

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

**FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

MEI PHARMA, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

51-0407811
(I.R.S. Employer
Identification Number)

3611 Valley Centre Drive, Suite 500
San Diego, California 92130
(858) 369-7100

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Daniel P. Gold
President & Chief Executive Officer
MEI Pharma, Inc.
3611 Valley Centre Drive, Suite 500
San Diego, California 92130
(858) 369-7100

(Name, address, including zip code, and telephone number, including area code, of agent for service)

with copies to:

Steven A. Navarro, Esq.
Finnbarr D. Murphy, Esq.
Morgan, Lewis & Bockius LLP
101 Park Avenue
New York, New York 10178
(212) 309-6000

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for not complying with any new or revised financial accounting provided pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered	Proposed maximum offering price per share (3)	Proposed maximum aggregate offering price (3)	Amount of registration fee (3)
Common Stock, \$0.00000002 par value (1) (2)	49,504,941	\$3.31	\$163,861,354.71	\$20,400.74

(1) Includes (i) 33,003,296 shares of Common Stock registered for resale by the Selling Stockholders named in this registration statement and (ii) 16,501,645 shares of Common Stock registered for resale by the Selling Stockholders upon the exercise of warrants.

(2) Pursuant to Rule 416 under the Securities Act of 1933, to the extent additional shares of Common Stock may be issued or issuable as a result of a stock split or other distribution declared at any time by the registrant's board of directors while this Registration Statement is in effect, this Registration Statement is hereby deemed to cover all of such additional shares of Common Stock.

(3) Pursuant to Rule 457(c) under the Securities Act, and solely for the purpose of calculating the registration fee, the proposed maximum offering price is \$3.31, which is the average of the high and low prices of the Common Stock on May 30, 2018, on the NASDAQ Capital Market.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information contained in this prospectus is not complete and may be changed. Neither we nor the selling stockholders may sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer and sale is not permitted.

SUBJECT TO COMPLETION, DATED JUNE 6, 2018

PROSPECTUS

49,504,941 Shares



MEI PHARMA, INC.

Common Stock

The selling stockholders named in this prospectus (the “Selling Stockholders”) may offer and sell from time to time up to 49,504,941 shares of our common stock, \$0.0000002 par value (“Common Stock”), covered by this prospectus. These shares include 16,501,645 shares that are issuable upon the exercise of warrants issued to the Selling Stockholders with an exercise price of \$2.54 per share of Common Stock (the “Warrants”).

We will not receive any proceeds from the sale of shares of Common Stock by the Selling Stockholders or by us pursuant to this prospectus, except with respect to amounts received by us upon the exercise of the Warrants. However, we will pay the expenses, other than any underwriting discounts and commissions, associated with the sale of shares pursuant to this prospectus.

Our registration of the securities covered by this prospectus does not mean that the Selling Stockholders will offer or sell any of the shares. The Selling Stockholders may sell the shares of Common Stock covered by this prospectus in a number of different ways and at varying prices. We provide more information about how the Selling Stockholders may sell the shares in the section entitled “Plan of Distribution.”

Our Common Stock is traded on the Nasdaq Capital Market under the symbol “MEIP.” On June 5, 2018, the closing price of our Common Stock on the Nasdaq Capital Market was \$4.15 per share.

An investment in our securities involves significant risks. See “[Risk Factors](#)” on page 6 of this prospectus and in any applicable prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of factors you should carefully consider before deciding to purchase our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2018.

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ABOUT THIS PROSPECTUS

Unless we have indicated otherwise, references in this prospectus to “MEI Pharma,” “we,” “us” and “our” or similar terms are to MEI Pharma, Inc., a Delaware corporation. References in this prospectus to “FDA” refer to the United States Food and Drug Administration.

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. Under this shelf registration process, the Selling Stockholders may, from time to time, offer and sell the shares of Common Stock described in this prospectus in one or more offerings. The Selling Stockholders may use the shelf registration statement to sell up to an aggregate of 49,504,941 shares of our Common Stock from time to time as described in the section entitled “Plan of Distribution.”

We will not receive any proceeds from the sale of shares of Common Stock to be offered by the Selling Stockholders pursuant to this prospectus, except with respect to amounts received by us due to the exercise of the Warrants. However, we will pay the expenses, other than underwriting discounts and commissions, associated with the sale of shares pursuant to this prospectus. To the extent appropriate, we and the Selling Stockholders, as applicable, will deliver a prospectus supplement with this prospectus to update the information contained in this prospectus. The prospectus supplement may also add, update or change information included in this prospectus. You should read both this prospectus and any applicable prospectus supplement, together with additional information described below under the captions “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

The registration statement that contains this prospectus, including the exhibits to the registration statement, contains additional information about us and the securities being offered under this prospectus. You should read the registration statement and the accompanying exhibits for further information. The registration statement and exhibits can be read and are available to the public over the Internet at the SEC’s website at <http://www.sec.gov>.

You should rely only on the information contained or incorporated by reference in this prospectus and in any prospectus supplement. We have not authorized any person to provide any information or make any statement that differs from what is contained in this prospectus. If any person does make a statement that differs from what is in this prospectus, you should not rely on it. This prospectus is not an offer to sell, nor is it a solicitation of an offer to buy, these securities in any state in which the offer or sale is not permitted. The information in this prospectus is accurate as of its date, but the information may change after that date. You should not assume that the information in this prospectus is accurate as of any date after its date.

SUMMARY

The Company

We are a pharmaceutical company focused on leveraging our development and oncology expertise to identify and advance new therapies intended to meaningfully improve the treatment of cancer. Our portfolio of drug candidates contains four clinical-stage candidates, including one candidate in an ongoing global registration trial and another candidate that is anticipated to advance into a registration trial in calendar year 2018. Our Common Stock is listed on the NASDAQ Capital Market under the symbol “MEIP”.

Our approach to building our pipeline is to license promising cancer agents and build value in programs through development and commercialization, or strategic partnerships as appropriate.

Clinical Development Programs

Pracinostat: HDAC Inhibitor Drug Candidate in a Phase III Global Registration Study

Pracinostat is an oral histone deacetylase (“HDAC”) inhibitor being evaluated in a pivotal Phase III global registration study for the treatment of adults with newly diagnosed acute myeloid leukemia (“AML”) who are not able to undergo intensive chemotherapy. Pracinostat is also being evaluated in a Phase II study in patients with high or very high-risk myelodysplastic syndrome (“MDS”). In August 2016, we entered into an exclusive worldwide license, development and commercialization agreement (the “Helsinn License Agreement”) with Helsinn Healthcare SA (“Helsinn”) for rights to pracinostat for AML, MDS and other potential indications. Helsinn is primarily responsible for development and commercialization costs for pracinostat. To date, we have received payments of \$20 million from Helsinn. In addition, we are eligible to receive up to \$444 million in regulatory and sales-based milestone payments along with royalty payments on the net sales of pracinostat, which, in the U.S., are tiered and begin in the mid-teens.

Breakthrough Therapy Designation for pracinostat was granted by the FDA in August 2016, and in January 2018 the European Medicines Agency (the “EMA”) granted Orphan Drug Designation to pracinostat for the treatment of AML. The designations in the U.S. and E.U. are supported by data from a Phase II study of pracinostat plus azacitidine in elderly patients with newly diagnosed AML who are not candidates for induction chemotherapy. The study showed a median overall survival of 19.1 months and a complete response (“CR”) rate of 42% (21 of 50 patients). These data compare favorably to an international Phase III study of azacitidine (AZA-001; Dombret et al. Blood. 2015 May 18), which showed a median overall survival of 10.4 months with azacitidine alone and a CR rate of 19.5% in a similar patient population. The combination of pracinostat and azacitidine was generally well tolerated, with no unexpected toxicities. The most common grade 3/4 treatment-emergent adverse events included febrile neutropenia, thrombocytopenia, anemia and fatigue.

The ongoing pivotal Phase III registration study, initiated in June 2017, is a randomized, double-blind, placebo-controlled study that will enroll approximately 500 eligible patients worldwide. Patients are randomized 1:1 to receive pracinostat or placebo with azacitidine as background therapy. The primary endpoint of the study is overall survival. Secondary endpoints include morphologic CR rate, event-free survival and duration of CR.

We are also working with Helsinn on a Phase II dose optimization study evaluating pracinostat in combination with azacitidine in patients with high and very-high risk MDS who are previously untreated with hypomethylating agents. The ongoing Phase II open-label study is evaluating a 45 mg dose of pracinostat in order to improve tolerability and retain patients in study longer than in an earlier Phase II study evaluating a 60 mg dose. The earlier Phase II study experienced a higher discontinuation rate in the arm treating patients with pracinostat in combination with azacitidine and did not demonstrate a statistically significant increase in the complete response rate compared to azacitidine and placebo. However, data from the earlier Phase II study

suggested that insufficient exposure to treatment may have limited overall efficacy of the combination. A more prolonged treatment may result in systemic exposure to pracinostat sufficient to achieve the desired treatment effect, unlike in the earlier study.

A pre-planned interim analysis of the Phase II study established a 10% discontinuation rate among the first 20 evaluable patients treated, meeting a predefined threshold in the first 3 treatment cycles. Having met this threshold, the study is expanding open-label enrollment to 60 patients. Patients will be followed for one year to evaluate safety and efficacy. If the expanded open-label study is successful, the companies intend to initiate a global registration study. To date 29 patients have completed at least one cycle of therapy.

The study as initially designed included two stages: the completed first stage that met the predefined discontinuation rate threshold, and a randomized and placebo-controlled second stage triggered upon meeting the predefined discontinuation threshold in the first stage. The study design is being amended to expand the open-label portion of the study to obtain data intended to better inform the design of a registration study upon successful completion of the Phase II study.

We are responsible for the conduct of this Phase II study, the cost of which is shared equally with Helsinn. Helsinn is responsible for funding additional MDS studies.

ME-401: PI3K Delta Inhibitor Advancing Toward a Registration Study

We own exclusive worldwide rights to ME-401, a selective oral inhibitor of phosphatidylinositide 3-kinase (“PI3K”) delta. ME-401 is anticipated to progress into a single-agent registration study in calendar year 2018 for the treatment of adults with relapsed or refractory follicular lymphoma (“FL”). ME-401 is differentiated from other PI3K delta inhibitors by its distinct chemical class and pharmaceutical properties that underlie the potential for improved outcomes. Preclinical evaluation and ongoing clinical work have demonstrated that ME-401 has excellent pharmaceutical properties, including long on target resident time, preferential cellular accumulation, a large volume of distribution, and a 28 hour half-life suitable for once daily oral administration. We believe these positive attributes support the continued clinical advancement of ME-401 and demonstrate that ME-401 is an attractive drug candidate with single-agent activity and the potential to be used in combination with existing or emerging therapies to treat multiple difficult-to-treat oncology indications.

B-Cell Malignancies

While we believe PI3K delta inhibitors as a group demonstrate promise in the treatment of B-cell malignancies, the FDA and EMA approved oral PI3K delta inhibitor idelalisib (marketed as Zydelig®), the FDA approved intravenous PI3K alpha/delta inhibitor copanlisib (marketed as Aliqopa®), as well as other candidates in development, are challenged by treatment limiting toxicities which may compromise overall efficacy. We believe this provides an opportunity for the development of an advanced generation candidate with superior pharmaceutical properties that can provide improved efficacy and overall safety and tolerability in the treatment of patients with B-cell malignancies such as refractory FL and chronic lymphocytic leukemia (“CLL”).

Clinical Data

Clinical data from the ongoing Phase Ib, open-label, dose-escalation study in relapsed/refractory CLL and FL demonstrate efficacy rates in excess of 50%. In the Phase Ib study 45 patients were enrolled as of May 8, 2018, 31 patients received monotherapy and 30 were evaluable for efficacy: 12 patients at 60 mg, 12 patients at 120 mg and six patients at 180 mg. Fourteen patients have received 60 mg of ME-401 in combination with rituximab (marketed as Rituxan®). With a median follow-up of 20 weeks, of the 29 patients on monotherapy evaluable for response, the demonstrated response rates were in excess of 50% at all dose levels. No dose

limiting toxicities, as defined in the protocol, were identified at any dose level since the first cohort of six patients was evaluated in May 2017. Based on the data to date, we determined that no further dose escalation was required. The study also includes an additional arm to evaluate the safety and efficacy of ME-401 in combination with rituximab (marketed as Rituxan®) in patients with various B-cell malignancies. An expansion cohort of up to 30 subjects has also been added to further evaluate the safety and efficacy of ME-401 at the 60 mg dose. Additional safety and efficacy data from the ongoing Phase Ib study were presented at the American Society of Clinical Oncology Annual Meeting in early June 2018 and will be presented at the European Hematology Association Annual Meeting in mid-June 2018. We are planning a meeting with the FDA in the second half of 2018 to discuss the Phase Ib data and to discuss clinical development plans.

Voruciclib: CDK Inhibitor in Phase I Studies

In September 2017, we acquired voruciclib, an orally administered and selective cyclin-dependent kinase (“CDK”) inhibitor differentiated by its potent in vitro inhibition of CDK9 in addition to CDK6, 4 and 1, through an exclusive worldwide license, development, manufacturing and commercialization agreement with Presage Biosciences. Inhibition of CDK9 is understood to suppress MCL1 by an established resistance mechanism to the B-cell lymphoma 2 (“BCL2”) inhibitor venetoclax (marketed as Venclaxta™). In pre-clinical studies voruciclib showed dose-dependent suppression of MCL1.

In January 2018, we announced the FDA cleared the voruciclib Investigational New Drug Application (“IND”). In the second calendar quarter of 2018, we plan to initiate a Phase I clinical study of voruciclib as a single agent in patients with relapsed and/or refractory B-cell malignancies after failure of prior standard therapies to determine the safety, preliminary efficacy and maximum tolerated dose. We will also evaluate voruciclib in combination with venetoclax (marketed as Venclaxta™) to assess synergies and the opportunity for combination treatments across multiple indications.

Voruciclib has been tested in more than 70 patients in multiple Phase I studies with a tolerability profile consistent with other drugs in its class. In pre-clinical studies, voruciclib shows dose-dependent suppression of MCL1 at concentrations achievable with doses that appear to be generally well tolerated in earlier Phase I studies. In December 2017, a preclinical study of voruciclib published in the journal Nature Scientific Reports reported that the combination of voruciclib plus the BCL2 inhibitor venetoclax was capable of inhibiting two master regulators of cell survival, MCL1 and BCL2, and achieved synergistic antitumor efficacy in an aggressive subset of Diffuse Large B-cell Lymphoma (DLBCL).

ME-344: Mitochondrial Inhibitor with Significant Combination Potential

ME-344 is our novel and tumor selective, isoflavone-derived mitochondrial inhibitor drug candidate. It directly targets the OXPHOS complex 1, a pathway involved in adenosine triphosphate (“ATP”) production in the mitochondria. ME-344 demonstrated evidence of single agent activity against refractory solid tumors in a Phase I study, and in preclinical studies tumor cells treated with ME-344 resulted in a rapid loss of ATP and cancer cell death.

In addition to single agent activity, ME-344 may also have potential in combination with antiangiogenic therapeutics. While antiangiogenics reduce the rate of glycolysis in tumors as a mechanism to block growth, tumor metabolism often shifts to mitochondrial metabolism to continue energy production to support continued tumor proliferation. In such cases of tumor plasticity in the presence of treatment with antiangiogenics, targeting the alternative metabolic source with ME-344 may open an important therapeutic opportunity.

We are evaluating this approach in an ongoing multi-center investigator-initiated study of ME-344 in combination with the vascular endothelial growth factor (“VEGF”) inhibitor bevacizumab (marketed as

Avastin®) in a total of 40 patients with HER2 negative breast cancer. The primary efficacy endpoint is inhibition of cell proliferation as measured by Ki-67 reductions. In February 2018, we announced that we are continuing the study after a planned interim data review after 20 patients were randomized showing that ME-344 was generally well-tolerated and, consistent with previous pre-clinical data, demonstrate the potential to reverse resistance to antiangiogenic therapy. Based on the interim results, it was determined that completion of enrollment of the clinical study is warranted. Interim data from this study were presented at the American Society of Clinical Oncology Annual Meeting in early June 2018.

Results from our earlier, first-in-human, single-agent Phase I clinical trial of ME-344 in patients with refractory solid tumors were published in the April 1, 2015 issue of *Cancer*. The results indicated that eight of 21 evaluable patients (38%) treated with ME-344 achieved stable disease or better, including five who experienced progression-free survival that was at least twice the duration of their last prior treatment before entry into the study. In addition, one of these patients, a heavily pre-treated patient with small cell lung cancer, achieved a confirmed partial response and remained on study for two years. ME-344 was generally well tolerated at doses equal to or less than 10 mg/kg delivered on a weekly schedule for extended durations. Treatment-related adverse events included nausea, dizziness and fatigue. Dose limiting toxicities were observed at both the 15 mg/kg and 20 mg/kg dose levels, consisting primarily of grade three peripheral neuropathy.

In June 2016, pre-clinical data from a collaboration with the Spanish National Cancer Research Centre in Madrid showing mitochondria-specific effects of ME-344 in cancer cells, including substantially enhanced anti-tumor activity when combined with agents that inhibit the activity of VEGF, were published in *Cell Reports*. These data demonstrate that the anti-cancer effects when combining ME-344 with a VEGF inhibitor are due to an inhibition of both mitochondrial and glycolytic metabolism and supported the initiation of the ongoing investigator initiated study of ME-344 in combination with the VEGF inhibitor bevacizumab (marketed as Avastin®) in HER2 negative breast cancer patients.

Corporate Information

Our principal executive offices are located at 3611 Valley Centre Drive, Suite 500, San Diego, California, 92130, and our phone number is (858) 369-7100.

RISK FACTORS

Any investment in our securities involves a high degree of risk. In addition to the other information included or incorporated by reference in this prospectus and any accompanying prospectus supplement, you should carefully consider the important factors set forth under the heading “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended June 30, 2017, our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 and in our subsequent annual reports on Form 10-K, quarterly reports on Form 10-Q and in other reports we file with the SEC from time to time, which are incorporated herein by reference, before investing in our securities. Any of the risk factors referred to above could significantly and negatively affect our business, results of operations or financial condition, which may lower the trading price of our Common Stock. The risks referred to above are not the only ones that may exist. Additional risks not currently known by us or that we deem immaterial may also impair our business operations. You may lose all or a part of your investment. For further details, see the sections entitled “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

CAUTIONARY STATEMENT ABOUT FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). All statements other than statements of historical facts contained in this prospectus and in the documents incorporated by reference herein, including statements regarding the future financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “should,” “plan,” “expect,” and similar expressions, as they relate to us, are intended to identify forward-looking statements. We have based these forward-looking statements largely on current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, without limitation, those described in “Risk Factors” and elsewhere in this prospectus and the documents incorporated by reference herein, including, among other things:

- our inability to obtain required additional financing or financing available to us on acceptable terms, or at all, which may cause us to delay, scale-back or eliminate plans related to development of our drug candidates;
- Helsinn or other parties with which we have entered into collaboration, license, development and/or commercialization agreements may not satisfy their obligations under the agreements which could impact future revenues;
- our payment obligations under the Presage License Agreement, which may reduce our cash available for other development efforts, and other risks related to the Presage License Agreement;
- we are in an early stage of clinical studies for our product candidates on which our development plans are based; clinical studies by their nature typically have a high level of risk and may not produce successful results;
- the results of pre-clinical studies and completed clinical trials are not necessarily predictive of future results, and our current drug candidates may not have favorable results in later studies or trials;
- our inability to maintain or enter into, and the risks resulting from our dependence upon, contractual arrangements necessary for the clinical development, manufacture, commercialization, marketing, sales and distribution of our product candidates;
- costs and delays in our clinical development programs and/or receipt of FDA or other required governmental or regulatory approvals, or the failure to obtain such approvals, for our product candidates;
- the FDA’s interpretation and our interpretation of data from pre-clinical and clinical studies may differ significantly;
- our failure to successfully commercialize our product candidates;
- pricing regulations, third-party reimbursement practices and healthcare reform initiatives;
- the failure of any products to gain market acceptance;
- our reliance on third parties to conduct our clinical trials and manufacture our products;
- our inability to control the costs of manufacturing our products;
- our reliance on acquisitions or licenses from third parties to expand our pipeline of drug candidates;
- competition and competitive factors;
- our inability to protect our patents or proprietary rights and obtain necessary rights to third party patents and intellectual property to operate our business;
- our inability to operate our business without infringing the patents and proprietary rights of others;

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- costs stemming from our defense against third party intellectual property infringement claims;
- general economic conditions;
- our ability to attract and retain key employees;
- technological changes;
- cybersecurity;
- government regulation generally;
- changes in industry practice; and
- one-time events.

These risks are not exhaustive. Other sections of this prospectus and the documents incorporated by reference herein include additional factors which could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time and it is not possible for us to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

You should not rely upon forward looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements.

USE OF PROCEEDS

All of the shares of Common Stock offered by the Selling Stockholders pursuant to this prospectus will be sold by the Selling Stockholders for their respective accounts. We will not receive any of the proceeds from these sales. We will receive up to an aggregate of approximately \$41,914,178 from the exercise of Warrants, assuming the exercise in full of all of the Warrants for cash. We expect to use the net proceeds from the exercise of the Warrants for general corporate purposes, including to progress our clinical trial programs.

The Selling Stockholders will pay any underwriting discounts and commissions and expenses incurred by the Selling Stockholders for brokerage, accounting, tax or legal services or any other expenses incurred by the Selling Stockholders in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, NASDAQ listing fees and fees and expenses of our counsel and our independent registered public accountants.

SELLING STOCKHOLDERS

This prospectus relates to the possible resale by the Selling Stockholders of up to 49,504,941 shares of our Common Stock, including 16,501,645 shares issuable upon exercise of the Warrants. The Selling Stockholders acquired the outstanding shares of Common Stock and the Warrants pursuant to a Securities Purchase Agreement dated May 11, 2018. The acquisition of such shares of Common Stock and Warrants was, and the acquisition of shares of Common Stock upon exercise of the Warrants will be, exempt from registration under the Securities Act. The Selling Stockholders may from time to time offer and sell any or all of the shares of Common Stock set forth below pursuant to this prospectus. When we refer to the “Selling Stockholders” in this prospectus, we mean the persons listed in the table below, and the pledgees, donees, transferees, assignees, successors and others who later come to hold any of the Selling Stockholders’ interest in shares of Common Stock other than through a public sale.

The following table sets forth, as of the date of this prospectus, the name of the Selling Stockholders for which we are registering shares of Common Stock for resale to the public, and the aggregate principal amount that the Selling Stockholders may offer pursuant to this prospectus. In calculating percentages of shares of Common Stock owned by a particular holder, we treated as outstanding the number of shares of our Common Stock issuable upon exercise of that particular holder’s Warrants, if any, and did not assume exercise of any other holder’s Warrants.

We cannot advise you as to whether the Selling Stockholders will in fact sell any or all of such shares of Common Stock. In addition, the Selling Stockholders may sell, transfer or otherwise dispose of, at any time and from time to time, the shares of Common Stock in transactions exempt from the registration requirements of the Securities Act after the date of this prospectus.

Selling Stockholder information for each additional Selling Stockholder, if any, will be set forth by prospectus supplement to the extent required prior to the time of any offer or sale of such Selling Stockholder’s shares pursuant to this prospectus. Any prospectus supplement may add, update, substitute, or change the information contained in this prospectus, including the identity of each Selling Stockholder and the number of shares registered on its behalf. A Selling Stockholder may sell all, some or none of such shares in this offering. See “Plan of Distribution.”

<u>Name of Selling Stockholder</u>	<u>Shares of Common Stock Beneficially Owned Before the Offering</u>	<u>Percentage Beneficially Owned Before the Offering(1)</u>	<u>Shares of Common Stock to be Sold in the Offering</u>	<u>Percentage Beneficially Owned to be Sold in the Offering</u>	<u>Shares of Common Stock Beneficially Owned After the Offering</u>	<u>Percentage Beneficially Owned After the Offering</u>
Acuta Capital Fund, LP (2)	1,042,903	1.48%	1,042,903	100%	—	—
Acuta Capital Opportunity Fund, LP (3)	277,227	*	277,227	100%	—	—
Amzak Health Investors, LLC (4)	3,630,363	4.99%	3,630,363	100%	—	—
Biotechnology Value Fund, L.P. (5)	2,228,478	3.14%	2,228,478	100%	—	—
Biotechnology Value Fund II, LP (6)	1,562,122	2.20%	1,567,122	100%	—	—
Biotechnology Value Trading Fund OS, L.P. (7)	372,222	*	372,222	100%	—	—
Boxer Capital, LLC (8)	4,369,636	4.99%	4,369,636	100%	—	—
CDK Associates, L.L.C.(9)	6,363,036	8.78%	6,363,036	100%	—	—
Compass MAV LLC (10)	800,949	1.14%	543,960	67.91%	256,989	*
Compass Offshore MAV LTD (11)	492,773	*	334,653	67.91%	158,120	*
Growth Equity Opportunities V, LLC (12)	8,580,858	9.99%	8,580,858	100%	—	—

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Name of Selling Stockholder	Shares of Common Stock Beneficially Owned Before the Offering	Percentage Beneficially Owned Before the Offering(1)	Shares of Common Stock to be Sold in the Offering	Percentage Beneficially Owned to be Sold in the Offering	Shares of Common Stock Beneficially Owned After the Offering	Percentage Beneficially Owned After the Offering
Investment 10, L.L.C. (13)	193,672	*	193,672	100%	—	—
MSI BVF SPV L.L.C. (14)	263,967	*	263,967	100%	—	—
MVA Investors, LLC (15)	250,824	*	250,824	100%	—	—
Perceptive Life Sciences Master Fund LTD (16)	6,600,660	9.10%	6,600,660	100%	—	—
Serrado Healthcare Fund LP (17)	1,650,165	2.33%	1,650,165	100%	—	—
Sio Partners, LP (18)	1,023,882	1.45%	695,445	67.92%	328,437	*
Sio Partners Master Fund, LP (19)	597,643	*	406,138	67.96%	191,505	*
Third Street Holdings LLC (20)	237,622	*	237,622	100%	—	—
Vivo Opportunity Fund, L.P. (21)	9,900,990	9.99%	9,900,990	100%	—	—

* Less than 1%

(1) Based upon 70,326,737 shares of Common Stock outstanding as of June 5, 2018.

- (2) The address of the Selling Stockholder is c/o Acuta Capital Partners, LLC, 1301 Shoreway Road, Suite 350, Belmont, CA 94002. Shares beneficially owned prior to the offering consist of (i) 695,269 shares of Common Stock held directly and (ii) 347,634 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. Acuta Capital Partners, LLC (“ACP”) is the general partner of the Selling Stockholder and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. As the Managing Member of ACP, Richard Lin may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by ACP. Mr. Lin disclaims beneficial ownership of all such shares of Common Stock beneficially owned by ACP except to the extent of his pecuniary interest therein. See also Note 3 below with respect to other shares of Common Stock beneficially owned by ACP.
- (3) The address of the Selling Stockholder is c/o Acuta Capital Partners, LLC, 1301 Shoreway Road, Suite 350, Belmont, CA 94002. Shares beneficially owned prior to the offering consist of (i) 184,818 shares of Common Stock held directly and (ii) 92,409 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. ACP is the general partner of the Selling Stockholder and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. As the Managing Member of ACP, Richard Lin may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by ACP. Mr. Lin disclaims beneficial ownership of all such shares of Common Stock beneficially owned by ACP except to the extent of his pecuniary interest therein. See also Note 2 above with respect to other shares of Common Stock beneficially owned by ACP.
- (4) The address of the Selling Stockholder is 980 North Federal Highway, Suite 315, Boca Raton, FL 33432. Shares beneficially owned prior to the offering consist of (i) 2,420,242 shares of Common Stock held directly and (ii) 1,210,121 shares of Common Stock issuable upon exercise of Warrants. The percentage beneficially owned reflects that the terms of the Warrants held by such Selling Stockholder prohibit the exercise thereof to the extent that such exercise would result in the Selling Stockholder’s beneficial ownership of greater than 4.99% of the shares of Common Stock then outstanding. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. Each of Michael D. Kazma, Joyce Erony and Anders Hove is a manager of the Selling Stockholder and holds shared voting and dispositive power over the shares of Common Stock owned by the Selling Stockholder and, accordingly, may be deemed to have beneficial ownership thereof.
- (5) The address of the Selling Stockholder is 1 Sansome Street 30th Floor, San Francisco, CA 94104. Shares beneficially owned prior to the offering consist of (i) 1,485,652 shares of Common Stock held directly and (ii) 742,826 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. BVF Partners LP

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("BVFLP") is the general partner and investment advisor of the Selling Stockholder and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. As the general partner of BVFLP, BVF Inc. may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by BVFLP. As the President of BVF Inc. and the general partner of BVFLP, Mark Lampert may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by BVFLP. See also Notes 6, 7, 13 and 14 with respect to other shares of Common Stock beneficially owned by BVFLP.

- (6) The address of the Selling Stockholder is 1 Sansome Street 30th Floor, San Francisco, CA 94104. Shares beneficially owned prior to the offering consist of (i) 1,041,415 shares of Common Stock held directly and (ii) 520,707 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. BVFLP is the general partner and investment advisor of the Selling Stockholder and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. As the general partner of BVFLP, BVF Inc. may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by BVFLP. As the President of BVF Inc. and the general partner of BVFLP, Mark Lampert may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by BVFLP. See also Notes 5, 7, 13 and 14 with respect to other shares of Common Stock beneficially owned by BVFLP.
- (7) The address of the Selling Stockholder is 1 Sansome Street 30th Floor, San Francisco, CA 94104. Shares beneficially owned prior to the offering consist of (i) 248,148 shares of Common Stock held directly and (ii) 124,074 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. BVFLP is the general partner and investment advisor of the Selling Stockholder and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. As the general partner of BVFLP, BVF Inc. may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by BVFLP. As the President of BVF Inc. and the general partner of BVFLP, Mark Lampert may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by BVFLP. See also Notes 5, 6, 13 and 14 with respect to other shares of Common Stock beneficially owned by BVFLP.
- (8) The address of the Selling Stockholder is 11682 El Camino Real, Suite 320, San Diego, CA 92130. Shares beneficially owned prior to the offering consist of (i) 2,913,091 shares of Common Stock held directly and (ii) 1,456,545 shares of Common Stock issuable upon exercise of Warrants. The percentage beneficially owned by the Selling Stockholder reflects that the terms of the Warrants held by such Selling Stockholder prohibit the exercise thereof to the extent that such exercise would result in the Selling Stockholder's beneficial ownership of greater than 4.99% of the shares of Common Stock then outstanding. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering.
- (9) The address of the Selling Stockholder is 731 Alexander Road, Bldg 2, Suite 500, Princeton, NJ 08540. Shares beneficially owned prior to the offering consist of (i) 4,242,024 shares of Common Stock held directly and (ii) 2,121,012 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. Caxton Corporation ("Caxton") is the manager of the Selling Stockholder and may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned thereby. As the sole stockholder of Caxton, Bruce Kovner may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by Caxton. See also Note 20 with respect to other shares of Common Stock beneficially owned by Caxton.
- (10) The address of the Selling Stockholder is c/o Sio Capital Management, LLC, 535 Fifth Avenue, Suite 910, New York, NY 10017. Shares beneficially owned prior to the offering consist of (i) 362,640 shares of Common Stock held directly, (ii) 181,320 shares of Common Stock issuable upon exercise of Warrants and (iii) 256,989 shares of Common Stock acquired in open market purchases. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering, except for the 256,989 shares of Common Stock acquired in open market purchases. Sio Capital Management, LLC ("Sio Capital") is the investment manager of the Selling Stockholder, Compass Offshore MAV LTD, Sio Partners, LP and Sio Partners Master Fund, LP and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. Sio GP LLC is the General Partner of Sio Partners LP and Sio Partners Master Fund LP. Michael Castor is the Managing Member of Sio Capital and Sio GP LLC. Pursuant to Rule 13d-4

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under the Exchange Act, each of Sio Capital, Sio GP LLC and Michael Castor disclaims beneficial ownership over the securities held of record by stockholders, except to the extent of its or his pecuniary interest therein. See also Notes 11, 18 and 19 with respect to other shares of Common Stock beneficially owned by Sio Capital.

- (11) The address of the Selling Stockholder is c/o Sio Capital Management, LLC, 535 Fifth Avenue, Suite 910, New York, NY 10017. Shares beneficially owned prior to the offering consist of (i) 223,102 shares of Common Stock held directly, (ii) 111,551 shares of Common Stock issuable upon exercise of Warrants and (iii) 158,120 shares of Common Stock acquired in open market purchases. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering, except for the 158,120 shares of Common Stock acquired in open market purchases. Sio Capital is the investment manager of the Selling Stockholder, Compass MAV LLC, Sio Partners, LP and Sio Partners Master Fund, LP and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. Sio GP LLC is the General Partner of Sio Partners LP and Sio Partners Master Fund LP. Michael Castor is the Managing Member of Sio Capital and Sio GP LLC. Pursuant to Rule 13d-4 under the Exchange Act, each of Sio Capital, Sio GP LLC and Michael Castor disclaims beneficial ownership over the securities held of record by stockholders, except to the extent of its or his pecuniary interest therein. See also Notes 10, 18 and 19 with respect to other shares of Common Stock beneficially owned by Sio Capital.
- (12) The address of the Selling Stockholder is c/o New Enterprise Associates, 1954 Greenspring Drive, Timonium, MD 21093. Shares beneficially owned prior to the offering consist of (i) 5,720,572 shares of Common Stock held directly and (ii) 2,860,286 shares of Common Stock issuable upon exercise of Warrants. The percentage beneficially owned by the Selling Stockholder reflects that the terms of the Warrants held by such Selling Stockholder prohibit the exercise thereof to the extent that such exercise would result in the Selling Stockholder's beneficial ownership of greater than 9.99% of the shares of Common Stock then outstanding. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. New Enterprise Associates 16, L.P. ("NEA 16") is the sole member of the Selling Stockholder and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. As the sole general partner of NEA 16, NEA Partners 16, L.P. ("Partners 16") may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by NEA 16. As the sole general partner of Partners 16, NEA 16 GP, LLC ("NEA 16 LLC") may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by Partners 16. Each of the individual managers of NEA 16 LLC, Peter J. Barris, Forest Baskett, Anthony A. Florence, Joshua Makower, Mohamad Makhzoumi, David M. Mott, Chetan Puttagunta, Scott D. Sandell, Ravi Viswanathan, Jon Sakoda and Peter Sonsini, share voting and dispositive power with respect to the shares of Common Stock beneficially owned by the Selling Stockholder and may be deemed to have beneficial ownership thereof. Each indirect beneficial owner of the shares of Common Stock beneficially owned by the Selling Stockholder disclaims beneficial ownership thereof except to the extent of its actual pecuniary interest therein.
- (13) The address of the Selling Stockholder is 1 Sansome Street 30th Floor, San Francisco, CA 94104. Shares beneficially owned prior to the offering consist of (i) 129,115 shares of Common Stock held directly and (ii) 64,557 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. BVFLP is the general partner and investment advisor of the Selling Stockholder and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. As the general partner of BVFLP, BVF Inc. may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by BVFLP. As the President of BVF Inc. and the general partner of BVFLP, Mark Lampert may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by BVFLP. See also Notes 5, 6, 7 and 14 with respect to other shares of Common Stock beneficially owned by BVFLP.
- (14) The address of the Selling Stockholder is 1 Sansome Street 30th Floor, San Francisco, CA 94104. Shares beneficially owned prior to the offering consist of (i) 175,978 shares of Common Stock held directly and (ii) 87,989 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. BVFLP is the general partner and investment advisor of the Selling Stockholder and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. As the general partner of BVFLP, BVF Inc. may be deemed to have

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beneficial ownership of all shares of Common Stock beneficially owned by BVFLP. As the President of BVF Inc. and the general partner of BVFLP, Mark Lampert may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by BVFLP. See also Notes 5, 6, 7 and 13 with respect to other shares of Common Stock beneficially owned by BVFLP.

- (15) The address of the Selling Stockholder is 11682 El Camino Real, Suite 320, San Diego, CA 92130. Shares beneficially owned prior to the offering consist of (i) 167,216 shares of Common Stock held directly and (ii) 83,608 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering.
- (16) The address of the Selling Stockholder is 51 Astor Place, 10th Floor, New York, NY 10003. Shares beneficially owned prior to the offering consist of (i) 4,400,440 shares of Common Stock held directly and (ii) 2,200,220 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. Perceptive Advisors LLC (“Perceptive Advisors”) is the investment advisor of the Selling Stockholder and may be deemed to have beneficial ownership of the shares of Common Stock beneficially owned thereby. Joseph Edelman is the controlling person of each of the Selling Stockholder and Perceptive Advisors and, accordingly, may be deemed to have beneficial ownership of the shares of Common Stock beneficially owned by each of the Selling Stockholder and Perceptive Advisors.
- (17) The address of the Selling Stockholder is 60 East 42nd Street, Suite 1032, New York, NY 10165. Shares beneficially owned prior to the offering consist of (i) 1,100,110 shares of Common Stock held directly and (ii) 550,055 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. Stewart Hen is the managing member of the Selling Stockholder and may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned thereby.
- (18) The address of the Selling Stockholder is c/o Sio Capital Management, LLC, 535 Fifth Avenue, Suite 910, New York, NY 10017. Shares beneficially owned prior to the offering consist of (i) 463,630 shares of Common Stock held directly, (ii) 231,815 shares of Common Stock issuable upon exercise of Warrants and (iii) 328,437 shares of Common Stock acquired in open market purchases. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering, except for the 328,437 shares of Common Stock acquired in open market purchases. Sio Capital is the investment manager of the Selling Stockholder, Compass MAV LLC, Compass Offshore MAV LTD, and Sio Partners Master Fund, LP and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. Sio GP LLC is the General Partner of Sio Partners LP and Sio Partners Master Fund LP. Michael Castor is the Managing Member of Sio Capital and Sio GP LLC. Pursuant to Rule 13d-4 under the Exchange Act, each of Sio Capital, Sio GP LLC and Michael Castor disclaims beneficial ownership over the securities held of record by stockholders, except to the extent of its or his pecuniary interest therein. See also Notes 10, 11 and 19 with respect to other shares of Common Stock beneficially owned by Sio Capital.
- (19) The address of the Selling Stockholder is c/o Sio Capital Management, LLC, 535 Fifth Avenue, Suite 910, New York, NY 10017. Shares beneficially owned prior to the offering consist of (i) 270,759 shares of Common Stock held directly, (ii) 135,379 shares of Common Stock issuable upon exercise of Warrants and (iii) 191,505 shares of Common Stock acquired in open market purchases. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering, except for the 191,505 shares of Common Stock acquired in open market purchases. Sio Capital is the investment manager of the Selling Stockholder, Compass MAV LLC, Compass Offshore MAV LTD and Sio Partners, LP and may be deemed to have beneficial ownership of the shares of Common Stock held thereby. Sio GP LLC is the General Partner of Sio Partners LP and Sio Partners Master Fund LP. Michael Castor is the Managing Member of Sio Capital and Sio GP LLC. Pursuant to Rule 13d-4 under the Exchange Act, each of Sio Capital, Sio GP LLC and Michael Castor disclaims beneficial ownership over the securities held of record by stockholders, except to the extent of its or his pecuniary interest therein. See also Notes 10, 11 and 18 with respect to other shares of Common Stock beneficially owned by Sio Capital.
- (20) The address of the Selling Stockholder is 731 Alexander Road, Bldg 2, Suite 500, Princeton, NJ 08540. Shares beneficially owned prior to the offering consist of (i) 158,415 shares of Common Stock held directly and (ii) 79,207 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is

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- offering all of the shares of Common Stock beneficially owned thereby in the offering. Peter P. D'Angelo is the managing member of the Selling Stockholder and may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned thereby. Caxton is the general partner of the investment manager of the Selling Stockholder and may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned thereby. As the sole stockholder of Caxton, Bruce Kovner may be deemed to have beneficial ownership of all shares of Common Stock beneficially owned by Caxton. See also Note 9 with respect to other shares of Common Stock beneficially owned by Caxton.
- (21) The address of the Selling Stockholder is 505 Hamilton Avenue, Suite 207, Palo Alto, CA 94301. Shares beneficially owned prior to the offering consist of (i) 6,600,660 shares of Common Stock held directly and (ii) 3,300,330 shares of Common Stock issuable upon exercise of Warrants. The Selling Stockholder is offering all of the shares of Common Stock beneficially owned thereby in the offering. The percentage beneficially owned by the Selling Stockholder reflects that the terms of the Warrants held by such Selling Stockholder prohibit the exercise thereof to the extent that such exercise would result in the Selling Stockholder's beneficial ownership of greater than 9.99% of the shares of Common Stock then outstanding. Vivo Opportunity, LLC (the "GP") is the general partner of the Selling Stockholder. Albert Cha, Frank Kung, Shan Fu, Gaurav Aggarwal and Michael Chang are the voting members of the GP, none of whom has individual voting or investment power with respect to the securities and each of whom disclaims beneficial ownership of such securities.

PLAN OF DISTRIBUTION

We are registering 49,504,941 shares of our Common Stock for possible sale by the Selling Stockholders, including 16,501,645 shares that are issuable upon the exercise of the Warrants.

The shares of Common Stock beneficially owned by the Selling Stockholders covered by this prospectus may be offered and sold from time to time by the Selling Stockholders. The term "Selling Stockholders" includes donees, pledgees, transferees or other successors in interest selling shares received after the date of this prospectus from a Selling Stockholder as a gift, pledge, partnership distribution or other non-sale related transfer. The Selling Stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and under terms then prevailing or at prices related to the then current market price or in negotiated transactions. The Selling Stockholders may sell their shares by one or more of, or a combination of, the following methods:

- purchases by a broker-dealer as principal and resale by such broker-dealer for its own account pursuant to this prospectus;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- block trades in which the broker-dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- an over-the-counter distribution in accordance with the rules of the Nasdaq Capital Market;
- through trading plans entered into by a Selling Stockholder pursuant to Rule 10b5-1 under the Exchange Act, that are in place at the time of an offering pursuant to this prospectus and any applicable prospectus supplement hereto that provide for periodic sales of their securities on the basis of parameters described in such trading plans;
- to or through underwriters;
- in "at the market" offerings, as defined in Rule 415 under the Securities Act, at negotiated prices, at prices prevailing at the time of sale or at prices related to such prevailing market prices, including sales made directly on a national securities exchange or sales made through a market maker other than on an exchange or other similar offerings through sales agents;
- in privately negotiated transactions;
- in options transactions; and
- through a combination of any of the above methods of sale.

In addition, any shares that qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution. In connection with distributions of the shares or otherwise, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of the Common Stock in the course of hedging the positions they assume with Selling Stockholders. The Selling Stockholders may also sell the Common Stock short and redeliver the shares to close out such short positions. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The Selling Stockholders may also pledge shares to a broker-dealer or other financial institution, and, upon a default, such broker-dealer or other financial institution, may effect sales of the pledged shares pursuant to this prospectus (as supplemented or amended to reflect such transaction).

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A Selling Stockholder may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by any Selling Stockholder or borrowed from any Selling Stockholder or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from any Selling Stockholder in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement (or a post-effective amendment). In addition, any Selling Stockholder may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

In effecting sales, broker-dealers or agents engaged by the Selling Stockholders may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from the Selling Stockholders in amounts to be negotiated immediately prior to the sale.

In offering the shares covered by this prospectus, the Selling Stockholders and any broker-dealers who execute sales for the Selling Stockholders may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. Any profits realized by the Selling Stockholders and the compensation of any broker-dealer may be deemed to be underwriting discounts and commissions.

In order to comply with the securities laws of certain states, if applicable, the shares must be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We have advised the Selling Stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the Selling Stockholders and their affiliates. In addition, we will make copies of this prospectus available to the Selling Stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The Selling Stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

At the time a particular offer of shares is made, if required, a prospectus supplement will be distributed that will set forth the number of shares being offered and the terms of the offering, including the name of any underwriter, dealer or agent, the purchase price paid by any underwriter, any discount, commission and other item constituting compensation, any discount, commission or concession allowed or reallocated or paid to any dealer, and the proposed selling price to the public.

We have agreed to indemnify the Selling Stockholders against certain liabilities, including certain liabilities under the Securities Act, the Exchange Act, or other federal or state law.

We have agreed with the Selling Stockholders to use all reasonable efforts to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (i) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement, (ii) such shares have been sold or transferred in accordance with Rule 144 (or another exemption from the registration requirements of the Securities Act), (iii) such securities have become eligible for resale without volume or manner-of-sale restrictions and without current public information requirements pursuant to Rule 144 and (iv) May 16, 2021.

DESCRIPTION OF CAPITAL STOCK

Common Stock

For a description of our Common Stock, please see our Registration Statement on Form 8-A filed with the SEC on November 26, 2003, and any further amendment or report filed thereafter for the purpose of updating such description.

Description of Share Capital

We are authorized to issue 113,000,000 shares of Common Stock, par value \$0.00000002 per share, and 100,000 shares of preferred stock, par value \$0.01 per share. As of June 5, 2018, we had 70,326,737 shares of Common Stock outstanding and no shares of preferred stock outstanding. As of June 5, 2018, we had 16,501,645 shares issuable upon exercise of the Warrants, with an exercise price of \$2.54 per share and an expiration date of May 16, 2023. Also as of June 5, 2018, we had outstanding (i) 5,625,224 shares of our Common Stock subject to outstanding options, with exercise prices ranging from \$1.21 to \$10.00 per share, (ii) 332,193 restricted stock units, each representing the contingent right to receive one share of our Common Stock, and (iii) 3,761,063 shares of our Common Stock available for awards under our Amended and Restated 2008 Stock Omnibus Equity Compensation Plan.

Transfer agent

The transfer agent for our Common Stock is Computershare Inc., 8742 Lucent Blvd., Suite 225, Highlands Ranch, CO 80129.

LEGAL MATTERS

The validity of the securities described herein will be passed upon for us by Morgan, Lewis & Bockius LLP.

EXPERTS

The financial statements as of June 30, 2017 and 2016, and for each of the three years in the period ended June 30, 2017, and management's assessment of the effectiveness of internal control over financial reporting as of June 30, 2017, incorporated by reference in this Prospectus, have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus and any accompanying prospectus supplement the information we have filed with the SEC. The information we incorporate by reference into this prospectus is an important part of this prospectus. Any statement in a document we incorporate by reference into this prospectus will be considered to be modified or superseded to the extent a statement contained in this prospectus, any accompanying prospectus supplement or any other subsequently filed document that is incorporated by reference into this prospectus or any accompanying prospectus supplement modifies or supersedes that statement. The modified or superseded statement will not be considered to be a part of this prospectus or any accompanying prospectus supplement, as applicable, except as modified or superseded.

We incorporate by reference into this prospectus the information contained in the documents listed below, which are considered to be a part of this prospectus:

- our Annual Report on Form 10-K for the fiscal year ended June 30, 2017;
- our Quarterly Reports on Form 10-Q for the quarters ended September 30, 2017, December 31, 2017, and March 31, 2018;
- our Current Reports on Form 8-K filed with the SEC on September 6, 2017, November 8, 2017, December 1, 2017, February 26, 2018, May 16, 2018 and June 4, 2018; and
- the description of our Common Stock contained in the Registration Statement on Form 8-A filed on November 26, 2003 and any further amendment or report filed thereafter for the purpose of updating such description.

We also incorporate by reference all documents filed pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after (i) the date of the initial registration statement and prior to the effectiveness of the registration statement and (ii) the date of this prospectus and prior to the termination of the offering of the securities under this registration statement (except in each case for the information contained in such documents that is deemed to be "furnished" and not "filed").

Statements made in this prospectus or any accompanying prospectus supplement or in any document incorporated by reference in this prospectus or any accompanying prospectus supplement as to the contents of any contract or other document referred to herein or therein are not necessarily complete, and in each instance reference is made to the copy of such contract or other document filed as an exhibit to the documents incorporated by reference, each such statement being qualified in all material respects by such reference.

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You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

MEI Pharma, Inc.
3611 Valley Centre Drive, Suite 500
San Diego, California 92130
Tel: (858) 369-7100
Attn: Investor Relations

Copies of these filings are also available, without charge, through the “Investors” section of our website (www.meipharma.com) as soon as reasonably practicable after they are filed electronically with the SEC. The information contained on our website is not a part of this prospectus.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC’s website at <http://www.sec.gov>. The SEC’s website contains reports, proxy and information statements and other information regarding issuers, such as us, that file electronically with the SEC. You may also read and copy any document we file with the SEC at the SEC’s Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the operation of its Public Reference Room.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following are the estimated expenses, other than underwriting discounts and commissions, relating to the registration of the offer and sale of the securities registered hereunder on Form S-3:

SEC registration fee	\$ 20,401
Printing and engraving fees	\$ 25,000
Legal fees	\$ 50,000
Accounting fees	\$ 30,000
Miscellaneous	\$ 24,599
Total	<u>\$ 150,000</u>

Item 15. Indemnification of Directors and Officers

Our Restated Certificate of Incorporation, as amended, provides that we will indemnify our directors and officers to the full extent permitted by the Delaware General Corporation Law, or DGCL. Section 145 of the DGCL provides that the extent to which a corporation may indemnify its directors and officers depends on the nature of the action giving rise to the indemnification right. In actions not on behalf of the corporation, directors and officers may be indemnified for acts taken in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the corporation. In actions on behalf of the corporation, directors and officers may be indemnified for acts taken in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the corporation, except for acts as to which the director or officer is adjudged liable to the corporation, unless the relevant court determines that indemnification is appropriate despite such liability. Section 145 of the DGCL also permits a corporation to (i) reimburse present or former directors or officers for their defense expenses to the extent they are successful on the merits or otherwise and (ii) advance defense expenses upon receipt of an undertaking to repay the corporation if it is determined that payment of such expenses is unwarranted.

To supplement the general indemnification right contained in our Restated Certificate of Incorporation, our Amended and Restated By-Laws provide for the specific indemnification rights permitted by Section 145 (as described above). Our Amended and Restated By-Laws also permit us to purchase Directors & Officers insurance, but no director or officer has a right to require this.

In addition to the indemnification rights described above, our Restated Certificate of Incorporation, as amended, eliminates any monetary liability of directors to us or our stockholders for breaches of fiduciary duty except for (i) breaches of the duty of loyalty, (ii) acts or omissions in bad faith, (iii) improper dividends or share redemptions and (iv) transactions from which the director derives an improper personal benefit.

Finally, we have entered into an indemnification agreement with each of our directors and executive officers. Subject to certain exceptions, the indemnification agreements provide that an indemnitee will be indemnified for all expenses incurred or paid by the indemnitee in connection with a proceeding to which the indemnitee was or is a party, or is threatened to be made a party, by reason of the indemnitee's status with or service to us or to another entity at our request. In connection with proceedings other than those by or in the right of our company and to which the indemnitee was or is a party, or is threatened to be made a party, by reason of the indemnitee's status with or service to us or to another entity at our request, the indemnification agreements provide that an indemnitee will also be indemnified for all liabilities incurred or paid by the indemnitee. The indemnification agreements also provide for advancement of expenses incurred by an indemnitee in connection with an indemnifiable claim, subject to reimbursement in certain circumstances.

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Item 16. Exhibits

<u>Exhibit No.</u>	<u>Description</u>
1.1	Form of Underwriting Agreement*
3.1	Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to Registrant's Registration Statement on Form S-1 filed on September 25, 2003 (Reg. No. 333-109129)).
3.2	Certificate of Amendment to the Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1.1 to the Registrant's Current Report on Form 8-K filed on March 31, 2010).
3.3	Certificate of Amendment to the Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on December 19, 2012).
3.4	Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 to Registrant's Quarterly Report on Form 10-Q filed on May 4, 2017).
4.1	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 to Amendment No. 1 to the Registrant's Registration Statement on Form S-1 filed on October 31, 2003 (Reg. No. 333-109129)).
5.1	Opinion of Morgan, Lewis & Bockius LLP
23.1	Consent of Morgan, Lewis & Bockius LLP (included as Exhibit 5.1)
23.2	Consent of BDO USA, LLP
24.1	Power of Attorney (included on signature page)

* To be filed by amendment or Form 8-K.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

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(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is a part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is a part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, California, on this 6th day of June, 2018.

MEI PHARMA, INC.

By: /s/ Daniel P. Gold
Name: Daniel P. Gold
Title: Chief Executive Officer

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints Daniel P. Gold and Brian G. Drazba, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file, any and all amendments to this registration statement, including any and all post-effective amendments and amendments thereto and any other registration statement relating to the same offering as this registration statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or either of them or their or his or her substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated below on June 6, 2018.

Signature

Title

<u>/s/ Daniel P. Gold</u> Daniel P. Gold	Chief Executive Officer, President and Director (Principal Executive Officer)
<u>/s/ Brian G. Drazba</u> Brian G. Drazba	Chief Financial Officer (Principal Financial and Accounting Officer)
<u>/s/ Christine A. White</u> Christine A. White	Chairperson
<u>/s/ Charles V. Baltic III</u> Charles V. Baltic III	Director
<u>/s/ Kevan E. Clemens</u> Kevan E. Clemens	Director
<u>/s/ Frederick W. Driscoll</u> Frederick W. Driscoll	Director

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Signature

Title

/s/ Nicholas R. Glover
Nicholas R. Glover

Director

/s/ Thomas C. Reynolds
Thomas C. Reynolds

Director

/s/ William D. Rueckert
William D. Rueckert

Director

Letterhead of Morgan, Lewis & Bockius LLP

June 6, 2018

MEI Pharma, Inc.
3611 Valley Centre Drive, Suite 500
San Diego, California 92130

Re: MEI Pharma, Inc. – Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel for MEI Pharma, Inc., a Delaware corporation (the “Company”), in connection with the registration statement on Form S-3 (the “Registration Statement”) to be filed by the Company with the Securities and Exchange Commission (the “Commission”) under the Securities Act of 1933, as amended (the “Securities Act”) on the date hereof. The Registration Statement relates to (i) the offer and sale of 49,504,941 shares of common stock of the Company, par value \$0.00000002 per share (“Common Stock”), from time to time by certain stockholders of the Company identified therein, consisting of (x) 33,003,296 issued and outstanding shares of Common Stock (the “Issued Shares”), and (y) 16,501,645 shares of Common Stock (the “Warrant Shares”) issuable upon the exercise of warrants (the “Warrants”) issued on May 16, 2018. The Issued Shares and the Warrant Shares are collectively referred to as the “Shares”. This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K.

In connection with this opinion letter, we have examined originals, or copies certified or otherwise identified to our satisfaction, of the Registration Statement, the Restated Certificate of Incorporation, as amended (the “Certificate of Incorporation”), the Amended and Restated By-Laws (the “By-Laws”) of the Company and the Warrants and such other documents, records and other instruments as we have deemed appropriate for purposes of the opinions set forth herein.

We have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of the documents submitted to us as originals, the conformity with the originals of all documents submitted to us as certified, facsimile or photostatic copies and the authenticity of the originals of all documents submitted to us as copies.

We have also assumed that (i) the Registration Statement and any amendments thereto will have become effective and comply with all applicable laws and no stop order suspending the Registration Statement's effectiveness will have been issued and remain in effect, in each case, at the time the Shares are offered and sold as contemplated by the Registration Statement and (ii) all Shares will be offered and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement and the applicable prospectus supplement.

As to any facts that are material to the opinions hereinafter expressed, we have relied without investigation upon certificates of officers of the Company.

Based on the foregoing, we are of the opinion that (i) the Issued Shares have been duly authorized, validly issued and are fully paid and nonassessable, and (ii) the Warrant Shares have been duly authorized and reserved for issuance by the Company and, upon issuance, payment and delivery pursuant to the terms of the Warrants, will be validly issued, fully paid and nonassessable.

The opinions expressed herein are limited to the Delaware General Corporation Law and we express no opinion with respect to the laws of any other state or jurisdiction.

We hereby consent to the use of this opinion as an exhibit to the Registration Statement and to the reference to us under the caption "Legal Matters" in the prospectus included therein. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Act or the rules or regulations of the U.S. Securities and Exchange Commission thereunder.

Very truly yours,

/s/ Morgan, Lewis & Bockius LLP

Consent of Independent Registered Public Accounting Firm

MEI Pharma, Inc.
San Diego, California

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our reports dated September 4, 2017, relating to the financial statements and the effectiveness of MEI Pharma, Inc.'s internal control over financial reporting appearing in the Company's Annual Report on Form 10-K for the year ended June 30, 2017.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ BDO USA, LLP
San Diego, California

June 6, 2018