTH  
SUITE 302  
BEDMINSTER NJ 07921

**PROXY STATEMENT**

This proxy statement contains information related to the Annual Meeting of Stockholders to be held on November 1, 2019 at 9 a.m. local time, at the offices of Lowenstein Sandler LLP, located at One Lowenstein Drive, Roseland, NJ 07068, or at such other time and place to which the Annual Meeting may be adjourned or postponed. The enclosed proxy is solicited by the Board of Directors of Matinas BioPharma Holdings, Inc. (the "Board"). The proxy materials relating to the Annual Meeting are being mailed to stockholders entitled to vote at the meeting on or about September 24, 2019.

**Important Notice of Availability of Proxy Materials for the Annual Meeting of Stockholders to be held on November 1, 2019.**

**Our proxy materials including our Proxy Statement for the 2019 Annual Meeting, our Annual Report for the fiscal year ended December 31, 2018 and proxy card are available on the Internet at [www.proxyvote.com](http://www.proxyvote.com). Under Securities and Exchange Commission rules, we are providing access to our proxy materials both by sending you this full set of proxy materials, and by notifying you of the availability of our proxy materials on the Internet.**

**ABOUT THE MEETING**

***Why are we calling this Annual Meeting?***

We are calling the Annual Meeting to seek the approval of our stockholders:

- To elect seven directors to serve until the next Annual Meeting of Stockholders and until their respective successors shall have been duly elected and qualified;
- To ratify the appointment of EisnerAmper LLP as our independent registered public accounting firm for the year ending December 31, 2019;
- To approve an amendment to the Company's certificate of incorporation, as amended, to increase the Company's authorized shares of common stock from 250,000,000 to 500,000,000; and
- To consider any other matters that may properly come before the Annual Meeting.

***What are the Board's recommendations?***

Our Board believes that the election of the director nominees identified herein, the appointment of EisnerAmper LLP as our independent registered public accounting firm for the year ending December 31, 2019, and the amendment to the Company's certificate of incorporation to increase the Company's authorized shares of common stock from 250,000,000 to 500,000,000 is advisable and in the best interests of the Company and its stockholders and recommends that you vote FOR these proposals.

***Who is entitled to vote at the meeting?***

Only stockholders of record of our common stock at the close of business on the record date, September 9, 2019, are entitled to receive notice of the Annual Meeting and to vote the shares of common stock that they held on that date at the meeting, or any postponement or adjournment of the meeting. Holders of our common stock are entitled to one vote per share on each matter to be voted upon.

As of the record date, we had 162,426,763 outstanding shares of common stock.

---

***Who can attend the meeting?***

All holders of our common stock as of the record date, or their duly appointed proxies, may attend the Annual Meeting. Please note that if you hold your shares in “street name” (that is, through a broker or other nominee), you will need to bring a copy of your proxy card delivered to you by your broker or a legal proxy given to you by your broker and check in at the registration desk at the meeting.

If you are a stockholder of record and plan to attend the Annual Meeting, please contact the Corporate Secretary by email at [corporatesecretary@matinasbiopharma.com](mailto:corporatesecretary@matinasbiopharma.com) or by phone at (908) 443-1860 to register to attend the Annual Meeting. If you hold shares through an intermediary, such as a bank or broker, and you plan to attend, you must send a written request to attend either by regular mail or email, along with proof of share ownership, such as a bank or brokerage firm account statement, confirming ownership to: Matinas BioPharma Holdings, Inc., 1545 Route 206 South, Suite 302, Bedminster NJ 07921, Attn: Corporate Secretary or [corporatesecretary@matinasbiopharma.com](mailto:corporatesecretary@matinasbiopharma.com). Please plan to arrive at the meeting location within a reasonable period of time before the start of the Annual Meeting.

***What constitutes a quorum?***

The presence at the Annual Meeting, in person or by proxy, of the holders of a majority of our common stock outstanding on the record date will constitute a quorum for our meeting. Signed proxies received but not voted and broker non-votes will be included in the calculation of the number of shares considered to be present at the meeting.

***How do I vote?***

You can vote on matters that come before the Annual Meeting by completing, dating and signing the enclosed proxy card and returning it in the enclosed postage-paid envelope.

Your shares will be voted as you indicate on your proxy card. If you vote the enclosed proxy but you do not indicate your voting preferences, and with respect to any other matter that properly comes before the meeting, the individuals named on the proxy card will vote your shares FOR the matters submitted at the meeting, or if no recommendation is given, in their own discretion.

If you are a stockholder of record, to submit your proxy by telephone or via the Internet, follow the instructions on the proxy card. If you hold your shares in street name, you may vote by telephone or via the Internet as instructed by your broker, bank or other nominee.

If you are a stockholder of record, attend the Annual Meeting and prefer to vote in person, you may do so even if you have already voted your shares by proxy. If you hold shares in “street name,” however, you must provide a legal proxy executed by your broker or other nominee in order to vote your shares at the Annual Meeting.

***What if I vote and then change my mind?***

You may revoke your proxy at any time before it is exercised by:

- filing with the Secretary of the Company a notice of revocation;
- sending in another duly executed proxy by telephone, internet or mail bearing a later date; or
- attending the meeting and casting your vote in person.

Your latest vote will be the vote that is counted.

***What is the difference between holding shares as a stockholder of record and as a beneficial owner?***

Many of our stockholders hold their shares through a stockbroker, bank or other nominee rather than directly in their own name. As summarized below, there are some distinctions between shares held of record and those owned beneficially.

---

### *Stockholder of Record*

If your shares are registered directly in your name with our transfer agent, VStock Transfer, LLC, you are considered, with respect to those shares, the stockholder of record. As the stockholder of record, you have the right to grant your voting proxy directly to us or to vote in person at the Annual Meeting.

### *Beneficial Owner*

If your shares are held in a stock brokerage account or by a bank or other nominee, you are considered the beneficial owner of shares held in street name, and these proxy materials are being forwarded to you by your broker, bank or nominee which is considered, with respect to those shares, the stockholder of record. As the beneficial owner, you have the right to direct your broker as to how to vote and are also invited to attend the Annual Meeting. However, because you are not the stockholder of record, you may not vote these shares in person at the Annual Meeting unless you obtain a signed proxy from the record holder giving you the right to vote the shares. If you do not vote your shares or otherwise provide the stockholder of record with voting instructions, your shares may constitute broker non-votes. The effect of broker non-votes is more specifically described in “*What vote is required to approve each proposal?*” below.

### ***What vote is required to approve each proposal?***

The holders of a majority of our shares of common stock outstanding on the record date must be present, in person or by proxy, at the Annual Meeting in order to have the required quorum for the transaction of business. Pursuant to Delaware corporate law, abstentions and broker non-votes will be counted for the purpose of determining whether a quorum is present.

Assuming that a quorum is present, the following votes will be required:

- With respect to the election of directors (Proposal No. 1), the seven nominees receiving the highest number of FOR votes (from the holders of shares present in person or represented by proxy) will be elected as directors.
- With respect to the ratification of the appointment of EisnerAmper LLP as our independent registered public accounting firm (Proposal No. 2), approval will require the affirmative vote of a majority of the votes cast in person or represented by proxy at the Annual Meeting.
- With respect to the approval of an amendment to the Company’s certificate of incorporation to increase the Company’s authorized shares of common stock from 250,000,000 to 500,000,000 (Proposal No. 3), approval will require the affirmative vote of a majority of the outstanding shares of common stock entitled to vote at the Annual Meeting.
- With respect to the approval of any other matter that may properly come before the Annual Meeting, approval will require the affirmative vote of a majority of the votes cast in person or represented by proxy at the Annual Meeting.

Holders of common stock will not have any dissenters’ rights of appraisal in connection with any of the matters to be voted on at the meeting.

### ***What are “broker non-votes”?***

Broker non-votes occur when nominees, such as banks and brokers holding shares on behalf of beneficial owners, do not receive voting instructions from the beneficial holders at least ten days before the meeting. If that happens, the nominees may vote those shares only on matters deemed “routine”, such as the ratification of auditors. Nominees cannot vote on non-routine matters unless they receive voting instructions from beneficial holders, resulting in so-called “broker non-votes.”

The election of directors (Proposal No. 1) is not considered to be a “routine” matter and brokers are not permitted to vote on this matter if the broker has not received instructions from the beneficial owner. Accordingly, it is particularly important that beneficial owners instruct their brokers how they wish to vote their shares. The ratification of our independent registered public accounting firm (Proposal No. 2) and the approval of the amendment to the Company’s certificate of incorporation to increase the Company’s authorized shares of common stock from 250,000,000 to 500,000,000 (Proposal No. 3) are considered to be “routine” matters, and hence your brokerage firm will be able to vote on Proposals No. 2 and 3 even if it does not receive instructions from you, so long as it holds your shares in its name.

---

***How are we soliciting this proxy?***

We are soliciting this proxy on behalf of our Board by mail and will pay all expenses associated therewith. Some of our officers and other employees also may, but without compensation other than their regular compensation, solicit proxies by further mailing or personal conversations, or by telephone, facsimile or other electronic means.

We will also, upon request, reimburse brokers and other persons holding stock in their names, or in the names of nominees, for their reasonable out-of-pocket expenses for forwarding proxy materials to the beneficial owners of the capital stock and to obtain proxies.

**PROPOSAL 1: ELECTION OF DIRECTORS**

At the Annual Meeting, seven directors are to be elected. All directors of the Company will hold office until the next Annual Meeting of Stockholders or until their respective successors are duly elected and qualified or their earlier resignation or removal. The Board has nominated the following individuals for election as directors to serve until the next annual meeting of stockholders and until their successors have been duly elected and qualified: Herbert Conrad, Jerome D. Jabbour, Patrick LePore, Eric Ende, James Scibetta, Adam Stern and Matthew Wikler. Each of these seven director nominees named in the proxy statement is a current member of the Board.

It is the intention of the persons named in the proxies for the holders of common stock to vote the proxies for the election of the nominees named below, unless otherwise specified in any particular proxy. Our management does not contemplate that the nominees will become unavailable for any reason, but if that should occur before the meeting, proxies will be voted for another nominee, or other nominees, to be selected by our Board of Directors. In accordance with our by-laws and Delaware law, a stockholder entitled to vote for the election of directors may withhold authority to vote for certain nominees for directors or may withhold authority to vote for all nominees for directors. The director nominees receiving a plurality of the votes present in person or by proxy at the meeting and entitled to vote on the election of directors will be elected directors. Broker non-votes will not be treated as a vote for or against any particular director nominee and will not affect the outcome of the election. Stockholders may not vote, or submit a proxy, for a greater number of nominees than the seven nominees named below.

**Director Nominees**

The following table sets forth the name, age, position and tenure of each of the director nominees up for election at the 2019 Annual Meeting:

<b>Name</b>	<b>Age</b>	<b>Position(s)</b>	<b>Served as an Officer or Director Since</b>
Herbert Conrad	86	Chairman of the Board	2013
Patrick LePore	64	Vice Chairman of the Board	2018
Jerome D. Jabbour	45	Chief Executive Officer and Director	2013
Eric Ende	51	Director	2017
James Scibetta	54	Director	2013
Adam Stern	55	Director	2013
Matthew Wikler	69	Director	2018

The following biographical descriptions set forth certain information with respect to the director nominees, based on information furnished to the Company by each director nominee.

---

**Herbert Conrad** has served as our Chairman of the Board since July 2013 and as Chairman of the Board of Matinas BioPharma since October 2012. He also serves on the board of directors of Celldex Therapeutics, Inc. (NASDAQ: CLDX), biopharmaceutical company focused on the development and commercialization of immunotherapies and other targeted biologics, and as an Advisor to the Seaver Autism Center at Mount Sinai Hospital. Mr. Conrad was the President of the U.S. Pharmaceuticals Division of Hoffmann-La Roche, Inc. from 1982 until his retirement in 1993. Prior to that, he held many positions of increasing responsibility at Roche Pharmaceuticals in the United States. Mr. Conrad previously served on the board of directors of Arbutus Biopharma Corporation (NASDAQ: ABUS), Pharmasset, Inc. (chairman), Savient Pharmaceuticals, Inc., (NASDAQ: SVNT) Dura Pharmaceuticals, Inc., UroCor, Inc., GenVec, Inc. (NASDAQ: GNVC) (chairman), Sicor, Inc., Bone Care International, Inc. (chairman), Sapphire Therapeutics, Inc. (chairman), the medical advisory board of Henry Schein Inc. (NASDAQ: HSIC), and he was a Director and Co-Founder of Reliant. Pharmasset was acquired by Gilead Sciences, Inc. for \$11 billion in 2011. He received B.S. and M.S. degrees from the Brooklyn College of Pharmacy and an honorary Doctorate in Humane Letters from Long Island University. We believe Mr. Conrad is qualified to serve on our board of directors due to his extensive expertise and experience in the life sciences industry and his extensive board experience.

**Patrick LePore** has served as our Vice Chairman of the Board since September 5, 2018. Mr. LePore served as chairman, chief executive officer and president of Par Pharmaceuticals, Inc. (NYSE:PRX), an operating company of Endo International plc, a generics and specialty branded pharmaceutical company, from September 2006 until the company's acquisition by private equity investor TPG in November 2012. He remained as chairman of the new company where he led the sale of the company to Endo Pharmaceuticals (NASDAQ: ENDP). Mr. LePore began his career with Hoffmann LaRoche. Later, he founded Boron LePore and Associates, a medical communications company, which he took public in 1997 and which was eventually sold to Cardinal Health. He is a member of the board of directors of Lannett Company, Inc. (NYSE: LCI) and is a trustee of Villanova University. He previously served as a member of the board of directors of PharMerica Corporation (NYSE: PMC) and Innoviva, Inc. (NASDAQ: INVA). Mr. LePore earned his bachelor's degree from Villanova University and Master of Business Administration from Fairleigh Dickinson University. We believe Mr. LePore is qualified to serve on our board of directors due to his executive leadership and significant experience in the life sciences industry and his public company board experience.

**Jerome D. Jabbour** See description under "Management."

**Eric Ende** has served on our board of directors since April 2017. Dr. Ende is president of Ende BioMedical Consulting Group, a privately-held consulting company which is focused on helping life sciences companies raise capital, identify licensing partners, and optimize corporate structure as well as analyzing both private and public investment opportunities for clients within the life sciences industry, a position he has held since 2009. Dr. Ende serves as co-founder, chief executive and chief financial officer of WellFit Holdings, LLC, a private company focused on developing fitness technologies. In addition, Dr. Ende consulted with Icahn Enterprises in their efforts to appoint board members at Forest Labs, Genzyme, Biogen IDEC, and Amylin. Dr. Ende served on the board of directors and as a member of the audit and risk management committee of Genzyme Corp. (NASDAQ: GENZ) from 2010 until it was acquired by Sanofi (NYSE: SNY) in 2011. Dr. Ende is currently serving on the Technology Transfer Committee of Mount Sinai Innovation Partners and served as the Chairman of the Unsecured Creditor's Committee overseeing the bankruptcy of Egenix, Inc. From 2002 through 2008, Dr. Ende was the senior biotechnology analyst at Merrill Lynch. From 2000 through 2002, Dr. Ende was the senior biotechnology analyst at Banc of America Securities and, from 1997 to 2000, he was a biotechnology analyst at Lehman Brothers. Dr. Ende received an MBA in Finance & Accounting from NYU – Stern Business School in 1997, an MD from Mount Sinai School of Medicine in 1994, and a BS in Biology and Psychology from Emory University in 1990. We believe Dr. Ende is qualified to serve on our board of directors due to his industry experience, including as president of Ende BioMedical Consulting Group and as a biotechnology analyst, and his prior public company board experience.

**James S. Scibetta** has served as a member of our board of directors since November 2013. He is currently Chief Executive Officer of Maverick Therapeutics, a development stage immune-oncology company. Prior to Maverick, he was President and Chief Financial Officer of Pacira Pharmaceuticals, Inc. (NASDAQ: PCRX), a specialty pharmaceutical company, a position he has held since October 2015. Prior to that, Mr. Scibetta was the Chief Financial Officer of Pacira since 2008. Prior to joining Pacira in August 2008, he served as a consultant to Genzyme Corporation following the sale of Bioenvision Inc. (NASDAQ: BIVN) to Genzyme in 2007. From 2006 to 2007 Mr. Scibetta was CFO of Bioenvision. From 2001 to 2006, he was Executive Vice President and Chief Financial Officer of Merrimack Pharmaceuticals Inc. (NASDAQ: MACK). Mr. Scibetta has previously served on the board of directors at the following life sciences companies: Nephros Inc. (NASDAQ: NEPH), Merrimack Pharmaceuticals and Labopharm Inc. Prior to his executive management experience, Mr. Scibetta spent over a decade in investment banking where he was responsible for sourcing and executing transactions for a broad base of public and private healthcare and life sciences companies. Mr. Scibetta received his Bachelor of Science in Physics from Wake Forest University and an MBA from the University of Michigan. We believe Mr. Scibetta is qualified to serve on our board of directors because of his extensive management experience in the pharmaceutical industry, his investment banking experience and his experience as a chief financial officer and audit committee member of several publicly traded companies.

---

*Adam Stern* has served as a member of our board of directors since July 2013. Mr. Stern has been the head Private Equity Banking at Aegis Capital Corp., full-service investment banking firm, and CEO of SternAegis Ventures, the management team within Aegis Capital Corp. responsible for venture capital and private equity financing, since 2012 and became one of our directors in July 2013. Prior to Aegis, from 1997 to November 2012, he was with Spencer Trask Ventures, Inc., a private equity and venture firm, most recently as a Senior Managing Director, where he managed the structured finance group focusing primarily on the technology and life science sectors. Mr. Stern held increasingly responsible positions from 1989 to 1997 with Josephthal & Co., Inc., members of the New York Stock Exchange, where he served as Senior Vice President and Managing Director of Private Equity Marketing. He has been a FINRA licensed securities broker since 1987 and a General Securities Principal since 1991. Mr. Stern is a director of Dance Biopharm, Inc. Mr. Stern is a former director of InVivo Therapeutics Holdings Corp. (OTCQB: NVIV), Organovo Holdings, Inc. (NYSE MKT: ONVO), LabStyle Innovations Corporation (OTCBB: DRIO) and PROLOR Biotech Ltd., which was sold to Opko Health, Inc. (NYSE: OPK) for approximately \$600 million in 2013. Mr. Stern holds a Bachelor of Arts degree with honors from The University of South Florida in Tampa. We believe Mr. Stern is qualified to serve on our board of directors because of his extensive experience in corporate finance and experience in the life science industries.

*Matthew Wikler* has served as a member of our board of directors since January 2018. Dr. Wikler currently serves as the Principal of Infectious Disease Technology Development Consulting (IDTD Consulting), a privately-held consulting firm, where he provides clinical, medical and regulatory strategic insight to companies developing new technologies for the treatment and prevention of infectious diseases, a position he has held since 2015. Prior to that from 2012 to 2015, Dr. Wikler served at The Medicines Company (NASDAQ: MDCO), a biopharmaceutical company, as VP, New Business Ventures and VP and Medical Director, Infectious Disease Care. Over the course of his career Dr. Wikler held senior leadership positions for a number of pharmaceutical companies, including as Chief Development Officer of Rib-X Pharmaceuticals, Inc., a privately-held biopharmaceutical company developing new antibiotics to provide superior coverage, safety and convenience for the treatment of serious and life-threatening infections, President and Chief Executive Officer of IASO Pharma Inc., a privately-held clinical stage biotechnology company focused on the development of antibacterial and antifungal therapeutics, the Institute for One World Health, a 501(c)(3) nonprofit drug development organization, Mpex Pharmaceuticals, Inc., a privately-held company focused on developing and manufacturing therapies for antibiotic resistance with focus on gram-negative organisms, Peninsula Pharmaceuticals, Inc., a privately held biopharmaceutical company focused on developing and commercializing antibiotics to treat life-threatening infections (acquired by Johnson & Johnson (NYSE: JNJ)), ViroPharma Incorporated (NASDAQ: VPHM), Bristol-Myers Squibb Company (NYSE: BMY), and Ortho-McNeil Pharmaceutical (a division of Johnson & Johnson). Dr. Wikler began his career at Smith Kline & French/Smith Kline Beecham where he held positions of increasing responsibilities over ten years. Dr. Wikler held a variety of positions at the FDA, including the Deputy Director of the Division of Anti-Infective Drug Products. Dr. Wikler earned a B.A. in Chemistry from Franklin and Marshall, an M.D. degree from Temple University School of Medicine, and his M.B.A. from the University of Pennsylvania Wharton School Of Business. He completed his Infectious Diseases Fellowship at the Hospital of the University of Pennsylvania and is a Fellow of the Infectious Diseases Society of America. We believe Mr. Wikler is qualified to serve on our board of directors because of his extensive management experience in the pharmaceutical industry and his clinical and regulatory experience in the area of infectious diseases.

There are no family relationships among any of our directors or executive officers.

#### **Vote Required**

Directors will be elected by a plurality of the votes cast in person or by proxy at the annual meeting. Abstentions and broker non-votes will each be counted as present for purposes of determining the presence of a quorum but will have no effect on the vote for election of directors.

**THE BOARD OF DIRECTORS RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE  
ELECTION OF THE DIRECTOR NOMINEES.**

---



## Corporate Governance Matters

### *Board of Director Composition*

Our board of directors currently consists of seven members. We have no formal policy regarding board diversity. Our priority in selection of board members is identification of members who will further the interests of our stockholders through his or her established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business and understanding of the competitive landscape.

### *Board of Director Meetings*

Our Board met six times in 2018. Each of the directors attended at least 75% of the aggregate of (i) the total number of meetings of our Board (held during the period for which such directors served on the Board) and (ii) the total number of meetings of all committees of our Board on which the director served (during the periods for which the director served on such committee or committees). The Company does not have a formal policy requiring members of the Board to attend our annual meetings. Jerome D. Jabbour, our Chief Executive Officer and member of our Board, attended the 2018 Annual Meeting of Stockholders.

### *Director Independence*

Our common stock is listed on the NYSE MKT. Our board of directors undertook a review of its composition, the composition of its committees and the independence of each director. Based on information requested from and provided by each of our directors, our board of directors has determined that Messrs. Herbert Conrad, Patrick LePore, Eric Ende, James Scibetta and Matthew Wikler are “independent directors” as such term is defined in the rules of The NYSE MKT’s corporate governance requirements and Rule 10A-3 promulgated under the Securities Exchange Act of 1934, as amended.

There are no family relationships among any of our directors or executive officers.

### **Board Committees**

Our board of directors has four standing committees — an Audit Committee, a Compensation Committee, a Nominating and Corporate Governance Committee and a Scientific Advisory Committee.

**Audit Committee.** The Audit Committee oversees and monitors our financial reporting process and internal control system, reviews and evaluates the audit performed by our registered independent public accountants and reports to the Board any substantive issues found during the audit. The Audit Committee is directly responsible for the appointment, compensation and oversight of the work of our registered independent public accountants. The Audit Committee reviews and approves all transactions with affiliated parties. James Scibetta, Herbert Conrad, and Eric Ende currently serve as members of the Audit Committee, with James Scibetta, serving as its chairman. All members of the Audit Committee have been determined to be financially literate and are considered independent directors as defined under The NYSE MKT’s listing standards and applicable SEC rules and regulations. Mr. Scibetta qualifies as an audit committee “financial expert” as that term is defined by SEC rules and regulations. The Audit Committee met five times during 2018. Our Board has adopted an Audit Committee Charter, which is available for viewing at [www.matinasbiopharma.com](http://www.matinasbiopharma.com).

**Compensation Committee.** The Compensation Committee provides advice and makes recommendations to the Board in the areas of employee salaries, benefit programs and director compensation. The Compensation Committee also reviews the compensation of our executive officers, including our chief executive officer, and makes recommendations in that regard to the Board as a whole. Herbert Conrad, Eric Ende, Patrick LePore, James Scibetta and Matthew Wikler currently serve as members of the Compensation Committee, with Eric Ende serving as its chairman. All members of the Compensation Committee are considered independent directors as defined under The NYSE MKT’s listing standards. The Compensation Committee met once during 2018. Our Board has adopted a Compensation Committee Charter, which is available for viewing at [www.matinasbiopharma.com](http://www.matinasbiopharma.com).

---

**Nominating and Corporate Governance Committee.** The Nominating and Corporate Governance Committee nominates individuals to be elected to the full Board by our stockholders. The Nominating and Corporate Governance Committee considers recommendations from stockholders if submitted in a timely manner in accordance with the procedures set forth in our Bylaws and applies the same criteria to all persons being considered. Herbert Conrad, Eric Ende, Patrick LePore and James Scibetta currently serve as members of the Nominating and Corporate Governance Committee, with Herbert Conrad serving as its chairman. All members of the Nominating and Corporate Governance Committee are considered independent directors as defined under The NYSE MKT's listing standards. The Nominating and Corporate Governance Committee met once times during 2018. Our Board has adopted a Nominating and Corporate Governance Charter, which is available for viewing at [www.matinasbiopharma.com](http://www.matinasbiopharma.com).

**Scientific Advisory Committee.** The Board of Directors has established a Scientific Advisory Committee consisting of Dr. Matthew Wikler, Chair, and Jerome D. Jabbour. The primary function of the Scientific Advisory Committee is to assist the Board in undertaking periodic reviews of our research and development efforts, and clinical trials, and reporting to the Board about developments and strategy, at such times as the Committee determines to be appropriate.

#### ***Stockholder nominations for directorships***

Stockholders may recommend individuals to the Nominating and Corporate Governance Committee for consideration as potential director candidates by submitting their names and background to the Secretary of the Company at the address set forth below under "Stockholder Communications." All such recommendations will be forwarded to the Nominating and Corporate Governance Committee, which will review and only consider such recommendations if appropriate biographical and other information is provided, as described below, on a timely basis. All security holder recommendations for director candidates must be received by the Company in the timeframe(s) set forth under the heading "Stockholder Proposals" below.

- the name and address of record of the security holder;
- a representation that the security holder is a record holder of the Company's securities, or if the security holder is not a record holder, evidence of ownership in accordance with Rule 14a-8(b)(2) of the Securities Exchange Act of 1934;
- the name, age, business and residential address, educational background, current principal occupation or employment, and principal occupation or employment for the preceding five (5) full fiscal years of the proposed director candidate;
- a description of the qualifications and background of the proposed director candidate and a representation that the proposed director candidate meets applicable independence requirements;
- a description of any arrangements or understandings between the security holder and the proposed director candidate; and
- the consent of the proposed director candidate to be named in the proxy statement relating to the Company's annual meeting of stockholders and to serve as a director if elected at such annual meeting.

Assuming that appropriate information is provided for candidates recommended by stockholders, the Nominating and Corporate Governance Committee will evaluate those candidates by following substantially the same process, and applying substantially the same criteria, as for candidates submitted by members of the Board or other persons, as described above and as set forth in its written charter.

#### **Board Leadership Structure and Role in Risk Oversight**

The positions of our chairman of the board and chief executive officer are separated. Separating these positions allows our chief executive officer to focus on our day-to-day business, while allowing the chairman of the board to lead the board of directors in its fundamental role of providing advice to and independent oversight of management. Our board of directors recognizes the time, effort and energy that the chief executive officer must devote to his position in the current business environment, as well as the commitment required to serve as our chairman, particularly as the board of directors' oversight responsibilities continue to grow. Our board of directors also believes that this structure ensures a greater role for the independent directors in the oversight of our company and active participation of the independent directors in setting agendas and establishing priorities and procedures for the work of our board of directors. Our board of directors believes its administration of its risk oversight function has not affected its leadership structure.

---

Although our bylaws do not require our chairman and chief executive officer positions to be separate, our board of directors believes that having separate positions is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance.

Risk is inherent with every business, and how well a business manages risk can ultimately determine its success. Our board of directors is actively involved in oversight of risks that could affect us. This oversight is conducted primarily by our full board of directors, which has responsibility for general oversight of risks, and our standing board committees.

Our board of directors satisfies this responsibility through full reports by each committee chair regarding the committee's considerations and actions, as well as through regular reports directly from officers responsible for oversight of particular risks within our company. Our board of directors believes that full and open communication between management and the board of directors is essential for effective risk management and oversight.

#### **Stockholder Communications**

The Board will give appropriate attention to written communications that are submitted by stockholders, and will respond if and as appropriate. Absent unusual circumstances or as contemplated by committee charters, and subject to advice from legal counsel, the Secretary of the Company is primarily responsible for monitoring communications from stockholders and for providing copies or summaries of such communications to the Board as he considers appropriate.

Communications from stockholders will be forwarded to all directors if they relate to important substantive matters or if they include suggestions or comments that the Secretary considers to be important for the Board to know. Communication relating to corporate governance and corporate strategy are more likely to be forwarded to the Board than communications regarding personal grievances, ordinary business matters, and matters as to which the Company tends to receive repetitive or duplicative communications.

Stockholders who wish to send communications to the Board should address such communications to: The Board of Directors, Matinas BioPharma Holdings, Inc., 1545 Route 206 South, Suite 302, Bedminster, NJ 07921, Attention: Secretary.

#### **Code of Business Conduct and Ethics**

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial and accounting officer, or persons performing similar functions. A copy of the code is posted on the corporate governance section of our website, which is located at [www.matinasbiopharma.com](http://www.matinasbiopharma.com). If we make any substantive amendments to, or grant waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website.

#### **Executive Officers**

The following table sets forth certain information regarding our current executive officers:

<b>Name</b>	<b>Age</b>	<b>Position(s)</b>	<b>Served as an Officer Since</b>
Jerome D. Jabbour	45	Chief Executive Officer and Director	2013
James J. Ferguson	66	Chief Medical Officer	2019
Keith A. Kucinski	49	Chief Financial Officer	2019
Raphael J. Mannino	72	Senior Vice President, Chief Technology Officer	2015
Theresa Matkovits	52	Chief Development Officer	2018

Our executive officers are elected by, and serve at the discretion of, our board of directors. The business experience for the past five years, and in some instances, for prior years, of each of our executive officers is as follows:

## **Management**

**Jerome D. Jabbour, JD** was appointed Chief Executive Officer in March 2018. He has served as our President since March 2016. Prior to that he served as our Executive Vice President, Chief Business Officer, General Counsel and Secretary since October 2013 and as one of our directors from April 2012 until November 2013. Mr. Jabbour is also a Co-founder of Matinas BioPharma. Prior to joining our management team, he was the Executive Vice President and General Counsel of MediMedia USA, or MediMedia, from 2012 to October 2013, a privately held diversified health care services company. Prior to MediMedia, he was the Senior Vice President, Head of Global Legal Affairs of Wockhardt Limited (2008-2012), a global pharmaceutical and biotechnology company, and Senior Counsel and Assistant Secretary at Reliant (2004-2008). Earlier in his career, he held positions as Commercial Counsel at Alpharma, Inc. (2003-2004) and as a Corporate Associate at Lowenstein Sandler LLP (1999-2003). Mr. Jabbour earned his J.D. from Seton Hall University School of Law in New Jersey and a B.A. in Psychology from Loyola University in Baltimore.

**James J. Ferguson, MD** was appointed Chief Medical Officer in February 2019. Prior to joining the Company he served as the Cardiovascular and Bone Therapeutic Area Head for U.S. Medical Affairs, at Amgen (NASDAQ: AMGN), multinational biopharmaceutical company. Prior to Amgen Dr. Ferguson held a number of senior positions at AstraZeneca, a multinational pharmaceutical and biopharmaceutical company, including Vice President of US Cardiovascular Medical and Scientific External Relations, Therapeutic Area Vice President of Cardiovascular Global Medical Affairs, U.S. Development Brand Leader for BRILINTA<sup>®</sup>, and Senior Director, Clinical Research. Before joining AstraZeneca he was Vice President of Surgical and Critical Care for The Medicines Company. In addition, Dr. Ferguson had more than 20 years of academic experience as the Associate Director of Clinical Cardiology Research at the Texas Heart Institute, Co-Director of the Cardiology Fellowship Training Program at St. Luke's Episcopal Hospital in Houston, where he was an Associate Professor of Medicine at Baylor College of Medicine, and a Clinical Assistant Professor at the University of Texas Health Science Center at Houston. Dr. Ferguson has served on the Editorial Board of numerous peer-reviewed journals and has over 400 publications and book chapters. Dr. Ferguson received his B.A. (cum Laude) in Biology from Harvard University, his M.D. from the University of Pennsylvania School of Medicine and completed his post-graduate training at the University of Michigan Medical Center, Ann Arbor, Michigan and Beth Israel Hospital, Boston, Massachusetts.

**Keith A. Kucinski** was appointed Chief Financial Officer in January 2019. He most recently served as Chief Financial Officer at RemedyOne, a privately held healthcare consulting organization. Prior to that, he served as Vice President & Treasurer at Par Pharmaceutical Companies, Inc., an operating company of Endo International plc, a leading generics and specialty-branded pharmaceutical company. In addition, Mr. Kucinski held various roles at Barr Pharmaceuticals, Inc., including Senior Director, Finance & Corporate Development and Assistant Treasurer & Senior Director, Finance. Mr. Kucinski is a Certified Public Accountant. He received his Bachelor of Business Administration in Accounting from the University of Notre Dame and an M.B.A. in Finance & Management from the Leonard N. Stern School of Business at New York University.

**Raphael J. Mannino** has served as our Senior Vice President and Chief Scientific Officer since September 2015. From 1990 until August 2015, Dr. Mannino was an Associate Professor of Pathology and Laboratory Medicine at Rutgers University, New Jersey Medical School. Dr. Mannino founded BioDelivery Sciences, Inc., and served as its President, Chief Executive Officer and Chief Scientific Officer and a member of its Board of Directors from 1995 to 2000, when it was acquired by BioDelivery Sciences International, Inc. (NASDAQ: BDSI). Dr. Mannino served as BDSI's Executive Vice President and Chief Scientific Officer from 2001 to 2009 and a member of its Board of Directors from 2000 to 2007. Dr. Mannino's previous experience includes positions as Assistant, then Associate Professor, Albany Medical College (1980 to 1990), and Instructor then Assistant Professor, Rutgers Medical School (1977 to 1980). His postdoctoral training was from 1973 to 1976 at the Biocenter in Basel, Switzerland. Dr. Mannino received his Ph.D. in Biological Chemistry in 1973 from the Johns Hopkins University, School of Medicine.

**Theresa Matkovits, PhD** has served as Chief Development officer since September 2018. She joined the Company after having most recently served as the Chief Operating Officer of ContraVir Pharmaceuticals (NASDAQ: CTRV) (now Hepion Pharmaceuticals), a clinical stage biopharmaceutical company. From 2013 to 2015, Dr. Matkovits served as Global Program Leader at NPS Pharmaceuticals, a specialty pharmaceutical company that was purchased by Shire in 2015. Prior to her time at NPS, Dr. Matkovits was Vice President, Innovation Leader at The Medicines Company. Earlier in her career, Dr. Matkovits held a number of global leadership positions at Novartis across Global Development and the U.S. Commercial Organization, including as Head, Strategic Planning and Operations, U.S. Medical and Drug Regulatory Affairs. Dr. Matkovits began her career at the Roche Institute of Molecular Biology and Organon where she held positions in clinical development in women's health and research in the area of infertility. Dr. Matkovits serves on the Board of Directors of BioSurplus and also serves as an Independent Director of Aradigm Corporation (NASDAQ: ARDM). Dr. Matkovits was recently appointed to serve on the Board of Appili Therapeutics. Dr. Matkovits was selected to participate in Women in Bio's Boardroom Ready Program in 2016. Dr. Matkovits earned her Ph.D. in Biochemistry and Molecular Biology from the University of Medicine and Dentistry of NJ.

---

## EXECUTIVE COMPENSATION

### Summary Compensation Table – 2018

The following table presents information regarding the total compensation awarded to, earned by, or paid to our chief executive officer and the two most highly-compensated executive officers (other than the chief executive officer) who were serving as executive officers as of December 31, 2018 for services rendered in all capacities to us for the years ended December 31, 2018 and December 31, 2017 up to two additional individuals for whom disclosure would have been provided but for the fact that the individual was not serving as an executive officer of the Company as of December 31, 2018. These individuals are our named executive officers for 2018.

Name and Principal Position (1)	Year	Salary (\$)	Bonus (\$)	Option Awards (\$)	All Other Compensation (\$)	Total (\$)
Jerome D. Jabbour	2018	366,458	84,000	804,269	-	1,254,727
<i>Chief Executive Officer</i>	2017	299,000	90,000	881,483	-	1,270,483
Raphael Mannino	2018	240,000	-	54,636	-	294,636
<i>Chief Scientific Officer</i>	2017	238,333	70,000	275,463	-	583,796
Roelof Rongen (2)	2018	183,333	-	-	216,667(3)	400,000
<i>Former Chief Executive Officer</i>	2017	383,333	160,000	1,322,224	-	1,865,557
Gary Gaglione (4)	2018	165,000	-	77,617	-	242,617
<i>Former Chief Financial Officer</i>	2017	218,333	50,000	275,463	-	543,796

- (1) Amounts reflect the grant date fair value of option awards granted in 2018 and 2017 in accordance with Accounting Standards Codification Topic 718. These amounts do not correspond to the actual value that will be recognized by the named executive officers.
- (2) Mr. Rongen resigned on March 16, 2018.
- (3) Amounts reflect severance payments made to Mr. Rongen in connection with his resignation.
- (4) Mr. Gaglione retired on September 30, 2018.

### Narrative Disclosure to Summary Compensation Table

#### *Employment Agreements with Our Named Executive Officers*

##### *Jabbour*

On March 22, 2018, we entered into an employment agreement with Mr. Jabbour. Under the terms of Mr. Jabbour's employment agreement, Mr. Jabbour received a signing bonus of \$84,000 and a base salary of \$350,000 per year. In addition, Mr. Jabbour is eligible to receive an annual bonus, which is targeted at 50% of his base salary but which may be adjusted by our Compensation Committee based on his individual performance and our performance as a whole. Mr. Jabbour is also eligible to receive option grants at the discretion of our Compensation Committee. Mr. Jabbour received an option grant to purchase 1,000,000 shares on March 22, 2018 and is also eligible to receive additional option grants and equity grants at the discretion of our Compensation Committee. If we terminate Mr. Jabbour's employment without cause or Mr. Jabbour resigns with good reason (absent a change of control), we are required to pay him severance of up to twelve months of his base salary plus COBRA benefits for twelve months. In addition, the vesting of 50% of his outstanding options will be accelerated in full upon such termination and Mr. Jabbour will be provided with an extension through two years after the separation date of the exercise period for his vested stock options. If we terminate Mr. Jabbour's employment without cause during the 24 month period immediately following a change of control or Mr. Jabbour resigns with good reason during the 24 month period immediately following a change of control, we are required to pay him severance of up to 24 months of his base salary and his target annual bonus plus 18 months of COBRA benefits. In addition, his outstanding options will be vested in full and Mr. Jabbour will be provided with an extension through two years after the separation date of the exercise period for his vested stock options. Mr. Jabbour is also subject to a customary non-disclosure agreement, pursuant to which Mr. Jabbour has agreed to be subject to a non-compete during the term of his employment and for a period of eighteen months following termination of his employment.

## ***Rongen***

On March 27, 2017, the Company entered into an employment agreement with Mr. Rongen, with the terms effective as of March 1, 2017. Under the terms of Mr. Rongen's employment agreement, he received a base salary of \$400,000 per year, subject to periodic adjustments as determined by our Board or Compensation Committee. In addition, Mr. Rongen was eligible to receive an annual bonus, targeted at 50% of his base salary based on his individual performance and our performance as a whole, as determined by our Board or Compensation Committee. If we terminated Mr. Rongen's employment without cause or Mr. Rongen resigned with good reason, subject to Mr. Rongen's execution and non-revocation of a release and compliance with any post-termination obligations owed to us, we were required to pay him severance of up to twelve months of his base salary, in effect on the date of termination, plus COBRA payments for twelve months. In addition, the vesting of his outstanding options, and any other outstanding equity held by him at the time of his termination, would be accelerated by six months upon such termination. If we terminated Mr. Rongen's employment without cause during the 24 month period immediately following a change of control or Mr. Rongen resigned with good reason during the 24 month period immediately following a change of control, subject to Mr. Rongen's execution and non-revocation of a release and compliance with any post-termination obligations owed to us, we were to pay him severance of up to eighteen months of his base salary, in effect on the date of termination, and his target annual bonus for the year in which the termination occurs plus COBRA payments for eighteen months. In addition, his outstanding options and any other outstanding equity held by him at the time of his termination, would vest in full upon such termination. Mr. Rongen is also subject to a customary non-disclosure agreement, pursuant to which Mr. Rongen has agreed to be subject to a non-compete and non-solicit covenant during for a period of eighteen months following termination of his employment.

We entered into a separation agreement dated March 15, 2018 with Mr. Rongen pursuant to which, among other things, Mr. Rongen received 15 months in base salary as severance, paid in accordance with the Company's standard payroll practices over 15 months, Mr. Rongen agreed to provide transition services to assist in the transition process and Mr. Rongen will be provided with an extension through two years after the separation date of the exercise period for his vested stock options. The separation agreement further provides for certain restrictions on sales of shares of our common stock held by Mr. Rongen.

## ***Employment Agreement with Our Chief Financial Officer***

On December 31, 2018, we entered into an employment agreement with Mr. Kucinski which was effective as of January 2, 2019. Under the terms of Mr. Kucinski's employment agreement, Mr. Kucinski receives a base salary of \$250,000 per year. In addition, Mr. Kucinski is eligible to receive an annual bonus, which is targeted at 30% of his base salary but which may be adjusted by our Compensation Committee based on his individual performance and our performance as a whole. Mr. Kucinski is also eligible to receive option grants at the discretion of our Compensation Committee. If we terminate Mr. Kucinski's employment without cause or Mr. Kucinski resigns with good reason, we are required to pay him severance of up to twelve months of his base salary plus benefits. In addition, the vesting of his outstanding options will be accelerated by six months upon such termination. Mr. Kucinski is also subject to a customary non-disclosure agreement, pursuant to which Mr. Kucinski has agreed to be subject to a non-compete during the term of his employment and for a period of eighteen months following termination of his employment.

---

## Outstanding Equity Awards at Fiscal Year-End Table – 2018

The following table summarizes, for each of the named executive officers, the number of shares of common stock underlying outstanding stock options held as of December 31, 2018.

Name	Option Awards			
	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price (\$)	Option expiration date
Jerome D. Jabbour	-	1,000,000	\$ 0.98	Mar 21, 2028
	255,556	144,444	\$ 3.32	Feb 20, 2027
	340,278	9,722	\$ 0.43	Feb 4, 2026
	175,000	-	\$ 0.41	Jan 27, 2025
	350,000	-	\$ 1.28	July 20, 2024
	350,000	-	\$ 0.94	Oct 3, 2023
Raphael Mannino	-	150,000	\$ 0.44	Apr 29, 2028
	79,861	45,139	\$ 3.32	Feb 20, 2027
	58,334	1,666	\$ 0.43	Feb 4, 2026
	338,888	-	\$ 0.95	Sep 1, 2025
	11,112	-	\$ 0.48	Feb 27, 2025
Roelof Rongen (1)	333,333	-	\$ 3.32	Mar 15, 2021
	333,333	-	\$ 0.43	Mar 15, 2021
	300,000	-	\$ 0.41	Mar 15, 2021
	350,000	-	\$ 1.28	Mar 15, 2021
	350,000	-	\$ 0.94	Mar 15, 2021
Gary Gaglione (2)	69,445	-	\$ 3.32	Sep 30, 2020
	35,556	-	\$ 0.43	Sep 30, 2020
	40,000	-	\$ 0.41	Sep 30, 2020
	200,000	-	\$ 0.94	Sep 30, 2020

(1) Mr. Rongen resigned on March 16, 2018.

(2) Mr. Gaglione retired on September 30, 2018.

## 2013 Equity Compensation Plan

### General

On August 2, 2013, our Board of Directors adopted the 2013 Equity Compensation Plan pursuant to the terms described herein. The 2013 Equity Compensation Plan was approved by the stockholders on August 7, 2013. Effective May 8, 2014, upon the approval of our Board of Directors and our stockholders, we amended and restated our 2013 Equity Compensation Plan, primarily to include “evergreen” provisions, which state provide that number of shares of common stock available for issuance under the Plan is subject to an automatic annual increase on January 1 of each year beginning in 2015 equal to 4% of the number of shares of common stock outstanding on December 31 of the preceding calendar year or a lesser number of shares of common stock determined by the Board of Directors; to amend the definition of “fair market value”; and to increase the limits on awards under the Plan. The 2013 Equity Compensation Plan, as amended and restated, is referred to herein as the “2013 Plan.”

The general purpose of the 2013 Plan is to provide an incentive to our employees, directors, consultants and advisors by enabling them to share in the future growth of our business. Our Board of Directors believes that the granting of stock options, restricted stock awards, unrestricted stock awards and similar kinds of equity-based compensation promotes continuity of management and increases incentive and personal interest in the welfare of our Company by those who are primarily responsible for shaping and carrying out our long range plans and securing our growth and financial success.

Our Board of Directors believes that the 2013 Plan will advance our interests by enhancing our ability to (a) attract and retain employees, consultants, directors and advisors who are in a position to make significant contributions to our success; (b) reward our employees, consultants, directors and advisors for these contributions; and (c) encourage employees, consultants, directors and advisors to take into account our long-term interests through ownership of our shares.

### **Description of the 2013 Equity Compensation Plan**

The following description of the principal terms of the 2013 Plan is a summary and is qualified in its entirety by the full text of the 2013 Plan, which is attached as Exhibit 10.6 to our Annual Report on Form 10-K for the year ended December 31, 2018.

**Administration.** The 2013 Plan will be administered by the Compensation Committee of our Board of Directors, provided that the entire Board of Directors may act in lieu of the Compensation Committee on any matter, subject to certain requirements set forth in the 2013 Plan. The Compensation Committee may grant options to purchase shares of our common stock, stock appreciation rights, stock units, restricted shares of our common stock, performance shares, performance units, incentive bonus awards, other cash-based awards and other stock-based awards. The Compensation Committee also has broad authority to determine the terms and conditions of each option or other kind of award, and adopt, amend and rescind rules and regulations for the administration of the 2013 Plan. Subject to applicable law, the Compensation Committee may authorize one or more reporting persons (as defined in the 2013 Plan) or other officers to make awards (other than awards to reporting persons, or other officers whom the Compensation Committee has specifically authorized to make awards). No awards may be granted under the 2013 Plan on or after the ten year anniversary of the adoption of the 2013 Plan by our Board of Directors, but awards granted prior to such tenth anniversary may extend beyond that date.

**Eligibility.** Awards may be granted under the 2013 Plan to any person who is an employee, officer, director, consultant, advisor or other individual service provider of the Company or any subsidiary, or any person who is determined by the Compensation Committee to be a prospective employee, officer, director, consultant, advisor or other individual service provider of the Company or any subsidiary.

**Shares Subject to the 2013 Plan.** As of September 9, 2019, the aggregate number of shares of common stock available for issuance in connection with awards granted under the 2013 Plan is 3,315,637 shares, subject to customary adjustments for stock splits, stock dividends or similar transactions (the “Initial Limit”). Incentive Stock Options may be granted under the 2013 Plan with respect to all of those shares. The number of shares of common stock available for issuance under the 2013 Plan will automatically increase on January 1st of each year for a period of ten years, commencing on January 1, 2015, in an amount equal to four percent (4%) of the total number of shares of common stock outstanding on December 31st of the preceding calendar year (the “Annual Increase”). Notwithstanding the foregoing, the Board of Directors may act prior to the first day of any calendar year, to provide that there shall be no increase in the share reserve for such calendar year or that the Annual Increase in the share reserve for such calendar year shall be a lesser number of shares of common stock than would otherwise occur pursuant to the preceding sentence. The number of shares of common stock which may be issued in respect of Incentive Stock Options is equal to the Current Limit, and will be increased on each January 1, by the Annual Increase for such calendar year.

To the extent that any award under the 2013 Plan payable in shares of common stock is forfeited, cancelled, returned to the Company for failure to satisfy vesting requirements or upon the occurrence of other forfeiture events, or otherwise terminates without payment being made thereunder, the shares of common stock covered thereby will be available for future grants under the 2013 Plan. Shares of common stock that otherwise would have been issued upon the exercise of a stock option or in payment with respect to any other form of award, that are surrendered in payment or partial payment of taxes required to be withheld with respect to the exercise of such stock option or the making of such payment, will also be available for future grants under the 2013 Plan.

**Terms and Conditions of Options.** Options granted under the 2013 Plan may be either “incentive stock options” that are intended to meet the requirements of Section 422 of the Internal Revenue Code of 1986, as amended (the “Code”) or “nonqualified stock options” that do not meet the requirements of Section 422 of the Code. The Compensation Committee will determine the exercise price of options granted under the 2013 Plan. The exercise price of stock options may not be less than the fair market value, on the date of grant, per share of our common stock issuable upon exercise of the option (or 110% of fair market value in the case of incentive options granted to a ten-percent stockholder).

---



If on the date of grant the common stock is listed on a stock exchange or national market system, the fair market value shall generally be the closing sale price as of such date, or if there were no trades recorded on such date, then the most recent date preceding such date on which trades were recorded. If on the date of grant the common stock is traded in an over-the-counter market, the fair market will generally be the average of the closing bid and asked prices for the shares of common stock as of such date, or, if there are no closing bid and asked prices for the shares of common stock on such date, then the average of the bid and asked prices for the shares of common stock on the most recent date preceding such date on which such closing bid and asked prices are available. If the common stock is not listed on a national securities exchange or national market system or traded in an over-the-counter market, the fair market value shall be determined by the Compensation Committee in a manner consistent with Section 409A of the Internal Revenue Code of 1986, as amended. Notwithstanding the foregoing, if on the date of grant the common stock is listed on a stock exchange or is quoted on a national market system, or is traded in an over-the-counter market, then solely for purposes of determining the exercise price of any grant of a stock option or the base price of any grant of a stock appreciation right, the Compensation Committee may, in its discretion, base fair market value on the last sale before or the first sale after the grant, the closing price on the trading day before or the trading day of the grant, the arithmetic mean of the high and low prices on the trading day before or the trading day of the grant, or any other reasonable method using actual transactions of the common stock as reported by the exchange or market on which the common stock is traded. In addition, the determination of fair market value also may be made using any other method permitted under Treasury Regulation section 1.409A-1(b)(5)(iv).

No option may be exercisable for more than ten years from the date of grant (five years in the case of an incentive stock option granted to a ten-percent stockholder). Options granted under the 2013 Plan will be exercisable at such time or times as the Compensation Committee prescribes at the time of grant. No employee may receive incentive stock options that first become exercisable in any calendar year in an amount exceeding \$100,000. The Compensation Committee may, in its discretion, permit a holder of a nonqualified stock option to exercise the option before it has otherwise become exercisable, in which case the shares of our common stock issued to the recipient will continue to be subject to the vesting requirements that applied to the option before exercise.

Generally, the option price may be paid in cash or by bank check, or such other means as the Compensation Committee may accept. As set forth in an award agreement or otherwise determined by the Compensation Committee, in its sole discretion, at or after grant, payment in full or part of the exercise price of an option may be made (a) in the form of shares of common stock that have been held by the participant for such period as the Compensation Committee may deem appropriate for accounting purposes or otherwise, valued at the fair market value of such shares on the date of exercise; (ii) by surrendering to the Company shares of common stock otherwise receivable on exercise of the option; (iii) by a cashless exercise program implemented by the Compensation Committee in connection with the 2013 Plan; and/or (iv) by such other method as may be approved by the Compensation Committee and set forth in an award agreement.

No option may be transferred other than by will or by the laws of descent and distribution, and during a recipient's lifetime an option may be exercised only by the recipient or the recipient's guardian or legal representative. However, the Compensation Committee may permit the transfer of a nonqualified stock option, share-settled stock appreciation right, restricted stock award, performance share or share-settled other stock-based award either (a) by instrument to the participant's immediate family (as defined in the 2013 Plan), (b) by instrument to an inter vivos or testamentary trust (or other entity) in which the award is to be passed to the participant's designated beneficiaries, or (c) by gift to charitable institutions. The Compensation Committee will determine the extent to which a holder of a stock option may exercise the option following termination of service.

**Stock Appreciation Rights.** The Compensation Committee may grant stock appreciation rights independent of or in connection with an option. The Compensation Committee will determine the terms applicable to stock appreciation rights. The base price of a stock appreciation right will be determined by the Compensation Committee, but will not be less than 100% of the fair market value of a share of our common stock with respect to the date of grant of such stock appreciation right. The maximum term of any SAR granted under the 2013 Plan is ten years from the date of grant. Generally, each SAR stock appreciation right will entitle a participant upon exercise to an amount equal to:

- the excess of the fair market value of a share of common stock on the date of exercise of the stock appreciation right over the base price of such stock appreciation right, multiplied by
  - the number of shares as to which such stock appreciation right is exercised.
-

Payment may be made in shares of our common stock, in cash, or partly in common stock and partly in cash, all as determined by the Compensation Committee.

**Restricted Stock and Stock Units.** The Compensation Committee may award restricted common stock and/or stock units under the 2013 Plan. Restricted stock awards consist of shares of stock that are transferred to a participant subject to restrictions that may result in forfeiture if specified conditions are not satisfied. Stock units confer the right to receive shares of our common stock, cash, or a combination of shares and cash, at a future date upon or following the attainment of certain conditions specified by the Compensation Committee. The Compensation Committee will determine the restrictions and conditions applicable to each award of restricted stock or stock units, which may include performance-based conditions. Dividends with respect to restricted stock may be paid to the holder of the shares as and when dividends are paid to stockholders or at the times of vesting or other payment of the restricted stock award. Stock unit awards may be granted with dividend equivalent rights, which may be accumulated and may be deemed reinvested in additional stock units, as determined by the Compensation Committee in its discretion. If any dividend equivalents are paid while a stock unit award is subject to restrictions, the dividend equivalents shall be subject to the same restrictions on transferability as the underlying stock units, unless otherwise set forth in an award agreement. Unless the Compensation Committee determines otherwise, holders of restricted stock will have the right to vote the shares.

**Performance Shares and Performance Units.** The Compensation Committee may award performance shares and/or performance units under the 2013 Plan. Performance shares and performance units are awards which are earned during a specified performance period subject to the attainment of performance criteria, as established by the Compensation Committee. The Compensation Committee will determine the restrictions and conditions applicable to each award of performance shares and performance units.

**Incentive Bonus Awards.** The Compensation Committee may award Incentive Bonus Awards under the 2013 Plan. Incentive Bonus Awards may be based upon the attainment of specified levels of Company or subsidiary performance as measured by pre-established, objective performance criteria determined at the discretion of the Compensation Committee. Incentive Bonus Awards will be paid in cash or common stock, as set forth in an award agreement

**Other Stock-Based and Cash-Based Awards.** The Compensation Committee may award other types of equity-based or cash-based awards under the 2013 Plan, including the grant or offer for sale of unrestricted shares of our common stock and payment in cash or otherwise of amounts based on the value of shares of common stock.

**Effect of Certain Corporate Transactions.** The Compensation Committee may, at the time of the grant of an award, provide for the effect of a change in control (as defined in the 2013 Plan) on any award, including (i) accelerating or extending the time periods for exercising, vesting in, or realizing gain from any award, (ii) eliminating or modifying the performance or other conditions of an award, (iii) providing for the cash settlement of an award for an equivalent cash value, as determined by the Compensation Committee, or (iv) such other modification or adjustment to an award as the Compensation Committee deems appropriate to maintain and protect the rights and interests of participants upon or following a change in control. The Compensation Committee may, in its discretion and without the need for the consent of any recipient of an award, also take one or more of the following actions contingent upon the occurrence of a change in control: (a) cause any or all outstanding options and stock appreciation rights to become immediately exercisable, in whole or in part; (b) cause any other awards to become non-forfeitable, in whole or in part; (c) cancel any option or stock appreciation right in exchange for a substitute option; (d) cancel any award of restricted stock, stock units, performance shares or performance units in exchange for a similar award of the capital stock of any successor corporation; (e) redeem any restricted stock, stock unit, performance share or performance unit for cash and/or other substitute consideration with a value equal to the fair market value of an unrestricted share of our common stock on the date of the change in control; (f) cancel any option or stock appreciation right in exchange for cash and/or other substitute consideration based on the value of our common stock on the date of the change in control, and cancel any option or stock appreciation right without any payment if its exercise price exceeds the value of our common stock on the date of the change in control; (g) cancel any stock unit or performance unit held by a participant affected by the change in control in exchange for cash and/or other substitute consideration with a value equal to the fair market value per share of common stock on the date of the change in control, or (h) make such other modifications, adjustments or amendments to outstanding awards as the Compensation Committee deems necessary or appropriate.

---

**Amendment, Termination.** The Compensation Committee may amend the terms of awards in any manner not inconsistent with the 2013 Plan, provided that no amendment shall adversely affect the rights of a participant with respect to an outstanding award without the participant's consent. In addition, our board of directors may at any time amend, suspend, or terminate the 2013 Plan, provided that (i) no such amendment, suspension or termination shall materially and adversely affect the rights of any participant under any outstanding award without the consent of such participant and (ii) to the extent necessary and desirable to comply with any applicable law, regulation, or stock exchange rule, the 2013 Plan requires us to obtain stockholder consent. Stockholder approval is required for any plan amendment that increases the number of shares of common stock available for issuance under the 2013 Plan or changes the persons or classes of persons eligible to receive awards.

#### **Tax Withholding**

The Company has the power and right to deduct or withhold, or require a participant to remit to the Company, the minimum statutory amount to satisfy federal, state, and local taxes, domestic or foreign, required by law or regulations to be withheld.

#### **Director Compensation**

In October 2013, we adopted a compensation policy pursuant to which our non-employee directors receive annualized compensation of \$20,000 per year, with an additional \$10,000 per year for the Chairman of the Board and the Chair of the Audit Committee, as well as an additional \$5,000 per year for the Chairs of the Compensation and Nomination & Governance Committees. In addition, our independent board members will receive an option grant of 150,000 options, with the exception of the Chairman of the Board, who will be granted 200,000 options. In August 2014, we revised our compensation policy to provide that directors will receive restricted stock in lieu of cash fees.

In January 2018, we adopted an amended compensation policy for our non-employee directors. The amended policy provides for the following compensation amounts payable in cash, or upon election by such non-employee director, in shares of unrestricted common stock: (i) each non-employee director, other than the chairman of the board is entitled to receive an annual fee of \$50,000, (ii) the chairman of the board is entitled to receive an additional annual fee of \$25,000, (iii) the chair of our audit committee is entitled to receive an annual fee from us of \$15,000 and other members of our audit committee are entitled to receive \$7,500; (iv) the chair of our compensation committee is entitled to receive an annual fee from us of \$10,000 and other members of our compensation committee are entitled to receive \$6,000; and (v) the chair of our nominating and corporate governance committee is entitled to receive an annual fee from us of \$7,500 and other members are entitled to receive \$4,000. In addition, In September 2018, our Board approved an additional annual fee of \$20,000 for our vice chair.

As of the date of each annual meeting of the shareholders, each non-employee director will receive an option grant to purchase of our common stock valued at \$80,000 as determined by the Black Scholes method on the date of grant under our existing equity incentive plan, or any other equity incentive plan we may adopt in the future, which shall vest in twelve equal monthly installments.

All fees under the director compensation policy are paid on a quarterly basis in arrears and no per meeting fees are paid. All fees may be paid in unrestricted shares of common stock at the election of the director. We also reimburse non-employee directors for reasonable expenses incurred in connection with attending board of director and committee meetings.

---

## Director Compensation Table – 2018

The following table summarizes the annual compensation for our non-employee directors during 2018.

Name	Cash Compensation (\$)	Stock Awards (\$ (1))	Option Awards (\$ (1))	Total (\$)
Herbert Conrad	-	96,001	160,001	256,002
Eric Ende	35,750	35,751	160,001	235,002
Patrick G. LePore(2)	25,000	-	134,451	159,451
James S. Scibetta	-	75,002	160,001	235,003
Adam Stern	50,000	-	160,001	210,001
Matthew Wikler	-	61,627	350,129	411,756

- (1) Amounts reflect the grant date fair value of stock awards and option awards granted in 2018 in accordance with Accounting Standards Codification Topic 718. These amounts do not correspond to the actual value that will be recognized by the directors.
- (2) Mr. LePore was appointed as a member of the board of directors on September 5, 2018.

### Compensation Committee Interlocks and Insider Participation

The Compensation Committee of the Board of Directors is currently composed of the following five non-employee directors: Eric Ende, Chair, Herbert J. Conrad, Patrick G. LePore, James Scibetta and Matthew Wikler. During the last fiscal year, the Compensation Committee was composed of the following four non-employee directors: Chair, Herbert J. Conrad, Eric Ende, James Scibetta and Matt Wikler. No member of the Compensation Committee is or was formerly an officer or an employee of the Company during the last fiscal year. In addition, no executive officer of the Company serves on the compensation committee or board of directors of a company for which any of the Company's directors serve as an executive officer. Messrs. Conrad, Ende, Scibetta and Wikler participated in a preferred stock offering by the Company during fiscal 2018. See "Certain Relationships and Related Party Transactions – Series B Preferred Stock Offering" for additional information.

### REPORT OF THE AUDIT COMMITTEE\*

The undersigned members of the Audit Committee of the Board of Directors of Matinas BioPharma Holdings, Inc. (the "Company") submit this report in connection with the committee's review of the financial reports for the fiscal year ended December 31, 2018 as follows:

1. The Audit Committee has reviewed and discussed with management the audited financial statements for the Company for the fiscal year ended December 31, 2018.
2. The Audit Committee has discussed with representatives of EisnerAmper LLP, the independent public accounting firm, the matters which are required to be discussed with them under the provisions of Auditing Standard No. 1301, *Communications with Audit Committees*.
3. The Audit Committee has discussed with EisnerAmper LLP, the independent public accounting firm, the auditors' independence from management and the Company has received the written disclosures and the letter from the independent auditors required by applicable requirements of the Public Company Accounting Oversight Board.

In addition, the Audit Committee considered whether the provision of non-audit services by EisnerAmper LLP is compatible with maintaining its independence. In reliance on the reviews and discussions referred to above, the Audit Committee recommended to the Board of Directors (and the Board of Directors has approved) that the audited financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018 for filing with the Securities and Exchange Commission.

Audit Committee,

*James Scibetta, Chairman*

*Herbert Conrad*

*Eric Ende*

\* The foregoing report of the Audit Committee is not to be deemed "soliciting material" or deemed to be "filed" with the Securities and Exchange Commission (irrespective of any general incorporation language in any document filed with the Securities and Exchange Commission) or subject to Regulation 14A of the Securities Exchange Act of 1934, as amended, or to the liabilities of Section 18 of the Securities Exchange Act of 1934, except to the extent we specifically incorporate it by reference into a document filed with the Securities and Exchange Commission.

#### Security Ownership of Certain Beneficial Owners and Management

The following table sets forth the number of shares of common stock beneficially owned as of September 9, 2019 by:

- each of our stockholders who is known by us to beneficially own 5% or more of our common stock;
- each of our named executive officers;
- each of our directors; and
- all of our directors and current executive officers as a group.

Beneficial ownership is determined based on the rules and regulations of the SEC. A person has beneficial ownership of shares if such individual has the power to vote and/or dispose of shares. This power may be sole or shared and direct or indirect. Applicable percentage ownership in the following table is based on 162,426,763 shares outstanding as of September 9, 2019. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock that are subject to options or warrants held by that person and exercisable as of, or within 60 days of, September 9, 2019 are counted as outstanding. These shares, however, are not counted as outstanding for the purposes of computing the percentage ownership of any other person(s). Except as may be indicated in the footnotes to this table and pursuant to applicable community property laws, each person named in the table has sole voting and dispositive power with respect to the shares of common stock set forth opposite that person's name. Unless indicated below, the address of each individual listed below is c/o Matinas BioPharma Holdings, Inc., 1545 Route 206 South, Suite 302, Bedminster, NJ 07921.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
<i>5% Stockholders</i>		
Boxer Capital, LLC (1)	10,188,312	6.3%
Jennifer Lorenzo (2)	9,217,771	5.4%
<i>Directors and Executive Officers</i>		
Jerome D. Jabbour (3)	2,424,325	1.5%
Herbert Conrad (4)	5,471,274	3.3%
Eric Ende (5)	682,806	*%
Patrick LePore (6)	390,730	*%
James Scibetta (7)	1,316,784	*%
Adam Stern (8)	9,911,256	6.0%
Matthew Wikler (9)	527,370	*%
Raphael Mannino (10)	2,025,400	1.2%
Theresa Matkovits (11)	87,500	*%
Directors and Executive Officers as a group (9 persons) (12)	22,837,445	13.3%

\* Less than 1%

- (1) Based on information contained in a Schedule 13F filed on June 30, 2019.
  - (2) Based on information contained in a Schedule 13G filed on February 14, 2019. Includes 6,041,771 shares of common stock underlying shares of Series A Preferred Stock and 1,442,000 share of common stock underlying Series B Preferred Stock held by GJG Life Sciences, LLC. GJG Capital, LLC is the Managing Member of GJG Life Sciences, LLC, a limited liability company. Ms. Lorenzo is the Managing Member of GJG Capital, LLC and, as a result, Ms. Lorenzo and GJG Capital, LLC may be deemed to be indirect beneficial owners. The address for reporting persons is c/o GJG Capital, LLC. 107 Circle Road, Staten Island, NY 10304.
  - (3) Includes (i) 15 convertible preferred shares if converted to 30,000 common shares, and (ii) 1,987,501 shares of common stock issuable upon exercise of options that are exercisable within sixty days of September 9, 2019. Does not include 1,387,499 shares of common stock underlying options that are not exercisable within sixty days of September 9, 2019.
  - (4) Includes (i) 100 convertible preferred shares if converted to 200,000 common shares, and (ii) 915,347 shares of common stock issuable upon exercise of options that are exercisable within sixty days of September 9, 2019. Does not include 4,444 shares of common stock underlying options that are not exercisable within sixty days of September 9, 2019.
  - (5) Includes (i) 12 convertible preferred shares if converted to 24,000 common shares, and (ii) 549,514 shares of common stock issuable upon exercise of options that are exercisable within sixty days of September 9, 2019. Does not include 106,944 shares of common stock underlying options that are not exercisable within sixty days of September 9, 2019.
  - (6) Includes 190,730 shares of common stock issuable upon exercise of options that are exercisable within sixty days of September 9, 2019. Does not include 87,499 shares of common stock underlying options that are not exercisable within sixty days of September 9, 2019.
  - (7) Includes (i) 12 convertible preferred shares if converted to 24,000 common shares, and (ii) 715,625 shares of common stock issuable upon exercise of options that are exercisable within sixty days of September 9, 2019. Does not include 3,333 shares of common stock underlying options that are not exercisable within sixty days of September 9, 2019.
  - (8) Includes (i) 1,783,756 shares of common stock issuable upon exercise of outstanding warrants that are exercisable within sixty days of September 9, 2019, (ii) 715,625 shares of common stock issuable upon exercise of options that are exercisable within sixty days of September 9, 2019, (iii) 300,000 shares of common stock that are owned by Pavilion Capital Partners, LLC, which is wholly-owned by Mr. Stern, (iv) 300,000 shares of common stock that are owned by Piper Ventures Partners, LLC, which is wholly-owned by Mr. Stern, (v) 600,000 shares of common stock that are owned by SternAegis Ventures LLC, which is wholly-owned by Mr. Stern, (vi) 1,750,000 shares held by AKS Family Foundation and (vii) 3,239,483 shares of common stock held by AKS Family Partners (vii) 85 convertible preferred shares if converted to 170,000 common shares. Does not include 3,333 shares of common stock underlying options that are not exercisable within sixty days of September 9, 2019.
-

- (9) Includes (i) 6 convertible preferred shares if converted to 12,000 common shares, and (ii) 385,625 shares of common stock issuable upon exercise of options that are exercisable within sixty days of September 9, 2019. Does not include 120,833 shares of common stock underlying options that are not exercisable within sixty days of September 9, 2019.
- (10) Includes (i) 10 convertible preferred shares if converted to 20,000 common shares, and (ii) 580,835 shares of common stock issuable upon exercise of options that are exercisable within sixty days of September 9, 2019. Does not include 254,165 shares of common stock underlying options that are not exercisable within sixty days of September 9, 2019.
- (11) Includes 87,500 shares of common stock issuable upon exercise of options that are exercisable within sixty days of September 9, 2019. Does not include 612,500 shares of common stock underlying options that are not exercisable within sixty days of September 9, 2019.
- (12) See notes (3) through (11).

#### Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information with respect to our compensation plans under which equity compensation was authorized as of December 31, 2018.

	Number of Shares of Common Stock to be Issued upon Exercise of Outstanding Options (a)	Weighted-Average Exercise Price of Outstanding Options (b)	Number of Options Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a)) (c)(2)
Equity compensation plans approved by stockholders(1)	13,456,796	\$ 1.13	2,374,863
Equity compensation plans not approved by stockholders	—	—	—
<b>Total</b>	<b>13,456,796</b>	<b>\$ 1.13</b>	<b>2,374,863</b>

- (1) The amounts shown in this row include securities under the Matinas BioPharma Holdings, Inc. Amended and Restated 2013 Equity Incentive Plan (the “2013 Plan”).
- (2) In accordance with the “evergreen” provision in our 2013 Plan, an additional 4,531,507 shares were automatically made available for issuance on the first trading day of 2018, which represents 4% of the number of shares outstanding on December 31, 2018; these shares are excluded from this calculation.

#### Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our directors and executive officers, and persons who are beneficial owners of more than 10% of a registered class of our equity securities, to file reports of ownership and changes in ownership with the Securities and Exchange Commission (the “SEC”). These persons are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. To our knowledge, based solely on a review of the copies of such reports furnished to us and written representations that no other reports were required during the fiscal year ended December 31, 2018, all reports required to be filed under Section 16(a) were filed on a timely basis except that, due to administrative errors, each of Messrs. Conrad, Ende, Sciabetta and Wikler failed to timely file a Form 4 with respect to a grant of shares of common stock pursuant to the Company’s 2013 Equity Compensation Plan, during the most recent fiscal year. These errors were corrected in later filings.

## Certain Relationships and Related Party Transactions

Other than compensation arrangements for our named executive officers and directors, we describe below each transaction or series of similar transactions, since January 1, 2018, to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed \$120,000; and
- any of our directors, executive officers or holders of more than 5% of our capital stock, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest.

### Series B Preferred Stock Offering

In the second quarter of 2018, we completed a public offering, pursuant to which we sold 8,000 shares of our Series B Convertible Preferred Stock at a purchase price of \$1,000 per share for gross proceeds to us of \$8.0 million. Such shares of Series B Preferred Stock are convertible into an aggregate of up to 16,000,000 shares of our common stock at an initial conversion price of \$0.50 per share of common stock and, subject to certain holding requirements, may receive up to an additional 7,200,000 shares of common stock as dividend payments.

Certain of our officers, directors and holders of more than 5% of our capital stock purchased shares of Series B Preferred Stock in the offering as set forth below.

Name	Number of Series B Preferred Shares Purchased	Aggregate Purchase Price Paid
GJG Life Sciences, LLC	721	\$ 721,000
Jerome D. Jabbour	15	\$ 15,000
Herbert Conrad	100	\$ 100,000
Eric Ende	12	\$ 12,000
James Scibetta	12	\$ 12,000
Adam Stern and affiliated entities	85	\$ 85,000
Matthew Wikler	6	\$ 6,000
Raphael Mannino	10	\$ 10,000

In connection with the Series B Preferred Stock offering, we entered into a Placement Agency Agreement with ThinkEquity, a Division of Fordham Financial Management, Inc., as placement agent and Aegis Capital Corp. acted as a selected dealer. As of the date of the Placement Agency Agreement, an affiliate of ThinkEquity beneficially owned 10,000 shares of Series A Preferred Stock, 314 warrants to purchase shares of our common stock and 839,538 shares of common stock, constituting aggregate beneficial ownership of approximately 0.90% of our outstanding common stock. As of the date of the Placement Agency Agreement, affiliates of Aegis Capital Corp., which acted as a selected dealer in the offering, owned an aggregate of approximately 7.5% of our outstanding common stock and on a beneficial ownership basis, inclusive of their Series A Preferred Stock, warrants and options, approximately 11.5% of our common stock. Adam K. Stern, one of our directors, is an affiliate of Aegis Capital Corp.

Pursuant to the Placement Agency Agreement, the placement agent and selected dealer received the following compensation: (i) a total cash fee equal to 7.0% of the public offering price for the Series B Preferred Stock, (ii) a non-accountable expense allowance equal to 1.0% of the gross proceeds raised in the offering, and (iii) reimbursements for legal fees and expense in the amount of up to \$75,000. In addition, we issue to the placement agent and the selected dealer warrants to purchase an aggregate of 240,000 shares of our common stock, which will be exercisable at any time and from time to time, in whole or in part, during the four-year period commencing June 19, 2019, at a price per share equal to \$0.75. The placement agent warrants provide for registration rights (including a one-time demand registration right and unlimited piggyback rights), a cashless exercise option, customary anti-dilution provisions (for stock dividends and splits and recapitalizations) consistent with FINRA Rule 5110, and further, the number of shares underlying the placement agent warrants shall be reduced if necessary to comply with FINRA rules or regulations.



## Indemnification Agreements

We entered into indemnification agreements with our directors and executive officers. The indemnification agreements provide for indemnification against expenses, judgments, fines and penalties actually and reasonably incurred by an indemnitee in connection with threatened, pending or completed actions, suits or other proceedings, subject to certain limitations. The indemnification agreements also provide for the advancement of expenses in connection with a proceeding prior to a final, nonappealable judgment or other adjudication, provided that the indemnitee provides an undertaking to repay to us any amounts advanced if the indemnitee is ultimately found not to be entitled to indemnification by us. The indemnification agreement set forth procedures for making and responding to a request for indemnification or advancement of expenses, as well as dispute resolution procedures that apply to any dispute between us and an indemnitee arising under the Indemnification Agreements.

## Policies and Procedures for Related Party Transactions

We have adopted a policy that our executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of any class of our common stock, any members of the immediate family of any of the foregoing persons and any firms, corporations or other entities in which any of the foregoing persons is employed or is a partner or principal or in a similar position or in which such person has a 5% or greater beneficial ownership interest, which we refer to collectively as related parties, are not permitted to enter into a transaction with us without the prior consent of our board of directors acting through the audit committee or, in certain circumstances, the chairman of the audit committee. Any request for us to enter into a transaction with a related party, in which the amount involved exceeds \$100,000 and such related party would have a direct or indirect interest must first be presented to our audit committee, or in certain circumstances the chairman of our audit committee, for review, consideration and approval. In approving or rejecting any such proposal, our audit committee, or the chairman of our audit committee, is to consider the material facts of the transaction, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances, the extent of the benefits to us, the availability of other sources of comparable products or services and the extent of the related party's interest in the transaction.

### **PROPOSAL 2: RATIFY THE APPOINTMENT OF EISNERAMPER LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE YEAR ENDING DECEMBER 31, 2019**

The Audit Committee has reappointed EisnerAmper LLP as our independent registered public accounting firm to audit the financial statements of the Company for the fiscal year ending December 31, 2019, and has further directed that management submit their selection of independent registered public accounting firm for ratification by our stockholders at the Annual Meeting. Neither the accounting firm nor any of its members has any direct or indirect financial interest in or any connection with us in any capacity other than as public registered accounting firm.

## Principal Accountant Fees and Services

The following table represents aggregate fees billed to the Company for the fiscal years ended December 31, 2018 and December 31, 2017, by EisnerAmper LLP, the Company's independent registered public accounting firm.

	Year Ended December 31,	
	2018	2017
	(in thousands)	
Audit Fees	\$ 245	\$ 182
Tax Fees	—	—
Total Fees	<u>\$ 245</u>	<u>\$ 182</u>

*Audit Fees* consist of fees for professional services and expenses relating to the audit of our annual financial statements and the review of our quarterly financial information.

*Tax Fees* are for tax-related services related primarily to tax consulting and tax planning.

The Audit Committee pre-approves all auditing services and any non-audit services that the independent registered public accounting firm is permitted to render under Section 10A (h) of the Exchange Act. The Audit Committee may delegate the pre-approval to one of its members, provided that if such delegation is made, the full Audit Committee must be presented at its next regularly scheduled meeting with any pre-approval decision made by that member.

The Audit Committee has considered whether the provision of Tax Fees as described above is compatible with maintaining EisnerAmper, LLP's independence and has determined that such services for fiscal year 2018 were compatible. All such services were approved by the Audit Committee pursuant to Rule 2-01 of Regulation S-X under the Exchange Act to the extent that rule was applicable.

The Audit Committee is responsible for reviewing and discussing the audited financial statements with management, discussing with the independent registered public accountants the matters required in Auditing Standard No. 1301, receiving written disclosures from the independent registered public accountants required by the applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accountants' communications with the Audit Committee concerning independence and discussing with the independent registered public accountants their independence, and recommending to the Board of Directors that the audited financial statements be included in our annual report on Form 10-K.

#### **Attendance at Annual Meeting**

Representatives of EisnerAmper LLP are expected to be present at the Annual Meeting and available to respond to appropriate questions from stockholders.

#### **Vote Required**

The affirmative vote of a majority of the total votes cast in person or by proxy is required to approve this proposal. As a result, abstentions and broker non-votes, if any, will not affect the outcome of the vote on these proposals.

**THE BOARD OF DIRECTORS RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR THE  
RATIFICATION OF THE INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM.**

---

**PROPOSAL 3: APPROVAL OF AN AMENDMENT TO THE COMPANY'S CERTIFICATE OF  
INCORPORATION TO INCREASE OUR AUTHORIZED SHARES OF COMMON STOCK FROM 250,000,000 TO 500,000,000**

Our Board of Directors has approved, subject to shareholder approval, an amendment to our certificate of incorporation to increase our authorized shares of common stock from 250,000,000 to 500,000,000. The increase in our authorized shares of common stock will become effective upon the filing of an amendment to our certificate of incorporation with the Secretary of State of the State of Delaware. If the amendment to increase our authorized shares of common stock is approved by shareholders at the Annual Meeting, we intend to file the amendment to our certificate of incorporation as soon as practicable following the Annual Meeting.

The form of the certificate of amendment is set forth as Appendix A to this proxy statement (subject to any changes required by applicable law).

**Outstanding Shares and Purpose of the Proposal**

Our certificate of incorporation currently authorizes us to issue a maximum of 250,000,000 shares of common stock, par value \$0.0001 per share, and 5,000,000 shares of preferred stock, \$0.0001 par value per share. Our issued and outstanding securities, as of the Record Date, are as follows:

- 162,426,763 shares of common stock;
- 9,240,000 shares of common stock issuable upon the exercise of preferred stock outstanding;
- 5,799,429 shares of common stock issuable upon the exercise of warrants outstanding;
- 16,925,335 shares of common stock issuable upon the exercise of options outstanding;
- 3,315,637 shares of common stock reserved for future grants, awards and issuances under our current equity compensation plan; and
- 197,707,164 shares of common stock outstanding on a fully diluted basis.

The approval of the amendment to the certificate of incorporation to increase the authorized shares of Common Stock is important for the ongoing business of the Company. Without additional authorized shares of Common Stock, (i) the Company may not be able to raise additional financing which is needed to fund our ongoing clinical and research programs, (ii) the Company may not be able to attract and retain key employees, officers and directors, and (iii) the Company may not be able to make possible strategic acquisitions, although no such acquisitions are currently contemplated.

The increase in the number of authorized shares of Common Stock may be available for our Board to issue in future financings, to provide equity incentive to employees, officers and directors, to make stock-based acquisitions and for other general corporate purposes, and we intend to use the additional shares of Common Stock that will be available to undertake any such issuances. We have no specific plan, commitment, arrangement, understanding or agreement, either oral or written, regarding the issuance of Common Stock subsequent to this proposed increase in the number of authorized shares at this time, and we have not allocated any specific portion of the proposed increase in the authorized number of shares to any particular purpose. The Company is therefore requesting its stockholders approve this proposal to amend its certificate of incorporation to increase the authorized shares of Common Stock.

**Vote Required**

The affirmative vote of a majority of the shares of common stock outstanding and entitled to vote at the meeting will be required to approve this proposal No. 3. Abstentions and broker non-votes with respect to this proposal will be counted for purposes of establishing a quorum and, if a quorum is present, will have the same practical effect as a vote against this proposal.

**THE BOARD OF DIRECTORS RECOMMENDS THAT THE STOCKHOLDERS VOTE FOR PROPOSAL NO. 3 TO APPROVE AN AMENDMENT TO  
INCREASE OUR AUTHORIZED SHARES OF COMMON STOCK FROM 250,000,000 TO 500,000,000.**

---

## STOCKHOLDER PROPOSALS

### Stockholder Proposals for 2020 Annual Meeting

Our by-laws state that a stockholder must provide timely written notice of a proposal to be brought before the meeting and supporting documentation as well as be present at such meeting, either in person or by a representative. Any stockholder proposals submitted for inclusion in our proxy statement and form of proxy for our 2020 Annual Meeting of Stockholders shall be timely received by the Company at our principal executive office no later than August 2, 2020 no earlier than July 3, 2020; provided, however, that in the event the Annual Meeting is scheduled to be held on a date more than thirty (30) days before the anniversary date of the immediately preceding Annual Meeting of Stockholders (the "Anniversary Date") or more than sixty (60) days after the Anniversary Date, a stockholder's notice shall be timely if received by the Company at our principal executive office not later than the close of business on the later of (i) the ninetieth (90<sup>th</sup>) day prior to the scheduled date of such Annual Meeting; and (ii) the tenth (10<sup>th</sup>) day following the day on which such public announcement of the date of such Annual Meeting is first made by the Company. Proxies solicited by our Board will confer discretionary voting authority with respect to these proposals, subject to the SEC's rules and regulations governing the exercise of this authority. Any such proposal shall be mailed to: Matinas BioPharma Holdings, Inc., 1545 Route 206 South, Suite 302, Bedminster, New Jersey 07921, Attn.: Corporate Secretary.

### ANNUAL REPORT

Copies of our Annual Report on Form 10-K (including audited financial statements) filed with the SEC may be obtained without charge by writing to Matinas BioPharma Holdings, Inc., 1545 Route 206 South, Suite 302, Bedminster, New Jersey 07921, Attn.: Corporate Secretary. A request for a copy of our Annual Report on Form 10-K must set forth a good-faith representation that the requesting party was either a holder of record or a beneficial owner of our common stock on September 9, 2019. Exhibits to the Form 10-K will be mailed upon similar request and payment of specified fees to cover the costs of copying and mailing such materials.

Our audited financial statements for the fiscal year ended December 31, 2018 and certain other related financial and business information are contained in our 2018 Annual Report to Stockholders, which is being made available to our stockholders along with this proxy statement, but which is not deemed a part of the proxy soliciting material.

### HOUSEHOLDING OF ANNUAL MEETING MATERIALS

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements. This means that only one copy of this Proxy Statement may have been sent to multiple stockholders in the same household. We will promptly deliver a separate copy of this Proxy Statement to any stockholder upon written or oral request to: Matinas BioPharma Holdings, Inc., 1545 Route 206 South, Suite 302, Bedminster, New Jersey 07921, Attn.: Secretary, or by phone at (908) 443-1860. Any stockholder who wants to receive a separate copy of this Proxy Statement, or of our proxy statements or annual reports in the future, or any stockholder who is receiving multiple copies and would like to receive only one copy per household, should contact the stockholder's bank, broker, or other nominee record holder, or the stockholder may contact us at the address and phone number above.

### OTHER MATTERS

As of the date of this proxy statement, the Board does not intend to present at the Annual Meeting of Stockholders any matters other than those described herein and does not presently know of any matters that will be presented by other parties. If any other matter requiring a vote of the stockholders should come before the meeting, it is the intention of the persons named in the proxy to vote with respect to any such matter in accordance with the recommendation of the Board or, in the absence of such a recommendation, in accordance with the best judgment of the proxy holder.

By Order of the Board of Directors

/s/ Jerome D. Jabbour

Jerome D. Jabbour,  
Chief Executive Officer

September 24, 2019  
Bedminster, New Jersey

---

**CERTIFICATE OF AMENDMENT  
OF  
CERTIFICATE OF INCORPORATION  
OF  
MATINAS BIOPHARMA HOLDINGS, INC.**

Pursuant to Section 242 of the General Corporation Law of the State of Delaware, Matinas BioPharma Holdings, Inc., a corporation organized and existing under the laws of the State of Delaware (the “**Corporation**”), does hereby certify as follows:

1. The name of the Corporation is Matinas BioPharma Holdings, Inc. The Corporation was incorporated by the filing of its original Certificate of Incorporation with the Secretary of State of the State of Delaware on May 21, 2013, which was amended by a certificate of amendment filed with the Secretary of State of the State of Delaware on October 29, 2015 (as so amended, the “**Certificate of Incorporation**”).

2. The Certificate of Incorporation of the Corporation is hereby amended to increase the authorized shares of the Corporation’s common stock by deleting the first paragraph under Section A of Article V, and replacing such paragraph with the following:

“The total number of shares of capital stock which the Corporation shall have authority to issue is Five Hundred Ten Million (510,000,000), of which (i) Five Hundred Million (500,000,000) shares shall be a class designated as common stock, par value \$0.0001 per share (the “Common Stock”), and (ii) Ten Million Shares (10,000,000) shares shall be a class designated as preferred stock, par value \$0.0001 per share (the “Preferred Stock”).”

3. The Board of Directors of the Corporation has duly adopted a resolution pursuant to Section 242 of the General Corporation Law of the State of Delaware setting forth a proposed amendment to the Certificate of Incorporation of the Corporation and declaring said amendment to be advisable. The requisite stockholders of the Corporation have duly approved said proposed amendment in accordance with Section 242 of the General Corporation Law of the State of Delaware.

4. This Certificate of Amendment and the amendment to the Certificate of Incorporation effected hereby shall be effective immediately upon filing.

*[Signature Page Follows]*

---

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be signed by its Chief Executive Officer on this \_\_ day of \_\_\_\_\_, 2019.

**MATINAS BIOPHARMA HOLDINGS, INC.**

By: \_\_\_\_\_  
Name: Jerome D. Jabbour  
Title: Chief Executive Officer

---

