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 (Amendment No.)

Filed by Registrant

X

Filed by a Party other than the Registrant \Box

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 Material Under Rule 14a-12

Mustang Bio, 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.

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(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No .:

(3) Filing Party:

(4) Date Filed:



2 Gansevoort Street, 9th Floor New York, New York 10014

Dear Stockholder:

You are cordially invited to the Annual Meeting of Stockholders (the "Annual Meeting") of Mustang Bio, Inc. ("Mustang" or the "Company"), to be held at 3:00 p.m. local time, on Wednesday, June 7, 2017, at the offices of our legal counsel, Alston & Bird LLP, located at 90 Park Avenue, New York, New York 10016. At the meeting, the stockholders will be asked to (i) elect five directors for a term of one year, (ii) ratify the appointment of BDO USA, LLP as our independent registered public accounting firm for the year ending December 31, 2017, (iii) consider an advisory vote to approve the compensation of our named executive officers, and (iv) consider an advisory vote on the frequency of the advisory vote on compensation of our named executive officers. You will also have the opportunity to ask questions and make comments at the meeting.

In accordance with the rules and regulations of the Securities and Exchange Commission, we are furnishing our proxy statement and annual report to stockholders for the year ended December 31, 2016 on the Internet. You may have already received our "Important Notice Regarding the Availability of Proxy Materials," which was mailed on or about April 28, 2017. That notice described how you can obtain our proxy statement and annual report. You can also receive paper copies of our proxy statement and annual report upon request.

It is important that your stock be represented at the meeting regardless of the number of shares you hold. You are encouraged to specify your voting preferences by marking our proxy card and returning it as directed. If you do attend the meeting and wish to vote in person, you may revoke your proxy at the meeting.

If you have any questions about the proxy statement or the accompanying 2016 Annual Report, please contact Robyn Hunter, our Corporate Secretary at ir@mustangbio.com.

We look forward to seeing you at the Annual Meeting.

Sincerely,

Manuel Litchman, M.D. President and Chief Executive Officer

April 28, 2017 New York, New York



MUSTANG BIO, INC. 2 Gansevoort Street, 9th Floor New York, New York 10014

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

The Annual Meeting of Stockholders of Mustang Bio, Inc. will be held at the offices of our legal counsel, Alston & Bird LLP, located at 90 Park Avenue, New York, New York 10016, on Wednesday, June 7, 2017, at 3:00 p.m., local time. At the meeting, stockholders will consider and act on the following items:

- 1. Elect five directors for a term of one year;
- 2. Ratify the appointment of BDO USA, LLP as our independent registered public accounting firm for the year ending December 31, 2017;
- 3. An advisory vote to approve the compensation of our named executive officers;
- 4. An advisory vote on the frequency of the advisory vote on compensation of our named executive officers; and
- 5. Transact any other business that may properly come before the Annual Meeting or any adjournment of the Annual Meeting.

Only those stockholders of record as of the close of business on April 18, 2017, are entitled to vote at the Annual Meeting or any postponements or adjournments thereof. A complete list of stockholders entitled to vote at the Annual Meeting will be available for your inspection beginning May 17, 2017, at our offices located at 2 Gansevoort Street, New York, New York 10014, between the hours of 10:00 a.m. and 5:00 p.m., local time, each business day.

YOUR VOTE IS IMPORTANT!

Instructions on how to vote your shares via the Internet are contained on the "Important Notice Regarding the Availability of Proxy Materials," which was mailed on or about April 28, 2017. Instructions on how to obtain a paper copy of our proxy statement and annual report to stockholders for the year ended December 31, 2016, are listed on the "Important Notice Regarding the Availability of Proxy Materials." These materials can also be viewed online by following the instructions listed on the "Important Notice Regarding the Availability of Proxy Materials."

If you choose to receive a paper copy of our proxy statement and annual report, you may vote your shares by completing and returning the proxy card that will be enclosed.

Submitting your proxy does not affect your right to vote in person if you decide to attend the Annual Meeting. You are urged to submit your proxy as soon as possible, regardless of whether or not you expect to attend the Annual Meeting. You may revoke your proxy at any time before it is voted at the Annual Meeting by (i) delivering written notice to our Corporate Secretary, Robyn Hunter, at our address above, (ii) submitting a later dated proxy card, (iii) voting again via the Internet as described in the "Important Notice Regarding the Availability of Proxy Materials," or (iv) attending the Annual Meeting and voting in person. No revocation under (i) or (ii) will be effective unless written notice or the proxy card is received by our Corporate Secretary at or before the Annual Meeting.

When you submit your proxy, you authorize Manuel Litchman, M.D., and David J. Horin to vote your shares at the Annual Meeting and on any adjournments of the Annual Meeting in accordance with your instructions.

By Order of the Board of Directors,

Robyn Hunter

Corporate Secretary

April 28, 2017 New York, New York

MUSTANG BIO, INC. 2 Gansevoort Street, 9th Floor New York, New York 10014

PROXY STATEMENT

This proxy statement is being made available via Internet access, beginning on or about April 28, 2017, to the owners of shares of common stock of Mustang Bio, Inc. (the "Company," "our," "we," or "Mustang") as of April 18, 2017, in connection with the solicitation of proxies by our Board of Directors for our 2017 Annual Meeting of Stockholders (the "Annual Meeting"). On or about April 28, 2017, we sent an "Important Notice Regarding the Availability of Proxy Materials" to our stockholders. If you received this notice by mail, you will not automatically receive by mail our proxy statement and annual report to stockholders for the year ended December 31, 2016. If you would like to receive a printed copy of our proxy statement, annual report and proxy card, please follow the instructions for requesting such materials in the notice. Upon request, we will promptly mail you paper copies of such materials free of charge.

The Annual Meeting will take place at the offices of our legal counsel, Alston & Bird LLP, located at 90 Park Avenue, New York, New York 10016 on Wednesday, June 7, 2017, at 3:00 p.m., local time. Our Board of Directors encourages you to read this document thoroughly and take this opportunity to vote, via proxy, on the matters to be decided at the Annual Meeting. As discussed below, you may revoke your proxy at any time before your shares are voted at the Annual Meeting.

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QUESTIONS AND ANSWERS

Q: Why did I receive an "Important Notice Regarding the Availability of Proxy Materials"?

A. In accordance with Securities and Exchange Commission ("SEC") rules, instead of mailing a printed copy of our proxy materials, we may send an "Important Notice Regarding the Availability of Proxy Materials" to stockholders. All stockholders will have the ability to access the proxy materials on a website referred to in the notice or to request a printed set of these materials at no charge. You will not receive a printed copy of the proxy materials unless you specifically request one from us. Instead, the notice instructs you as to how you may access and review all of the important information contained in the proxy materials via the Internet and submit your vote via the Internet.

Q: What is the purpose of the Annual Meeting?

A. At the Annual Meeting, our stockholders will act upon the matters outlined in the Notice of Annual Meeting of Stockholders accompanying this proxy statement, including (i) the election of five directors for a term of one year, (ii) ratifying the appointment of BDO USA, LLP as our independent registered public accounting firm for the year ending December 31, 2017, (iii) an advisory vote to approve the compensation of our named executive officers, (iv) an advisory vote on the frequency of the advisory vote on compensation of our named executive officers, and (v) transacting any other business that may properly come before the 2017 Annual Meeting or any adjournment thereof.

Q: Who is entitled to vote at our Annual Meeting?

A. The record holders of our common stock at the close of business on the record date, April 18, 2017, may vote at the Annual Meeting. Each share of common stock is entitled to one vote. There were 25,041,889 shares of common stock and 1,000,000 shares of Class A common stock outstanding on the record date and entitled to vote at the Annual Meeting. A list of stockholders entitled to vote at the Annual Meeting, including the address of and number of shares held by each stockholder of record, will be available for your inspection beginning May 17, 2017, at our offices located at 2 Gansevoort Street, New York, New York 10014, between the hours of 10:00 a.m. and 5:00 p.m., local time, each business day.

Q: How do I vote?

A. You may vote in person at the Annual Meeting, by use of a proxy card if you receive a printed copy of our proxy materials, or via Internet as directed in our "Important Notice Regarding the Availability of Proxy Materials."

Q: What is a proxy?

A. A proxy is a person you appoint to vote your shares on your behalf. If you are unable to attend the Annual Meeting, our Board of Directors is seeking your appointment of a proxy so that your shares may be voted. If you vote by proxy, you will be designating Manuel Litchman, M.D., our President and Chief Executive Officer, and David Horin, our Interim Chief Financial Officer, as your proxies. Dr. Litchman and/or Mr. Horin may act on your behalf and have the authority to appoint a substitute to act as your proxy.

Q: How will my shares be voted if I vote by proxy?

A. Your proxy will be voted according to the instructions you provide. If you complete and submit your proxy but do not otherwise provide instructions on how to vote your shares, your shares will be voted (i) "FOR" the individuals nominated to serve as members of our Board of Directors, (ii) "FOR" the ratification of BDO USA, LLP as our independent registered public accounting firm for the year ending December 31, 2017, (iii) "FOR" the non-binding proposal to approve the compensation of our named executive officers, and (iv) "FOR" a frequency of every three years for future nonbinding stockholder advisory votes to approve the compensation of our named executive officers. Presently, our Board does not know of any other matter that may come before the Annual Meeting. However, your proxies are authorized to vote on your behalf, using their discretion, on any other business that properly comes before the Annual Meeting.

Q: How do I revoke my proxy?

A. You may revoke your proxy at any time before your shares are voted at the Annual Meeting by:

- · delivering written notice to our Corporate Secretary, Robyn Hunter, at our address above;
- submitting a later dated proxy card;
- · voting again via the Internet as described in the "Important Notice Regarding the Availability of Proxy Materials"; or
- attending the Annual Meeting and voting in person.

Q: Is my vote confidential?

A. Yes. All votes remain confidential.

Q: How are votes counted?

A. Before the Annual Meeting, our Board of Directors will appoint one or more inspectors of election for the meeting. The inspector(s) will determine the number of shares represented at the meeting, the existence of a quorum and the validity and effect of proxies. The inspector(s) will also receive, count, and tabulate ballots and votes and determine the results of the voting on each matter that comes before the Annual Meeting.

Abstentions and votes withheld, and shares represented by proxies reflecting abstentions or votes withheld, will be treated as present for purposes of determining the existence of a quorum at the Annual Meeting. They will not be considered as votes "for" or "against" any matter for which the stockholder has indicated their intention to abstain or withhold their vote, except for abstentions under Proposals Two, Three and Four, which will have the same effect as a vote against. Broker or nominee non-votes, which occur when shares held in "street name" by brokers or nominees who indicate that they do not have discretionary authority to vote on a particular matter, will not be considered as votes "for" or "against" that particular matter. Broker and nominee non-votes will be treated as present for purposes of determining the existence of a quorum, and may be entitled to vote on certain matters at the Annual Meeting.

Q: What constitutes a quorum at the Annual Meeting?

A. In accordance with Delaware law (the law under which we are incorporated) and our Bylaws, the presence at the Annual Meeting, by proxy or in person, of the holders of a majority of the outstanding shares of the capital stock entitled to vote at the Annual Meeting constitutes a quorum, thereby permitting the stockholders to conduct business at the Annual Meeting. Abstentions, votes withheld, and broker or nominee non-votes will be included in the calculation of the number of shares considered present at the Annual Meeting for purposes of determining the existence of a quorum.

If a quorum is not present at the Annual Meeting, a majority of the stockholders present in person and by proxy may adjourn the meeting to another date. If an adjournment is for more than 30 days or a new record date is fixed for the adjourned meeting by our Board, we will provide notice of the adjourned meeting to each stockholder of record entitled to vote at the adjourned meeting. At any adjourned meeting at which a quorum is present, any business may be transacted that might have been transacted at the originally called meeting.

Q: What vote is required to elect our directors for a one-year term?

A. The affirmative vote of a plurality of the votes of the shares present, in person or by proxy, at the Annual Meeting is required for the election of each of the nominees for director. "Plurality" means that the nominees receiving the largest number of votes up to the number of directors to be elected at the Annual Meeting will be duly elected as directors. Abstentions, votes withheld, and broker or nominee non-votes will not affect the outcome of director elections.

Q: What vote is required to ratify BDO USA, LLP as our independent registered public accounting firm for the year ending December 31, 2017?

A. The affirmative vote of a majority of the shares present, in person or by proxy, and entitled to vote at the Annual Meeting is required to approve the ratification of BDO USA, LLP as our independent registered public accounting firm for the year ending December 31, 2017. Abstentions will have the same effect as a negative vote. However, broker or nominee non-votes, and shares represented by proxies reflecting broker or nominee non-votes, will not have the effect of a vote against this proposal as they are not considered to be present and entitled to vote on this matter.

Q: How will the outcome of the non-binding vote to approve the compensation of our named executive officers be determined?

A. The affirmative vote of a majority of the shares present, in person or by proxy, and entitled to vote at the Annual Meeting is required to adopt the non-binding advisory vote to approve the compensation of our named executive officers. Abstentions and votes withheld will have the same effect as a negative vote. However, broker or nominee non-votes, and shares represented by proxies reflecting broker or nominee non-votes, will not have the effect of a vote against this proposal as they are not considered to be present and entitled to vote on this matter.

Q: How will the outcome of the non-binding advisory vote on the frequency of the advisory vote on compensation of our named executive officers be determined?

A. The frequency of the non-binding advisory vote on compensation of our named executive officers receiving the greatest number of votes — every three years, every two years or every year — will be the frequency that stockholders approve.

Q: What percentage of our outstanding common stock do our directors and executive officers own?

A. As of April 18, 2017, our directors and executive officers owned, or have the right to acquire, approximately 3.8% of our outstanding common stock and 0% of our Class A common stock. See the discussion under the heading "Stock Ownership of Our Directors, Executive Officers, and 5% Beneficial Owners" on page 22 for more details.

Q: Who was our independent public accountant for the year ending December 31, 2016? Will they be represented at the Annual Meeting?

A. BDO USA, LLP is the independent registered public accounting firm that audited our financial statements for the year ending December 31, 2016. We expect a representative of BDO USA, LLP to be present at the Annual Meeting. The representative will have an opportunity to make a statement and will be available to answer your questions.

Q: How can I obtain a copy of our annual report on Form 10-K?

A. We have filed our annual report on Form 10-K for the year ended December 31, 2016, with the SEC. The annual report on Form 10-K is also included in the 2016 Annual Report to Stockholders. You may obtain, free of charge, a copy of our annual report on Form 10-K, including financial statements, by writing to our Corporate Secretary, Robyn Hunter, or by email at info@Mustangbio.com. Upon request, we will also furnish any exhibits to the annual report on Form 10-K as filed with the SEC.

CORPORATE GOVERNANCE

Our Board of Directors

Our Bylaws provide that our Board shall consist of between one and nine directors, and such number of directors within this range may be determined from time to time by resolution of our board of directors or our stockholders. Currently, we have four directors. The following individuals are being nominated to serve on our Board (See "Proposal 1 — Election of Directors; Nominees"):

Name	Age	Position	Director Since
Michael S. Weiss	51	Chairman of the Board of Directors and Executive Chairman	2015
Lindsay A. Rosenwald, M.D.	61	Director	2015
Neil Herskowitz	59	Director	2015
Manuel Litchman, M.D.	63	Director	2017
Adam J. Chill	49	Director	2017

The Board does not have a formal policy regarding the separation of the roles of Chief Executive Officer and Chairman of the Board, as the Board believes that it is in the best interests of the Company to make that determination based on the direction of the Company and the current membership of the Board. The Board has determined that at present having a director who is an executive officer serve as the Chairman is not in the best interest of the Company's stockholders at this time.

Mustang has a risk management program overseen by Manuel Litchman, M.D., our President and Chief Executive Officer. Dr. Litchman and management identify material risks and prioritize them for our Board. Our Board regularly reviews information regarding our credit, liquidity, operations, and compliance as well as the risks associated with each.

The following biographies set forth the names of our directors and director nominees, their ages, the year in which they first became directors, their positions with us, their principal occupations and employers for at least the past five years, any other directorships held by them during the past five years in companies that are subject to the reporting requirements of the Securities Exchange Act of 1934 (the "Exchange Act"), or any company registered as an investment company under the Investment Company Act of 1940, as well as additional information, all of which we believe sets forth each director nominee's qualifications to serve on the Board. There is no family relationship between and among any of our executive officers or directors. There are no arrangements or understandings between any of our executive officers or directors and any other person pursuant to which any of them are elected as an officer or director, except as disclosed below.

Even though we are not yet listed on The Nasdaq Stock Market ("Nasdaq"), Mustang adheres to the corporate governance standards regarding director independence adopted by Nasdaq. Nasdaq rules will require our Board to make an affirmative determination as to the independence of each director. Consistent with these rules, our Board undertook a review of director independence in March, 2017. During the review, our Board considered relationships and transactions during 2016 and since inception between each director or any member of his immediate family, on the one hand, and the Company and our subsidiaries and affiliates, on the other hand. The purpose of this review was to determine whether any such relationships or transactions were inconsistent with a determination that the director is independent. Based on this review, our Board determined that only Neil Herskowitz is independent under the criteria established by Nasdaq and our Board.

Current Directors/Nominees

Michael S. Weiss — Chairman of the Board of Directors and Executive Chairman

Mr. Weiss has served as Chairman of our Board of Directors since May 2015 and Executive Chairman since January 2017. Mr. Weiss was elected as Chairman of the Board of National Holdings Corporation on September 21, 2016. He has also served in several capacities at Fortress, most recently as Executive Vice Chairman since February 2014. He also serves as Executive Chairman, President and Chief Executive Officer of TG Therapeutics, Inc., a company he founded in 2011. Mr. Weiss is currently Co-Portfolio Manager and Partner of Opus Point Partners, LLC, which he co-founded in 2009. From 2002 to 2009, Mr. Weiss was the

Chairman and Chief Executive Officer of Keryx Biopharmaceuticals, Inc., where he helped the company acquire and develop its lead drug, Auryxia, as well as executed a strategic alliance for Auryxia with Japan Tobacco, Inc. and Torii Pharmaceutical Co., Ltd. worth more than \$100 million. Mr. Weiss served as Chairman of the board of directors of National Holdings Corporation from 2011 to 2012. Mr. Weiss began his professional career as a lawyer with Cravath, Swaine & Moore LLP. He earned his J.D. from Columbia Law School and his B.S. in Finance from The University at Albany. Based on Mr. Weiss' financial industry experience and in-depth understanding of our business, the Board of Directors believes that Mr. Weiss has the appropriate set of skills to serve as a member of the Board.

Effective January 1, 2017, the Board of Directors of the Company approved and authorized the execution of a Board Advisory Agreement with Caribe BioAdvisors, LLC (the "Advisor"), which is owned by Michael S. Weiss, to provide the Board with the advisory services of Mr. Weiss as Chairman of the Board and Executive Chairman. Pursuant to the Advisory Agreement, the Advisor will be paid an annual cash fee of \$60,000, in addition to any and all annual equity incentive grants paid to members of the Board.

Lindsay A. Rosenwald, M.D.

Dr. Rosenwald has served as a member of our Board of Directors since inception. Dr. Rosenwald has been a member of the Board of Directors of Fortress since October 2009 and has served as its Chairman, President and Chief Executive Officer since December 2013. Dr. Rosenwald also is Co-Portfolio Manager and Partner of Opus Point Partners Management, LLC, an asset management firm in the life sciences industry, which he co-founded in 2009. Prior to that, from 1991 to 2008, he served as the Chairman of Paramount BioCapital, Inc. Over the last 23 years, Dr. Rosenwald has acted as a biotechnology entrepreneur and has been involved in the founding and recapitalization of numerous public and private biotechnology and life sciences companies. Dr. Rosenwald received his B.S. in finance from Pennsylvania State University and his M.D. from Temple University School of Medicine. Based on Dr. Rosenwald's biotechnology and pharmaceutical industry experience and in-depth understanding of our business, the Board of Directors believes that Dr. Rosenwald has the appropriate set of skills to serve as a member of the Board.

Neil Herskowitz

Mr. Herskowitz has served as a member of our Board of Directors since August 2015. Mr. Herskowitz has served as the managing member of the ReGen Group of companies, located in New York, since 1998, which include ReGen Capital Investments LLC and Riverside Claims Investments LLC. He has also served as the President of its affiliate, Riverside Claims LLC, since June 2004. Mr. Herskowitz serves as a member of the board of directors on three of our affiliates, Checkpoint Therapeutics, Inc., Avenue Therapeutics, Inc. and National Holdings Corporation. He also serves as Chairman of the board of directors of Starting Point Services for Children, a not-for-profit corporation. Mr. Herskowitz received a B.B.A. in Finance from Bernard M. Baruch College in 1978. Based on Mr. Herskowitz's financial industry experience and in-depth understanding of our business, the Board of Directors believes that Mr. Herskowitz has the appropriate set of skills to serve as a member of the Board.

Manuel Litchman, M.D. — President and Chief Executive Officer

Dr. Litchman has served as our President and CEO, and as a member of our Board of Directors, since April 2017. Dr. Litchman joined Mustang from Arvinas, LLC, where he served as President and Chief Executive Officer. While at Arvinas, Dr. Litchman oversaw the advancement of the company's pipeline of protein-degradation therapeutics for the treatment of cancers and other diseases toward Investigational New Drug applications, and secured multi-target discovery collaborations with Merck and Genentech. Prior to Arvinas, Dr. Litchman spent more than 18 years with Novartis Pharmaceuticals Corporation, where he held positions of increasing responsibility related to the development of Novartis' oncology pipeline. Most recently, Dr. Litchman served as Senior Vice President and Executive Global Program Head, CTL019, Cell & Gene Therapies Unit, where he led a collaboration with the University of Pennsylvania investigating chimeric antigen receptor modified T cells (CAR Ts) directed against CD19 on B cell malignancies. Prior to the CTL019 collaboration, Dr. Litchman served as Novartis' Vice President and Head, Oncology Business Development & Licensing. Earlier in his career, Dr. Litchman was a senior equity analyst at Ursus Capital and directed oncology/immunology clinical research at Hoffmann-La Roche Inc. Dr. Litchman received his M.D.

from Yale University School of Medicine, and his B.A. from Princeton University. He completed his internal medicine residency and hematology-oncology fellowship at NewYork-Presbyterian/Weill Cornell Medical Center. Based on Dr. Litchman's biotechnology and pharmaceutical industry experience and in-depth understanding of our business, the Board of Directors believes that Dr. Litchman has the appropriate set of skills to serve as a member of the Board.

Director Nominee

Adam J. Chill

If elected, Mr. Chill will begin his term as director on June 7, 2017. Mr. Chill is the President of and a Portfolio Manager at Kingsbrook Partners LP, an alternative asset management firm he co-founded in March 2009. From February 2001 to March 2009, Mr. Chill was a Portfolio Manager and Managing Director at Highbridge Capital Management, LLC, an alternative asset management firm owned by J.P. Morgan Asset Management. At Highbridge, Mr. Chill was responsible for structuring, negotiating and monitoring Highbridge's portfolio of structured investments in public and private companies worldwide. From April 2000, Mr. Chill was a corporate attorney specializing in securities and mergers and acquisitions at Stroock & Stroock & Lavan LLP. Mr. Chill serves Vice President and a member of the Executive Committee of the American Friends of Shalva, the Association for Mentally and Physically Challenged Children in Israel. Mr. Chill received his B.A., *magna cum laude*, from Yeshiva University and his J.D. from Columbia University School of Law, where he was a Harlan Fiske Stone Scholar. We believe Mr. Chill is well-qualified to serve as a member of the Board due to his extensive financial and legal experience and contacts, including analyzing investments in biotech companies.

During 2016, our Board held no meetings and took 5 actions by unanimous written consent. During 2016, each incumbent director who served their full term and are standing for election attended the meeting of the Board of Directors during the period that such person was a director. We do not have any permanent committees but the Board is working to establish an Audit Committee and a Compensation Committee. Our directors are expected to attend each Annual Meeting of Stockholders, and it is our expectation that all of the directors standing for election will attend this year's Annual Meeting. This will be our first Annual Meeting of Stockholders since we became a public reporting company in September 2016.

Communicating with the Board of Directors

Our Board has established a process by which stockholders can send communications to the Board. You may communicate with the Board as a group, or to specific directors, by writing to Robyn Hunter, our Corporate Secretary, at our offices located at 2 Gansevoort Street, 9th Floor, New York, NY 10014. The Corporate Secretary will review all such correspondence and regularly forward to our Board a summary of all correspondence and copies of all correspondence that, in the opinion of the Corporate Secretary, deals with the functions of the Board that he otherwise determines requires their attention. Directors may at any time review a log of all correspondence we receive that is addressed to members of our Board and request copies of any such correspondence. Concerns relating to accounting, internal controls, or auditing matters may be communicated in this manner, or may be submitted on an anonymous basis via e-mail at info@mustangbio.com. These concerns will be immediately brought to the attention of our Board and handled in accordance with procedures established by our Board.

Nominating Process

We do not currently have a nominating committee or any other committee serving a similar function. Although we do not have a written charter in place to select director nominees, our Board of Directors has adopted resolutions regarding the director nomination process. We believe that the current process in place functions effectively to select director nominees who will be valuable members of our Board of Directors.

We identify potential nominees to serve as directors through a variety of business contacts, including current executive officers, directors, community leaders and stockholders. We may, to the extent they deem appropriate, retain a professional search firm and other advisors to identify potential nominees.

We will also consider candidates recommended by stockholders for nomination to our Board. A stockholder who wishes to recommend a candidate for nomination to our Board must submit such

recommendation to our Corporate Secretary, Robyn Hunter, at our offices located at 2 Gansevoort Street, \oint^h Floor, New York, New York 10014. Any recommendation must be received not less than 50 calendar days nor more than 90 calendar days before the anniversary date of the previous year's annual meeting. All stockholder recommendations of candidates for nomination for election to our Board must be in writing and must set forth the following: (i) the candidate's name, age, business address, and other contact information, (ii) the number of shares of common stock beneficially owned by the candidate, (iii) a complete description of the candidate's qualifications, experience, background and affiliations, as would be required to be disclosed in the proxy statement pursuant to Schedule 14A under the Exchange Act, (iv) a sworn or certified statement by the candidate in which he or she consents to being named in the proxy statement as a nominee and to serve as director if elected, and (v) the name and address of the stockholder(s) of record making such a recommendation.

We believe that our Board as a whole should encompass a range of talent, skill, and expertise enabling it to provide sound guidance with respect to our operations and interests. Our independent directors evaluate all candidates to our Board by reviewing their biographical information and qualifications. If the directors determine that a candidate is qualified to serve on our Board, such candidate is interviewed by at least one of the directors and our Chief Executive Officer. Other members of the Board also have an opportunity to interview qualified candidates. The directors then determine, based on the background information and the information obtained in the interviews, whether to recommend to the Board that the candidate be nominated for approval by the stockholders to fill a directors review and consider the incumbent director's service during his or her term, including the number of meetings attended, level of participation, and overall contribution to the Board. The manner in which the directors evaluate a potential nominee will not differ based on whether the candidate is recommended by our directors or stockholders.

We consider the following qualifications, among others, when making a determination as to whether a person should be nominated to our Board: the independence of the director nominee; the nominee's character and integrity; financial literacy; level of education and business experience, including experience relating to biopharmaceutical companies; whether the nominee has sufficient time to devote to our Board; and the nominee's commitment to represent the long-term interests of our stockholders. We review candidates in the context of the current composition of the Board and the evolving needs of our business. We believe that each of the current members of our Board (who are also our director nominees) has the requisite business, biopharmaceutical, financial or managerial experience to serve as a member of the Board, as described above in their biographies under the heading "Our Board of Directors." We also believe that each of the current members of our Board has other key attributes that are important to an effective board, including integrity, high ethical standards, sound judgment, analytical skills, and the commitment to devote significant time and energy to service on the Board.

We do not have a formal policy in place with regard to diversity in considering candidates for our Board, but the Board strives to nominate candidates with a variety of complementary skills so that, as a group, the Board will possess the appropriate talent, skills and expertise to oversee our business.

Code of Business Conduct and Ethics

We have adopted a Code of Ethics, or the Code, which applies to all of our directors and employees, including our principal executive officer and principal financial officer. The Code includes guidelines dealing with the ethical handling of conflicts of interest, compliance with federal and state laws, financial reporting, and our proprietary information. The Code also contains procedures for dealing with and reporting violations of the Code. We have posted our Code of Ethics on our website, located at *www.Mustangbio.com*.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FEES AND OTHER MATTERS

BDO USA, LLP, the independent registered public accounting firm that audited our financial statements for the year ended December 31, 2016 has served as our independent registered public accounting firm since October 2016. Mayer Hoffman McCann P.C. audited our financial statements for the year ended December 31, 2015. We expect a representative of BDO USA, LLP to be present at the Annual Meeting. The representative will have an opportunity to make a statement and will be available to answer your questions.

Our Board has asked the stockholders to ratify the selection of BDO USA, LLP as our independent registered public accounting firm. See "Proposal Two: Ratification of Appointment of BDO USA, LLP as Our Independent Registered Public Accounting Firm" on page 25 of this proxy statement. The Board has reviewed the fees described below and concluded that the payment of such fees is compatible with maintaining BDO USA, LLP's independence. All proposed engagements of BDO USA, LLP, whether for audit services, audit-related services, tax services, or permissible non-audit services, were pre-approved by our Board.

On September 29, 2016, we dismissed Mayer Hoffman McCann P.C. as our independent registered public accounting firm.

The report of Mayer Hoffman McCann P.C. on our consolidated financial statements for the fiscal year ended December 31, 2015 did not contain an adverse opinion or a disclaimer of opinion, nor were such reports qualified or modified as to uncertainty, audit scope, or accounting principles, except that, the audit report included an explanatory paragraph with respect to the uncertainty as to the Company's ability to continue as a going concern.

During our fiscal year ended December 31, 2015 and through September 29, 2016, we did not have any disagreements with Mayer Hoffman McCann P.C. on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of Mayer Hoffman McCann P.C., would have caused it to make reference to the subject matter of the disagreements in connection with its reports on the consolidated financial statements for such time periods.

Audit Fees

For the fiscal years ended December 31, 2016 and 2015, BDO USA, LLP and Mayer Hoffman McCann P.C. billed us an aggregate of approximately \$90,000 and \$75,500, respectively, in fees for the professional services rendered in connection with the audits of our annual financial statements included in our Annual Reports on Form 10-K for those two fiscal years, the review of our financial statements included in our Quarterly Reports on Form 10-Q during those two fiscal years, and other services provided in connection with registration statements.

Audit-Related Fees

During the fiscal years ended December 31, 2016 and 2015, we were not billed by BDO USA, LLP or Mayer Hoffman McCann P.C. for any fees for audit-related services reasonably related to the performance of the audits and reviews for those two fiscal years, in addition to the fees described above under the heading "Audit Fees."

Tax Fees

During the fiscal years ended December 31, 2016 and 2015, we were not billed by BDO USA, LLP or Mayer Hoffman McCann P.C. for any fees for professional services rendered for tax compliance, tax advice, and tax planning services.

All Other Fees

During the fiscal years ended December 31, 2016 and 2015, we were not billed by BDO USA, LLP or Mayer Hoffman McCann P.C. for any fees for services, other than those described above, rendered to us for those two fiscal years.



Pre-Approval of Services

In the absence of an Audit Committee, our Board has established a policy setting forth the procedures under which services provided by our independent registered public accounting firm will be pre-approved by the Board. The potential services that might be provided by our independent registered public accounting firm fall into two categories:

- Services that are permitted, including the audit of our annual financial statements, the review of our quarterly financial statements, related attestations, benefit plan audits and similar audit reports, financial and other due diligence on acquisitions, and federal, state, and non-US tax services; and
- Services that may be permitted, subject to individual pre-approval, including compliance and internal-control reviews, indirect tax services such as transfer pricing and customs and duties, and forensic auditing.

Services that our independent registered public accounting firm may not legally provide include such services as bookkeeping, certain human resources services, internal audit outsourcing, and investment or investment banking advice.

All proposed engagements of our independent registered public accounting firm, whether for audit services or permissible nonaudit services, are pre-approved by the Board. We jointly prepare a schedule with our independent registered public accounting firm that outlines services which we reasonably expect we will need from our independent registered public accounting firm, and categorize them according to the classifications described above. Each service identified is reviewed and approved or rejected by the Board.

REPORT OF THE BOARD OF DIRECTORS

In monitoring the preparation of our financial statements, the Board met with both management and BDO USA, LLP, our independent registered public accounting firm for the year ended December 31, 2016, to review and discuss all financial statements prior to their issuance and to discuss any and all significant accounting issues. Management and our independent registered public accounting firm advised the Board that each of the financial statements were prepared in accordance with generally accepted accounting principles. The Board's review included a discussion of the matters required to be discussed pursuant to the Statement on Auditing Standards No. 1301, "Communication with Audit Committees," as amended, (Codification of Statements on Auditing Standards, AU Section 380) as adopted by the Public Company Accounting Oversight Board (PCAOB) in Rule 3200T, or SAS 1301. SAS 1301 requires our independent registered public accounting firm to discuss with the Board, among other things, the following:

- Methods used to account for significant or unusual transactions;
- The effect of any accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus;
- The process used by management to formulate sensitive accounting estimates and the basis for the independent registered public accounting firm's conclusion regarding the reasonableness of any such estimates; and
- Any disagreements with management over the application of accounting principles, the basis for management's accounting estimates and the disclosures necessary in the financial statements.

The Board has discussed the independence of BDO USA, LLP, including the written disclosures made by BDO USA, LLP to the Board, as required by PCAOB Rule 3526, "Communication with Audit Committees Concerning Independence." PCAOB Rule 3526 requires the independent registered public accounting firm to (i) disclose in writing all relationships that, in the independent registered public accounting firms to be thought to be ar on independence, (ii) confirm their perceived independence, and (iii) engage in a discussion of independence with the Board.

Finally, the Board continues to monitor the scope and adequacy of our internal controls and other procedures, including any and all proposals for adequate staffing and for strengthening internal procedures and controls where appropriate and necessary.

On the basis of these reviews and discussions, the Board approved the inclusion of our audited financial statements in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, for filing with the SEC.

By the Board of Directors

Michael S. Weiss Lindsay A. Rosenwald, M.D. Neil Herskowitz Manuel Litchman, M.D.

April 28, 2017 New York, New York



OUR EXECUTIVE OFFICERS

Executive Officers

Our current executive officers are as follows:

Name	Age	Position
Manuel Litchman, M.D.	63	President and Chief Executive Officer
David J. Horin	49	Interim Chief Financial Officer

No executive officer is related by blood, marriage or adoption to any other director or executive officer.

Dr. Litchman's biography was presented under "Corporate Governance" on page 4 of this proxy statement.

David J. Horin — Interim Chief Financial Officer

Mr. Horin has served as our Interim Chief Financial Officer under our agreement with Chord Advisors, LLC ("Chord") since August 31, 2015. Pursuant to such agreement, we pay Chord \$7,500 per month for its back office accounting support and accounting policy and financial reporting services that it provides to us, including the services of Mr. Horin. We do not have information, nor any influence over Mr. Horin's direct compensation from Chord. Mr. Horin has been a Managing Partner of Chord since June 2012. Chord provides accounting advisory services, SEC reporting advisory services, and IPO-readiness services. While at Chord, Mr. Horin has gained extensive experience in financial accounting and SEC reporting for complex business transactions and issues arising from the application of existing or proposed financial accounting guidance. Mr. Horin also serves as a member of the board of directors for our affiliate, Checkpoint Therapeutics, Inc. From March 2008 to June 2012, Mr. Horin was the Chief Financial Officer of Rodman & Renshaw Capital Group, Inc., a full-service investment bank dedicated to providing corporate finance, strategic advisory, sales and trading and related services to public and private companies across multiple sectors and regions. From March 2003 through March 2008, Mr. Horin was the Chief Accounting Officer at Jefferies Group, Inc., a full-service global investment bank and institutional securities firm focused on growth and middle-market companies and their investors. Prior to his employment at Jefferies Group, Inc., from 2000 to 2003, Mr. Horin was a Senior Manager in KPMG's Department of Professional Practice in New York, where he advised firm members and clients on technical accounting and risk management matters for a variety of public, international and early growth stage entities. Mr. Horin has a Bachelor of Science degree in Accounting from Baruch College, City University of New York. Mr. Horin is also a Certified Public Accountant.

EXECUTIVE COMPENSATION

As an emerging growth company, we are eligible to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies. These include, but are not limited to, reduced disclosure obligations regarding executive compensation in our proxy statements, including the requirement to include a Compensation Discussion and Analysis. We have elected to comply with the scaled disclosure requirements applicable to emerging growth companies. As an emerging growth company, we are permitted to limit reporting of compensation disclosure to our principal executive officer and our two other most highly compensated executive officers, which we refer to as our "named executive officers" or our "NEOs."

Summary Compensation Table

The following table sets forth information concerning compensation paid by us to our NEOs for their services rendered to us in all capacities during the years ended December 31, 2015 and 2016.

Dr. Litchman commenced employment as our President and Chief Executive Officer on April 24, 2017. As such, we did not pay any compensation to him in 2015 or 2016.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)	Non-Equity Incentive Plan Compensation (\$)	Il Other npensation (\$)	Total (\$)
David J. Horin ⁽¹⁾ Interim Chief Financial Officer	2016	_	_	_	_	_	\$ 48,000	\$48,000

(1) Mr. Horin's employment with us commenced May 2016. The amounts paid represents fees paid to Chord Advisors for Mr. Horin's services as well as services for back office accounting functions.

DIRECTOR COMPENSATION

Director Compensation Program

In January 2016, our directors adopted a Non-Employee Directors Compensation Plan for our non-employee directors pursuant to our 2016 Incentive Plan. Our non-employee directors will receive the following compensation:

Cash Compensation:

• \$50,000 annual retainer; and

• \$10,000 additional annual retainer for the Audit Committee Chair when it is formed.

Equity Compensation:

- Initial Equity Grant: 50,000 shares of restricted stock, which shares shall vest and become non-forfeitable in equal annual
 installments over three years, beginning on the third (3rd) anniversary of the grant date, subject to the director's continued
 service on the board of directors on such date.
- Re-Election Equity Grant: The greater of (i) a number of shares of restricted stock having a fair market value on the grant date of \$50,000, or (ii) 10,000 shares of restricted stock, which shares shall vest and become non-forfeitable on the third (3rd) anniversary of the grant date, subject to the director's continued service on the board of directors on such date.

In addition, each non-employee director receives reimbursement for reasonable travel expenses incurred in attending meetings of our board of directors and meetings of committees of our board of directors.



2016 Director Compensation Table

The following table sets forth the cash and other compensation we paid to the non-employee members of our Board of Directors for all services in all capacities during 2016.

Name	s Earned or aid in Cash (\$) ⁽¹⁾	Stock Awards (\$)	Total (\$)
Neil Herskowitz	\$ 25,000	_	\$ 25,000
Lindsay A. Rosenwald			
Michael S. Weiss	—	—	—

(1) Represents cash retainer for serving on our Board and committees of the Board.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

Our Board currently acts as our Compensation Committee. No member of our Board had any relationship with Mustang requiring further disclosure.

During the last fiscal year, none of our executive officers served as a director or member of the Compensation Committee (or other committee serving an equivalent function) of any other entity, whose executive officers either served as a member of our Board of Directors.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our directors, executive officers and persons who own more than 10% of the shares of our common stock to file an initial report of ownership on Form 3 and changes in ownership on Form 4 or Form 5 with the SEC. Such officers, directors and 10% stockholders are also required by SEC rules to furnish us with copies of any Forms 3, 4 or 5 that they file. The SEC rules require us to disclose late filings of initial reports of stock ownership and changes in stock ownership by our directors, executive officers and 10% stockholders. Based solely on a review of copies of the Forms 3, 4 and 5 furnished to us by reporting persons and any written representations furnished by certain reporting persons, we believe that during the fiscal year ended December 31, 2016, all Section 16(a) filing requirements applicable to our directors, executive officers and 10% stockholders were completed in a timely manner, except for the Forms 3 by each of Michael S. Weiss, Lindsay A. Rosenwald, M.D. and David Horin.

RELATED-PERSON TRANSACTIONS

The following is a summary of each transaction or series of similar transactions since the inception of Mustang to which it was or is a party and that:

- the amount involved exceeded or exceeds \$120,000 or is greater than 1% of our total assets; and
- any of our directors or executive officers, any holder of 5% of our capital stock or any member of their immediate family had
 or will have a direct or indirect material interest.

Founders Agreement and Management Services Agreement with Fortress

Effective March 13, 2015, the Company entered a Founders Agreement with Fortress, which was amended and restated on May 17, 2016 and again on July 26, 2016 (the "Mustang Founders Agreement"). The Mustang Founders Agreement provides that, in exchange for the time and capital expended in the formation of Mustang and the identification of specific assets the acquisition of which result in the formation of a viable emerging growth life science company, Fortress loaned \$2.0 million, representing the up-front fee required to acquire the Company's license agreement with COH. The Mustang Founders Agreement has a term of 15 years, which upon expiration automatically renews for successive one-year periods unless terminated by Fortress and the Company or a Change in Control (as defined in the Mustang Founders Agreement) occurs. Concurrently with the second amendment on July 26, 2016, to the Mustang Founders Agreement, Fortress entered into an Exchange Agreement whereby Fortress exchanged its 7.25 million Class B Common shares for 7.0 million common shares and 250,000 Class A Preferred shares. Class A Preferred Stock is identical to common stock other than as to voting rights, conversion rights and the PIK

Dividend right (as described below). Each share of Class A Preferred Stock will be entitled to vote the number of votes that is equal to one and one-tenth (1.1) times a fraction, the numerator of which is the sum of (A) the shares of outstanding Mustang common stock and (B) the whole shares of Mustang common stock into which the shares of outstanding Class A Common Stock and Class A Preferred Stock are convertible and the denominator of which is the number of shares of outstanding Class A Preferred Stock. Thus, the Class A Preferred Stock will at all times constitute a voting majority. Each share of Class A Preferred Stock is convertible, at Fortress' option, into one fully paid and nonassesable share of Mustang common stock, subject to certain adjustments. As holders of Class A Preferred Stock, Fortress will receive on each March 13 (each a "PIK Dividend Payment Date") until the date all outstanding Class as A Preferred Stock is converted into common stock or redeemed (and the purchase price is paid in full), pro rata per share dividends paid in additional fully paid and nonassesable shares of common stock ("PIK Dividends") such that the aggregate number of shares of common stock issued pursuant to such PIK Dividend is equal to two and one-half percent (2.5%) of Mustang's fully-diluted outstanding capitalization on the date that is one (1) business day prior to any PIK Dividend Payment Date.

As additional consideration under the Mustang Founders Agreement, Mustang will also: (i) pay an equity fee in shares of common stock, payable within five (5) business days of the closing of any equity or debt financing for Mustang or any of its respective subsidiaries that occurs after the effective date of the Mustang Founders Agreement and ending on the date when Fortress no longer has majority voting control in the Company's voting equity, equal to two and one-half (2.5%) of the gross amount of any such equity or debt financing; and (ii) pay a cash fee equal to four and one-half percent (4.5%) of the Company's annual net sales, payable on an annual basis, within ninety (90) days of the end of each calendar year. In the event of a Change in Control, the Company will pay a one-time change in control fee equal to five (5x) times the product of (A) net sales for the twelve (12) months immediately preceding the change in control and (B) four and one-half percent (4.5%).

On March 13, 2016, pursuant to the then in effect Mustang Founders Agreement, on the anniversary date of the Founders' Agreement, the Company issued 250,000 shares of its Class B Common Stock to Fortress representing 2.5% of the fully diluted outstanding shares of the Company. Pursuant to the terms of the Mustang Founders Agreement, as amended in July 2016, this equity fee is no longer payable.

Effective as of March 13, 2015, the Company entered into a Management Services Agreement (the "MSA") with Fortress. Pursuant to the terms of the MSA, for a period of five years, Fortress will render advisory and consulting services to the Company. Services provided under the MSA may include, without limitation, (i) advice and assistance concerning any and all aspects of the Company's operations, clinical trials, financial planning and strategic transactions and financings and (ii) conducting relations on behalf of the Company with accountants, attorneys, financial advisors and other professionals (collectively, the "Services"). The Company is obligated to utilize clinical research services, medical education, communication and marketing services and investor relations/public relation services of companies or individuals designated by Fortress, provided those services are offered at market prices. However, the Company is not obligated to take or act upon any advice rendered from Fortress and Fortress shall not be liable for any of its actions or inactions based upon their advice. Fortress and its affiliates, including all members of the Company's Board of Directors, have been contractually exempt from fiduciary duties to the Company relating to corporate opportunities. In consideration for the Services, the Company will pay Fortress an annual consulting fee of \$0.5 million (the "Annual Consulting Fee"), payable in advance in equal quarterly installments on the first business day of each calendar quarter in each year, provided, however, that such Annual Consulting Fee shall be increased to \$1.0 million for each calendar year in which the Company has net assets in excess of \$100 million at the beginning of the calendar year. For the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, the Company recorded approximately \$500,000 and \$375,000, respectively, as expense related to this agreement.

Michael S. Weiss, our Chairman of the Board of Directors, is currently Executive Vice Chairman of Fortress. The MSA and Founders Agreements were negotiated with Fortress.

As of December 30, 2016, the Board of Directors of the Company, approved and authorized the execution of an advisory agreement effective as of January 1, 2017 (the "Advisory Agreement") with Caribe

BioAdvisors, LLC (the "Advisor"), owned by Michael S. Weiss, the Chairman of the Board, to provide the board advisory services of Mr. Weiss as Executive Chairman. Pursuant to the Advisory Agreement, the Advisor will be paid an annual cash fee of \$60,000, in addition to any and all annual equity incentive grants paid to members of the Board.

Consulting Agreement with Chord Advisors, LLC ("Chord")

On April 8, 2016, the Company entered into a full service consulting agreement with Chord to provide advisory accounting services to the Company. Under the terms of the agreement, the Company paid Chord up to \$5,000 per month to perform back office accounting functions, accounting analysis and financial reporting prior to the Company's filing of its Registration Statement on Form 10 on July 27, 2016, and \$7,500 per month following that date. Either party upon 30-days written notice can terminate the agreement. In addition to these services, Mr. Horin, a Managing Partner of Chord, serves as the Company's Interim Chief Financial Officer. Chord also provides advisory accounting services to Fortress under a separate agreement. For the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, the Company recognized approximately \$48,000 and nil, respectively, in general and administrative expenses on the Statements of Operations, related to this agreement.

NSC Note and Financings

In September 2016, Fortress acquired through a tender offer 56.6% of National Holdings, Inc. ("National" or "NHLD"). The Company holds a \$3.6 million note in favor of NSC Biotech Venture Fund I, LLC for which National Securities, Inc. ("NSC") a subsidiary of National received a 10% placement fee upon issuance of the Note to Fortress.

In September 2016, the Company entered into a Placement Agent Agreement with National in connection with financing in which the Company agreed to pay NSC a cash fee of 10.0% of the gross proceeds and warrants equal to 25% of the total offering. For the year ended December 31, 2016 the Company paid NSC \$3.6 million, the full amount of the NSC Note and issued warrants for 601,486 shares to National.



STOCK OWNERSHIP OF OUR DIRECTORS, EXECUTIVE OFFICERS, AND 5% BENEFICIAL OWNERS

The following table shows information, as of April 18, 2017, concerning the beneficial ownership of our common stock by:

- each person we know to be the beneficial owner of more than 5% of our common stock;
- each of our current directors;
- · each of our NEOs shown in our Summary Compensation Table; and
- all current directors and NEOs as a group.

As of April 18, 2017, there were 25,041,889 shares of our common stock outstanding and 1,000,000 shares of our Class A common stock outstanding. In order to calculate a stockholder's percentage of beneficial ownership, we include in the calculation those shares underlying options or warrants beneficially owned by that stockholder that are vested or that will vest within 60 days of April 18, 2017. Shares of restricted stock are deemed to be outstanding. Options or warrants held by other stockholders that are not attributed to the named beneficial owner are disregarded in this calculation. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the shares of our common stock. Unless we have indicated otherwise, each person named in the table below has sole voting power and investment power for the shares listed opposite such person's name, except to the extent authority is shared by spouses under community property laws.

	Common Stock Beneficially Owned		
Name and Address of Beneficial Owner ⁽¹⁾	Number of Shares and Nature of Beneficial Ownership	Percentage of Total Common Stock	
Michael S. Weiss	500,000 ⁽²⁾	2.0%	
Manuel Litchman, M.D.	_	%	
David J. Horin	_	%	
Lindsay A. Rosenwald, M.D.	500,000 ⁽²⁾	2.0%	
Neil Herskowitz		%	
All executive officers and directors as a group	(3)	%	
5% or Greater Stockholders:			
Fortress Biotech, Inc.	10,132,653 ⁽⁴⁾	38.9% ⁽⁴⁾	

(1) The address of each of the directors, officers and owners of 5% or more of our common stock listed is c/o Mustang Bio, Inc., 2 Gansevoort Street, 9th Floor, New York, NY 10014.

- (2) Includes 500,000 warrants issued by Fortress to each of Mr. Weiss and Dr. Rosenwald that cover shares of our common stock that are owned by Fortress. These do not represent equity compensation by us to either Mr. Weiss or Dr. Rosenwald.
- (3) The total calculation for all executive officers and directors as a group does not include Mr. Weiss' and Dr. Rosenwald's warrants, which have not yet been exercised. The shares underlying the warrants are currently held by Fortress and are included in the 10,132,653 shares of common stock shown as held by Fortress.
- (4) Includes shares underlying 500,000 warrants issued to each of Mr. Weiss and Dr. Rosenwald.

	Class A Common Stock Beneficially Owned			
Name and Address of Beneficial Owner	Number of Shares and Nature of Beneficial Ownership	Percentage of Total Class A Common Stock		
City of Hope	1,000,000	100.0%		
	Class A Preferred Stock Beneficially Owned			
	Number of Shares and Nature of Beneficial	Percentage of Total Class A		
Name and Address of Beneficial Owner	Ownership	Preferred Stock		
Fortress Biotech, Inc.	250,000	100.0%		

PROPOSAL ONE: ELECTION OF DIRECTORS; NOMINEES

Our Bylaws provide that the Board shall consist of not more than nine nor less than one member, as determined from time to time by resolution of the Board. Our Board currently consists of four members. The nominated directors are: Michael S. Weiss, Lindsay A. Rosenwald, M.D., Neil Herskowitz, Manuel Litchman, M.D. and Adam J. Chill. For information about each of the nominees and our Board generally, please see "Corporate Governance-Our Board of Directors" beginning on page 5. If elected, the nominees will hold office until the next annual meeting and until a respective successor is elected and has been qualified, or until such director resigns or is removed from office. Management expects that each of the nominees will be available for election, but if any of them is unable to serve at the time the election occurs, your proxy will be voted for the election of another nominee to be designated by a majority of the independent directors serving on our Board.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE ELECTION OF ALL OF THE NOMINEES FOR DIRECTOR. IF A CHOICE IS SPECIFIED ON THE PROXY BY THE STOCKHOLDER, THE SHARES WILL BE VOTED AS SPECIFIED. IF NO SPECIFICATION IS MADE, THE SHARES WILL BE VOTED "FOR" ALL OF THE NOMINEES. THE AFFIRMATIVE VOTE OF THE HOLDERS OF A PLURALITY OF THE SHARES OF COMPANY COMMON STOCK REPRESENTED AND ENTITLED TO VOTE AT THE ANNUAL MEETING AT WHICH A QUORUM IS PRESENT IS REQUIRED FOR THE ELECTION OF THE NOMINEES.

PROPOSAL TWO: RATIFICATION OF APPOINTMENT OF BDO USA, LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board is submitting the selection of BDO USA, LLP as our independent registered public accounting firm to the stockholders for ratification at our Annual Meeting. Stockholder ratification of our independent registered public accounting firm is not required by our Bylaws or otherwise. If BDO USA, LLP is not ratified as our independent registered public accounting firm by a majority of the shares present or represented by proxy, the Board will review its future selection of independent registered public accounting firm. BDO USA, LLP will still serve as our independent registered public accounting firm of the year ending December 31, 2017, if it is not ratified by our stockholders.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" RATIFICATION OF THE APPOINTMENT OF BDO USA, LLP AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE YEAR ENDING DECEMBER 31, 2017. THE AFFIRMATIVE VOTE OF THE MAJORITY OF SHARES PRESENT IN PERSON OR REPRESENTED BY PROXY AT THE MEETING AND ENTITLED TO VOTE ON THE SUBJECT MATTER IS REQUIRED FOR APPROVAL.

PROPOSAL THREE: ADVISORY VOTE TO APPROVE THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Dodd-Frank Act") requires that our stockholders approve, on a non-binding, advisory basis, the compensation of our named executive officers as disclosed in accordance with the executive compensation disclosure rules contained in Item 402 of the SEC's Regulation S-K. Accordingly, we are seeking input from our stockholders with this advisory vote on the compensation of our named executive officers. The vote on this proposal is not intended to address any specific element of compensation; rather, the vote relates to the compensation of our named executive officers as disclosed in the Executive Compensation section of this proxy statement. We are providing this vote as required pursuant to Section 14A of the Securities Exchange Act of 1934.

Please see "Compensation Discussion and Analysis" for a full description of our executive compensation philosophy and current levels of executive compensation.

THE BOARD RECOMMENDS A VOTE "FOR" THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS AS DISCLOSED IN THIS PROXY STATEMENT. THE AFFIRMATIVE VOTE OF THE MAJORITY OF SHARES PRESENT IN PERSON OR REPRESENTED BY PROXY AT THE MEETING AND ENTITLED TO VOTE ON THE SUBJECT MATTER IS REQUIRED FOR APPROVAL.

PROPOSAL FOUR: ADVISORY VOTE ON THE FREQUENCY OF THE ADVISORY VOTE ON COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

The Dodd-Frank Act also enables our stockholders to vote, on an advisory or non-binding basis, on the frequency of the advisory vote on the compensation of our named executive officers as disclosed in accordance with the executive compensation disclosure rules contained in Item 402 of the SEC's Regulation S-K. Stockholders may choose to approve holding an advisory vote on the compensation of our named executive officers annually, biennially, or triennially. Accordingly, we are asking stockholders whether the advisory vote should occur every year, once every two years or once every three years. Stockholders may also abstain from voting. We are providing this vote as required pursuant to Section 14A of the Securities Exchange Act of 1934.

As an advisory vote, this proposal is not binding on Mustang or the Board of Directors. However, the Board of Directors intends to carefully review the results of all stockholder votes and take them into consideration when making future decisions regarding the frequency of advisory votes on compensation of our named executive officers. Notwithstanding the Board of Directors' recommendation and the outcome of the stockholder vote, the Board of Directors may in the future decide to conduct advisory votes on a more or less frequent basis and may vary its practice based on factors such as discussions with stockholders, industry trends and the adoption of material changes to compensation programs.

While our executive compensation programs are designed to promote a long-term connection between pay and performance, after careful consideration of the frequency alternatives, the Board of Directors believes that conducting advisory votes on executive compensation on a bi-annual basis is appropriate for Mustang and its stockholders at this time.

As a biotechnology company, the Company has important milestones relating to drug development and approval that do not occur every calendar year. While executive compensation is evaluated annually, the Board of Directors also considers progress over a multiyear timeframe, which is common in small- and mid-capitalization companies in our industry. The Board of Directors believes that a vote every three years provides stockholders the opportunity to evaluate the Company's compensation program on a more thorough, longer-term basis than an annual vote, without requiring a three year wait, which would be less responsive.

The Company understands that its stockholders may have different views as to what is the best approach for the Company, and we look forward to hearing from our stockholders on this proposal.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR A FREQUENCY OF "THREE YEARS" FOR FUTURE STOCKHOLDER ADVISORY VOTES ON THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS.

ADDITIONAL INFORMATION

Householding of Annual Meeting Materials

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements and annual reports. This means that only one copy of our proxy statement and 2016 Annual Report may have been sent to multiple stockholders in your household. We will promptly deliver a separate copy of either document to you if you contact us at: Mustang Bio, Inc., 2 Gansevoort Street, New York, New York 10014, Attn: Robyn Hunter. You may also contact us at (781) 652-4500.

If you want to receive separate copies of the proxy statement and annual report in the future, or if you are receiving multiple copies and would like to receive only one copy for your household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address or phone number.

Stockholder Proposals for Our 2018 Annual Meeting

Only proper proposals under Rule 14a-8 of the Exchange Act which are timely received will be included in the proxy materials for our next annual meeting. In order to be considered timely, such proposal must be received by our Corporate Secretary, Robyn Hunter, at 2 Gansevoort Street, New York, New York 10014, no later than December 29, 2017. We suggest that stockholders submit any stockholder proposal by certified mail, return receipt requested.

Our Bylaws require stockholders to provide advance notice to the Company of any stockholder director nomination(s) and any other matter a stockholder wishes to present for action at an annual meeting of stockholders (other than matters to be included in our proxy statement, which are discussed in the previous paragraph). In order to properly bring business before an annual meeting, our Bylaws require, among other things, that the stockholder submit written notice thereof complying with our Bylaws to Robyn Hunter, our Corporate Secretary, at the above address, not less than 50 days nor more than 90 days prior to the anniversary of the preceding year's annual meeting. Therefore, the Company must receive notice of a stockholder proposal submitted other than pursuant to Rule 14a-8 (as discussed above) no sooner than March 17, 2018, and no later than April 26, 2018. If a stockholder fails to provide timely notice of a proposal to be presented at our 2018 Annual Meeting of Stockholders, the proxy designated by our Board will have discretionary authority to vote on any such proposal that may come before the meeting.

Other Matters

Our Board does not know of any other matters that may come before the meeting. However, if any other matters are properly presented to the meeting, it is the intention of the person named in the accompanying proxy card to vote, or otherwise act, in accordance with their judgment on such matters.

Solicitation of Proxies

We will bear the cost of solicitation of proxies. In addition to the solicitation of proxies by mail, our officers and employees may solicit proxies in person or by telephone. We may reimburse brokers or persons holding stock in their names, or in the names of their nominees, for their expenses in sending proxies and proxy material to beneficial owners.

Incorporation of Information by Reference

The Report of the Board of Directors contained in this proxy statement is not deemed filed with the SEC and shall not be deemed incorporated by reference into any prior or future filings made by us under the Securities Act of 1933, as amended or the Exchange Act, except to the extent that we specifically incorporate such information by reference. Our Annual Report on Form 10-K for the year ended December 31, 2016, delivered to you together with this proxy statement, is hereby incorporated by reference.

Mustang Bio, Inc. 2 Gansevoort Street, 9th Floor New York, NY 10014 Investor Address Line 1 Investor Address Line 2 Investor Address Line 3 Investor Address Line 4 Investor Address Line 5 John Sample 1234 ANYWHERE STREET ANY CITY, ON A1A 1A1	VOTE BY INTERNET - www.proxyvote.com Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastem Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form. ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronically in future years. VOTE BY PHONE - 1-800-590-5903 Use any touch-fone telephone to transmit your voting instructions up until 11:59 P.M. Eastem Time the day before the cut-off date or proxy card in hand when you call and then follow the instructions. VOTE BY MAIL Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return It to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.
NAME THE COMPANY NAME INC COMMON THE COMPANY NAME INC CLASS A THE COMPANY NAME INC CLASS B THE COMPANY NAME INC CLASS D THE COMPANY NAME INC CLASS E THE COMPANY NAME INC CLASS F THE COMPANY NAME INC CLASS F THE COMPANY NAME INC 401 K	CONTROL # → 0000000000000000000000000000000000
THIS PROXY CARD IS VI THIS PROXY CARD IS V/ For Withhold The Board of Directors recommends you vote FOR the following: 1. Election of Directors Nominees	ID ONLY WHEN SIGNED AND DATED.
The Board of Directors recommends you vote FOR proposals 2 and 3. 2 Ratify the appointment of BDO USA, LLP as our independent registe ending December 31, 2017; 3 An advisory vote to approve the compensation of our named executi The Board of Directors recommends you vote 3 YEARS on the following p 4 An advisory vote on the frequency of the advisory vote on compens NOTE: Such other business as may properly come before the meeting or	For Against Abstain d public accounting firm for the year
Yes No Please indicate if you plan to attend this meeting	Investor Address Line 1 Investor Address Line 2 Investor Address Line 3 Investor Address Line 4 Investor Address Line 5 John Sample
Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give fur title as such. Joint owners should each sign personally. All holders sign. If a corporation or partnership, please sign in full corporate partnership name, by authorized officer.	st 1234 ANYWHERE STREET ANY CITY, ON A1A 1A1

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Annual Report, Notice & Proxy Statement is/ are available at www.proxyvote.com

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F	MUSTANG BIO, INC.
L	Annual Meeting of Shareholders June 7, 2017 3:00 PM
L	This proxy is solicited by the Board of Directors
H	
	The shareholder(s) hereby appoint(s) Michael S. Weiss and Manuel Litchman, M.D., or either of them, as proxies, each with the power to appoint (his/her) substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of (Common/Preferred) stock of MUSTANG BIO, INC. that the shareholder(s) is/are entitled to vote at the Annual Meeting of shareholder(s) to be held at 03:00 PM, EST on June 7, 2017, at the Alston & Bird LLP 90 Park Avenue (between 39th and 40th streets) New York, NY 10016, and any adjournment or postponement thereof.
	This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.
	Continued and to be signed on reverse side
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