

LEXICON PHARMACEUTICALS, INC.  
Form S-3ASR  
March 20, 2017

AS FILED WITH THE  
SECURITIES AND  
EXCHANGE  
COMMISSION ON  
MARCH 20, 2017

Registration  
No. 333-

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM S-3  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

Lexicon Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization) 76-0474169 (I.R.S. Employer Identification Number)

8800 Technology Forest Place  
The Woodlands, Texas 77381  
(281) 863-3000

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

Lonnel Coats

President and Chief Executive Officer

8800 Technology Forest Place  
The Woodlands, Texas 77381  
(281) 863-3000

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

Copies to:

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Houston, Texas 77002-6760	The Woodlands, Texas 77381
(713) 758-2222	(281) 863-3000

Approximate date of commencement of proposed sale to the public:

From time to time after this registration statement becomes effective, subject to market conditions and other factors. If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, 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.

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If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, 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, 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, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. Large accelerated filer  Accelerated filer  Non-accelerated filer (Do not check if a smaller reporting company)  Smaller reporting company

**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum		
		Offering Price Per Share (1)	Aggregate Offering Price (1)	Amount of Registration Fee
Common Stock, par value \$0.001	659,905 shares	\$15.32	\$10,109,745	\$1,172

Estimated solely for the purpose of calculating the amount of the registration fee based on the high and low trading price for the common stock as reported on the Nasdaq Global Select Market on March 15, 2017, in accordance with Rule 457(c) under the Securities Act.

659,905 Shares

Lexicon Pharmaceuticals, Inc.

Common Stock

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This prospectus relates to the offer and sale by selling stockholders of shares of our common stock to be issued by us directly to the selling stockholders pursuant to an Amended and Restated Purchase Option Agreement, dated July 30, 2010 and amended on September 30, 2016, by and among us, one of our wholly-owned subsidiaries and Symphony Icon Holdings LLC. See “Selling Stockholders” beginning on page 22.

We will not receive any proceeds from the sale of the shares offered by the selling stockholders.

The selling stockholders may offer the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices.

Our common stock is listed on The Nasdaq Global Select Market under the symbol “LXRX”. The last reported sale price on March 17, 2017 was \$14.92 per share.

Investing in our common stock involves risks. See “Risk Factors” beginning on page 4.

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

The date of this prospectus is March 20, 2017.

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You should rely only on the information contained in this prospectus and documents incorporated into this prospectus by reference. We have not authorized anyone to provide you with information different from that contained in this prospectus or the documents incorporated by reference herein. This prospectus may only be used where it is legal to sell these securities. The information contained in this prospectus, the documents incorporated by reference herein and any supplements to this prospectus are accurate only as of the dates of their respective covers or earlier dates as specified therein, regardless of the time of delivery of this prospectus or any supplement to this prospectus or of any sale of these securities.

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In this prospectus, “Lexicon,” “Lexicon Pharmaceuticals,” “we,” “us” and “our” refer to Lexicon Pharmaceuticals, Inc. and its subsidiaries. We own or have rights to trademarks or trade names that we use in connection with the operation of our business. The Lexicon name and logo are registered trademarks and XERMELO™ is a trademark of Lexicon Pharmaceuticals, Inc.

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LEXICON PHARMACEUTICALS, INC.

Lexicon Pharmaceuticals is a biopharmaceutical company focused on the development and commercialization of breakthrough treatments for human disease. We are presently devoting most of our resources to the commercialization or development of our four most advanced drug programs:

We have obtained approval from the U.S. Food and Drug Administration, or FDA, to sell our first commercial product, XERMELO™ (telotristat ethyl), an orally-delivered small molecule drug for the treatment of carcinoid syndrome diarrhea in combination with somatostatin analog, or SSA, therapy in adults inadequately controlled by SSA therapy. We have commenced sales and marketing of XERMELO, and it is now commercially available to patients in the United States. We have granted Ipsen Pharma SAS, or Ipsen, an exclusive, royalty-bearing right to commercialize telotristat ethyl outside of the United States and Japan, and Ipsen has filed an application for regulatory approval to market telotristat ethyl in the European Union.

We are developing sotagliflozin, an orally-delivered small molecule drug candidate, as a treatment for type 1 and type 2 diabetes. We have reported positive top-line primary efficacy endpoint data from two pivotal Phase 3 clinical trials of sotagliflozin in type 1 diabetes patients and are presently continuing such pivotal Phase 3 clinical trials and conducting a third Phase 3 clinical trial of sotagliflozin in type 1 diabetes patients. We have granted Sanofi an exclusive, worldwide, royalty-bearing right to develop, manufacture and commercialize sotagliflozin, and Sanofi is presently conducting Phase 3 development of sotagliflozin in type 2 diabetes.

We are developing LX2761, an orally-delivered small molecule drug candidate, as a treatment for diabetes. We are presently conducting Phase 1 development of LX2761. We have granted Sanofi certain rights of first negotiation with respect to the future development and commercialization of LX2761.

We are developing LX9211, an orally-delivered small molecule drug candidate, as a treatment for neuropathic pain.

We have completed preclinical studies required for the submission of an Investigational New Drug application, or IND, for LX9211 and are presently preparing to submit an IND and commence clinical development.

Compounds from our most advanced drug programs, as well as compounds from a number of additional drug discovery and development programs that we have advanced into various stages of clinical and preclinical development, originated from our own internal drug discovery efforts. These efforts were driven by a systematic, target biology-driven approach in which we used gene knockout technologies and an integrated platform of advanced medical technologies to systematically study the physiological and behavioral functions of almost 5,000 genes in mice and assessed the utility of the proteins encoded by the corresponding human genes as potential drug targets. We have identified and validated in living animals, or in vivo, more than 100 targets with promising profiles for drug discovery. We are working both independently and through strategic collaborations and alliances with third parties to capitalize on our drug target discoveries and drug discovery and development programs. We seek to retain exclusive or co-exclusive rights to the benefits of certain drug discovery and development programs by developing and commercializing drug candidates from those programs internally, particularly in the United States for indications treated by specialist physicians, as we have with XERMELO in the United States. We seek to collaborate with other pharmaceutical and biotechnology companies, such as Ipsen and Sanofi, with respect to drug discovery or the development and commercialization of certain of our drug candidates, particularly with respect to commercialization in territories outside the United States, commercialization in the United States for indications treated by primary care physicians, or when the collaboration may otherwise provide us with access to expertise and resources that we do not possess internally or are complementary to our own.

Lexicon Pharmaceuticals was incorporated in Delaware in July 1995, and commenced operations in September 1995. Our corporate headquarters are located at 8800 Technology Forest Place, The Woodlands, Texas 77381, and our telephone number is (281) 863-3000. Our common stock is listed on The Nasdaq Global Select Market under the symbol "LXRX."

Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 are made available free of charge on our corporate website located at [www.lexpharma.com](http://www.lexpharma.com) as soon as reasonably practicable after the filing of those reports with the Securities and Exchange Commission. Information found on or through our website is not incorporated herein by reference and should not be considered part of this prospectus.



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**RISK FACTORS**

An investment in our common stock involves risks. You should carefully consider the following risk factors, together with all of the other information included in, or incorporated by reference into, this prospectus in evaluating an investment in our common stock. If any of the following risks were to occur, our business, financial condition or results of operations could be materially adversely affected. In that case, the trading price of our common stock could decline and you could lose all or part of your investment.

**Risks Related to Our Need for Additional Financing and Our Financial Results**

We will need additional capital in the future and, if it is unavailable, we will be forced to delay, reduce or eliminate our commercialization efforts or product development programs. If additional capital is not available on reasonable terms, we will be forced to obtain funds, if at all, by entering into financing agreements on unattractive terms.

As of December 31, 2016, we had \$346.5 million in cash, cash equivalents and investments. We anticipate that our existing capital resources and the cash and revenues we expect to derive from product revenues, collaborations and other sources will enable us to fund our currently planned operations for at least the next 12 months. However, we caution you that we may generate less cash and revenues or incur expenses more rapidly than we currently anticipate. Our currently planned operations for the next twelve months include the commercialization of XERMELO in the United States; the completion of two pivotal Phase 3 clinical trials of sotagliflozin, which enrolled an aggregate of 1,575 patients with type 1 diabetes; the completion of a third Phase 3 clinical trial of sotagliflozin, which enrolled 1,406 patients with type 1 diabetes; preparations for the submission by Sanofi of an NDA for sotagliflozin in type 1 diabetes; the completion of multiple Phase 1 clinical trials of LX2761 for diabetes; and the initiation and conduct of an initial Phase 1 clinical trial of LX9211 for neuropathic pain. In addition, we cannot be certain as to what type and how many clinical trials foreign regulatory agencies will require to be conducted in order for Ipsen to gain approval to market telotristat ethyl outside of the United States and Japan or the FDA, or equivalent foreign regulatory agencies, will require to be conducted in order for Sanofi to gain approval to market sotagliflozin.

Although difficult to accurately predict, the amount of our future capital requirements will be substantial and will depend on many factors, including:

- the market acceptance and commercial success of XERMELO in the United States and the revenues we generate from that approved product;
- the success of our sales, marketing, distribution and other commercialization activities for XERMELO in the United States;
- if approved, the progress and scope of Ipsen's commercialization activities with respect to telotristat ethyl outside of the United States and Japan;
- the final results of our two pivotal Phase 3 clinical trials of sotagliflozin in type 1 diabetes patients, including continued progress of such trials on the timelines anticipated;
- the results of our third Phase 3 clinical trial of sotagliflozin in type 1 diabetes patients, including continued progress of such trial on the timelines anticipated;
- the progress and scope of Sanofi's development activities with respect to sotagliflozin in type 2 diabetes patients;
- the timing, progress and results of our clinical trials of LX2761 and LX9211;
- the amount and timing of payments, if any, under our existing collaboration agreements with Sanofi, Ipsen and other entities and any future collaboration agreements;
- the amount and timing of our research, development and commercialization expenditures;
- future results from clinical trials of our other drug candidates;
- the cost and timing of regulatory approvals and commercialization of additional drug candidates that we successfully develop;
- the market acceptance and commercial success of additional products that we successfully develop and commercially launch;
- the effect of competing programs and products, and of technological and market developments;
- the filing, maintenance, prosecution, defense and enforcement of patent claims and other intellectual property rights; and





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the cost and timing of establishing or contracting for commercialization capabilities of any other approved drug candidate.

Our capital requirements have and will continue to be substantial as we market XERMELO in the United States, continue to conduct later stage clinical trials of sotagliflozin and early stage clinical trials of LX2761 and LX9211 and advance new drug candidates into clinical development. Our capital requirements will also be affected by any expenditures we make in connection with license agreements and acquisitions of and investments in complementary products and technologies. For all of these reasons, our future capital requirements cannot easily be quantified. If our capital resources are insufficient to meet future capital requirements, we will need to raise additional funds to continue our currently planned operations. Our ability to raise additional capital is dependent on a number of factors, including the market demand for our securities, which itself is subject to a number of pharmaceutical development and business risks and uncertainties, as well as uncertainty that we would be able to raise such additional capital at a price or on terms that are favorable to us. If we raise additional capital by issuing equity securities, our then-existing stockholders will experience dilution and the terms of any new equity securities may have preferences over our common stock. If we raise additional capital by issuing debt securities, we may be required to pledge certain assets or enter into covenants that would restrict certain business activities or our ability to incur further indebtedness or otherwise contain unfavorable terms. We cannot be certain that additional financing, whether debt or equity, will be available in amounts or on terms acceptable to us, if at all. We may be unable to raise sufficient additional capital on reasonable terms, and if so, we will be forced to delay, reduce or eliminate our clinical development programs or commercialization efforts or obtain funds, if at all, by entering into financing agreements on unattractive terms. We have a history of net losses, and we expect to continue to incur net losses and may not achieve or maintain profitability.

We have incurred net losses since our inception, including net losses of \$141.4 million for the year ended December 31, 2016, \$4.7 million for the year ended December 31, 2015 and \$100.3 million for the year ended December 31, 2014. As of December 31, 2016, we had an accumulated deficit of \$1.3 billion. Because of the numerous risks and uncertainties associated with successfully developing and commercializing drugs, we are unable to predict the extent of any future losses or whether or when we will become profitable, if at all. The size of our net losses will depend, in part, on the rate of decline or growth in our revenues and on the amount of our expenses. We expect to continue to incur significant expenses over the next several years as we expect to make significant investments in the commercialization of XERMELO in the United States and the ongoing clinical development of sotagliflozin and our other drug candidates.

We commercially launched XERMELO following regulatory approval in February 2017 for the treatment of carcinoid syndrome diarrhea in combination with SSA therapy in adults inadequately controlled by SSA therapy in the United States. Prior to the launch of XERMELO, we derived substantially all of our revenues from strategic collaborations and other research and development collaborations and technology licenses.

Future revenues from our commercialization of XERMELO are uncertain because they depend on a number of factors, including market acceptance of XERMELO, the success of our sales, marketing, distribution and other commercialization activities and the cost and availability of reimbursement for XERMELO.

Future revenues from our existing collaborations are uncertain because they depend, to a large degree, on the achievement of milestones and payment of royalties we earn from any future products developed under the collaborations. Our ability to secure future revenue-generating agreements will depend upon our ability to address the needs of our potential future collaborators and licensees, and to negotiate agreements that we believe are in our long-term best interests. We may determine, as we have with certain of our drug candidates, including XERMELO in the United States and Japan, that our interests are better served by retaining rights to our discoveries and advancing our therapeutic programs to a later stage, which could limit our near-term revenues and increase expenses. Because of these and other factors, our operating results have fluctuated in the past and are likely to do so in the future, and we do not believe that period-to-period comparisons of our operating results are a good indication of our future performance. A large portion of our expenses is fixed, including expenses related to facilities and equipment. In addition, we expect to spend significant amounts to fund our commercialization activities with respect to XERMELO in the United States and our nonclinical and clinical development activities, including the conduct of ongoing and planned clinical trials

for sotagliflozin, LX2761 and LX9211. As a result, we will need to generate substantial additional revenues to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

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Our operating results have been and likely will continue to fluctuate, and we believe that period-to-period comparisons of our operating results are not a good indication of our future performance.

Our operating results and, in particular, our ability to generate additional revenues are dependent on many factors, including:

- our ability to successfully commercialize XERMELO in the United States and the amount of revenues generated from such commercialization efforts;
- the amount and timing of payments, if any, under our existing collaboration agreements with Sanofi, Ipsen and other entities;
- the success of our ongoing preclinical and clinical development efforts;
- the timing and amount of expenses incurred with respect to our preclinical and clinical development and commercialization efforts;
- our success in establishing new collaborations and technology licenses, and the timing of such arrangements;
- the success rate of our development efforts leading to opportunities for new collaborations and licenses, as well as milestone payments and royalties;
- the timing and willingness of our collaborators to commercialize pharmaceutical products that would result in milestone payments and royalties;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our products and technologies; and
- general and industry-specific economic conditions, which may affect our and our collaborators' research and development expenditures.

Because of these and other factors, including the risks and uncertainties described in this section, our operating results have fluctuated in the past and are likely to do so in the future. Due to the likelihood of fluctuations in our revenues and expenses, we believe that period-to-period comparisons of our operating results are not a good indication of our future performance.

We have substantial indebtedness that may limit cash flow available to invest in the ongoing needs of our business. We have incurred \$101.4 million of indebtedness and could in the future incur additional indebtedness beyond such amount. We are not restricted under the terms of our existing debt instruments from incurring additional debt. Our substantial debt combined with our other financial obligations and contractual commitments could have significant adverse consequences, including:

- requiring us to dedicate a substantial portion of cash flow from operations to the payment of interest on, and principal of, our debt, which will reduce the amounts available to fund working capital, capital expenditures, product commercialization and development efforts and other general corporate purposes;
- increasing our vulnerability to adverse changes in general economic, industry and market conditions;
- obligating us to restrictive covenants that may reduce our ability to take certain corporate actions or obtain further debt or equity financing;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete; and
- placing us at a competitive disadvantage compared to our competitors that have less debt or better debt servicing options.

We intend to satisfy our current and future debt service obligations with our existing cash and cash equivalents and marketable securities and funds from external sources. However, we may not have sufficient funds or may be unable to arrange for additional financing to pay the amounts due under our existing debt. Funds from external sources may not be available on acceptable terms, if at all. In addition, a failure to comply with the covenants under our existing debt instruments could result in an event of default under those instruments. In the event of an acceleration of amounts due under our debt instruments as a result of an event of default, including upon the occurrence of an event that would reasonably be expected to have a material adverse effect on our business, operations, properties, assets or condition or a failure to pay any amount due, we may not have sufficient funds or may be unable to arrange for additional financing to repay our indebtedness or to make any accelerated payments, and the lenders could seek to enforce security interests in the collateral securing such indebtedness. In addition, the



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covenants under our existing debt instruments and the pledge of our assets as collateral limit our ability to obtain additional debt financing.

We may not have the ability to raise the funds necessary to repurchase the notes evidencing our existing indebtedness upon a fundamental change, and our future debt may contain limitations on our ability to repurchase the notes.

Holders of the notes evidencing our existing indebtedness have the right to require us to repurchase their notes upon the occurrence of a fundamental change at a repurchase price equal to 100% of their principal amount, plus accrued and unpaid interest, if any. However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of notes surrendered therefor. In addition, our ability to repurchase the notes may be limited by law, by regulatory authority or by agreements governing our future indebtedness. Our failure to repurchase notes at a time when the repurchase is required by the indenture pursuant to which the notes were issued would constitute a default under the indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the notes.

### Risks Related to the Commercialization or Development of XERMELO and Our Drug Candidates

We will depend heavily on the commercial success of XERMELO in the United States. If we do not achieve commercial success with XERMELO, our business will suffer and our stock price will likely decline.

In February 2017, we obtained approval from the FDA to sell our first commercial product, XERMELO, for the treatment of carcinoid syndrome diarrhea in combination with SSA therapy in adults inadequately controlled by SSA therapy. We have commenced sales and marketing of XERMELO, and it is now commercially available to patients in the United States through two specialty pharmacies.

Prior to the approval of XERMELO, we had not marketed a therapeutic product. As a result, we had no revenues from product sales in 2016. We expect that a significant portion of our total revenues in 2017 and the next several years will be attributable to sales of XERMELO, but we cannot be certain that XERMELO will be commercially successful. Our future sales of XERMELO will depend on numerous factors, including:

- the number of patients with carcinoid syndrome diarrhea who are inadequately controlled by SSA therapy, as well as the number of newly diagnosed carcinoid syndrome diarrhea patients;

- competition from SSA therapies and any additional products for the treatment of carcinoid syndrome diarrhea that may be approved by the FDA in the future;

- the safety profile of XERMELO, including whether previously unknown side effects or increased incidence or severity of known side effects as compared to those seen during development are identified with the increased use of XERMELO after approval;

- the effectiveness of our commercial strategy for marketing XERMELO and our execution of that strategy, including our pricing strategy and the effectiveness of our efforts to obtain adequate third-party reimbursement;

- the acceptance of XERMELO by patients, the medical community and third-party payers; and

- our ability to meet the demand for commercial supplies of XERMELO and to maintain and successfully monitor commercial manufacturing arrangements for XERMELO with third-party manufacturers to ensure they meet our standards and those of the FDA, which extensively regulates and monitors pharmaceutical manufacturing facilities.

While we believe that XERMELO has a competitive commercial profile, our current estimates of the revenues that XERMELO could generate in future periods may change based upon the above factors, and could prove to be incorrect. If our revenues, market share or other indicators of market acceptance of XERMELO fail to meet the expectations of investors or public market analysts, the market price of our common stock could decline. In addition, if one or more of the factors above negatively affects XERMELO sales, our business and financial condition could be materially harmed and we may be more heavily dependent on the success of our other drug programs.

Clinical testing of our drug candidates in humans is an inherently risky and time-consuming process that may fail to demonstrate safety and efficacy, which could result in the delay, limitation or prevention of regulatory approval.

In order to obtain regulatory approvals for the commercial sale of any products that we may develop in addition to XERMELO, we or our collaborators are required to complete extensive clinical trials in humans to demonstrate the safety and



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efficacy of our drug candidates. We or our collaborators may not be able to obtain authority from the FDA, or other equivalent foreign regulatory agencies to initiate or complete any clinical trials. In addition, we have limited internal resources for making regulatory filings and interacting with regulatory authorities.

Clinical trials are inherently risky and the results from nonclinical testing of a drug candidate that is under development may not be predictive of results that will be obtained in human clinical trials. In addition, the results of early human clinical trials may not be predictive of results that will be obtained in larger-scale, advanced stage clinical trials. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials, even after achieving positive results in earlier trials. Although the primary efficacy endpoint top-line results of our two pivotal Phase 3 clinical trials of sotagliflozin in type 1 diabetes patients were positive, we cannot assure you that positive results will be achieved in those clinical trials with respect to additional endpoints or safety during the full duration of the study, or in our ongoing third Phase 3 clinical trial of sotagliflozin in type 1 diabetes patients.

Further, although Phase 2 proof-of-concept clinical trials of sotagliflozin in type 2 diabetes patients were positive, we cannot assure you that the planned Phase 3 clinical trials of sotagliflozin in type 2 diabetes patients will achieve positive results. Negative or inconclusive results from a nonclinical study or a clinical trial could cause us, our collaborators or the FDA or other equivalent foreign regulatory agencies to terminate a nonclinical study or clinical trial or require that we or our collaborators repeat or modify it. Furthermore, we, one of our collaborators or a regulatory agency with jurisdiction over the trials may suspend clinical trials at any time if the subjects or patients participating in such trials are being exposed to unacceptable health risks or for other reasons.

Any nonclinical or clinical test may fail to produce results satisfactory to the FDA or foreign regulatory authorities. Nonclinical and clinical data can be interpreted in different ways, which could delay, limit or prevent regulatory approval. The FDA or institutional review boards at the medical institutions and healthcare facilities where we or our collaborators sponsor clinical trials may suspend any trial indefinitely if they find deficiencies in the conduct of these trials. Clinical trials must be conducted in accordance with the FDA's current Good Clinical Practices. The FDA and these institutional review boards have authority to oversee our and our collaborators' clinical trials, and the FDA may require large numbers of subjects or patients. In addition, we or our collaborators must manufacture, or contract for the manufacture of, the drug candidates that we use in our clinical trials under the FDA's current Good Manufacturing Practices.

The rate of completion of clinical trials is dependent, in part, upon the rate of enrollment of patients. Patient accrual is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the study, the nature of the study, the existence of competitive clinical trials and the availability of alternative treatments. Delays in planned patient enrollment may result in increased costs and prolonged clinical development, which in turn could allow our competitors to bring products to market before we do and impair our ability to commercialize our products or potential products.

We or our collaborators may not be able to successfully complete any clinical trial of a drug candidate within any specified time period. In some cases, we or our collaborators may not be able to complete the trial at all. Moreover, clinical trials may not show our drug candidates to be both safe and effective. Thus, the FDA and other regulatory authorities may not approve any additional drug candidates that we develop for any indication or may limit the approved indications or impose other conditions.

Our drug candidates are subject to a lengthy and uncertain regulatory process that may not result in the necessary regulatory approvals, which could adversely affect our and our collaborators' ability to commercialize products. Our drug candidates, as well as the activities associated with their research, development and commercialization, are subject to extensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Failure to obtain regulatory approval for any drug candidate would prevent us from commercializing that drug candidate. Other than XERMELO in the United States, we and our collaborators have not received regulatory approval to market any of our drug candidates in any jurisdiction. The process of obtaining regulatory approvals is expensive, and often takes many years, if approval is obtained at all, and can vary substantially based upon the type, complexity and novelty of the drug candidates involved. Before a new drug application can be filed with the FDA, the drug candidate must undergo extensive clinical trials, which can take many years and may require substantial expenditures. Any clinical trial may fail to produce results satisfactory to the FDA. For example,

the FDA could determine that the design of a clinical trial is inadequate to produce reliable results. Furthermore, prior to approving a new drug, the FDA typically requires that the efficacy of the drug be demonstrated in two double-blind, controlled studies. The regulatory process also requires nonclinical testing, and data obtained from nonclinical and clinical activities are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. In addition, delays or rejections may be encountered based upon changes in regulatory policy for product approval during the period of product development and regulatory agency review. Changes in regulatory approval policy, regulations or statutes or the process for regulatory review during the development or approval periods of our drug candidates may cause delays in the approval or rejection of an application. Even if the FDA or a comparable authority in another country



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approves a drug candidate, the approval may impose significant restrictions on the indicated uses, conditions for use, labeling, advertising, promotion, marketing and/or production of such product and may impose ongoing requirements for post-approval studies, including additional research and development and clinical trials. These agencies also may impose various civil or criminal sanctions for failure to comply with regulatory requirements, including withdrawal of product approval.

The commercial success of XERMELO and any other products that we or our collaborators may develop will depend upon the degree of market acceptance among physicians, patients, health care payers, private health insurers and the medical community.

Our ability to commercialize XERMELO and, even if approved by the relevant regulatory authority, our or our collaborators' ability to commercialize any other products that we or they may develop will be highly dependent upon the extent to which XERMELO and such other products gain market acceptance among physicians, patients, health care payers, such as Medicare and Medicaid, private health insurers, including managed care organizations and group purchasing organizations, and the medical community. If XERMELO and such other products do not achieve an adequate level of acceptance, we may not generate adequate product revenues, if at all, and we may not become profitable. The degree of market acceptance of XERMELO and our drug candidates, if approved for commercial sale, will depend upon a number of factors, including:

- the effectiveness, or perceived effectiveness, of our products in comparison to competing products;
- the existence of any significant side effects, as well as their severity in comparison to any competing products;
- potential advantages or disadvantages in relation to alternative treatments;
- indications for which our products may be approved;
- the ability to offer our products for sale at competitive prices;
- relative convenience and ease of administration;
- the strength of marketing and distribution support; and
- sufficient third-party coverage or reimbursement.

If we are unable to implement and maintain an effective and specialized sales force, marketing infrastructure and distribution capabilities, we will not be able to commercialize XERMELO or our drug candidates successfully.

In order to successfully commercialize XERMELO, we have built a marketing organization and a specialized sales force for XERMELO and established distribution capabilities for the commercial launch of XERMELO in the United States. However, we had no prior experience in building and maintaining such a commercialization infrastructure.

Factors that may hinder our efforts to effectively manage and maintain such infrastructure for XERMELO or establish, manage and maintain such infrastructure for our drug candidates include:

- inability to recruit, retain and effectively manage adequate numbers of effective sales and marketing personnel;
- inability to maintain relationships with third-party logistics providers, specialty pharmacies, third-party manufacturers and other third parties instrumental in the commercial manufacture and distribution of XERMELO and any other products;
- inability to establish or implement internal controls and procedures required in connection with sales of pharmaceutical products;
- inability of sales personnel to obtain access to or convince adequate numbers of physicians to prescribe XERMELO or any other products; and
- lack of complementary products to be offered by our sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines.

If we are unable to implement and sustain our sales force, marketing infrastructure and distribution capability for XERMELO or any other products, we may not be able to generate any product revenue, may generate increased expenses and may never become profitable.

We will need to continue to expend significant time and resources to train our XERMELO sales force to be credible, persuasive and compliant in discussing XERMELO with the specialists treating the patients indicated under the label.

We will also need to continue to train our sales force to ensure that a consistent and appropriate message about XERMELO is being delivered to our potential customers. If we are unable to effectively train our sales force and equip them with effective



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materials, including medical and sales literature to help them inform and educate potential customers about the benefits and risks of XERMELO and its proper administration, our ability to successfully commercialize XERMELO could be diminished, which could have a material adverse effect on our financial condition, stock price and operations.

If we are unable to obtain adequate coverage and reimbursement from third-party payers for XERMELO and any other products that we or our collaborators may develop, our revenues and prospects for profitability will suffer. Our ability to successfully commercialize XERMELO and any other products that we or our collaborators may develop will be highly dependent on the extent to which coverage and reimbursement for such products will be available from third-party payers, including governmental payers, such as Medicare and Medicaid, and private health insurers, including managed care organizations and group purchasing organizations. Many patients will not be capable of paying themselves for XERMELO and some or all of the other products that we or our collaborators may develop, and will rely on third-party payers to pay for, or subsidize, their medical needs. If third-party payers do not provide coverage or reimbursement for XERMELO or any products that we or our collaborators may develop, our revenues and prospects for profitability will suffer. In addition, even if third-party payers provide some coverage or reimbursement for such products, the availability of such coverage or reimbursement for prescription drugs under private health insurance and managed care plans often varies based on the type of contract or plan purchased. In addition, in some foreign countries, particularly the countries in the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, price negotiations with governmental authorities can take six to 12 months or longer after the receipt of regulatory marketing approval for a product. To obtain reimbursement and/or pricing approval in some countries, we or our collaborators may be required to conduct a clinical trial that compares the cost effectiveness of our drug candidates or products to other available therapies. The conduct of such a clinical trial could be expensive and result in delays in the commercialization of our drug candidates. Third-party payers are challenging the prices charged for medical products and services, and many third-party payers limit reimbursement for newly approved health care products. In particular, third-party payers may limit the indications for which they will reimburse patients who use any products that we or our collaborators may develop. Cost-control initiatives could decrease prices we or our collaborators might establish for products that may be developed, which would result in lower product revenues to us.

We and our collaborators are subject to extensive and rigorous ongoing regulation relating to XERMELO and any other approved products.

We are subject to extensive and rigorous ongoing domestic and foreign government regulation of, among other things, the research, development, testing, manufacture, labeling, promotion, advertising, distribution and marketing of XERMELO. In addition, we or our collaborators will also be subject to such level of government regulation with respect to any other drugs which receive regulatory approvals from the FDA or foreign regulatory authorities. The failure to comply with these requirements or the identification of safety problems during commercial marketing could lead to the need for product marketing restrictions, product withdrawal or recall or other voluntary or regulatory action, which could delay further marketing until the product is brought into compliance. The failure to comply with these requirements may also subject us or our collaborators to stringent penalties.

We are subject to certain healthcare laws, regulation and enforcement; our failure to comply with those laws could have a material adverse effect on our results of operations and financial condition.

We are subject to certain healthcare laws and regulations and enforcement by the federal government and the states in which we conduct our business. The laws that may affect our ability to operate include, without limitation: the federal Anti-Kickback Law, which constrains our business activities, which includes our marketing practices, educational programs, pricing policies, and relationships with healthcare providers or other entities, by prohibiting, among other things, persons and entities from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs such as the Medicare and Medicaid programs;

federal civil and criminal false claims laws and civil monetary penalty laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare,

Medicaid, or other third-party payers that are false or fraudulent;  
• federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;

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state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payer, including commercial insurers, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts;

the Foreign Corrupt Practices Act, a United States law which regulates certain financial relationships with foreign government officials (which could include, for example, certain medical professionals);

federal and state consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;

state and federal government price reporting laws that require us to calculate and report complex pricing metrics to government programs, where such reported price may be used in the calculation of reimbursement and/or discounts on our marketed drugs (participation in these programs and compliance with the applicable requirements may subject us to potentially significant discounts on our products, increased infrastructure costs, and potentially limit our ability to offer certain marketplace discounts); and

state and federal marketing expenditure tracking and reporting laws, which generally require certain types of expenditures in the United States to be tracked and reported. Compliance with such requirements may require investment in infrastructure to ensure that tracking is performed properly, and some of these laws result in the public disclosure of various types of payments and relationships, which could potentially have a negative effect on our business and/or increase enforcement scrutiny of our activities.

In addition, certain marketing practices, including off-label promotion, may also violate certain federal and state health regulatory fraud and abuse laws as well as false claims laws. If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we, or our officers or employees, may be subject to penalties, including administrative civil and criminal penalties, damages, fines, withdrawal of regulatory approval, the curtailment or restructuring of our operations, the exclusion from participation in federal and state healthcare programs and imprisonment, any of which could adversely affect our ability to sell our drug candidates or operate our business and also adversely affect our financial results.

Numerous federal and state laws, including state security breach notification laws, state health information privacy laws and federal and state consumer protection laws, govern the collection, use and disclosure of personal information. Other countries also have, or are developing, laws governing the collection, use and transmission of personal information. In addition, most healthcare providers who may be expected to prescribe our products and from whom we may obtain patient health information are subject to privacy and security requirements under the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA. Although we are not directly subject to HIPAA, we could be subject to criminal penalties if we knowingly obtain individually identifiable health information from a HIPAA-covered entity in a manner that is not authorized or permitted by HIPAA. The legislative and regulatory landscape for privacy and data protection continues to evolve, and there has been an increasing amount of focus on privacy and data protection issues with the potential to affect our business, including recently enacted laws in a majority of states requiring security breach notification. These laws could create liability for us or increase our cost of doing business. International laws, such as the EU Data Privacy Directive (95/46/EC) and Swiss Federal Act on Data Protection, regulate the processing of personal data within Europe and between European countries and the United States. Failure to provide adequate privacy protections and maintain compliance with safe harbor mechanisms could jeopardize business transactions across borders and result in significant penalties.

Current healthcare laws and regulations and future legislative or regulatory reforms to the healthcare system may negatively affect our revenues and prospects for profitability.

A primary trend in the United States and some foreign countries is toward reform and cost containment in the health care industry. The United States and some foreign jurisdictions are considering or have enacted a number of legislative and regulatory proposals that may have the effect of reducing the prices that we are able to charge for XERMELO and other products we develop. For example, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively the PPACA, substantially modifies the framework by which healthcare is financed by both governmental and private insurers in the United States. A number of provisions contained in the PPACA have the potential to significantly affect the pharmaceutical industry,

including:

an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs, apportioned among these entities according to their market share in certain governmental health programs, not including orphan drug sales;

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expansion of eligibility criteria and increases in the rebates manufacturers must pay under certain Medicaid programs; a new Medicare Part D coverage program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during any coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;

extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;

expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program; and certain reporting requirements relating to financial arrangements with, and other "transfers of value" to, physicians.

As a result of the overall trend towards cost-effectiveness criteria and managed healthcare in the United States, third-party payers are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement of new drugs. They may use tiered reimbursement and may adversely affect demand for XERMELO and our drug candidates by placing them in an expensive tier. They may also refuse to provide any coverage of uses of approved products for medical indications other than those for which the FDA has granted market approvals. As a result, significant uncertainty exists as to whether and how much third-party payers will reimburse for newly approved drugs, which in turn will put pressure on the pricing of drugs. Further, we do not have experience in ensuring approval by applicable third-party payers outside of the United States for coverage and reimbursement of pharmaceutical products. We also anticipate pricing pressures in connection with the sale of XERMELO and our drug candidates due to the increasing influence of health maintenance organizations and additional legislative proposals.

The PPACA and other healthcare reform measures which may be adopted in the future in the United States and foreign jurisdictions may result in more rigorous coverage criteria and significant downward pressure on the prices drug manufacturers may charge. As a result, our revenues and prospects for profitability could be significantly harmed.

Our competitors may develop products that make XERMELO or our collaborators' other products obsolete.

The pharmaceutical and biotechnology industries are highly fragmented and are characterized by rapid technological change. We and our collaborators face, and will continue to face, intense competition from biotechnology and pharmaceutical companies, as well as academic research institutions, clinical reference laboratories and government agencies that are pursuing research and development activities similar to ours. In addition, significant delays in the development of our drug candidates could allow our competitors to bring products to market before us, which would impair our or our collaborators' ability to commercialize our drug candidates. XERMELO and any other products that we or our collaborators develop will compete in highly competitive markets. Further, our competitors may be more effective at using their technologies to develop commercial products. Many of the organizations competing with us have greater capital resources, larger research and development staff and facilities, more experience in obtaining regulatory approvals and more extensive product manufacturing and marketing capabilities. As a result, our competitors may be able to more easily develop products that would render XERMELO and any other products that we or our collaborators develop obsolete and noncompetitive. For example, drug candidates are currently being commercialized and developed by other pharmaceutical companies for the treatment of type 2 diabetes that act through SGLT2, one of the targets of sotagliflozin, which are in more advanced stages of development than sotagliflozin or have been approved for commercial sale by the FDA or other regulatory agencies. In addition, there may be drug candidates of which we are not aware at an earlier stage of development that may compete with our drug candidates.

We may not be able to manufacture our drug candidates in commercial quantities, which would prevent us from commercializing such drug candidates.

Other than XERMELO, our drug candidates have been manufactured in small quantities for nonclinical and clinical trials. If any of these drug candidates are approved by the FDA or other regulatory agencies for commercial sale, we or our collaborators will need to manufacture them in larger quantities. We may not be able to successfully increase the manufacturing capacity, whether in collaboration with third-party manufacturers or on our own, for any of such drug candidates in a timely or economic manner, or at all. Significant scale-up of manufacturing may require additional validation studies, which the FDA must review and approve. If we or our collaborators are unable to successfully increase the manufacturing capacity for a drug candidate, the regulatory approval or commercial launch

of that drug candidate may be delayed or there may be a shortage in supply. Our drug candidates require precise, high-quality manufacturing. The failure to achieve and maintain these high manufacturing standards, including the incidence of manufacturing errors, could result in patient injury or



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death, product recalls or withdrawals, delays or failures in product testing or delivery, cost overruns or other problems that could seriously hurt our business.

**Risks Related to Our Relationships with Third Parties**

We depend on third-party manufacturers, including sole source suppliers, to manufacture commercial quantities of XERMELO. We may not be able to maintain these relationships and could experience supply disruptions outside of our control.

We rely on a network of third-party manufacturers to manufacture and supply XERMELO for commercial sale. As a result of our reliance on these third-party manufacturers and suppliers, including sole source suppliers for certain steps in the manufacture of XERMELO, we could be subject to significant supply disruptions. Our supply chain for sourcing raw materials and manufacturing drug product ready for distribution is a multi-step endeavor. Third-party contract manufacturers procure raw materials, convert these raw materials into API, and then convert the API into final dosage form. Establishing and managing this supply chain requires a significant financial commitment and the creation and maintenance of numerous third party contractual relationships. Although we attempt to effectively manage the business relationships with companies in our supply chain, we do not have control over their operations. We require our own commercial supply of XERMELO for sale in the United States, and are required under our collaboration agreement to supply Ipsen's commercial requirements of telotristat ethyl outside of the United States and Japan once approved in such jurisdictions. We currently rely, and expect to continue to rely, on sole source third-party manufacturers to produce final drug product and package and label XERMELO. While we have identified and expect to qualify and engage back-up third-party manufacturers as additional or alternative suppliers for the production of final drug product and packaging and labeling of XERMELO, we currently do not have such arrangements in place. Moreover, some of these alternative manufacturers will need to be approved by the FDA before we can use them for manufacturing XERMELO. It is also possible that supplies of materials that cannot be second-sourced can be managed with inventory planning. There can be no assurance, however, that failure of any of our sole source third-party manufacturers to meet our and Ipsen's commercial demands for XERMELO in a timely manner, or our failure to engage qualified additional or back-up suppliers for the production of final drug product and packaging and labeling of XERMELO, would not have a material adverse effect on commercialization of XERMELO and our business.

Supply disruptions may result from a number of factors, including shortages in product raw materials, labor or technical difficulties, regulatory inspections or restrictions, shipping or customs delays or any other performance failure by any third-party manufacturer on which we rely. Any supply disruptions could disrupt sales of XERMELO, which could have a material adverse impact on our business.

We rely on a single third-party logistics provider and two independent specialty pharmacies for distribution of XERMELO in the United States, and their failure to distribute XERMELO effectively would adversely affect sales of XERMELO.

We rely on a single third-party logistics provider for shipping and warehousing of our commercial supply of XERMELO and two independent specialty pharmacies for dispensation of XERMELO to patients in fulfillment of prescriptions in the United States. Although our third-party logistics provider stores our commercial supply of XERMELO at two separate warehouses, the use of a single third-party logistics provider increases the risk that a fire or damage from another type of disaster at either of the warehouses may result in a disruption of our commercialization efforts. A specialty pharmacy is a pharmacy that specializes in the dispensing of medications for complex or chronic conditions, which often require a high level of patient education and ongoing management. The use of specialty pharmacies involves certain additional risks, including, but not limited to, risks that these specialty pharmacies will:

- not provide us accurate or timely information regarding their inventories, the number of patients who are using XERMELO or complaints about XERMELO;
- reduce or discontinue their efforts to sell or support or otherwise not effectively sell or support XERMELO;
- not devote the resources necessary to sell XERMELO in the volumes and within the time frames that we expect;
- be unable to satisfy their financial obligations to us; or
- cease operations.

If our third-party logistics provider or either or both of our specialty pharmacies do not fulfill their contractual obligations to us, or refuse or fail to adequately distribute XERMELO and serve patients, or the agreements are terminated without adequate notice, shipments of XERMELO, and associated revenues, would be adversely affected. In addition, we expect that it

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may take a significant amount of time if we were required to change our third-party logistics provider or either of our specialty pharmacies.

We are significantly dependent upon our collaborations with Ipsen, Sanofi and other pharmaceutical and biotechnology companies. If pharmaceutical products are not successfully and timely developed and commercialized under our collaborations, our opportunities to generate revenues from milestones and royalties will be greatly reduced. We have entered into collaboration agreements with Ipsen for the commercialization of telotristat ethyl outside of the United States and Japan and with Sanofi for the worldwide development and commercialization of sotagliflozin. We have also established collaborative arrangements with other pharmaceutical and biotechnology companies with respect to the research, development and commercialization of drug candidates from other programs. We have derived a substantial majority of our revenues to date from these strategic collaborations and other research and development collaborations and technology licenses. Future revenues from our existing collaborations depend upon the achievement of milestones and payment of royalties we earn from any future products developed under the collaborations. If our relationship terminates with any of our collaborators, particularly Ipsen and Sanofi, our reputation in the business and scientific community may suffer and revenues will be negatively impacted to the extent such losses are not offset by additional collaboration agreements. If milestones are not achieved under our collaborations or our collaborators are unable to successfully develop and commercialize products from which milestones and royalties are payable, we will not earn the revenues contemplated by those collaborations. We have limited or no control over the resources that any collaborator may devote to the development and commercialization of products under our alliances. For example, Sanofi is responsible for all clinical development activities relating to sotagliflozin for the treatment of type 2 diabetes and we have limited influence on the manner in which Sanofi may conduct such clinical development. Any of our present or future collaborators may not perform their obligations as expected. These collaborators may breach or terminate their agreements with us or otherwise fail to conduct research, development or commercialization activities successfully or in a timely manner. Further, our collaborators may elect not to develop pharmaceutical products arising out of our collaborative arrangements or may not devote sufficient resources to the development, regulatory approval, manufacture, marketing or sale of these products. If any of these events occurs, we may not receive collaboration revenue or otherwise realize anticipated benefits from such collaborations, our product development efforts may be delayed and our business, operating results and financial condition could be adversely affected.

Conflicts with our collaborators could jeopardize the success of our collaborative agreements and harm our product development efforts.

We may pursue opportunities in specific disease and therapeutic modality fields that could result in conflicts with our collaborators, if any of our collaborators takes the position that our internal activities overlap with those activities that are exclusive to our collaboration. Moreover, disagreements could arise with our collaborators over rights to our intellectual property or our rights to share in any of the future revenues of compounds or therapeutic approaches developed by our collaborators. Any conflict with or among our collaborators could result in the termination of our collaborative agreements, delay collaborative research or development activities, impair our ability to renew or obtain future collaborative agreements or lead to costly and time consuming litigation. Conflicts with our collaborators could also have a negative impact on our relationship with existing collaborators, materially impairing our business and revenues. Some of our collaborators are also potential competitors or may become competitors in the future. Our collaborators could develop competing products, preclude us from entering into collaborations with their competitors or terminate their agreements with us prematurely. Any of these events could harm our product development efforts. We rely on third parties to carry out drug development activities.

We rely on clinical research organizations and other third-party contractors to carry out many of our drug development activities, including the performance of nonclinical laboratory and animal tests under the FDA's current Good Laboratory Practices regulations and the conduct of clinical trials of our drug candidates in accordance with protocols we establish. If these third parties do not successfully carry out their contractual duties or regulatory obligations or meet expected deadlines, our drug development activities may be delayed, suspended or terminated. Such a failure by these third parties could significantly impair our ability to develop and commercialize the affected drug candidates.

We lack the capability to manufacture materials for nonclinical studies, clinical trials or commercial sales and rely on third parties to manufacture our drug candidates, which may harm or delay our product development and commercialization efforts.

We currently do not have the manufacturing capabilities or experience necessary to produce materials for nonclinical studies, clinical trials or commercial sales and intend in the future to continue to rely on collaborators and third-party contractors to produce such materials. We will rely on selected manufacturers to deliver materials on a timely basis and to

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comply with applicable regulatory requirements, including the current Good Manufacturing Practices of the FDA, which relate to manufacturing and quality control activities. These manufacturers may not be able to produce material on a timely basis or manufacture material at the quality level or in the quantity required to meet our development timelines and applicable regulatory requirements. In addition, there are a limited number of manufacturers that operate under the FDA's current Good Manufacturing Practices and that are capable of producing such materials, and we may experience difficulty finding manufacturers with adequate capacity for our needs. If we are unable to contract for the production of sufficient quantity and quality of materials on acceptable terms, our product development and commercialization efforts may be delayed. Moreover, noncompliance with the FDA's current Good Manufacturing Practices can result in, among other things, fines, injunctions, civil and criminal penalties, product recalls or seizures, suspension of production, failure to obtain marketing approval and withdrawal, suspension or revocation of marketing approvals.

### Risks Related to Our Intellectual Property

If we are unable to adequately protect our intellectual property, third parties may be able to use our products and technologies, which could adversely affect our ability to compete in the market.

Our success will depend in part upon our ability to obtain patents and maintain adequate protection of the intellectual property related to our products and technologies. The patent positions of biotechnology and pharmaceutical companies, including our patent position, are generally uncertain and involve complex legal and factual questions. We will be able to protect our intellectual property rights from unauthorized use by third parties only to the extent that our products and technologies are covered by valid and enforceable patents or are effectively maintained as trade secrets. We will continue to apply for patents covering our products and technologies as, where and when we deem appropriate. Pending patent applications do not provide protection against competitors because they are not enforceable until they issue as patents. Further, the disclosures contained in our current and future patent applications may not be sufficient to meet statutory requirements for patentability. Once issued, patents still may not provide commercially meaningful protection. Our existing patents and any future patents we obtain may not be sufficiently broad to prevent others from developing competing products and technologies. Furthermore, others may independently develop similar or alternative products or technologies or design around our patents. If anyone infringes upon our or our collaborators' patent rights, enforcing these rights may be difficult, costly and time-consuming and, as a result, it may not be cost-effective or otherwise expedient to pursue litigation to enforce those patent rights. In addition, our patents may be challenged by third parties as invalid or unenforceable under U.S. or foreign laws, or they may be infringed by third parties. As a result, we may be involved in the defense and enforcement of our patent or other intellectual property rights in a court of law, U.S. Patent and Trademark Office inter partes review or reexamination proceeding, foreign opposition proceeding or related legal and administrative proceeding in the United States and elsewhere. The costs of defending our patents or enforcing our proprietary rights in post-issuance administrative proceedings and litigation may be substantial and the outcome can be uncertain. An adverse outcome may allow third parties to use our intellectual property without a license and negatively impact our business. Because patent applications can take many years to issue, there may be currently pending third party applications, unknown to us, which may later result in issued patents that cover the production, manufacture, commercialization or use of our products and drug candidates. If any such patents are issued to other entities, we will be unable to obtain patent protection for the same or similar discoveries that we make relating to our products and drug candidates. Moreover, we may be blocked from using our drug targets or drug candidates or developing or commercializing our products and other drug candidates, or may be required to obtain a license that may not be available on reasonable terms, if at all. Further, others may discover uses for our drug targets and drug candidates other than those covered in our issued or pending patents, and these other uses may be separately patentable. Even if we have a patent claim on a particular technology or product, the holder of a patent covering the use of that technology or product could exclude us from selling a product that is based on the same use of that product.

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. Many countries, including certain countries in Europe, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties (for example, if the patent owner has failed

to “work” the invention in that country or the third party has patented improvements). In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of the patent. Compulsory licensing of life-saving drugs is also becoming increasingly popular in developing countries either through direct legislation or international initiatives. Such compulsory licenses could be extended to include some of our products and drug candidates, which could limit our potential revenue opportunities. Moreover, the legal systems of certain countries, particularly certain developing countries, do not favor the aggressive enforcement of patent and other intellectual property protection, which makes it difficult to stop infringement.

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We rely on trade secret protection for some of our confidential and proprietary information. We have taken security measures to protect our proprietary information and trade secrets, but these measures may not provide adequate protection. While we seek to protect our proprietary information by entering into confidentiality agreements with employees, collaborators and consultants, we cannot assure you that our proprietary information will not be disclosed, or that we can meaningfully protect our trade secrets. In addition, our competitors may independently develop substantially equivalent proprietary information or may otherwise gain access to our trade secrets.

We may be involved in patent litigation and other disputes regarding intellectual property rights and may require licenses from third parties for our planned nonclinical and clinical development and commercialization activities. We may not prevail in any such litigation or other dispute or be able to obtain required licenses.

Our products and those of our collaborators, as well as our nonclinical and clinical development efforts, may give rise to claims that they infringe the patents of others. We are aware that other companies and institutions are developing products acting through the same drug targets through which some of our drug candidates currently in clinical development act, have conducted research on many of the same targets that we have identified and have filed patent applications potentially covering drug targets that we have identified and certain therapeutic products addressing such targets. In some cases, patents have issued from these applications. In addition, many companies and institutions have well-established patent portfolios directed to common techniques, methods and means of developing, producing and manufacturing pharmaceutical products. These or other companies or institutions could bring legal actions against us or our collaborators for damages or to stop us or our collaborators from engaging in certain nonclinical or clinical development activities or from manufacturing and marketing therapeutic products that allegedly infringe their patent rights. If any of these actions are successful, in addition to our potential liability for damages, these entities would likely require us or our collaborators to obtain a license in order to continue engaging in the infringing activities or to manufacture or market the infringing therapeutic products or may force us to terminate such activities or manufacturing and marketing efforts.

We may need to pursue litigation against others to enforce our patents and intellectual property rights and may be the subject of litigation brought by third parties to enforce their patent and intellectual property rights. In addition, we may become involved in litigation based on intellectual property indemnification undertakings that we have given to certain of our collaborators. Patent litigation is expensive and requires substantial amounts of management attention. The eventual outcome of any such litigation is uncertain and involves substantial risks.

We believe that there will continue to be significant litigation in our industry regarding patent and other intellectual property rights. We have expended and many of our competitors have expended and are continuing to expend significant amounts of time, money and management resources on intellectual property litigation. If we become involved in future intellectual property litigation, it could consume a substantial portion of our resources and could negatively affect our results of operations.

We have not sought patent protection outside of the United States for some of our inventions, and some of our licensed patents only provide coverage in the United States. As a result, our international competitors could be granted foreign patent protection with respect to our discoveries.

We have decided not to pursue patent protection with respect to some of our inventions outside the United States, both because we do not believe it is cost-effective and because of confidentiality concerns. Accordingly, our international competitors could develop, and receive foreign patent protection for, genes or gene sequences, uses of those genes or gene sequences, gene products and drug targets, assays for identifying potential therapeutic products, potential therapeutic products and methods of treatment for which we are seeking United States patent protection.

We may be subject to damages resulting from claims that we, our employees or independent contractors have wrongfully used or disclosed alleged trade secrets of their former employers.

Many of our employees and independent contractors were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. We may be subject to claims that these employees, independent contractors or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and divert management's attention. If we fail in defending such claims, in addition to paying money claims, we may lose valuable

intellectual property rights or personnel. A loss of key research personnel and/or their work product could hamper or prevent our ability to commercialize certain drug candidates, which could severely harm our business.



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### Risks Related to Employees, Advisors and Facilities Operations

The loss of key personnel or the inability to attract and retain additional personnel could impair our ability to operate and expand our operations.

We are highly dependent upon the principal members of our management, as well as medical, clinical and commercial staff, the loss of whose services might adversely impact the achievement of our objectives. Retaining and, where advisable, recruiting qualified medical, clinical and commercial personnel will be critical to support activities related to successfully executing on our commercial plan for XERMELO and advancing our nonclinical and clinical development programs for sotagliflozin and our other drug programs. Competition is intense for experienced medical, clinical and commercial personnel, and we may be unable to retain or recruit medical, clinical and commercial personnel with the expertise or experience necessary to allow us to successfully develop and commercialize our products. Further, all of our employees are employed “at will” and, therefore, may leave our employment at any time. Our collaborations with outside scientists may be subject to restriction and change.

We work with scientific and clinical advisors and collaborators at academic and other institutions that assist us in our nonclinical and clinical development efforts. These advisors and collaborators are not our employees and may have other commitments that limit their availability to us. Although these advisors and collaborators generally agree not to perform competing work, if a conflict of interest between their work for us and their work for another entity arises, we may lose their services. In such a circumstance, our development efforts with respect to the matters on which they were working may be significantly delayed or otherwise adversely affected. In addition, although our advisors and collaborators sign agreements not to disclose our confidential information, it is possible that valuable proprietary knowledge may become publicly known through them.

Data breaches and cyber-attacks could compromise our intellectual property or other sensitive information and cause significant damage to our business and reputation.

In the ordinary course of our business, we collect, maintain and transmit sensitive data on our networks and systems, including our intellectual property and proprietary or confidential business information (such as research data and personal information) and confidential information with respect to our customers, clinical trial patients and our business partners. We have also outsourced significant elements of our information technology infrastructure and, as a result, third parties may or could have access to our confidential information. The secure maintenance of this information is critical to our business and reputation. We believe that companies have been increasingly subject to a wide variety of security incidents, cyber-attacks and other attempts to gain unauthorized access. These threats can come from a variety of sources, ranging in sophistication from an individual hacker to a state-sponsored attack and motive (including corporate espionage). Cyber threats may be generic, or they may be custom-crafted against our information systems. Our network and storage applications and those of our vendors may be subject to unauthorized access by hackers or breached due to operator error, malfeasance or other system disruptions. It is often difficult to anticipate or immediately detect such incidents and the damage caused by such incidents. These data breaches and any unauthorized access or disclosure of our information or intellectual property could compromise our intellectual property and expose sensitive business information. A data security breach could also lead to public exposure of personal information of our clinical trial patients, customers and others. Cyber-attacks could cause us to incur significant remediation costs, result in product development delays, disrupt key business operations and divert attention of management and key information technology resources. Our network security and data recovery measures and those of our vendors may not be adequate to protect against such security breaches and disruptions. These incidents could also subject us to liability, expose us to significant expense and cause significant harm to our reputation and business.

Facility security breaches may disrupt our operations, subject us to liability and harm our operating results.

Any break-in or trespass of our facilities that results in the misappropriation, theft, sabotage or any other type of security breach with respect to our proprietary and confidential information, including research or clinical data, or that results in damage to our equipment and assets could have a material adverse impact on our business, operating results and financial condition.

Our facilities are located near coastal zones, and the occurrence of a hurricane or other disaster could damage our facilities and equipment, which could harm our operations.

Our facilities are located in The Woodlands, Texas and Basking Ridge, New Jersey, and therefore our facilities are vulnerable to damage from hurricanes. We are also vulnerable to damage from other types of disasters, including fire, floods, power loss, communications failures, terrorism and similar events since any insurance we may maintain may not be adequate to

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cover our losses. If any disaster were to occur, our ability to operate our business at our facilities could be seriously, or potentially completely, impaired.

### Risks Related to Environmental and Product Liability

We have used hazardous chemicals and radioactive and biological materials in our business. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.

Our research and development processes have historically involved the controlled use of hazardous materials, including chemicals and radioactive and biological materials. Our operations have produced hazardous waste products. We cannot eliminate the risk of accidental contamination or discharge and any resultant injury from these materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of hazardous materials. We may face liability for any injury or contamination that results from our use or the use by third parties of these materials, and such liability may exceed our insurance coverage and our total assets. Compliance with environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development and production efforts.

In addition, our collaborators may use hazardous materials in connection with our collaborative efforts. In the event of a lawsuit or investigation, we could be held responsible for any injury caused to persons or property by exposure to, or release of, these hazardous materials used by these parties. Further, we may be required to indemnify our collaborators against all damages and other liabilities arising out of our development activities or products produced in connection with these collaborations.

Our business has a substantial risk of product liability and we face potential product liability exposure far in excess of our limited insurance coverage.

We or our collaborators may be held liable if XERMELO or any other product that we or our collaborators develop or commercialize, or any product that is made with the use or incorporation of any of our technologies, causes injury or is found otherwise unsuitable during product testing, manufacturing, marketing or sale. Regardless of merit or eventual outcome, product liability claims could result in decreased demand for our products and product candidates, injury to our reputation, withdrawal of patients from our clinical trials, product recall, substantial monetary awards to third parties and the inability to commercialize any products that we may develop. These claims might be made directly by consumers, health care providers, pharmaceutical companies or others selling or testing our products. We have obtained limited product liability insurance coverage for our clinical trials and commercial activities. However, our insurance may not reimburse us or may not be sufficient to reimburse us for expenses or losses we may suffer. Moreover, if insurance coverage becomes more expensive, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. On occasion, juries have awarded large judgments in class action lawsuits for claims based on drugs that had unanticipated side effects. In addition, the pharmaceutical and biotechnology industries, in general, have been subject to significant medical malpractice litigation. A successful product liability claim or series of claims brought against us could harm our reputation and business.

### Risks Related to Our Common Stock

Invus, L.P., Invus C.V. and their affiliates own a controlling interest in our outstanding common stock and may have interests which conflict with those of our other stockholders.

Invus, L.P. and Invus C.V., which we collectively refer to as Invus, and their affiliates currently own approximately 59.3% of the outstanding shares of our common stock and are thereby able to control the election and removal of our directors and determine our corporate and management policies, including potential mergers or acquisitions, asset sales, the amendment of our articles of incorporation or bylaws and other significant corporate transactions. This concentration of ownership may delay or deter possible changes in control of our company, which may reduce the value of an investment in our common stock. The interests of Invus and its affiliates may not coincide with the interests of other holders of our common stock.

Conversion of the notes evidencing our current indebtedness may dilute the ownership interest of our existing stockholders, including holders who had previously converted their notes, or may otherwise depress the price of our common stock.

The conversion of some or all of the notes evidencing our current indebtedness will dilute the ownership interests of existing stockholders to the extent we deliver shares upon conversion of any of the notes. Any sales in the public market of the common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the notes may encourage short selling by market participants because the conversion of the notes

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could be used to satisfy short positions, or anticipated conversion of the notes into shares of our common stock could depress the price of our common stock.

Invus has additional rights under our stockholders' agreement with Invus, L.P. which provides Invus with substantial influence over certain significant corporate matters.

Under our stockholders' agreement with Invus, L.P., Invus has the right to designate a number of directors equal to the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates, rounded up to the nearest whole number of directors. Invus has designated three of the nine current members of our board of directors. While Invus has not presently exercised its director designation rights in full, it may exercise them at any time in the future in its sole discretion. To facilitate the exercise of such rights, we have agreed, upon written request from Invus, to take all necessary steps in accordance with our obligations under the stockholders' agreement to (1) increase the number of directors to the number specified by Invus (which number shall be no greater than reasonably necessary for the exercise of Invus' director designation rights under the stockholders' agreement) and (2) cause the appointment to the newly created directorships of directors so designated by Invus pursuant to its rights under the stockholders' agreement.

Invus also has the right to require proportionate representation of Invus-appointed directors on the audit, compensation and corporate governance committees of our board of directors, subject to certain restrictions.

Invus-designated directors currently serve as one of the three members of each of the compensation committee and the corporate governance committee of our board of directors. No Invus-designated directors currently serve on the audit committee of our board of directors.

The provisions of the stockholders' agreement relating to Invus' rights to designate members of our board of directors and its audit, compensation and corporate governance committees will terminate if the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates falls below 10%. Invus also has the right to terminate these provisions at any time in its discretion.

Invus has preemptive rights under the stockholders' agreement to participate in future equity issuances by us, subject to certain exceptions, so as to maintain its then-current percentage ownership of our capital stock. Subject to certain limitations, Invus will be required to exercise its preemptive rights in advance with respect to certain marketed offerings, in which case it will be obligated to buy its pro rata share of the number of shares being offered in such marketed offering, including any over-allotment (or such lesser amount specified in its exercise of such rights), so long as the sale of the shares were priced within a range within 10% above or below the market price on the date we notified Invus of the offering and we met certain other conditions.

The provisions of the stockholders' agreement relating to preemptive rights will terminate on the earlier to occur of August 28, 2017 and the date on which the percentage of all the outstanding shares of our common stock owned by Invus and its affiliates falls below 10%.

Invus is entitled to certain consent rights under the stockholders' agreement, including with respect to (a) the creation or issuance of any new class or series of shares of our capital stock (or securities convertible into or exercisable for shares of our capital stock) having rights, preferences or privileges senior to or on parity with our common stock, (b) any amendment to our certificate of incorporation or bylaws, or amendment to the certificate of incorporation or bylaws of any of our subsidiaries, in a manner adversely affecting Invus' rights under the securities purchase agreement and the related agreements, (c) the repurchase, retirement, redemption or other acquisition of our or our subsidiaries' capital stock (or securities convertible into or exercisable for shares of our or our subsidiaries' capital stock), (d) any increase in the size of our board of directors to more than 12 members and (e) the adoption or proposed adoption of any stockholders' rights plan, "poison pill" or other similar plan or agreement, unless Invus is exempt from the provisions of such plan or agreement.

The provisions of the stockholders' agreement relating to those consent rights will terminate on the earlier to occur of August 28, 2017 and the date on which Invus and its affiliates hold less than 15% of the total number of outstanding shares of our common stock.

Our stock price may be extremely volatile.

The trading price of our common stock has been highly volatile, and we believe the trading price of our common stock will remain highly volatile and may fluctuate substantially due to factors such as the following, many of which we

cannot control:

the commercial success of XERMELO and the revenues we generate from sales of XERMELO;  
adverse results or delays in clinical trials;

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the timing and achievement of milestones under our collaboration agreements;  
announcement of FDA approval or non-approval, or delays in the FDA review process, of our or our collaborators' product candidates or those of our competitors or actions taken by regulatory agencies with respect to our, our collaborators' or our competitors' clinical trials;  
actions taken by regulatory agencies with respect to XERMELO, sotagliflozin and our other product candidates;  
the announcement of new products by us or our competitors;  
quarterly variations in our or our competitors' results of operations;  
conflicts or litigation with our collaborators;  
litigation, including intellectual property infringement and product liability lawsuits, involving us;  
failure to achieve operating results projected by securities analysts;  
changes in earnings estimates or recommendations by securities analysts;  
financing transactions;  
developments in the biotechnology or pharmaceutical industry;  
sales of large blocks of our common stock or sales of our common stock by our executive officers, directors and significant stockholders;  
departures of key personnel or board members;  
developments concerning current or future collaborations;  
FDA or international regulatory actions;  
third-party coverage and reimbursement policies;  
acquisitions of other companies or technologies;  
disposition of any of our drug programs or other technologies; and  
other factors, including general market, economic and political conditions and other factors unrelated to our operating performance or the operating performance of our competitors.

These factors may materially adversely affect the market price of our common stock and excessive volatility may continue for an extended period of time.

In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted. A securities class action suit against us could result in substantial costs and divert management's attention and resources, which could have a material and adverse effect on our business.

We may engage in future acquisitions, which may be expensive and time consuming and from which we may not realize anticipated benefits.

We may acquire additional businesses, technologies and products if we determine that these businesses, technologies and products complement our existing technology or otherwise serve our strategic goals. If we do undertake any transactions of this sort, the process of integrating an acquired business, technology or product may result in operating difficulties and expenditures and may not be achieved in a timely and non-disruptive manner, if at all, and may absorb significant management attention that would otherwise be available for ongoing development of our business. If we fail to integrate acquired businesses, technologies or products effectively or if key employees of an acquired business leave, the anticipated benefits of the acquisition would be jeopardized. Moreover, we may never realize the anticipated benefits of any acquisition, such as increased revenues and earnings or enhanced business synergies. Future acquisitions could result in potentially dilutive issuances of our equity securities, the incurrence of debt and contingent liabilities and amortization expenses related to intangible assets, which could materially impair our results of operations and financial condition.

Future sales of our common stock, or the perception that such sales may occur, may depress our stock price.

A substantial number of shares of our common stock is reserved for issuance upon conversion of notes evidencing our current indebtedness, upon the exercise of stock options and upon vesting of restricted stock units. If our stockholders sell substantial amounts of our common stock (including shares issued upon the conversion of notes, exercise of stock options or vesting of restricted stock units) in the public market, or if the market perceives that such sales may occur, the market price of





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our common stock could fall and it may become more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem appropriate. For example, following an acquisition, a significant number of shares of our common stock held by new stockholders may become freely tradable or holders of registration rights could cause us to register their shares for resale. Sales of these shares of common stock held by existing stockholders could cause the market price of our common stock to decline.

If we are unable to meet Nasdaq continued listing requirements, Nasdaq may take action to delist our common stock. Our common stock trades on The Nasdaq Global Select Market, which has qualitative and quantitative listing criteria, including operating results, net assets, corporate governance, minimum trading price and minimums for public float, which is the amount of stock not held by our affiliates. If we are unable to meet Nasdaq continued listing requirements, Nasdaq may take action to delist our common stock. A delisting of our common stock could negatively impact us and our shareholders by reducing the liquidity and market price of our common stock and potentially reducing the number of investors willing to hold or acquire our common stock.

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### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference into this prospectus contain certain information regarding our financial projections, plans and strategies that are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and 21E of the Securities Exchange Act of 1934. We have attempted to identify forward-looking statements by terminology including “anticipate,” “believe,” “can,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “should” or “will” or the negative of these terms or other comparable terminology. These statements, which are only predictions and involve known and unknown risks, uncertainties and other important factors may include, among other things, statements which address our strategy and operating performance, events or developments that we expect or anticipate will occur in the future, such as projections of our future results of operations or of our financial condition, the status of any collaborative agreements or clinical trials, the expected timing of the completion of our ongoing and future clinical trials and the results of such trials, including top-line data, expected timing of initiation of our planned clinical trials, expected enrollment in our ongoing and future clinical trials, and our research and development efforts and anticipated trends in our business.

We have based these forward-looking statements on our current expectations and projections about future events. However, there may be events in the future that we are not able to predict accurately or which we do not fully control that could cause actual results to differ materially from those expressed or implied in our forward-looking statements. Many important factors could cause actual results to differ materially from those expressed or implied by these forward-looking statements, including those discussed under “Risk Factors” in this prospectus and any prospectus supplement and other sections of the documents incorporated by reference into this prospectus. Except as required by applicable law, we undertake no obligation to publicly release any revisions to the forward-looking statements or reflect events or circumstances after the date of this prospectus.

### USE OF PROCEEDS

All of the shares offered by this prospectus are being offered and sold by the selling stockholders. We will not receive any proceeds from the sale of the shares of common stock offered by the selling stockholders.

We will pay all expenses for the registration of the selling stockholders’ offer and sale of the shares of common stock covered by this prospectus, including registration fees, the costs and expenses of our counsel and independent public accountants and the reasonable fees of one counsel for the selling stockholders. The selling stockholders will pay any underwriting discounts and commissions which they incur in selling shares of our common stock.

### SELLING STOCKHOLDERS

In June 2007, we entered into a series of related agreements providing for the financing of the clinical development of certain of our drug candidates, including telotristat ethyl, along with any other pharmaceutical compositions modulating the same targets as those drug candidates. Under the financing arrangement, we exclusively licensed to Symphony Icon, Inc., or Symphony Icon, at that time a wholly-owned subsidiary of Symphony Icon Holdings LLC, or Holdings, our intellectual property rights related to the programs and received an exclusive option to acquire all of the equity of Symphony Icon, thereby allowing us to reacquire the programs.

In July 2010, we entered into an Amended and Restated Purchase Option Agreement, or Option Agreement, with Holdings and Symphony Icon and simultaneously exercised our purchase option, thereby acquiring all of the equity of Symphony Icon and reacquiring the programs. In September 2016, we amended the Option Agreement to designate a buyout amount of \$21,013,000 in lieu of any remaining payments which may be or become payable to Holdings under the Option Agreement, payable in the event that we received regulatory approval in the United States for the marketing and sale of XERMELO.

In February 2017, we received such regulatory approval of XERMELO, triggering our obligation to pay the \$21,013,000 buyout amount to Holdings pursuant to the amended terms of the Option Agreement. We will issue the shares of common stock covered by this prospectus on March 21, 2017 in payment of 50%, or \$10,506,500, of such buyout amount due to Holdings. We will issue such shares directly to the selling stockholders at Holdings’ request and direction.

In connection with our entry into the Option Agreement and our exercise of our purchase option, we entered into an Amended and Restated Registration Rights Agreement, or Registration Rights Agreement, pursuant to which we agreed to register the resale of the shares of common stock issuable to Holdings and to use commercially reasonable

efforts to keep the registration statement effective until the earliest of (a) the date on which the selling stockholders may sell all of the common stock covered by the registration statement without restriction under Rule 144(b)(1) under the Securities Act of 1933, (b) the date on which the selling stockholders have sold all of the common stock covered by the registration statement or (c) two years after the final date on which common stock was issued in payment of the purchase price relating to the purchase option. All of

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the shares to be offered by the selling stockholders using this prospectus will be originally issued by us in transactions exempt from the registration requirements of the Securities Act of 1933.

The selling stockholders, or their donees of 500 or fewer shares, may offer the shares of common stock covered by this prospectus from time to time. Our registration of the selling stockholders' offer and sale of such shares does not necessarily mean that the selling stockholders will sell any or all of their shares. We do not know when or in what amounts the selling stockholders may offer shares for sale. Because the selling stockholders may offer all or some of the shares pursuant to this offering, and because there are currently no agreements, arrangements or understandings with respect to the sale of any of the shares, we cannot estimate the number of the shares that will be held by the selling stockholders after completion of the offering.

If a selling stockholder transfers more than 500 shares of common stock by gift, pledge or other non-sale transfer after the effective date of the registration statement of which this prospectus is a part, the donee, pledgee or transferee may make no offer or sale under this prospectus unless and until a supplement to this prospectus has been filed or an amendment to the related registration statement has become effective.

The table below sets forth the beneficial ownership of all common stock held by each selling stockholder as of March 17, 2017 and the number of shares of common stock offered by this prospectus. Percentage of ownership is based on 104,554,038 shares of common stock outstanding on March 15, 2017.

We prepared this table based on information supplied to us by Holdings, and we have not sought to independently verify such information.

Name of Selling Stockholder	Beneficial Ownership Prior to Offering		Shares Offered Hereby	Beneficial Ownership After Offering	
	Number of Shares Beneficially Owned	Percentage ownership		Number of Shares Beneficially Owned	Percentage ownership
Symphony Capital Partners, L.P.	423,074	*	423,074	—	*
Symphony Strategic Partners, LLC	32,009	*	32,009	—	*
Howard Hughes Medical Institute	51,040	*	51,040	—	*
Private Markets Fund III LP	40,832	*	40,832	—	*
Private Market Fund II LP	20,416	*	20,416	—	*
Weyerhaeuser Company Master Retirement Trust	20,416	*	20,416	—	*
Aurora Cayman Limited	6,125	*	6,125	—	*
Nuclear Electric Insurance Ltd.	4,083	*	4,083	—	*
Factory Mutual Insurance Company	4,083	*	4,083	—	*
Vijverpoort Huizen C.V.	4,083	*	4,083	—	*
Private Markets Fund Employee Investors III LP	2,042	*	2,042	—	*
WHI Morula Fund	10,208	*	10,208	—	*
O'Connor Global Multi-Strategy Alpha Master Limited	186,089	*	20,416 <sup>(1)</sup>	165,673 <sup>(2)</sup>	*
RRD International, LLC	19,758	*	19,758	—	*
Douglas A. Drossman, M.D.	2,760	*	660	2,100	*
GFI Associates, Inc.	1,326	*	660	666	*

\* Represents beneficial ownership of less than 1%.

<sup>(1)</sup> UBS O'Connor LLC ("O'Connor") is the investment manager of O'Connor Global Multi-Strategy Alpha Master Limited ("GLEA") and accordingly has voting control and investment discretion over the securities held by GLEA, including 20,416 shares of our common stock described herein. Kevin Russell ("Mr. Russell"), the Chief Investment Officer of O'Connor and Andrew Martin ("Mr. Martin"), a Portfolio Manager for O'Connor, each also have voting

control and investment discretion over the shares described herein held by GLEA. As a result, each of O'Connor, Mr. Russell and Mr. Martin may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended) of the shares described herein held by GLEA.

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(2) UBS Asset Management (Americas) Inc. is a sub-adviser for a portion of the assets held by GLEA, including 165,673 shares of our common stock described herein, and accordingly has voting control and investment discretion over such shares. As a result, UBS Asset Management (Americas) Inc. may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended) of the shares described herein held by GLEA.

PLAN OF DISTRIBUTION

The shares covered by this prospectus may be offered and sold from time to time by the selling stockholders. The term “selling stockholders” includes pledgees, donees, transferees or other successors-in-interest who may later hold the

selling stockholders' interests as a result of a gift, pledge, partnership distribution or other non-sale related transfer after the date of this prospectus. We will pay the costs and fees of registering the shares covered by this prospectus, but the selling stockholders will

pay any brokerage commissions, discounts or other expenses relating to the sale of such shares, if any. We will not receive any proceeds from this offering. 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 offer and sell the shares of common stock offered by this prospectus in one or more of, or a combination of, the following methods:

- purchases by a broker-dealer or other person, as principal, and resale by a broker-dealer or other person for its own account pursuant to this prospectus;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- block trades in which a broker-dealer or other person 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 Global Select Market;
- through the Nasdaq Global Select Market or any other securities exchange or association that quotes the common stock;
- in privately negotiated transactions;
- in put or call option transactions relating to the shares; or
- otherwise through any other method permitted by applicable law or a combination of any of the above methods of sale.

In addition, the selling stockholders have advised us that they may sell shares of common stock in compliance with Rule 144, if available, or pursuant to other available exemptions from the registration requirements under the Securities Act of 1933, 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 have advised us that they 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 the selling stockholders. The selling stockholders have advised us that they may also sell the common stock short and redeliver the shares to close out such short positions. The selling stockholders have advised us that they 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 have advised us that they 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).

In effecting sales, broker-dealers, agents or other persons engaged by a selling stockholder may arrange for other broker-dealers or other persons to participate. Broker-dealers or agents may receive commissions, discounts or concessions for their services from the selling stockholders in amounts to be negotiated immediately prior to the sale. Broker-dealers or other persons may also receive compensation from the purchasers of the shares covered by this prospectus for whom they act as agents or to whom they sell as principal, or both.

In offering the shares covered by this prospectus, the selling stockholders and any broker-dealers or other persons who execute sales for any such selling stockholder may be deemed to be "underwriters" within the meaning of Section 2(a)(11) of the Securities Act of 1933 in connection with such sales. In addition, the broker-dealers' or their affiliates' commissions, discounts or concessions or their profit on the resale of shares purchased by them may qualify as underwriters' compensation under the Securities Act of 1933. If the selling stockholders qualify as "underwriters" they will be subject to the prospectus delivery requirements of the Securities Act of 1933.

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.

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The selling stockholders have advised us that they may sell its shares at market prices prevailing at the time of sale, at prices related to such prevailing market prices, at negotiated prices or at fixed prices and that the transactions listed above may include cross or block transactions.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Securities Exchange Act of 1934 may apply to their sales of common stock 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 of 1933. The selling stockholders have advised us that they may indemnify any broker-dealer or agent that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act of 1933.

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. In addition, upon being notified by a selling stockholder that a donee, pledgee, transferee or other successor-in-interest intends to sell more than 500 shares, we will file a supplement to this prospectus.

We have agreed to indemnify the selling stockholders against liabilities arising in connection with this offering, including liabilities under the Securities Act of 1933, or to contribute the payments that the selling stockholders may be required to make in that respect.

All shares offered by this prospectus by the selling stockholders will be sold subject to the terms and conditions of the Registration Rights Agreement described in the section entitled "Selling Stockholders."

### LEGAL MATTERS

The validity of the issuance of the common stock offered by this prospectus has been passed upon for us by Vinson & Elkins L.L.P., Houston, Texas.

### EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2016, and the effectiveness of our internal control over financial reporting as of December 31, 2016, as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

### WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC. You may read and copy the reports, proxy statements and other information that we file with the SEC at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for information and for its prescribed rates to obtain copies of such material. The SEC also maintains a website that contains reports, proxy and information statements and other information regarding registrants, like us, that file electronically with the SEC. The address of the SEC's Internet site is [www.sec.gov](http://www.sec.gov). Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and other filings with the SEC are available, free of charge, through our website, as soon as reasonably practicable after those reports or filings are electronically filed with or furnished to the SEC. Information on our website or any other website is not incorporated by reference into this prospectus or any prospectus supplement and does not constitute a part of this prospectus or any prospectus supplement.

This prospectus is part of a registration statement we filed with the SEC relating to the securities the selling stockholders may offer. As permitted by SEC rules, this prospectus does not contain all of the information we have included in the registration statement and the accompanying exhibits and schedules we filed with the SEC. You may refer to the registration statement, exhibits and schedules for more information about us and the securities. The registration statements, exhibits and schedules are available at the SEC or through its website.

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DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to “incorporate by reference” the information we have filed with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below that we have previously filed with the SEC and any future documents filed with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this prospectus and prior to the termination of the offering of the securities covered by this prospectus:

- our annual report on Form 10-K for the year ended December 31, 2016; and
- the description of our common stock contained in our registration statement on Form 8-A filed with the SEC on March 27, 2000 pursuant to Section 12 of the Securities Exchange Act of 1934, including any amendments and reports filed for the purpose of updating such description.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document which also is or is deemed to be incorporated by reference in this prospectus modifies or supersedes that statement. Any statement that is modified or superseded will not constitute a part of this prospectus, except as so modified or superseded. You may rely on any statement contained in this prospectus or in documents incorporated or deemed to be incorporated in this prospectus, unless that statement has been subsequently modified or superseded as described above prior to the time you make your investment decision. Upon your written or oral request, we will provide you at no cost a copy of any or all of the documents incorporated by reference in this prospectus, other than the exhibits to those documents, unless the exhibits are specifically incorporated by reference into this prospectus. You may request a copy of these documents by contacting:

Investor Relations

Lexicon Pharmaceuticals, Inc.

8800 Technology Forest Place

The Woodlands, Texas 77381-1160

Telephone: (281) 863-3000

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## PART II

## INFORMATION NOT REQUIRED IN PROSPECTUS

## Item 14. Other Expenses of Issuance and Distribution.

The estimated expenses payable by the Registrant in connection with the issuance and distribution of the securities being registered (other than underwriting discounts and commissions) are as follows:

SEC Registration Fee	\$1,172
Accounting Fees and Expenses	7,500
Legal Fees and Expenses	10,000
Transfer Agent and Registrar Fees	—
Miscellaneous Expenses	3,828
Total	\$22,500

The reasonable fees of one counsel for the selling stockholders is included under “Legal Fees and Expenses” in the foregoing table. The selling stockholders will pay any underwriting discounts and commissions, which discounts and commissions are not included in the foregoing table.

## Item 15. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (“DGCL”) provides that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. Section 145 further provides that a corporation similarly may indemnify any such person serving in any such capacity who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys’ fees) actually and reasonably incurred in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or such other court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Delaware Court of Chancery or such other court shall deem proper.

The Company’s amended and restated certificate of incorporation and second amended and restated bylaws provide that indemnification shall be to the fullest extent permitted by the DGCL for all current or former directors or officers. As permitted by the DGCL, the amended and restated certificate of incorporation provides that the Company’s directors shall have no personal liability to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director, except (1) for any breach of the director’s duty of loyalty to the Company or its stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or knowing violation of law, (3) under Section 174 of the DGCL or (4) for any transaction from which a director derived an improper personal benefit.

The Company has entered into indemnification agreements with each of its officers and directors. These agreements, among other things, require the Company to indemnify each officer and director for all expenses, including attorneys' fees, liabilities, judgments, fines, penalties, excise taxes and settlement amounts incurred by any such person in any claim, action, suit or proceeding, including any action by or in the right of the Company, arising out of the person's services as a director, officer, employee, agent or fiduciary to the Company, any subsidiary of the Company or to any other company or enterprise for which the person provides services at the Company's request.

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At present, there is no pending litigation or proceeding involving a director or officer of the Company as to which indemnification is being sought nor is the Company aware of any threatened litigation that may result in claims for indemnification by any officer or director.

Item 16. Exhibits.

Exhibit No.	Description
4.1	— Amended and Restated Certificate of Incorporation (filed as Exhibit 3.1 to the Company’s Current Report on Form 8-K dated April 26, 2012 and incorporated by reference herein).
4.2	— Certificate of Amendment to Amended and Restated Certificate of Incorporation (filed as Exhibit 3.1 to the Company’s Current Report on Form 8-K dated May 20, 2015 and incorporated by reference herein).
4.3	— Second Amended and Restated Bylaws (filed as Exhibit 3.2 to the Company’s Current Report on Form 8-K dated April 26, 2012 and incorporated by reference herein).
4.4	— Securities Purchase Agreement, dated June 17, 2007, with Invus, L.P. (filed as Exhibit 10.1 to the Company’s Current Report on Form 8-K dated June 17, 2007 and incorporated by reference herein).
4.5	— Amendment, dated October 7, 2009, to Securities Purchase Agreement, dated June 17, 2007, with Invus, L.P. (filed as Exhibit 10.1 to the Company’s Current Report on Form 8-K dated October 7, 2009 and incorporated by reference herein).
4.6	— Registration Rights Agreement, dated June 17, 2007, with Invus, L.P. (filed as Exhibit 10.3 to the Company’s Current Report on Form 8-K dated June 17, 2007 and incorporated by reference herein).
4.7	— Stockholders’ Agreement, dated June 17, 2007, with Invus, L.P. (filed as Exhibit 10.4 to the Company’s Current Report on Form 8-K dated June 17, 2007 and incorporated by reference herein).
4.8	— Supplement to Transaction Agreements, dated March 15, 2010, with Invus, L.P. and Invus C.V. (filed as Exhibit 10.1 to the Company’s Current Report on Form 8-K dated March 15, 2010 and incorporated by reference herein).
4.9	— Supplement No. 2 to Transaction Agreements, dated February 23, 2012, with Invus, L.P. and Invus C.V. (filed as Exhibit 10.1 to the Company’s Current Report on Form 8-K dated February 23, 2012 and incorporated by reference herein).
4.10	— Amended and Restated Purchase Option Agreement, dated July 30, 2010, with Symphony Icon Holdings LLC and Symphony Icon, Inc. (filed as Exhibit 10.1 to the Company’s Current Report on Form 8-K dated July 30, 2010 and incorporated by reference herein).
4.11	— Amendment No. 1 to Amended and Restated Purchase Option Agreement, dated September 30, 2016, with Symphony Icon Holdings LLC and Symphony Icon, Inc. (filed as Exhibit 10.1 to the Company’s Current Report on Form 8-K dated September 30, 2016 and incorporated by reference herein).
4.12	— Amended and Restated Registration Rights Agreement, dated July 30, 2010, with Symphony Icon Holdings LLC (filed as Exhibit 10.2 to the Company’s Current Report on Form 8-K dated July 30, 2010 and incorporated by reference herein).
4.13	— Indenture related to the 5.25% Convertible Senior Notes due 2021, dated as of November 26, 2014, with Wells Fargo Bank, N.A. (filed as Exhibit 4.1 to the Company’s Current Report on Form 8-K dated November 26, 2014 and incorporated by reference herein).
4.14	— Form of 5.25% Convertible Senior Notes due 2021 (filed as Exhibit A to Exhibit 4.1 to the Company’s Current Report on Form 8-K dated November 26, 2014 and incorporated by reference herein).
*5.1	— Opinion of Vinson & Elkins L.L.P.

- \*23.1 — Consent of Ernst & Young LLP
- \*23.2 — Consent of Vinson & Elkins L.L.P. (contained in Exhibit 5.1).
- \*24.1 — Power of Attorney (contained in signature page).

\* Filed herewith.

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Item 17. Undertakings.

The undersigned Registrant hereby undertakes:

(a) 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, as amended (the "Securities Act");

(ii) to reflect in the prospectus any facts or events arising after the effective date of this 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 this registration statement; and

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

provided, however, that paragraphs (a)(i) and (a)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference in this registration statement.

(b) That, for the purpose of determining any liability under the Securities Act, 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.

(c) 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.

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

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described in Item 15, 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 Act and will be governed by the final adjudication of such issue.

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## 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 The Woodlands, in the State of Texas, on March 20, 2017.

Lexicon Pharmaceuticals, Inc.

By: /s/ Lonnel Coats

Lonnel Coats

President and Chief Executive Officer

## POWER OF ATTORNEY

Each person whose signature appears below appoints Lonnel Coats and Jeffrey L. Wade, and each of them, any of whom may act without the joinder of the other, as his or her true and lawful attorneys-in-fact and agents with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement and any Registration Statement (including any amendment thereto) for this offering 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 all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or would do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute and substitutes, may lawfully do or cause to be done by virtue hereof.

PURSUANT TO THE REQUIREMENTS OF THE SECURITIES ACT OF 1933, AS AMENDED, THIS REGISTRATION STATEMENT HAS BEEN SIGNED BELOW BY THE FOLLOWING PERSONS IN THE CAPACITIES AND ON THE DATES INDICATED BELOW.

Signature	Title	Date
/s/ Lonnel Coats Lonnel Coats	President, Chief Executive Officer and Director (Principal Executive Officer)	March 20, 2017
/s/ Jeffrey L. Wade Jeffrey L. Wade, J.D.	Executive Vice President, Corporate Development and Chief Financial Officer (Principal Financial Officer)	March 20, 2017
/s/ James F. Tessmer James F. Tessmer	Vice President, Finance and Accounting (Principal Accounting Officer)	March 20, 2017
/s/ Raymond Debbane Raymond Debbane	Chairman of the Board of Directors	March 20, 2017
/s/ Philippe J. Amouyal Philippe J. Amouyal	Director	March 20, 2017
/s/ Samuel L. Barker Samuel L. Barker, Ph.D.	Director	March 20, 2017
/s/ Robert J. Lefkowitz	Director	March 20, 2017



Robert J. Lefkowitz,  
M.D.

/s/ Alan S. Nies                      Director                      March 20,  
Alan S. Nies, M.D.                      2017

/s/ Frank P. Palantoni                      Director                      March 20,  
Frank P. Palantoni                      2017

/s/ Christopher J.  
Sobecki                      Director                      March 20,  
Christopher J. Sobecki                      2017

/s/ Judith L. Swain                      Director                      March 20,  
Judith L. Swain, M.D.                      2017

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