Cyclacel Pharmaceuticals, Inc.
Form 424B4
July 20, 2017
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PROSPECTUS
2,164,000 Class A Units consisting of common stock and warrants and
8,872 Class B Units consisting of shares of Series A Preferred Stock and warrants
(and 11,036,000 shares of common stock underlying shares of
Series A Preferred Stock and warrants)

We are offering 2,164,000 Class A Units, with each Class A Unit consisting of one share of common stock, par value $0.001 per share (the "common stock"), and a warrant to purchase one share of our common stock (together with the shares of common stock underlying such warrants, the "Class A Units") at a public offering price of $2.00 per Class A Unit. Each warrant included in the Class A Units entitles its holder to purchase one share of common stock at an exercise price per share of $2.00.

We are also offering to those purchasers whose purchase of our Class A Units in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering, or to those purchasers that elect to purchase Class B Units in their sole discretion, the opportunity to purchase, if they so choose, in lieu of the number of Class A Units that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%), or as such purchasers have elected to purchase, 8,872 Class B Units. Each Class B Unit will consist of one share of our Series A Preferred Stock, par value $0.001 per share (the "Series A Preferred Stock"), convertible into 500 shares of common stock at the initial conversion price (the "Conversion Price") and warrants to purchase a number of shares of our common stock equal to $1,000 divided by the Conversion Price (together with the shares of common stock underlying such shares of Series A Preferred Stock and such warrants, the "Class B Units" and, together with the Class A Units, the "Units") at a public offering price of $1,000 per Class B Unit. Warrants included in the Class B Units entitle its holder to purchase a number of shares of our common stock equal to $1,000 divided by the Conversion Price at an exercise price per share of $2.00.

The Class A Units and Class B Units have no stand-alone rights and will not be certificated or issued as stand-alone securities. The shares of common stock, Series A Preferred Stock and warrants comprising such units are immediately separable and will be issued separately in this offering. The underwriters have the option to purchase additional shares of common stock and/or warrants to purchase shares of common stock solely to cover over-allotments, if any, at the price to the public less the underwriting discounts and commissions. The over-allotment option may be used to purchase shares of common stock, and/ or warrants, in any combination thereof, as determined by the underwriters, but such purchases cannot exceed an aggregate of 15% of the number of shares of common stock (including the number of shares of common stock issuable upon conversion of shares of Series A Preferred Stock) and warrants sold in the offering. The over-allotment option is exercisable for 45 days from the date of this prospectus.

Our common stock is listed on the NASDAQ Capital Market under the symbol "CYCC." On July 18, 2017, the last reported sale price for our common stock was $2.95 per share. The price of our common stock on the NASDAQ Capital Market during recent periods will only be one of many factors in determining the public offering price. Other factors to be considered include our history, our prospects, the industry in which we operate, the previous experience of our executive officers and the general condition of the securities markets at the time of this offering. All share and warrant numbers of the securities being offered included in this prospectus are based on the public offering price per

Class A Unit of $2.00 and the initial Conversion Price of the Series A Preferred Stock of $2.00. We do not intend to apply for listing of the warrants offered hereby or the shares of Series A Preferred Stock on any securities exchange or trading system.

	Per Class A Unit(1)	Per Class B Unit(1)	Total
Public offering price	$ 2.00	$ 1,000	$ 13,200,000
Underwriting discounts and commissions(2)(3)	$ 0.14	$ 70.00	$ 924,000
Proceeds, before expenses, to us	$ 1.86	$ 930.00	$ 12,276,000

(1)
The public offering price and underwriting discount corresponds to (x) in respect of the Class A Units (i) a public offering price per share of common stock of $1.99 and (ii) a public offering price per warrant of $0.01 and (y) in respect of the Class B Units (i) a public offering price per share of Series A Preferred Stock of $995.00 and (ii) a public offering price per warrant of $0.01 or $5.00 for warrants to purchase 500 shares.

(2)
We have also agreed to reimburse the underwriters for certain expenses. See “Underwriting.”

(3)
We have granted a 45-day option to Ladenburg Thalmann & Co. Inc. (the “representative”) to purchase additional shares of common stock and/or warrants to purchase shares of common stock (up to 15% of the number of shares of common stock (including the number of shares of common stock issuable upon conversion of shares of Series A Preferred Stock) and warrants sold in the offering) solely to cover over-allotments, if any.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Investing in our securities involves significant risks. We strongly recommend that you read carefully the risks we describe in this prospectus. See “Risk Factors” beginning on page 7 before deciding whether to invest in our common stock.

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

Ladenburg Thalmann

The date of this Prospectus is July 20, 2017.

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About This Prospectus

You should rely only on the information provided in this Prospectus or in any free writing Prospectus prepared by or on behalf of us or to which we have referred you. We have not authorized anyone to provide you with different information. The information contained in this Prospectus is accurate only as of the date of this Prospectus, regardless of the time of delivery of this Prospectus or of any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

No person is authorized in connection with this prospectus to give any information or to make any representations about us, the common stock hereby or any matter discussed in this prospectus, other than the information and representations contained in this prospectus. If any other information or representation is given or made, such information or representation may not be relied upon as having been authorized by us. This prospectus does not constitute an offer to sell, or a solicitation of an offer to buy our common stock in any circumstance under which the offer or solicitation is unlawful. Neither the delivery of this prospectus nor any distribution of our common stock in accordance with this prospectus shall, under any circumstances, imply that there has been no change in our affairs since the date of this prospectus.

Persons outside the United States who come into possession of this Prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this Prospectus outside of the United States.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, or will be filed as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading “Where You Can Find More Information.”

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PROSPECTUS SUMMARY

Because this is only a summary, it does not contain all of the information that may be important to you. You should carefully read the more detailed information contained in this prospectus and the information incorporated by reference carefully before you invest. Our business involves significant risks. You should carefully consider the information under the heading “Risk Factors” beginning on page 7.

As used in this prospectus, unless otherwise indicated, the terms “we,” “us,” “our company,” “the Company” and “Cyclacel” refer to Cyclacel Pharmaceuticals, Inc., a Delaware corporation.

Our Company

Overview

Cyclacel is a clinical-stage biopharmaceutical company using cell cycle control, transcriptional regulation and DNA damage response biology to develop innovative, targeted medicines for cancer and other proliferative diseases. Cyclacel is a pioneer company in the field of cell cycle biology with a vision to improve patient healthcare by translating cancer biology into medicines.

Our Strategy

Our strategy is to build a diversified biopharmaceutical business focused in hematology and oncology based on a development pipeline of novel drug candidates. We have retained rights to commercialize our clinical development candidates and our business objective is to enter into selective partnership arrangements with these programs. Substantially all efforts of the Company to date have been devoted to performing research and development, conducting clinical trials, developing and acquiring intellectual property, raising capital and recruiting and training personnel.

Our Development Efforts

Loss of control of the cell cycle, the process by which cells grow and divide, lies at the heart of cancer. In normal cells, a complex set of interacting proteins tightly regulates progression through the phases of the cell cycle by which a cell grows, replicates its DNA and divides. This process also includes mechanisms known as cell cycle checkpoints, to ensure all necessary events of each cell cycle phase are completed before beginning the next phase. If the events are not completed correctly, the cells may commit suicide by a process of organized and controlled cell death called apoptosis. Cyclin dependent kinases, or CDKs, are key regulators among the numerous proteins involved in cell cycle control processes. CDKs connect with proteins called cyclins to regulate cell cycle checkpoints and control transcription, DNA repair and metastatic spread. The discovery of CDKs and cyclins and their regulation of cell cycle checkpoint control were cited in the 2001 Nobel Prize in Physiology or Medicine.

We have evaluated several families of anticancer drugs that impact the cell cycle, including sapacitabine, seliciclib and CYC065. We believe that these drug candidates are differentiated from others in that they are orally-available and interact with unique target profiles and mechanisms and have the potential to treat multiple cancer indications.

Our development efforts focus on the following areas:

Transcriptional Regulation:

Cyclin Dependent Kinase (CDK) Inhibitors

CDKs are a family of enzymes first discovered as regulators of the cell cycle, but now understood to also provide pivotal functions in the regulation of transcription, DNA repair and metastatic spread. The precise selectivity of an individual CDK inhibitor molecule for certain specific CDKs is key to targeting particular tumor types and minimizing undesirable side effects through non-specific antiproliferative activity.

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In general, cell cycle regulation is less well controlled in cancer cells than in normal cells, which explains in part why cancer cells divide uncontrollably. Different CDKs are responsible for control of different aspects of proliferation, and when dysregulated, can be drivers of particular cancer sub-sets. Modulating CDK activity with targeted therapies is an attractive strategy to reinforce cell cycle control and decrease the rate of abnormal proliferation of cancer cells. The first FDA approval in March 2015 of a CDK inhibitor for palbociclib, and more recently in 2017, ribociclib, for a type of breast cancer, has led to great interest in the development of this class of drugs as oncology therapeutics.

Cyclacel's founding scientist, Professor Sir David Lane, is a globally recognized authority in cell cycle biology, who discovered p53, a key tumor suppressor gene that malfunctions in about two-thirds of human cancers. Under his guidance, Cyclacel's drug discovery and development programs concentrated on the CDK2/9 isoforms, which operate as key components of the p53 pathway. These efforts resulted in bringing two molecules into clinical trials: seliciclib, a first-generation CDK inhibitor, and CYC065, a second-generation CDK inhibitor, which has benefited from the Company's clinical experience with seliciclib.

Seliciclib, our first-generation CDK inhibitor, is being evaluated in an all-oral Phase 1/2 combination study with our sapacitabine in patients with BRCA mutations, and has been evaluated to date in approximately 450 patients.

CYC065 is being evaluated in an ongoing, first-in-human, Phase 1 trial in patients with advanced solid tumors. Similar to palbociclib and ribociclib, CYC065 may be most useful as a therapy for patients with both liquid and solid tumors in combination with other anticancer agents, including Bcl-2 antagonists, such as venetoclax, or HER2 inhibitors, such as trastuzumab.

DNA Damage Response, or DDR

Many cancers have defects in the way in which cells monitor and repair damaged DNA, collectively termed DNA damage response, or DDR. These deficiencies in DDR pathways render cells more susceptible to DNA damage. Many traditional cancer treatments, such as DNA-damaging chemotherapy and radiotherapy, are based on this finding. However, such treatments are often accompanied by significant and unwanted side effects. Developing treatments which target specific DDR deficiencies to preferentially kill cancer cells, while minimizing the impact on normal cells, has potential for more selective, better tolerated therapies to improve survival in multiple cancers.

We have focused on developing treatments targeting DNA damage pathways for several years. For example, our drug candidate sapacitabine is an oral nucleoside analogue prodrug whose metabolite, CNDAC, generates single-strand DNA breaks, or SSB, either leading to arrest of the cell cycle at G2 phase or development of double-strand DNA breaks, or DSB. CNDAC-induced DSB repair is dependent on a type of genetic recombination in which nucleotide sequences are exchanged between similar or identical molecules of DNA called homologous recombination, or HR. BRCA mutations in cancer cells are a cause of HR deficiency, making such cancer cells susceptible to cell death induced by sapacitabine.

We are evaluating sapacitabine in a Phase 1/2 combination study with seliciclib in patients with BRCA mutations.

Sapacitabine in AML

We are also evaluating sapacitabine in SEAMLESS, a Phase 3 study in acute myeloid leukemia, or AML, in the elderly, in an alternating schedule with decitabine. On February 23, 2017, we announced that the trial did not meet its primary endpoint of demonstrating statistically significant improvement in overall survival for the experimental arm versus an active control arm of decitabine alone. However, an improvement in complete remission rate was observed. In the stratified subgroup of patients with low baseline peripheral white blood cell count, comprising approximately two-thirds of the study's population, an improvement in overall survival was observed for the experimental arm.

We currently retain virtually all marketing rights worldwide to the compounds associated with our drug programs. To optimize our commercial return, we intend to enter into selected partnering arrangements.

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Other Programs

Polo-Like-Kinase inhibitor: CYC140

In our polo-like kinase, or PLK, inhibitor program, we have discovered potent and selective small molecule inhibitors of PLK1, a kinase active during cell division, which target the mitotic phase of the cell cycle. PLK was discovered by Professor David Glover, our Chief Scientist. We received a grant award of approximately $3.5 million from the Biomedical Catalyst of the United Kingdom government to complete IND-directed preclinical development of CYC140, which was achieved in November 2016.

Preclinical data presented at the 2017 American Academy of Cancer Research (AACR) Annual Meeting demonstrated that the CYC140 is a potent and selective inhibitor of PLK1, an oncogenic regulator of cell division. These preclinical data suggest that CYC140 can be targeted against esophageal cancer and acute leukemia. In addition, the data demonstrate the potential for CYC140 to be used in synergistic combinations with other targeted agents, including EGFR inhibitors and PI3K pathway inhibitors, to enhance cancer cell death or growth suppression. Without additional funding, we will not be able to progress this program through clinical development. We have retained worldwide rights to commercialize CYC140.

Investigator-Sponsored Trials

Preclinical results from several independent investigators suggest that cell cycle inhibitors, such as seliciclib and related molecules, arrest the progress of the cell cycle and may have therapeutic benefit in the treatment of patients with autoimmune and inflammatory diseases as well as in diseases characterized by uncontrolled cell proliferation. Published data indicate potential benefit in glomerulonephritis, graft-versus-host disease, idiopathic pulmonary fibrosis, lupus nephritis, polycystic kidney disease and rheumatoid arthritis. Based on these data investigators have approached us to be provided with seliciclib so that they can evaluate it in various indications in clinical trials.

In this regard, there are ongoing investigator sponsored trials, or ISTs, evaluating seliciclib in endocrinologic and inflammatory indications in patients who have failed prior treatments. In an IST at Cedars-Sinai, Los Angeles, the first patients are being treated in an ongoing Phase 2 trial to evaluate seliciclib as a potential therapy for Cushing’s disease caused by pituitary tumors. There are limited options for Cushing’s disease patients today. The investigator was awarded a grant from The National Institute of Diabetes and Digestive and Kidney Diseases. In a European IST, seliciclib is being evaluated as a potential treatment for rheumatoid arthritis, or RA, where it may work for RA by targeting proliferating fibroblasts, a different type of approach than conventional RA therapies. This study is also being supported by an approximately $1.5 million grant from the United Kingdom’s Medical Research Council.

Risks Associated with Our Business

Our business and ability to execute our business strategy are subject to a number of risks of which you should be aware before you decide to buy our common stock. In particular, you should consider the following risks, which are discussed more fully in the section entitled “Risk Factors” in this prospectus, as well as the other risks described in “Risk Factors.”

- We expect to continue to incur substantial operating losses and may be unable to obtain additional financing, causing our independent registered public accounting firm to express substantial doubt about our ability to continue as a going concern.

- We will need additional funding, and we cannot guarantee that we will find adequate sources of capital in the future.

- Funding constraints may negatively impact our research and development, forcing us to delay our efforts to develop certain product candidates in favor of developing others, which may prevent us from commercializing our product candidates as quickly as possible.

- We depend on key personnel, the loss of which could impact the ability to manage our business.

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- We may be subject to future litigation, which could result in substantial liabilities that may exceed our insurance coverage.

- Confidentiality agreements with employees, treating physicians and others may not adequately prevent disclosure of trade secrets and other proprietary information.

- We may be subject to regulatory, enforcement and investigative proceedings, which could adversely affect our financial condition or operations.

- We may not fully comply with complex and increasing regulation by state and federal authorities, which could negatively impact our business operations.

- Our share price is volatile and may be influenced by numerous factors, some of which are beyond our control.

- We are substantially dependent on the success of our lead product candidates, the clinical and commercial successes of which will depend on a number of factors, many of which are beyond our control.

- Our product candidates may cause or have attributed to them undesirable side effects or have the properties that delay or prevent their regulatory approval or limit their commercial potential.

- If we fail to comply with the continued listing requirements of the NASDAQ Capital Market, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.

Corporate Information

We were incorporated in Delaware in August 1997. Our corporate headquarters are located at 200 Connell Drive, Suite 1500, Berkeley Heights, New Jersey 07922, and our telephone number is 908-517-7330. This is also where our medical and regulatory functions are located. Our research facility is located in Dundee, Scotland, which is also the center of our translational work and development programs.

We are a “smaller reporting company” as defined in Rule 12b-2 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and have elected to take advantage of certain of the scaled disclosure available for smaller reporting companies.

Our corporate website address is www.cyclacel.com. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to reports filed pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission. The Securities and Exchange Commission maintains an internet site that contains our public filings with the Securities and Exchange Commission and other information regarding our company, at www.sec.gov. These reports and other information concerning our company may also be accessed at the Securities and Exchange Commission’s Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the Securities and Exchange Commission at 1-800-SEC-0330. The contents of these websites are not incorporated into this prospectus. Further, our references to the URLs for these websites are

intended to be inactive textual reference only.

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THE OFFERING

Issuer

Cyclacel Pharmaceuticals, Inc.

Class A Units Offered

We are offering 2,164,000 Class A Units. Each Class A Unit consists of one share of common stock and a warrant to purchase one share of our common stock (together with the shares of common stock underlying such warrants).

Offering Price per Class A Unit

$2.00 combined price for each Class A Unit.

Class B Units Offered

We are also offering 8,872 Class B Units to purchasers who prefer not to beneficially own more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering. Each Class B Unit will consist of one share of Series A Preferred Stock, par value $0.001 per share, convertible into a number of shares of common stock equal to $1,000 divided by $2.00 (the "Conversion Price") and warrants to purchase a number of shares of our common stock equal to $1,000 divided by the Conversion Price (together with the shares of common stock underlying such shares of Series A Preferred Stock and such warrants).

Offering Price per Class B Unit

$1,000 combined price for each Class B Unit.

Description of warrants

The warrants will be exercisable beginning on the closing date and expire on the seventh anniversary of the closing date and have an initial exercise price per share equal to $2.00 per share, subject to appropriate adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our common stock

Description of Series A Preferred Stock

Each share of Series A Preferred Stock is convertible at any time at the holder's option into a number of shares of common stock equal to $1,000 divided by the Conversion Price. Notwithstanding the foregoing, we shall not effect any conversion of Series A Preferred Stock, with certain exceptions, to the extent that, after giving effect to an attempted conversion, the holder of shares of Series A Preferred Stock (together with such holder's affiliates, and any persons acting as a group together with such holder or any of such holder's affiliates) would beneficially own a number of shares of our common stock in excess of 4.99% (or, at the election of the purchaser, 9.99%) of the shares of our common stock then outstanding after giving effect to such exercise. For additional information, see "Description of Capital Stock" on page 46 of this prospectus.

Shares of common stock underlying the warrants

6,600,000 shares

Common stock to be outstanding after this offering

6,436,947 shares

Series A Preferred Stock to be outstanding after this offering

8,872 shares

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Use of proceeds:

We intend to use the net proceeds from this offering to continue funding our Transcriptional Regulation, CDK inhibitor and DNA Damage Response programs, and, to a lesser extent, for other development of our clinical and preclinical programs, other research and development activities, business development and general corporate purposes, which may include capital expenditures and funding our working capital needs. See “Use of Proceeds.”

Risk factors:

The shares of common stock offered hereby involve a high degree of risk and purchasers may lose their entire investment. You should read the “Risk Factors” beginning on page 7 for a discussion of certain factors to consider carefully before deciding to purchase any shares of our common stock.

Dividend policy:

We currently intend to retain any future earnings to fund the development and growth of our business. Therefore, we do not currently anticipate paying cash dividends on our common stock.

Trading Symbol:

Our common stock currently trades on the NASDAQ Capital Market under the symbol “CYCC.”

The number of shares of common stock to be outstanding after this offering is based on 4,272,947 shares of common stock outstanding as of March 31, 2017, which does not include:

- 167,000 shares of common stock isued in April 2017 under the Company’s sales agreement with FBR;

- 387,519 shares of common stock issuable upon the exercise of outstanding stock options as of March 31, 2017, at a weighted average exercise price of $22.78 per share; and

- 8,529 shares of common stock reserved for future issuance under our equity incentive plan as of March 31, 2017.

The number of shares of Series A Preferred Stock to be outstanding after this offering is based on 0 shares of Series A Preferred Stock outstanding as of March 31, 2017.

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RISK FACTORS

Any investment in our common stock involves a high degree of risk. Investors should carefully consider the risks described below, together with all of the other information included in this prospectus, before deciding whether to purchase shares of our common stock. Each of the following risk factors, either alone or taken together, could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our company. This prospectus also contains forward-looking statements that involve risks and uncertainties. Our operating results could differ materially from those anticipated in these forward-looking statements as a result of certain risk factors, including the risks we face as described below and elsewhere in this prospectus.

Risks Associated with Development and Commercialization of Our Drug Candidates

Our SEAMLESS Phase 3 study recently failed to meet its primary endpoint of demonstrating statistically significant improvement in overall survival for the experimental arm versus an active control. While we may discuss the data from the SEAMLESS Phase 3 study with regulatory authorities once subgroup analyses are completed over the next few months, we may be unable to identify a viable path forward for continued development for, or be able to obtain regulatory approval for, or commercialize, this product indication.

To date, we have devoted significant research, development and clinical efforts and financial resources toward the development of sapacitabine. On February 23, 2017, we announced top-line results from the pivotal Phase 3 SEAMLESS study in elderly patients aged 70 years or older with newly diagnosed AML, who are not candidates for or have refused intensive induction chemotherapy. The trial did not meet its primary endpoint of demonstrating statistically significant improvement in overall survival for the experimental arm versus an active control. Our clinical development strategy in oncology will henceforth concentrate on our two ongoing, clinical programs in DNA damage response and transcriptional regulation, which include our area of historical expertise in CDK inhibitors. These programs target biomarker-selected patients, such as those with BRCA mutations or resistance to existing cancer therapies.

An improved rate of complete remission, a secondary endpoint, was observed in patients who had discontinued therapy at the time of analysis. While we plan to discuss the data from the SEAMLESS Phase 3 study with European and U.S. regulatory authorities once subgroup analyses are completed over the next few months, we may be unable to salvage any value from the Phase 3 trial and may be unable to identify a viable plan for continued clinical development of this product indication. Even if we are able to design further trials and identify a path forward toward potential regulatory approval, such development will likely require significant financial and personnel resources, and no assurance can be given that additional capital would be available or that such capital would be available at acceptable terms. Our continuing analyses of data from the topline Phase 3 trial may also produce negative or inconclusive results.

Clinical trial designs that were discussed with the FDA and the EMA and in some cases agreed to prior to their commencement may subsequently be considered insufficient for approval at the time of application for regulatory approval. Thus, our Special Protocol Assessment (“SPA”) regarding our SEAMLESS trial does not guarantee marketing approval of our sapacitabine oral capsules for the treatment of AML.

On February 23, 2017, we announced top-line results from the pivotal Phase 3 SEAMLESS study in elderly patients aged 70 years or older with newly diagnosed AML, who are not candidates for or have refused intensive induction chemotherapy. The trial did not meet its primary endpoint of demonstrating statistically significant improvement in overall survival for the experimental arm versus an active control. As the trial did not achieve the primary basis for an efficacy claim the SPA agreement with the FDA is no longer binding on the FDA.

On September 13, 2010, and as amended on October 11, 2011, we reached agreement with the FDA regarding an SPA on the design of a pivotal Phase 3 clinical trial for our sapacitabine oral capsules as a front-line treatment in elderly patients aged 70 years or older with newly diagnosed AML, who are not candidates for intensive induction chemotherapy, or the SEAMLESS trial. An SPA is an agreement between a sponsor of an NDA and the FDA on the design of the Phase 3 clinical trial protocol design and statistical analysis that will form the primary basis of an efficacy claim. If such an agreement is reached, it will be binding on the FDA unless the sponsor fails to follow the agreed upon protocol, data supporting the

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request are found to be false or incomplete, or the FDA determines that a substantial scientific issue essential to product efficacy or safety was identified. An SPA, however, neither guarantees approval nor provides any assurance that a marketing application will be approved by the FDA. There are companies that have been granted SPAs but that have ultimately failed to obtain final approval to market their drugs.

In January 2011, we opened enrollment in the lead-in portion of the SEAMLESS trial and in October 2011, we opened enrollment in the randomized portion of the trial. We completed enrollment of the SEAMLESS trial in December 2014.

In addition, the FDA or EMA may revise previous guidance or decide to ignore previous guidance at any time during the course of clinical activities or after the completion of clinical trials. The FDA or EMA may raise issues relating to, among other things, safety, study conduct, bias, deviation from the protocol, Statistical power, patient completion rates, changes in scientific or medical parameters or internal inconsistencies in the data prior to making its final decision. The FDA may also seek the guidance of an outside advisory committee prior to making its final decision. Even with successful clinical safety and efficacy data, including such data from a clinical trial conducted pursuant to an SPA, we may be required to conduct additional, expensive clinical trials to obtain regulatory approval.

Clinical trials are expensive, time consuming, subject to delay and may be required to continue beyond our available funding and we cannot be certain that we will be able to raise sufficient funds to complete the development and commercialize any of our product candidates currently in clinical development, should they succeed.

Clinical trials are expensive, complex, can take many years to conduct and may have uncertain outcomes. We estimate that clinical trials of our most advanced drug candidates may be required to continue beyond our available funding and may take several more years to complete. The designs used in some of our trials have not been used widely by other pharmaceutical companies. Failure can occur at any stage of the testing and we may experience numerous unforeseen events during, or as a result of, the clinical trial process that could delay or prevent commercialization of our current or future drug candidates, including, but not limited to:

- delays in securing clinical investigators or trial sites for our clinical trials;

- delays in obtaining Institutional Review Board, or IRB, and regulatory approvals to commence a clinical trial;

- slower than anticipated rates of patient recruitment and enrollment, or not reaching the targeted number of patients because of competition for patients from other trials, or if there is limited or no availability of coverage, reimbursement and adequate payment from health maintenance organizations and other third party payors for the use of agents used in our clinical trials, such as decitabine in SEAMLESS, or other reasons;

- negative or inconclusive results from clinical trials, as demonstrated by our recent announcement that our SEAMLESS Phase 3 study failed to reach its primary endpoint;

- unforeseen safety issues;

- uncertain dosing issues that may or may not be related to suboptimal pharmacokinetic and pharmacodynamics behaviors;

- approval and introduction of new therapies or changes in standards of practice or regulatory guidance that render our clinical trial endpoints or the targeting of our proposed indications obsolete;

- inability to monitor patients adequately during or after treatment or problems with investigator or patient compliance with the trial protocols;

- inability to replicate in large controlled studies safety and efficacy data obtained from a limited number of patients in uncontrolled trials;

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- inability or unwillingness of medical investigators to follow our clinical protocols; and

- unavailability of clinical trial supplies.

If we suffer significant delays, setbacks or negative results in, or termination of, our clinical trials, we may be unable to continue development of our drug candidates or generate revenue and our development costs could increase significantly. Adverse events have been observed in our clinical trials and may force us to stop development of our product candidates or prevent regulatory approval of our product candidates.

Adverse or inconclusive results from our clinical trials may substantially delay, or halt entirely, any further development of our drug candidates. Many companies have failed to demonstrate the safety or effectiveness of drug candidates in later stage clinical trials notwithstanding favorable results in early stage clinical trials. Previously unforeseen and unacceptable side effects could interrupt, delay or halt clinical trials of our drug candidates and could result in the FDA or EMA denying approval of our drug candidates. We will need to demonstrate safety and efficacy for specific indications of use, and monitor safety and compliance with clinical trial protocols and other good clinical practice requirements throughout the development process. To date, long-term safety and efficacy has not been demonstrated in clinical trials for any of our drug candidates.

Toxicity and serious adverse events have been noted in preclinical and clinical trials involving certain of our drug candidates. For example, neutropenia and gastro-intestinal toxicity were observed in patients receiving sapacitabine and elevations of liver enzymes and decrease in potassium levels have been observed in patients receiving seliciclib. In addition, we may pursue clinical trials for sapacitabine and seliciclib in more than one indication. There is a risk that unacceptable toxicity or adverse events observed in a trial for one indication could result in the delay or suspension of all trials involving the same drug candidate. Even if we believe that the data collected from clinical trials of our drug candidates are promising with respect to safety and efficacy, such data may not be deemed sufficient by regulatory authorities to warrant product approval. Clinical data can be interpreted in different ways. Regulatory officials could interpret such data in different ways than we do which could delay, limit or prevent regulatory approval. The FDA, EMA or we may suspend or terminate clinical trials at any time. Any failure or significant delay in completing clinical trials for our drug candidates, or in receiving regulatory approval for the commercialization of our drug candidates, may severely harm our business and reputation.

We are making use of biomarkers, which are not scientifically validated, and our reliance on biomarker data may thus cause us to direct our resources inefficiently.

We are making some use of biomarkers in an effort to facilitate our drug development and to optimize our clinical trials. Biomarkers are proteins or other substances whose presence in the blood can serve as an indicator of specific cell processes. We believe that these biological markers serve a useful purpose in helping us to evaluate whether our drug candidates are having their intended effects through their assumed mechanisms, and that they may thus enable us to identify more promising drug candidates at an early stage and to direct our resources efficiently. We also believe that biomarkers may eventually allow us to improve patient selection in connection with clinical trials and monitor patient compliance with trial protocols.

For most purposes, however, biomarkers have not been scientifically validated. If our understanding and use of biomarkers is inaccurate or flawed, or if our reliance on them is otherwise misplaced, then we will not only fail to realize any benefits from using biomarkers, but may also be led to invest time and financial resources inefficiently in attempting to develop inappropriate drug candidates. Moreover, although the FDA has issued for comment a draft guidance document on the potential use of biomarker data in clinical development, such data are not currently accepted by the FDA or other regulatory agencies in the United States, the European Union or elsewhere in applications for regulatory approval of drug candidates, and there is no guarantee that such data will ever be accepted by the relevant authorities in this connection. Our biomarker data should not be interpreted as evidence of efficacy.

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Due to our reliance on contract research organizations and other third parties to conduct clinical trials, we may be unable to directly control the timing, conduct and expense of our clinical trials.

We do not have the ability to independently conduct clinical trials required to obtain regulatory approvals for our drug candidates. We must rely on third parties, such as contract research organizations, data management companies, contract clinical research associates, medical institutions, clinical investigators and contract laboratories to conduct our clinical trials. In addition, we rely on third parties to assist with our preclinical development of drug candidates. If these third parties do not successfully carry out their contractual duties or regulatory obligations or meet expected deadlines, if the third parties need to be replaced or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our preclinical development activities or clinical trials may be extended, delayed, suspended or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our drug candidates.

If we fail to enter into and maintain successful strategic alliances for our drug candidates, we may have to reduce or delay our drug candidate development or increase our expenditures.

An important element of our strategy for developing, manufacturing and commercializing our drug candidates is entering into strategic alliances with pharmaceutical companies or other industry participants to advance our programs and enable us to maintain our financial and operational capacity.

We face significant competition in seeking appropriate alliances. We may not be able to negotiate alliances on acceptable terms, if at all. In addition, these alliances may be unsuccessful. If we fail to create and maintain suitable alliances, we may have to limit the size or scope of, or delay, one or more of our drug development or research programs. If we elect to fund drug development or research programs on our own, we will have to increase our expenditures and will need to obtain additional funding, which may be unavailable or available only on unfavorable terms.

To the extent we are able to enter into collaborative arrangements or strategic alliances, we will be exposed to risks related to those collaborations and alliances.

Although we are not currently party to any collaboration arrangement or strategic alliance that is material to our business, in the future we expect to be dependent upon collaborative arrangements or strategic alliances to complete the development and commercialization of some of our drug candidates, particularly after the Phase 2 stage of clinical testing. These arrangements may place the development of our drug candidates outside our control, may require us to relinquish important rights, or may otherwise be on terms unfavorable to us.

Dependence on collaborative arrangements or strategic alliances will subject us to a number of risks, including the risks that:

- we may not be able to control the amount and timing of resources that our collaborators may devote to the drug candidates;
- our collaborators may experience financial difficulties;
- we may be required to relinquish important rights such as marketing and distribution rights;
- business combinations or significant changes in a collaborator’s business strategy may also adversely affect a collaborator’s willingness or ability to complete its obligations under any arrangement;
- a collaborator could independently move forward with a competing drug candidate developed either independently or in collaboration with others, including our competitors; and
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collaborative arrangements are often terminated or allowed to expire, which would delay development and may increase the cost of developing our drug candidates.

We have no manufacturing capacity and will rely on third party manufacturers for the late stage development and commercialization of any drugs we may develop or sell.

We do not currently operate manufacturing facilities for clinical or commercial production of our drug candidates under development. We currently lack the resources or the capacity to manufacture any of our

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products on a clinical or commercial scale. We anticipate future reliance on a limited number of third party manufacturers until we are able, or decide to, expand our operations to include manufacturing capacities. If the FDA or EMA approve any of our drug candidates for commercial sale, or if we significantly expand our clinical trials, we will need to manufacture them in larger quantities and will be required to secure additional or alternative third-party suppliers to our current suppliers. To date, our drug candidates have been manufactured in small quantities for preclinical testing and clinical trials and we may not be able to successfully increase the manufacturing capacity, whether in collaboration with our current or future third-party manufacturers or on our own, for any of our drug candidates in a timely or economic manner, or at all. Significant scale-up of manufacturing may require additional validation studies, which the FDA and EMA must review and approve. If we are unable to successfully increase the manufacturing capacity for a drug candidate, whether for late stage clinical trials or for commercial sale, or are unable to secure alternative third-party suppliers to our current suppliers, the drug development, regulatory approval or commercial launch of any related drugs may be delayed or blocked or there may be a shortage in supply. Even if any third party manufacturer makes improvements in the manufacturing process for our drug candidates, we may not own, or may have to share, the intellectual property rights to such innovations. Any performance failure on the part of manufacturers could delay late stage clinical development or regulatory approval of our drugs, the commercialization of our drugs or our ability to sell our commercial products, producing additional losses and depriving us of potential product revenues.

As we evolve from a company primarily involved in discovery and development to one also involved in the commercialization of drugs and devices, we may encounter difficulties in managing our growth and expanding our operations successfully.

In order to execute our business strategy, we will need to expand our development, control and regulatory capabilities and develop financial, manufacturing, marketing and sales capabilities or contract with third parties to provide these capabilities for us. If our operations expand, we expect that we will need to manage additional relationships with various collaborative partners, suppliers and other third parties. Our ability to manage our operations and any growth will require us to make appropriate changes and upgrades, as necessary, to our operational, financial and management controls, reporting systems and procedures wherever we may operate. Any inability to manage growth could delay the execution of our business plan or disrupt our operations.

Our drug candidates are subject to extensive regulation, which can be costly and time-consuming, and we may not obtain approvals for the commercialization of any of our drug candidates.

The clinical development, manufacturing, selling and marketing of our drug candidates are subject to extensive regulation by the FDA and EMA in the United States, the European Union and elsewhere. These regulations also vary in important, meaningful ways from country to country. We are not permitted to market a potential drug in the United States until we receive approval of an NDA from the FDA or an MAA from the EMA. We have not received an NDA or MAA approval from the FDA or EMA for any of our drug candidates.

Obtaining an NDA or MAA approval is expensive and is a complex, lengthy and uncertain process. For example, the FDA approval process for a new drug involves submission of an IND, which must include information about preclinical studies, proposed clinical protocols and manufacturing information. Clinical development under an IND typically involves three phases of study: Phases 1, 2 and 3. The most significant costs associated with clinical development are typically the pivotal late Phase 2 or Phase 3 clinical trials, as they tend to be the longest and largest studies conducted during the drug development process. After completion of clinical trials, an NDA may be submitted to the FDA. In responding to an NDA, the FDA may refuse to file the application, or if accepted for filing, the FDA may request additional information or deny the application if it determines that the application does not provide an adequate basis for approval. If the NDA supports the safety and efficacy of the drug candidate and satisfies other requirements, the FDA may grant marketing approval. Failure to comply with the FDA and other applicable foreign and U.S. regulatory requirements may subject us to administrative or judicially imposed sanctions. These include warning letters, civil and criminal penalties, injunctions, product seizure or detention, product recalls, total or partial suspension of production and refusal to approve either pending NDAs, or supplements to approved NDAs.

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There is substantial time and expense invested in the preparation and submission of an NDA or EMA, and regulatory approval is never guaranteed. Depending on the final data from our SEAMLESS study, we may meet with regulatory authorities in the United States and the European Union to discuss registration submissions for sapacitabine for the AML indication. As the trial did not meet its primary endpoint of demonstrating statistically significant improvement in overall survival for the experimental arm versus an active control, there can be no assurance that data from SEAMLESS will be sufficient to submit registration submissions or that regulatory authorities will accept or approve any such submissions.

The FDA and other regulatory authorities in the United States and the EMA for the European Union and elsewhere exercise substantial discretion in the drug approval process. The number, size and design of preclinical studies and clinical trials that will be required for FDA or EMA approval will vary depending on the drug candidate, the disease or condition for which the drug candidate is intended to be used and the regulations and guidance documents applicable to any particular drug candidate. The FDA or EMA can delay, limit or deny approval of a drug candidate for many reasons, including, but not limited to:

- those discussed in the risk factor which immediately follows;

- the fact that FDA or EMA officials may find that our or our third party manufacturer's processes or facilities are not in compliance with cGMP; or

- the fact that new regulations may be enacted by the FDA or EMA pursuant to which they may change their approval policies or adopt new regulations requiring new or different evidence of safety and efficacy for the intended use of a drug candidate.

Our applications for regulatory approval could be delayed or denied due to problems with studies conducted before we in-licensed the rights to some of our product candidates.

We currently license some of the compounds and drug candidates used in our research programs from third parties. These include sapacitabine which was licensed from Daiichi Sankyo. Our present research involving these compounds relies upon previous research conducted by third parties over whom we had no control and before we in-licensed the drug candidates. In order to receive regulatory approval of a drug candidate, we must present all relevant data and information obtained during our research and development, including research conducted prior to our licensure of the drug candidate. Although we are not currently aware of any such problems, any problems that emerge with preclinical research and testing conducted prior to our in-licensing may affect future results or our ability to document prior research and to conduct clinical trials, which could delay, limit or prevent regulatory approval for our drug candidates.

Even if our product candidates receive regulatory approval, we may still face future development and regulatory difficulties.

Our product candidates, if approved, will also be subject to ongoing regulatory requirements for labeling, packaging, storage, advertising, promotion, record-keeping and submission of safety and other post-market information. In addition, approved products, manufacturers and manufacturers' facilities are required to comply with extensive FDA and EMA regulatory requirements and requirements of other similar agencies, including ensuring that quality control and manufacturing procedures conform to the FDA's or EMA's cGMP[1]. As such, we and our contract manufacturers are subject to continual review and periodic inspections to assess compliance with cGMP. Accordingly, we and others with whom we work must continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control. We will also be required to report certain adverse reactions and production problems, if any, to the FDA and EMA and to comply with certain requirements concerning advertising and promotion for our products. Promotional communications with respect to prescription drugs are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved label. Accordingly, we may not promote our approved products, if any, for indications or uses for which they are not approved.

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If we or a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or if a regulatory agency disagrees with the promotion, marketing or labeling of a product, it may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If our product candidates fail to comply with applicable regulatory requirements, the FDA and EMA may:

- issue warning letters;
- mandate modifications to promotional materials or require us to provide corrective information to healthcare practitioners;
- require us or our collaborators to enter into a consent decree or permanent injunction, which can include the imposition of various fines, reimbursements for inspection costs, required due dates for specific actions and penalties for noncompliance;
- impose other administrative or judicial civil or criminal penalties;
- withdraw regulatory approval;
- refuse to approve pending applications or supplements to approved applications filed by us or our potential future collaborators;
- impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products.

Even if we successfully complete the clinical trials for one or more of our product candidates, the product candidates may fail for other reasons.

Even if we successfully complete the clinical trials for one or more of our product candidates, the product candidates may fail for other reasons, including, without limitation, the possibilities that the product candidates will:

- fail to receive the regulatory approvals required to market them as drugs;
- be subject to proprietary rights held by others requiring the negotiation of a license agreement prior to marketing;
- be difficult or expensive to manufacture on a commercial scale;
- have adverse side effects that make their use less desirable; or
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fail to compete effectively with product candidates or other treatments commercialized by our competitors.

If we are unable to receive the required regulatory approvals, secure our intellectual property rights, minimize the incidence of any adverse side effects or fail to compete with our competitors' products, our business, financial condition, and results of operations could be materially and adversely affected.

We face intense competition and our competitors may develop drugs that are less expensive, safer, or more effective than our drug candidates.

A large number of drug candidates are in development for the treatment of leukemia, lung cancer, lymphomas and nasopharyngeal cancer. Several pharmaceutical and biotechnology companies have nucleoside analogs or other products on the market or in clinical trials which may be competitive to sapacitabine in both hematological and oncology indications. Our competitors, either alone or together with collaborators, may have substantially greater financial resources and research and development staff. Our competitors may also have more experience:

- developing drug candidates;

- conducting preclinical and clinical trials;

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- obtaining regulatory approvals; and

- commercializing product candidates.

Our competitors may succeed in obtaining patent protection and regulatory approval and may market drugs before we do. If our competitors market drugs that are less expensive, safer, more effective or more convenient to administer than our potential drugs, or that reach the market sooner than our potential drugs, we may not achieve commercial success. Scientific, clinical or technical developments by our competitors may render our drug candidates obsolete or noncompetitive. We anticipate that we will face increased competition in the future as new companies enter the markets and as scientific developments progress. If our drug candidates obtain regulatory approvals, but do not compete effectively in the marketplace, our business will suffer.

The commercial success of our drug candidates depends upon their market acceptance among physicians, patients, healthcare providers and payors and the medical community.

If our drug candidates are approved, or are approved by the FDA or EMA, together with another agent such as decitabine, the resulting drugs, if any, must still gain market acceptance among physicians, healthcare providers and payors, patients and the medical community. The degree of market acceptance of any of our approved drugs will depend on a variety of factors, including:

- timing of market introduction, number and clinical profile of competitive drugs;

- our ability to provide acceptable evidence of safety and efficacy;

- relative convenience and ease of administration;

- pricing and cost-effectiveness, which may be subject to regulatory control;

- availability of coverage, reimbursement and adequate payment from health maintenance organizations and other third party payors; and

- prevalence and severity of adverse side effects; and other potential advantages over alternative treatment methods.

If any product candidate that we develop does not provide a treatment regimen that is at least as beneficial as the current standard of care or otherwise does not provide some additional patient benefit over the current standard of care, that product will not achieve market acceptance and we will not generate sufficient revenues to achieve profitability.

If our drug candidates or distribution partners' products fail to achieve market acceptance, we may not be able to generate significant revenue and our business would suffer.

Reimbursement decisions by third-party payors may have an adverse effect on pricing and market acceptance. If there is not sufficient reimbursement for our products, it is less likely that they will be widely used. Market acceptance and sales of our product candidates that we develop, if approved, will depend on reimbursement policies, and may be affected by future healthcare reform measures. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs they will cover and establish payment levels. We cannot be certain that reimbursement will be available for our product candidates that we develop. Also, we cannot be

certain that reimbursement policies will not reduce the demand for, or the price paid for, our products. If reimbursement is not available or is available on a limited basis, we may not be able to successfully commercialize any of our product candidates.

Our business may be affected by the efforts of government and third-party payors to contain or reduce the cost of healthcare through various means. For example, the Patient Protection and Affordable Care Act and the Health Care and Education Affordability Reconciliation Act of 2010, referred to jointly as ACA, enacted in March 2010, substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacted the pharmaceutical industry. With regard to pharmaceutical products, the ACA may have the effect of expanding and increasing industry rebates for drugs covered under Medicaid programs and make changes to the coverage requirements under the Medicare Part D

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program. Additionally, the 2016 federal elections, which resulted in the election of the Republican presidential nominee and Republican majorities in both houses of Congress has prompted renewed legislative efforts to significantly modify or repeal the ACA, is likely to impact how the executive branch implements the law, and may impact how the federal government responds to lawsuits challenging the ACA. We cannot predict what further reform proposals, if any, will be adopted, when they may be adopted, or what impact they may have on our business, including whether it will impact the appetite of investors to make investments in companies like ours. Regardless of whether or not ACA is overturned or repealed, we expect both government and private health plans to continue to require healthcare providers, including healthcare providers that may one day purchase our products, to contain costs and demonstrate the value of the therapies they provide.

The United States and several other jurisdictions are considering, or have already enacted, a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our products profitably. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access to healthcare. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. We expect to experience pricing pressures in connection with the sale of products that we develop, due to the trend toward cost containment and additional legislative proposals.

If we are unable to compete successfully in our market place, it will harm our business.

There are existing products in the marketplace that compete with our products. Companies may develop new products that compete with our products. Certain of these competitors and potential competitors have longer operating histories, substantially greater product development capabilities and financial, scientific, marketing and sales resources. Competitors and potential competitors may also develop products that are safer, more effective or have other potential advantages compared to our products. In addition, research, development and commercialization efforts by others could render our products obsolete or non-competitive. Certain of our competitors and potential competitors have broader product offerings and extensive customer bases, allowing them to adopt aggressive pricing policies that would enable them to gain market share. Competitive pressures could result in price reductions, reduced margins and loss of market share. We could encounter potential customers that, due to existing relationships with our competitors, are committed to products offered by those competitors. As a result, those potential customers may not consider purchasing our products.

The failure to attract and retain skilled personnel and key relationships could impair our drug development and commercialization efforts.

We are highly dependent on our senior management and key clinical development, scientific and technical personnel. Competition for these types of personnel is intense. The loss of the services of any member of our senior management, clinical development, scientific or technical staff may significantly delay or prevent the achievement of drug development and other business objectives and could have a material adverse effect on our business, operating results and financial condition. We also rely on consultants and advisors to assist us in formulating our strategy. All of our consultants and advisors are either self-employed or employed by other organizations, and they may have conflicts of interest or other commitments, such as consulting or advisory contracts with other organizations, that may affect their ability to contribute to us. We intend to expand and develop new drug candidates. We will need to hire additional employees in order to continue our clinical trials and market our drug candidates. This strategy will require us to recruit additional executive management and clinical development, scientific, technical and sales and marketing personnel. There is currently intense competition for skilled executives and employees with relevant clinical development, scientific, technical and sales and marketing expertise, and this competition is likely to continue. The inability to attract and retain sufficient clinical development, scientific, technical and managerial personnel could limit or delay our product development efforts, which would adversely affect the development of our drug candidates and commercialization of our potential drugs and growth of our business.

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We may be exposed to product liability claims that may damage our reputation and we may not be able to obtain adequate insurance.

Because we conduct clinical trials in humans, we face the risk that the use of our drug candidates will result in adverse effects. We believe that we have obtained reasonably adequate product liability insurance coverage for our trials. We cannot predict, however, the possible harm or side effects that may result from our clinical trials. Such claims may damage our reputation and we may not have sufficient resources to pay for any liabilities resulting from a claim excluded from, or beyond the limit of, our insurance coverage or if the amount of the insurance coverage is insufficient to meet any liabilities resulting from any claims.

We may also be exposed to additional risks of product liability claims. These risks exist even with respect to drugs that are approved for commercial sale by the FDA or other regulatory authorities in the United States, the European Union or elsewhere and manufactured in facilities licensed and regulated by the FDA, EMA or other such regulatory authorities. We have secured limited product liability insurance coverage, but may not be able to maintain such insurance on acceptable terms with adequate coverage, or at a reasonable cost. There is also a risk that third parties that we have agreed to indemnify could incur liability. Even if we were ultimately successful in product liability litigation, the litigation would consume substantial amounts of our financial and managerial resources and may exceed insurance coverage creating adverse publicity, all of which would impair our ability to generate sales of the litigated product as well as our other potential drugs.

We may be required to defend lawsuits or pay damages in connection with the alleged or actual violation of healthcare statutes such as fraud and abuse laws, and our corporate compliance programs can never guarantee that we are in compliance with all relevant laws and regulations.

Our commercialization efforts in the United States and elsewhere are subject to various federal and state laws pertaining to promotion and healthcare fraud and abuse, including federal and state anti-kickback, fraud and false claims laws. Anti-kickback laws make it illegal for a manufacturer to offer or pay any remuneration in exchange for, or to induce, the referral of business, including the purchase of a product. The federal government has published many regulations relating to the anti-kickback statutes, including numerous safe harbors or exemptions for certain arrangements. False claims laws prohibit anyone from knowingly and willingly presenting, or causing to be presented for payment to third-party payers including Medicare and Medicaid, claims for reimbursed products or services that are false or fraudulent, claims for items or services not provided as claimed, or claims for medically unnecessary items or services.

Our activities relating to the sale and marketing of our products will be subject to scrutiny under these laws and regulations. It may be difficult to determine whether or not our activities comply with these complex legal requirements. Violations are punishable by significant criminal and/or civil fines and other penalties, as well as the possibility of exclusion of the product from coverage under governmental healthcare programs, including Medicare and Medicaid. If the government were to investigate or make allegations against us or any of our employees, or sanction or convict us or any of our employees, for violations of any of these legal requirements, this could have a material adverse effect on our business, including our stock price. Our activities could be subject to challenge for many reasons, including the broad scope and complexity of these laws and regulations, the difficulties in interpreting and applying these legal requirements, and the high degree of prosecutorial resources and attention being devoted to the biopharmaceutical industry and health care fraud by law enforcement authorities. During the last few years, numerous biopharmaceutical companies have paid multi-million dollar fines and entered into burdensome settlement agreements for alleged violation of these requirements, and other companies are under active investigation. Although we have developed and implemented corporate and field compliance programs as part of our commercialization efforts, we cannot assure you that we or our employees, directors or agents were, are or will be in compliance with all laws and regulations or that we will not come under investigation, allegation or sanction.

In addition, we may be required to prepare and report product pricing-related information to federal and state governmental authorities, such as the Department of Veterans Affairs and under the Medicaid program. The calculations used to generate the pricing-related information are complex and require the exercise of judgment. If we fail to accurately and timely report product pricing-related information or to comply with any of these or any other laws or regulations, various negative consequences could result,

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including criminal and/or civil prosecution, substantial criminal and/or civil penalties, exclusion of the approved product from coverage under governmental healthcare programs including Medicare and Medicaid, costly litigation and restatement of our financial statements. In addition, our efforts to comply with this wide range of laws and regulations are, and will continue to be, time-consuming and expensive.

If a supplier upon whom we rely fails to produce on a timely basis the finished goods in the volumes that we require or fails to meet quality standards and maintain necessary licensure from regulatory authorities, we may be unable to meet demand for our products, potentially resulting in lost revenues.

If any third party manufacturer service providers do not meet our or our licensor's requirements for quality, quantity or timeliness, or do not achieve and maintain compliance with all applicable regulations, demand for our products or our ability to continue supplying such products could substantially decline. As the third party manufacturers are the sole supplier of the products, any delays may impact our sales.

In all the countries where we may sell our products, governmental regulations exist to define standards for manufacturing, packaging, labeling and storing. All of our suppliers of raw materials and contract manufacturers must comply with these regulations. Failure to do so could result in supply interruptions. In the United States, the FDA requires that all suppliers of pharmaceutical bulk material and all manufacturers of pharmaceuticals for sale in or from the United States achieve and maintain compliance with the FDA's cGMPs. Similar requirements exist in the European Union through the EMA. Failure of our third-party manufacturers to comply with applicable regulations could result in sanctions being imposed on them or us, including fines, injunctions, civil penalties, disgorgement, suspension or withdrawal of approvals, license revocation, seizures or recalls of products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products. In addition, before any product batch produced by our manufacturers can be shipped, it must conform to release specifications for the content of the pharmaceutical product. If the operations of one or more of our manufacturers were to become unavailable for any reason, any required FDA or EMA review and approval of the operations of an alternative supplier could cause a delay in the manufacture of our products.

The commercialization of our products will be substantially dependent on our ability to develop effective sales and marketing capabilities.

One of our primary strategies for product candidates under development is to develop compounds through the Phase 2 stage of clinical testing and market or co-promote certain of our drugs. We currently have no sales, marketing or distribution capabilities. We will depend primarily on strategic alliances with third parties, which have established distribution systems and sales forces, to commercialize our drugs. To the extent that we are unsuccessful in commercializing any drugs ourselves or through a strategic alliance, product revenues may suffer, we may incur significant additional losses, and our share price would be negatively affected.

If we market products in a manner that violates healthcare fraud and abuse laws, or if we violate government price reporting laws, we may be subject to civil or criminal penalties.

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal healthcare laws, commonly referred to as "fraud and abuse" laws, have been applied in recent years to restrict certain marketing practices in the pharmaceutical industry. Other jurisdictions, such as Europe, have similar laws. These laws include false claims and anti-kickback statutes. If we market our products and our products are paid for by governmental programs, it is possible that some of our business activities could be subject to challenge under one or more of these laws.

Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government or knowingly making, or causing to be made, a false statement to get a false claim paid. The federal healthcare program anti-kickback statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce, or in return for, purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service covered by Medicare, Medicaid or other federally financed healthcare programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers, on the one hand, and prescribers, purchasers or formulary managers, on the other. Although there are several statutory

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exemptions and regulatory safe harbors protecting certain common activities from prosecution, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Most states also have statutes or regulations similar to the federal anti-kickback law and federal false claims laws, which apply to items and services covered by Medicaid and other state programs, or, in several states, apply regardless of the payor. Administrative, civil and criminal sanctions may be imposed under these federal and state laws.

Over the past few years, a number of pharmaceutical and other healthcare companies have been prosecuted under these laws for a variety of promotional and marketing activities, such as: providing free trips, free goods, sham consulting fees and grants and other monetary benefits to prescribers; reporting inflated average wholesale prices that were then used by federal programs to set reimbursement rates; engaging in off-label promotion; and submitting inflated best price information to the Medicaid Rebate Program to reduce liability for Medicaid rebates.

We face potential product liability exposure, and if successful claims are brought against us, we may incur substantial liability for a product candidate and may have to limit its commercialization.

The use of our product candidates in clinical trials and the sale of any products for which we may obtain marketing approval expose us to the risk of product liability claims. Product liability claims may be brought against us or our collaborators by participants enrolled in our clinical trials, patients, health care providers or others using, administering or selling our products. If we cannot successfully defend ourselves against any such claims, we would incur substantial liabilities. Regardless of merit or eventual outcome, product liability claims may result in:

- withdrawal of clinical trial participants;
- termination of clinical trial sites or entire trial programs;
- costs of related litigation;
- substantial monetary awards to patients or other claimants;
- decreased demand for our product candidates and loss of revenues;
- impairment of our business reputation;
- diversion of management and scientific resources from our business operations; and
- the inability to commercialize our product candidates.

We have obtained limited product liability insurance coverage for our clinical trials in the United States and in selected other jurisdictions where we are conducting clinical trials. Our primary product liability insurance coverage for clinical trials in the United States is currently limited to an aggregate of $5.0 million and outside of the United States, we have coverage for lesser amounts that vary by country. As such, our insurance coverage may not reimburse us or may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive, and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to product liability. We intend to expand our insurance coverage for products to include the sale of commercial products if we obtain marketing approval for our

product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products approved for marketing. Large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims brought against us, particularly if judgments exceed our insurance coverage, could decrease our cash resources and adversely affect our business.

Defending against claims relating to improper handling, storage or disposal of hazardous chemical, radioactive or biological materials could be time consuming and expensive.

Our research and development involves the controlled use of hazardous materials, including chemicals, radioactive and biological materials such as chemical solvents, phosphorus and bacteria. Our operations produce hazardous waste products. We cannot eliminate the risk of accidental contamination or discharge

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and any resultant injury from those materials. Various laws and regulations govern the use, manufacture, storage, handling and disposal of hazardous materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials. Compliance with environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development and production efforts.

Our business and operations would suffer in the event of system failures.

Despite the implementation of security measures, our internal computer systems, and those of our CROs and other third parties on which we rely, are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our drug development programs. For example, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development of our product candidates could be delayed.

Risks Related to Our Business and Financial Condition

Our ability to raise additional capital in the future may not be available to us on reasonable terms, if at all, when or as we require additional funding. If we issue additional shares of our common stock or other securities that may be convertible into, or exercisable or exchangeable for, our common stock, our existing stockholders would experience further dilution. If we fail to obtain additional funding, we may be unable to complete the development and commercialization of our lead drug candidate, sapacitabine, or continue to fund our research and development programs.

We have funded all of our operations and capital expenditures with proceeds from the issuance of public equity securities, private placements of our securities, interest on investments, licensing revenue, government grants, research and development tax credits and product revenue. In order to conduct the lengthy and expensive research, preclinical testing and clinical trials necessary to complete the development and marketing of our drug candidates, we will require substantial additional funds. We may have insufficient public equity available for issue to raise the required additional substantial funds to implement our operating plan and we may not be able to obtain the appropriate stockholder approvals necessary to increase our available public equity for issuance within a time that we may require additional funding. Based on our current operating plan, we expect our existing resources to be sufficient to fund our planned operations through the end of 2018, although our estimates may prove to be incorrect and we could spend our available financial resources faster than we currently expect. To meet our long-term financing requirements, we may raise funds through public or private equity offerings, debt financings or strategic alliances. Raising additional funds by issuing equity or convertible debt securities may cause our stockholders to experience substantial dilution in their ownership interests and new investors may have rights superior to the rights of our other stockholders. Raising additional funds through debt financing, if available, may involve covenants that restrict our business activities and options. To the extent that we raise additional funds through collaborations and licensing arrangements, we may have to relinquish valuable rights to our drug discovery and other technologies, research programs or drug candidates, or grant licenses on terms that may not be favorable to us. Additional funding may not be available to us on favorable terms, or at all, particularly in light of the current economic conditions. If we are unable to obtain additional funds, we may be forced to delay or terminate our current clinical trials and the development and marketing of our drug candidates including sapacitabine.

Unstable market and economic conditions may have serious adverse consequences on our business, financial condition and stock price.

As widely reported, global credit and financial markets have experienced extreme disruptions in the past several years, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates, and uncertainty about economic

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stability. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not continue to occur. Our general business strategy may be adversely affected by any such economic downturn, volatile business environment or continued unpredictable and unstable market conditions. If the current financial markets deteriorate, or do not improve, it may make any necessary financing more difficult, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development or other operating or strategic plans for our business.

A recent vote by the United Kingdom electorate in favor of a referendum for its exit from the European Union could adversely impact our business, results of operations and financial condition.

The announcement in June 2016 of the referendum of the United Kingdom's Membership of the European Union, or Brexit, advising for the exit of the United Kingdom from the European Union, could cause disruptions to and create uncertainty surrounding our business, including affecting our relationships with our future customers, suppliers and employees, which could have an adverse effect on our business, financial results and operations. The referendum is non-binding; however, if passed into law, negotiations would commence to determine the future terms of the United Kingdom's relationship with the European Union, including the terms of trade between the United Kingdom and the European Union. The effects of Brexit will depend on any agreements the United Kingdom makes to retain access to European Union markets either during a transitional period or more permanently. The measures could potentially disrupt the markets and tax jurisdictions in which we operate, including our wholly owned subsidiary Cyclacel Limited, which was organized under the laws of England and Wales, and our research facility in Dundee, Scotland, which is also the center of our translational work and development programs, and adversely change tax benefits or liabilities in these or other jurisdictions, and may cause us to lose potential customers, suppliers, and employees. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which European Union laws to replace or replicate.

The announcement of Brexit caused significant volatility in global stock markets and currency exchange rate fluctuations that resulted in the strengthening of the U.S. dollar against foreign currencies in which we conduct business. The strengthening of the U.S. dollar relative to other currencies may adversely affect our results of operations.

The implementation of Brexit may also create global economic uncertainty, which may cause partners, suppliers and potential customers to closely monitor their costs and reduce their spending budget.

Since Scottish voters were overwhelming in favor of the United Kingdom remaining in the European Union, Scotland may in the future seek independence from the United Kingdom, as it unsuccessfully sought to do by referendum in September 2014. Any such efforts by Scotland to separate from the United Kingdom, even if unsuccessful, could lead to uncertainty and further disrupt the markets and tax jurisdictions in which we operate, and may cause us to lose potential customers, suppliers, and employees.

Any of these effects of Brexit, among others, could materially adversely affect our business, business opportunities, results of operations, financial condition and cash flows.

We are at an early stage of development as a company and we do not have, and may never have, any products that generate significant revenues.

We are at an early stage of development as a company and have a limited operating history on which to evaluate our business and prospects. While we earned modest product revenues from the ALIGN business prior to terminating operations effective September 30, 2012, we have not generated any product revenues from our product candidates currently in development. We cannot guarantee that any of our product candidates currently in development will ever become marketable products. We must demonstrate that our drug candidates satisfy rigorous standards of safety and efficacy for their intended uses before the FDA, EMA and other regulatory authorities in the United States, the European Union and elsewhere. Significant additional research, preclinical testing and clinical testing is required before we can file applications with the FDA or EMA for approval of our drug candidates. In addition, to compete effectively, our drugs must be easy to administer, cost-effective and economical to manufacture on a commercial scale.

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We may not achieve any of these objectives. As our Phase 3 study for AML did not meet its primary endpoint of demonstrating statistically significant improvement in overall survival for the experimental arm versus an active control our clinical development programs are now all at an early stage of testing in Phase 1/2. CYC065 is in a first-in-human Phase 1 study and a combination of sapacitabine and seliciclib, is currently in a Phase 1/2 clinical trial. We cannot be certain that the clinical development of these or any other drug candidates in preclinical testing or clinical development will be successful, that we will receive the regulatory approvals required to commercialize them or that any of our other research and drug discovery programs will yield a drug candidate suitable for investigation through clinical trials. Our commercial revenues from our product candidates currently in development, if any, will be derived from sales of drugs that will not become marketable for several years, if at all.

We have a history of operating losses and we may never become profitable. Our stock is a highly speculative investment.

We have incurred operating losses in each year since beginning operations in 1996 due to costs incurred in connection with our research and development activities and selling, general and administrative costs associated with our operations, and we may never achieve profitability. As of March 31, 2017, our accumulated deficit was $336.6 million. Our net loss was $14.3 million and $11.8 million for the years ended December 31, 2015 and 2016 and $1.6 million for the quarter ended March 31, 2017, respectively. In addition to the SEAMLESS study, which we recently announced failed to reach its primary endpoint, our drug candidates are in the early- to mid-stages of clinical testing and we must conduct significant additional clinical trials before we can seek the regulatory approvals necessary to begin commercial sales of our drugs. We expect to incur continued losses for several years as we continue our research and development of our drug candidates, seek regulatory approvals and commercialize any approved drugs. If our drug candidates are unsuccessful in clinical trials or we are unable to obtain regulatory approvals, or if our drugs are unsuccessful in the market, we will not be profitable. If we fail to become and remain profitable, or if we are unable to fund our continuing losses, particularly in light of the current economic conditions, you could lose all or part of your investment.

If we fail to comply with the continued listing requirements of the NASDAQ Capital Market, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.

Our common stock is currently listed for trading on the NASDAQ Capital Market. We must satisfy NASDAQ's continued listing requirements, including, among other things, a minimum stockholders' equity of $2.5 million and a minimum bid price for our common stock of $1.00 per share, or risk delisting, which would have a material adverse effect on our business. A delisting of our common stock from the NASDAQ Capital Market could materially reduce the liquidity of our common stock and result in a corresponding material reduction in the price of our common stock. In addition, delisting could harm our ability to raise capital through alternative financing sources on terms acceptable to us, or at all, and may result in the potential loss of confidence by investors, suppliers, customers and employees and fewer business development opportunities.

On February 2, 2016, the Company received a letter from the Listing Qualifications Staff (the "Staff ") of The NASDAQ Stock Market LLC indicating that the Company had not regained compliance with the $1.00 minimum bid price requirement for continued listing on The NASDAQ Capital Market, as set forth in NASDAQ Listing Rule 5450(a)(1), by the end of the previously granted compliance period that expired on February 2, 2016. As a result, the Staff indicated that the Company would be subject to delisting unless it timely requested a hearing before a NASDAQ Listing Qualifications Panel (the "Panel").

The Company had a hearing before the Panel on March 31, 2016, at which it presented its plan to regain compliance with the minimum bid price requirement, and requested a further extension of time to do so. On April 4, 2016, the Company received a written ruling from the Panel stating that the Panel had granted the Company's request to remain listed on The NASDAQ Capital Market. At the 2016 Annual Meeting of Stockholders, which was held on May 26, 2016, holders of the Company's common stock approved a proposed amendment to the Company's amended and restated certificate of incorporation, by way of a certificate of amendment, to effectuate a reverse stock split at a ratio of up to and including

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one-for-twenty. Pursuant thereto, the Board determined to use a ratio of one-for-twelve, and the reverse stock split became effective at 5:00 p.m., Eastern Time, on May 27, 2016, with the Company's common stock trading on the NASDAQ Capital Market on a post-split basis at the open of business on May 31, 2016. On June 15, 2016, we received notification from the Staff that we have regained compliance with the minimum bid price rule for continued listing on The NASDAQ Capital Market. The notification stated that as of June 14, 2016, we have evidenced a closing per share bid price of our common stock in excess of the $1.00 minimum closing bid price requirement for at least ten consecutive trading days. Accordingly, we have regained compliance with NASDAQ Listing Rule 5550(a)(2) and will continue to trade on The NASDAQ Capital Market.

Notwithstanding the reverse stock split and our compliance with The NASDAQ Capital market requirements, we cannot be sure that our share price will comply with the requirements for continued listing of our common stock on The NASDAQ Capital Market in the future, or that we will comply with the other continued listing requirements. If our shares of Common Stock lose their status on the NASDAQ Capital Market, we believe that our shares of Common Stock would likely be eligible to be quoted on the inter-dealer electronic quotation and trading system operated by Pink OTC Markets Inc., commonly referred to as the Pink Sheets and now known as the OTCQB market. Our shares of Common Stock may also be quoted on the Over-the-Counter Bulletin Board, an electronic quotation service maintained by the Financial Industry Regulatory Authority. These markets are generally not considered to be as efficient as, and not as broad as, the NASDAQ Capital Market. Selling our shares of Common Stock on these markets could be more difficult because smaller quantities of shares would likely be bought and sold, and transactions could be delayed. In addition, in the event our shares of Common Stock are delisted, broker-dealers have certain regulatory burdens imposed upon them, which may discourage broker-dealers from effecting transactions in our Common Stock, further limiting the liquidity of our Common Stock. These factors could result in lower prices and larger spreads in the bid and ask prices for our Common Stock.

To the extent we elect to fund the development of a drug candidate or the commercialization of a drug at our expense, we will need substantial additional funding.

We plan to market drugs on our own, with or without a partner, that can be effectively commercialized and sold in concentrated markets that do not require a large sales force to be competitive. To achieve this goal, we will need to establish our own specialized sales force, marketing organization and supporting distribution capabilities. The development and commercialization of our drug candidates is very expensive. To the extent we elect to fund the full development of a drug candidate or the commercialization of a drug at our expense, we will need to raise substantial additional funding to:

- fund research and development and clinical trials connected with our research;
- fund clinical trials and seek regulatory approvals;
- build or access manufacturing and commercialization capabilities;
- implement additional internal control systems and infrastructure;
- commercialize and secure coverage, payment and reimbursement of our drug candidates, if any such candidates receive regulatory approval;
- maintain, defend and expand the scope of our intellectual property; and
-

hire additional management, sales and scientific personnel.

Our future funding requirements will depend on many factors, including:

- the scope, rate of progress and cost of our clinical trials and other research and development activities, including our discussions with European and United States regulatory authorities concerning the top-line data from our pivotal Phase 3 SEAMLESS study;

- the costs and timing of seeking and obtaining regulatory approvals;

- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;

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- the costs associated with establishing sales and marketing capabilities;

- the costs of acquiring or investing in businesses, products and technologies;

- the effect of competing technological and market developments; and

- the payment, other terms and timing of any strategic alliance, licensing or other arrangements that we may establish.

If we are not able to secure additional funding when needed, especially in light of the current economic conditions and financial market turmoil, we may have to delay, reduce the scope of or eliminate one or more of our clinical trials or research and development programs or future commercialization efforts.

Our insurance policies are expensive and only protect us from some business risks, which will leave us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter. Some of the policies we currently maintain include property, general liability, employment benefits liability, workers' compensation, products liability and clinical trials (U.S and foreign), and directors' and officers', employment practices and fiduciary liability insurance. We do not know, however, if we will be able to maintain insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our financial position and results of operations.

Any future workforce and expense reductions may have an adverse impact on our internal programs, strategic plans, and our ability to hire and retain key personnel, and may also be distracting to our management.

Any workforce and expense reductions similar to those carried out in September 2008 and June 2009 could result in significant delays in implementing our strategic plans. In addition, employees, whether or not directly affected by such reduction, may seek future employment with our business partners or competitors. Although our employees are required to sign a confidentiality agreement at the time of hire, the confidential nature of certain proprietary information may not be maintained in the course of any such future employment. In addition, any workforce reductions or restructurings would be expected to involve significant expense as a result of contractual terms in certain of our existing agreements, including potential severance obligations. Further, we believe that our future success will depend in large part upon our ability to attract and retain highly skilled personnel. We may have difficulty retaining and attracting such personnel as a result of a perceived risk of future workforce and expense reductions. Finally, the implementation of expense reduction programs may result in the diversion of the time and attention of our executive management team and other key employees, which could adversely affect our business.

Funding constraints may negatively impact our research and development, forcing us to delay our efforts to develop certain product candidates in favor of developing others, which may prevent us from commercializing our product candidates as quickly as possible.

Research and development is an expensive process. As part of our operating plan, since announcing that our SEAMLESS trial failed to meet its primary endpoint, we have decided to focus our clinical development strategy in oncology on our two ongoing, clinical programs in transcriptional regulation and DNA damage response, which include our area of historical expertise in CDK inhibitors, or additional programs. Because we have to prioritize our development candidates as a result of budget constraints, we may not be able to fully realize the value of our product candidates in a timely manner, if at all.

We are exposed to risks related to foreign currency exchange rates.

Some of our costs and expenses are denominated in foreign currencies. Most of our foreign expenses are associated with our research and development expenditures, including the operating costs of our United Kingdom-based wholly-owned subsidiary. When the United States dollar weakens against the British pound or the Euro, the United States dollar value of the foreign currency denominated expense increases, and when the United States dollar

strengthens against the British pound or the Euro, the United States dollar value of the foreign currency denominated expense decreases. Consequently, changes in exchange rates, and in particular a weakening of the United States dollar, may adversely affect our results of operations.

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Risks Related to our Intellectual Property

If we fail to enforce adequately or defend our intellectual property rights, our business may be harmed.

Our commercial success depends in large part on obtaining and maintaining patent and trade secret protection for our drug candidates, the methods used to manufacture those drug candidates and the methods for treating patients using those drug candidates.

Sapacitabine is protected by granted, composition of matter patents claiming certain, stable crystalline forms of sapacitabine and their pharmaceutical compositions and therapeutic uses that expire in 2022 (and may be eligible for a Hatch-Waxman term restoration of up to five years, which could extend the expiration date to 2027); United States and European granted patents that expire in 2029, claiming the combination of sapacitabine with hypomethylating agents, including decitabine, which is being tested as the active arm in the SEAMLESS Phase 3 trial, and a United States granted patent claiming a specified method of administration of sapacitabine with patent exclusivity until July 2030. We have used a stable, crystalline form of sapacitabine in nearly all our Phase 1 and in all our Phase 2 and Phase 3 clinical studies. We have also chosen this crystalline form for commercialization. Additional patents and applications claim certain medical uses, combinations, formulations and dosing regimens of sapacitabine which have emerged in our clinical trials, as well as a process for the preparation of sapacitabine. Seliciclib is protected by granted patents and applications claiming certain medical uses of seliciclib, including combination use with sapacitabine, which have emerged in our preclinical research and clinical trials. The latest to expire of the granted patents expires in 2028. Failure to obtain, maintain or extend the patents could adversely affect our business. We will only be able to protect our drug candidates and our technologies from unauthorized use by third parties to the extent that valid and enforceable patents or trade secrets cover them.

Our ability to obtain patents is uncertain because legal means afford only limited protections and may not adequately protect our rights or permit us to gain or keep any competitive advantage. Some legal principles remain unresolved and the breadth or interpretation of claims allowed in patents in the United States, the European Union or elsewhere can still be difficult to ascertain or predict. In addition, the specific content of patents and patent applications that are necessary to support and interpret patent claims is highly uncertain due to the complex nature of the relevant legal, scientific and factual issues. Changes in either patent laws or in interpretations of patent laws in the United States, the European Union or elsewhere may diminish the value of our intellectual property or narrow the scope of our patent protection. Our existing patents and any future patents we obtain may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products and technologies. In addition, we generally do not control the patent prosecution of subject matter that we license from others and have not controlled the earlier stages of the patent prosecution. Accordingly, we are unable to exercise the same degree of control over this intellectual property as we would over our own.

Even if patents are issued regarding our drug candidates or methods of using them, those patents can be challenged by our competitors who may argue such patents are invalid and/or unenforceable. Patents also will not protect our drug candidates if competitors devise ways of making or using these product candidates without legally infringing our patents. The FDA and FDA regulations and policies and equivalents in other jurisdictions provide incentives to manufacturers to challenge patent validity or create modified, non-infringing versions of a drug in order to facilitate the approval of abbreviated new drug applications for generic substitutes. These same types of incentives encourage manufacturers to submit NDAs that rely on literature and clinical data not prepared for or by the drug sponsor.

Proprietary trade secrets and unpatented know-how are also very important to our business. We rely on trade secrets to protect our technology, especially where we do not believe that patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. Our employees, consultants, contractors, outside scientific collaborators and other advisors may unintentionally or willfully disclose our confidential information to competitors, and confidentiality agreements may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. Enforcing a claim that a third-party obtained illegally and is using trade secrets is expensive and time consuming, and the outcome is unpredictable. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how. Failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

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If we do not obtain protection under the Hatch-Waxman Act and similar legislation outside of the United States by extending the patent terms and obtaining data exclusivity for our product candidates, our business may be materially harmed.

Depending upon the timing, duration and specifics of FDA marketing approval of sapacitabine and our other product candidates, if any, one or more of our United States patents may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, we may not be granted an extension because, for example, of failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or restoration or the term of any such extension is less than what we request, the period during which we will have the right to exclusively market our product will be shortened and our competitors may obtain approval of competing products following our patent expiration, and our revenue could be reduced, possibly materially.

Intellectual property rights for our drug candidate seliciclib are licensed from others, and any termination of these licenses could harm our business.

We have in-licensed certain patent rights in connection with the development program of our drug candidate seliciclib. Pursuant to the CNRS and Institut Curie license under which we license seliciclib, we are obligated to pay license fees, milestone payments and royalties and to provide regular progress reports. We are also obligated to use reasonable efforts to develop and commercialize products based on the licensed patents. If we fail to satisfy any of our obligations under these licenses, they could be terminated, which could harm our business.

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

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees 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. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper or prevent our ability to commercialize certain potential drugs, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Confidentiality agreements with employees and others may not adequately prevent disclosure of our trade secrets and other proprietary information and may not adequately protect our intellectual property, which could limit our ability to compete.

Because we operate in the highly technical field of drug discovery and development of small molecule drugs, we rely in part on trade secret protection in order to protect our proprietary technology and processes. However, trade secrets are difficult to protect. We enter into confidentiality and intellectual property assignment agreements with our corporate partners, employees, consultants, outside scientific collaborators, sponsored researchers, and other advisors. These agreements generally require that the other party keep confidential and not disclose to third parties all confidential information developed by the party or made known to the party by us during the course of the party's relationship with us. These agreements also generally provide that inventions conceived by the party in the course of rendering services to us will be our exclusive property. However, these agreements may not be honored and may not effectively assign intellectual property rights to us. Enforcing a claim that a party illegally obtained and is using our trade secrets is difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. The failure to obtain or maintain trade secret protection could adversely affect our competitive position.

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Intellectual property rights of third parties may increase our costs or delay or prevent us from being able to commercialize our drug candidates.

There is a risk that we are infringing or will infringe on the proprietary rights of third parties because patents and pending applications belonging to third parties exist in the United States, the European Union and elsewhere in the world in the areas of our research. Others might have been the first to make the inventions covered by each of our or our licensors' pending patent applications and issued patents and might have been the first to file patent applications for these inventions. We are aware of several published patent applications, and understand that others may exist, that could support claims that, if granted and held valid, could cover various aspects of our developmental programs, including in some cases particular uses of our drug candidates sapacitabine, seliciclib, CYC065 or other therapeutic candidates, or substances, processes and techniques that we use in the course of our research and development and manufacturing processes. We are aware that other patents exist that claim substances, processes and techniques, which, if held valid, could potentially restrict the scope of our research, development or manufacturing operations. In addition, we understand that other applications and patents exist relating to potential uses of sapacitabine, seliciclib and CYC065 that are not part of our current clinical programs for these compounds. Numerous third-party United States and foreign issued patents and pending applications exist in the area of kinases, including CDK and PLK for which we have research programs. For example, some pending patent applications contain broad claims that could represent freedom to operate limitations for some of our kinase programs should they be issued unchanged. Although we intend to continue to monitor these applications, we cannot predict what claims will ultimately be allowed and if allowed what their scope would be. In addition, because the patent application process can take several years to complete, there may be currently pending applications, unknown to us, which may later result in issued patents that cover the production, manufacture, commercialization or use of our drug candidates. If we wish to use the technology or compound claimed in issued and unexpired patents owned by others, we will need to obtain a license from the owner, enter into litigation to challenge the validity of the patents or incur the risk of litigation in the event that the owner asserts that we infringe its patents. In one case we have opposed a European patent relating to human aurora kinase and the patent has been finally revoked (no appeal was filed).

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the pharmaceutical and biotechnology industries. Defending against third party claims, including litigation in particular, would be costly and time consuming and would divert management's attention from our business, which could lead to delays in our development or commercialization efforts. If third parties are successful in their claims, we might have to pay substantial damages or take other actions that are adverse to our business. As a result of intellectual property infringement claims, or to avoid potential claims, we might:

- be prohibited from selling or licensing any product that we may develop unless the patent holder licenses the patent to us, which it is not required to do;

- be required to pay substantial royalties or grant a cross license to our patents to another patent holder; decide to locate some of our research, development or manufacturing operations outside of Europe or the United States;

- be required to pay substantial damages for past infringement, which we may have to pay if a court determines that our product candidates or technologies infringe a competitor's patent or other proprietary rights; or

- be required to redesign the manufacturing process or formulation of a drug candidate so it does not infringe which may not be possible or could require substantial funds and time.

We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights.

If we choose to go to court to stop another party from using the inventions claimed in any patents we obtain, that individual or company has the right to ask the court to rule that such patents are invalid or should not be enforced against that third party. These lawsuits are expensive and would consume time and

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resources and divert the attention of managerial and scientific personnel even if we were successful in stopping the infringement of such patents. In addition, there is a risk that the court will decide that such patents are not valid and that we do not have the right to stop the other party from using the inventions.

There is also a risk that, even if the validity of such patents is upheld, the court will refuse to stop the other party on the ground that such other party's activities do not infringe our rights to such patents. In addition, the United States Supreme Court has recently modified some tests used by the United States Patent and Trademark Office, or USPTO, in granting patents over the past 20 years, which may decrease the likelihood that we will be able to obtain patents and increase the likelihood of challenge of any patents we obtain or license.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the USPTO and various governmental patent agencies outside of the United States in several stages over the lifetime of the patents and/or applications. We have systems in place to remind us to pay these fees, and we employ an outside firm and rely on our outside counsel to pay these fees. The USPTO and various non-United States governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors might be able to enter the market and this circumstance would have a material adverse effect on our business.

The patent applications of pharmaceutical and biotechnology companies involve highly complex legal and factual questions, which, if determined adversely to us, could negatively impact our patent position.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions. The U.S. Patent and Trademark Office's, or USPTO's, standards are uncertain and could change in the future. Consequently, the issuance and scope of patents cannot be predicted with certainty. Patents, if issued, may be challenged, invalidated or circumvented. U.S. patents and patent applications may also be subject to interference proceedings, and U.S. patents may be subject to Inter Partes Review (IPR) or reexamination proceedings in the USPTO (and foreign patents may be subject to opposition or comparable proceedings in the corresponding foreign patent office), which proceedings could result in either loss of the patent or denial of the patent application or loss or reduction in the scope of one or more of the claims of the patent or patent application. Similarly, opposition or invalidity proceedings could result in loss of rights or reduction in the scope of one or more claims of a patent in foreign jurisdictions. In addition, such interference, reexamination and opposition proceedings may be costly. Accordingly, rights under any issued patents may not provide us with sufficient protection against competitive products or processes.

In addition, changes in or different interpretations of patent laws in the United States and foreign countries may permit others to use our discoveries or to develop and commercialize our technology and products without providing any compensation to us or may limit the number of patents or claims we can obtain. In particular, there have been proposals to shorten the exclusivity periods available under U.S. patent law that, if adopted, could substantially harm our business. The product candidates that we are developing are protected by intellectual property rights, including patents and patent applications. If any of our product candidates becomes a marketable product, we will rely on our exclusivity under patents to sell the compound and recoup our investments in the research and development of the compound. If the exclusivity period for patents is shortened, then our ability to generate revenues without competition will be reduced and our business could be materially adversely impacted. The laws of some countries do not protect intellectual property rights to the same extent as U.S. laws, and those countries may lack adequate rules and procedures for defending our intellectual property rights. For example, some countries do not

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grant patent claims directed to methods of treating humans and, in these countries, patent protection may take the form of alternative claim constructions or may not be available at all to protect our product candidates. In addition, U.S. patent laws may change, which could prevent or limit us from filing patent applications or patent claims to protect our products and/or technologies or limit the exclusivity periods that are available to patent holders. For example, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law and includes a number of significant changes to U.S. patent law. These include changes to transition from a "first-to-invent" system to a "first-to-file" system and to the way issued patents are challenged. These changes may favor larger and more established companies that have more resources to devote to patent application filing and prosecution. The USPTO has been in the process of implementing regulations and procedures to administer the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act may affect our ability to obtain, enforce or defend our patents. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will ultimately have on the cost of prosecuting our patent applications, our ability to obtain patents based on our discoveries and our ability to enforce or defend our issued patents.

If we fail to obtain and maintain patent protection and trade secret protection of our product candidates, proprietary technologies and their uses, we could lose our competitive advantage and competition we face would increase, reducing our potential revenues and adversely affecting our ability to attain or maintain profitability.

Risks Related to Securities Regulations and Investment in Our Securities

Failure to achieve and maintain internal controls in accordance with Sections 302 and 404 of the Sarbanes-Oxley Act of 2002 could have a material adverse effect on our business and stock price.

If we fail to maintain our internal controls or fail to implement required new or improved controls, as such control standards are modified, supplemented or amended from time to time, we may not be able to conclude on an ongoing basis that we have effective internal controls over financial reporting. Effective internal controls are necessary for us to produce reliable financial reports and are important in the prevention of financial fraud. If we cannot produce reliable financial reports or prevent fraud, our business and operating results could be harmed.

We incur increased costs and management resources as a result of being a public company, and we may fail to comply with public company obligations.

As a public company, we face and will continue to face increased legal, accounting, administrative and other costs and expenses as a public company that we would not incur as a private company. Compliance with the Sarbanes Oxley Act of 2002, as well as other rules of the SEC, the Public Company Accounting Oversight Board and NASDAQ resulted in a significant initial cost to us as well as an ongoing compliance cost. As a public company, we are subject to Section 404 of the Sarbanes Oxley Act relating to internal control over financial reporting. We have completed a formal process to evaluate our internal controls for purposes of Section 404, and we concluded that as of March 31, 2017, our internal control over financial reporting was effective. As our business grows and changes, there can be no assurances that we can maintain the effectiveness of our internal controls over financial reporting. In addition, our independent certified public accounting firm has not provided an opinion on the effectiveness of our internal controls over financial reporting for the quarter ended March 31, 2017 because we are a smaller reporting company. In the event our independent auditor is required to provide an opinion on such controls in the future, there is a risk that the auditor would conclude that such controls are ineffective.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. If we cannot provide reliable financial reports or prevent fraud, our operating results could be harmed. We have completed a formal process to evaluate our internal control over financial reporting. However, guidance from regulatory authorities in the area of internal controls continues to evolve and substantial uncertainty exists regarding our on-going ability to comply by applicable deadlines. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations. Ineffective internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock.

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Our common stock may have a volatile public trading price.

An active public market for our common stock has not developed. Our stock can trade in small volumes which may make the price of our stock highly volatile. The last reported price of our stock may not represent the price at which you would be able to buy or sell the stock. The market prices for securities of companies comparable to us have been highly volatile. Often, these stocks have experienced significant price and volume fluctuations for reasons that are both related and unrelated to the operating performance of the individual companies. In addition, the stock market as a whole and biotechnology and other life science stocks in particular have experienced significant recent volatility. Like our common stock, these stocks have experienced significant price and volume fluctuations for reasons unrelated to the operating performance of the individual companies. Factors giving rise to this volatility may include:

- disclosure of actual or potential clinical results with respect to product candidates we are developing;
- regulatory developments in both the United States and abroad;
- developments concerning proprietary rights, including patents and litigation matters;
- public concern about the safety or efficacy of our product candidates or technology, or related technology, or new technologies generally;
- concern about the safety or efficacy of our product candidates or technology, or related technology, or new technologies generally;
- public announcements by our competitors or others; and
- general market conditions and comments by securities analysts and investors.

For example, on February 23, 2017, we announced top-line results from the pivotal Phase 3 SEAMLESS study in elderly patients aged 70 years or older with newly diagnosed AML, who are not candidates for or have refused intensive induction chemotherapy. The trial did not meet its primary endpoint of demonstrating statistically significant improvement in overall survival for the experimental arm versus an active control. As a result of this announcement, the last reported sale price of our common stock on The NASDAQ Capital Market on February 23, 2017 dropped to $4.05 from a last reported sale price of our common stock on February 22, 2017 of $5.41.

We executed a reverse stock split in order to help maintain our continued listing on The NASDAQ Capital Market. The reduction in our outstanding shares may result in reduced liquidity for all stockholders and in increased volatility in our stock price over time.

The reduced trading volume which results from the decreased number of shares that are publically held may make it more difficult to buy or sell our stock, even though we may maintain our listing on The NASDAQ Capital Market. The reduced volume of stock trades that may result as a consequence of the reverse stock split may also increase the volatility of our stock price over time.

Fluctuations in our operating losses could adversely affect the price of our common stock.

Our operating losses may fluctuate significantly on a quarterly basis. Some of the factors that may cause our operating losses to fluctuate on a period-to-period basis include the status of our preclinical and clinical development programs, level of expenses incurred in connection with our preclinical and clinical development programs, implementation or termination of collaboration, licensing, manufacturing or other material agreements with third parties, non-recurring

revenue or expenses under any such agreement, and compliance with regulatory requirements. Period-to-period comparisons of our historical and future financial results may not be meaningful, and investors should not rely on them as an indication of future performance. Our fluctuating losses may fail to meet the expectations of securities analysts or investors. Our failure to meet these expectations may cause the price of our common stock to decline.

If securities or industry analysts do not publish research or reports about us, if they change their recommendations regarding our stock adversely or if our operating results do not meet their expectations, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that industry or securities analysts publish about us. If analysts do not publish research reports or one or more of these

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analysts who were publishing research cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline. Moreover, if one or more of the analysts who cover us downgrade our stock or if our operating results do not meet their expectations, our stock price could decline.

Anti-takeover provisions in our charter documents and provisions of Delaware law may make an acquisition more difficult and could result in the entrenchment of management.

We are incorporated in Delaware. Anti-takeover provisions of Delaware law and our amended and restated certificate of incorporation and amended and restated bylaws may make a change in control or efforts to remove management more difficult. Also, under Delaware law, our Board of Directors may adopt additional anti-takeover measures.

We have the authority to issue up to 5 million shares of preferred stock and to determine the terms of those shares of stock without any further action by our stockholders. If the Board of Directors exercises this power to issue preferred stock, it could be more difficult for a third party to acquire a majority of our outstanding voting stock and vote the stock they acquire to remove management or directors. Our amended and restated certificate of incorporation and amended and restated bylaws also provides staggered terms for the members of our Board of Directors. Under Section 141 of the Delaware General Corporation Law, our directors may be removed by stockholders only for cause and only by vote of the holders of a majority of voting shares then outstanding. These provisions may prevent stockholders from replacing the entire board in a single proxy contest, making it more difficult for a third-party to acquire control of us without the consent of our Board of Directors. These provisions could also delay the removal of management by the Board of Directors with or without cause. In addition, our directors may only be removed for cause and amended and restated bylaws limit the ability our stockholders to call special meetings of stockholders.

Under Section 203 of the Delaware General Corporation Law, a corporation may not engage in a business combination with any holder of 15% or more of its capital stock until the holder has held the stock for three years unless, among other possibilities, the Board of Directors approves the transaction. Our Board of Directors could use this provision to prevent changes in management. The existence of the foregoing provisions could limit the price that investors might be willing to pay in the future for shares of our common stock.

Certain severance-related agreements in our executive employment agreements may make an acquisition more difficult and could result in the entrenchment of management.

In March 2008 (as subsequently amended, most recently as of January 1, 2017), we entered into employment agreements with our President and Chief Executive Officer and our Executive Vice President, Finance, Chief Financial Officer and Chief Operating Officer, which contain severance arrangements in the event that such executive’s employment is terminated without “cause” or as a result of a “change of control” (as each such term is defined in each agreement). The financial obligations triggered by these provisions may prevent a business combination or acquisition that would be attractive to stockholders and could limit the price that investors would be willing to pay in the future for our stock.

In the event of an acquisition of our common stock, we cannot assure our common stockholders that we will be able to negotiate terms that would provide for a price equivalent to, or more favorable than, the price at which our shares of common stock may be trading at such time.

We may not effect a consolidation or merger with another entity without the vote or consent of the holders of at least a majority of the shares of our preferred stock (in addition to the approval of our common stockholders), unless the preferred stock that remains outstanding and its rights, privileges and preferences are unaffected or are converted into or exchanged for preferred stock of the surviving entity having rights, preferences and limitations substantially similar, but no less favorable, to our convertible preferred stock.

In addition, in the event a third party seeks to acquire our company or acquire control of our company by way of a merger, but the terms of such offer do not provide for our preferred stock to remain outstanding or be converted into or exchanged for preferred stock of the surviving entity having rights, preferences and limitations substantially similar, but no less favorable, to our preferred stock, the terms of

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the Certificate of Designations of our preferred stock provide for an adjustment to the conversion ratio of our preferred stock such that, depending on the terms of any such transaction, preferred stockholders may be entitled, by their terms, to receive up to $10.00 per share in common stock, causing our common stockholders not to receive as favorable a price as the price at which such shares may be trading at the time of any such transaction. As of March 31, 2017, there were 335,273 shares of our preferred stock issued and outstanding. If the transaction were one in which proceeds were received by the Company for distribution to stockholders, and the terms of the Certificate of Designations governing the preferred stock were strictly complied with, approximately $4.0 million would be paid to the preferred holders before any distribution to the common stockholders, although the form of transaction could affect how the holders of preferred stock are treated. In such an event, although such a transaction would be subject to the approval of our holders of common stock, we cannot assure our common stockholders that we will be able to negotiate terms that would provide for a price equivalent to, or more favorable than, the price at which our shares of common stock may be trading at such time. Thus, the terms of our preferred stock might hamper a third party's acquisition of our company.

Our certificate of incorporation and bylaws and certain provisions of Delaware law may delay or prevent a change in our management and make it more difficult for a third-party to acquire us.

Our amended and restated certificate of incorporation and bylaws contain provisions that could delay or prevent a change in our Board of Directors and management teams. Some of these provisions:

•

authorize the issuance of preferred stock that can be created and issued by the Board of Directors without prior stockholder approval, commonly referred to as "blank check" preferred stock, with rights senior to those of our common stock;

Title

Served
the Past Five Years

John Sullivan
Chief
Since
Senior Managing Director of Guggenheim
Year of birth: 1955
Financial
2011
Funds Investment Advisors, LLC and

Officer,

Guggenheim Funds Distributors, Inc. (2010 –

Chief

present). Chief Financial Officer, Chief

Accounting

Accounting Officer and Treasurer of certain

Officer and

funds in the Fund Complex. Previously, Chief

Treasurer

Compliance Officer of Van Kampen Funds

(2004-2010); Head of Mutual Fund Accounting

and Administration, Morgan Stanley

Investment Management (2002-2004); Chief

Financial Officer and Treasurer of Van

Kampen Funds (1996-2004).

Bruce Saxon
Chief
Since 2006
Vice President - Fund Compliance Officer of
Year of birth: 1957
Compliance

Guggenheim Funds Services Group, Inc.

Officer

(2006-present). Chief Compliance Officer of

certain funds in the Fund Complex. Chief

Compliance Officer/Assistant Secretary of

Harris Investment Management, Inc. (2003-

2006). Director-Compliance of Harrisdirect

LLC (1999-2003).

Elizabeth H.
Secretary
Since 2009
Assistant General Counsel of Guggenheim
Hudson

Funds Services Group, Inc. (2009-present).
Year of birth: 1980

Secretary or Assistant Secretary of certain

funds in the Fund Complex. Previously,

associate at Bell, Boyd & Lloyd LLP (nka

K&L Gates LLP) (2007-2008). J.D.,

Northwestern University (2004-2007).

Jay Sekelsky
Vice
Since 2004
Managing Director of Madison Investment
Year of birth: 1959
President

Advisors, Inc. and Vice President of Madison

Asset Management, LLC. Vice President of

Madison Strategic Sector Premium Fund and

funds in the Mosaic fund complex.

Katherine L. Frank
Vice
Since 2004
Managing Director of Madison Investment
Year of birth: 1960
President

Advisors, Inc. Vice President of Madison Asset

Management. Trustee and President of

Madison Strategic Sector Premium Fund and

funds in the Mosaic fund complex. Trustee of

MEMBERS mutual fund family and Ultra

Series mutual funds, both of WI.

Greg Hoppe
Vice
Since 2008
Vice President of Madison Mosaic, LLC;
Year of birth: 1969
President

Vice President of Madison Asset Management,

LLC.

Ray DiBernardo

Vice
Since 2009
Vice President of Madison Investment
Year of birth: 1962
President

Advisors, Inc.

Name, Address(1)and Year of Birth	Title	Term of Office(2) and Length of Time Served	Principal Occupation During the Past Five Years
James Howley	Assistant	Since 2007	Vice President, Fund Administration of
Year of birth: 1972	Treasurer		Guggenheim Funds Services Group, Inc.
			(2004-present). Assistant Treasurer of certain
			funds in the Fund Complex. Previously,
			Manager, Mutual Fund Administration of Van
			Kampen Investments, Inc (1996-2004).
Donald P. Swade	Assistant	Since 2008	Vice President, Fund Administration of
Year of birth: 1972	Treasurer		Guggenheim Funds Investment Advisors, LLC
			and Guggenheim Funds Distributors, Inc.
			(2006-present).; Assistant Treasurer of certain
			funds in the Fund Complex. Formerly,
			Manager-Mutual Fund Financial
			Administration for Morgan Stanley/Van
			Kampen Investments (2003-2006).
Mark J. Furjanic	Assistant	Since 2008	Vice President, Fund Administration-Tax of
Year of birth: 1959	Treasurer		Guggenheim Funds Investment Advisors, LLC.
			and Guggenheim Funds Distributors, Inc.
			(2005-present); Assistant Treasurer of certain
			funds in the Fund Complex. Formerly, Senior
			Manager for Ernst & Young LLP (1999-2005).
Derek Maltbie	Assistant	Since 2011	Assistant Vice President, Fund Administration
Year of birth: 1972	Treasurer		of Guggenheim Funds Investment Advisors,
			LLC (2005-present). Assistant Treasurer of
			certain funds in the Fund Complex. Supervisor,
			Mutual Fund Administration of Van Kampen
			Investments, Inc. (1995-2005).
Mark E. Mathiasen	Assistant	Since 2008	Vice President; Assistant General Counsel of
Year of birth: 1978	Secretary		Guggenheim Funds Services Group, Inc.
			(2007-present). Secretary of certain funds in
			the Fund Complex. Previously, Law Clerk,
			Idaho State Courts (2003-2006).

(1) The business address of each officer of the Fund is 2455 Corporate West Drive, Lisle, Illinois 60532, unless otherwise noted.

(2) Officers serve at the pleasure of the Board and until his or her successor is appointed and qualified or until his or her earlier resignation or removal.

Board Leadership Structure

The primary responsibility of the Board of Trustees is to represent the interests of the Fund and to provide oversight of the management of the Fund. The Fund's day-to-day operations are managed by the Adviser, the Investment Manager and other service providers who have been approved by the Board. The Board is currently comprised of six Trustees, five of whom (including the chairman) are classified under the 1940 Act as "non-interested" persons of the Fund ("Independent Trustees") and one of whom is classified as an interested person of the Fund ("Interested Trustee"). Generally, the Board acts by majority vote of all the Trustees, including a majority vote of the Independent Trustees if required by applicable law.

The Board has appointed an Independent Chairperson, who presides at Board meetings and who is responsible for, among other things, participating in the planning of Board meetings, setting the tone of Board meetings and seeking to encourage open dialogue and independent inquiry among the trustees and management. The Board has established two standing committees (as described below and has delegated certain responsibilities to those committees, each of which is comprised solely of Independent Trustees. The Board and its committees meet periodically throughout the year to oversee the Fund's activities, review contractual arrangements with service providers, review the Fund's financial statements, oversee compliance with regulatory requirements, and review performance. The Independent Trustees are represented by independent legal counsel at Board and committee meetings. The Board has determined that this leadership structure, including an Independent Chairperson, a supermajority of Independent Trustees and committee membership limited to Independent Trustees, is appropriate in light of the characteristics and circumstances of the Fund.

Board Committees

The Trustees have determined that the efficient conduct of the Trustees' affairs makes it desirable to delegate responsibility for certain specific matters to committees of the Board. The committees meet as often as necessary, either in conjunction with regular meetings of the Trustees or otherwise. The Board has two committees consisting of an Audit Committee and a Nominating and Governance Committee.

Audit Committee. The Board has an Audit Committee, which is charged with selecting an independent registered public accounting firm for the Fund and reviewing accounting matters with the Fund's independent registered public accounting firm. Each member of the Audit Committee is an Independent Trustee as defined above and also meets the additional independence requirements for audit committee members as defined by the NYSE.

The members of the Audit Committee are Randall C. Barnes, James R. Imhoff, Jr., Ronald A. Nyberg, Ronald E. Toupin, Jr. and Lorence D. Wheeler. Mr. Barnes serves as chairperson of the Audit Committee.

The Audit Committee is governed by a written charter, the most recent version of which was approved by the Board on April 20, 2010 (the "Audit Committee Charter"). In accordance with proxy rules promulgated by the SEC, a fund's audit committee charter is required to be filed at least once every three years as an exhibit to a fund's proxy statement. The Fund's Audit Committee Charter was attached as Appendix A to the Fund's 2010 proxy statement.

The Audit Committee presents the following report on behalf of the Fund:

The Audit Committee has performed the following functions: (i) the Audit Committee reviewed and discussed the audited financial statements of the Fund with management of the Fund, (ii) the Audit Committee discussed with the Fund's independent registered public

accounting firm the matters required to be discussed by the Statement on Auditing Standards No. 61, (iii) the Audit Committee received the written disclosures and the letter from the Fund's independent registered public accounting firm required by Independence Standards Board Standard No. 1 and has discussed with the Fund's independent registered public accounting firm the independence of the Fund's independent registered public accounting firm and (iv) the Audit Committee recommended to the Board of Trustees of the Fund that the financial statements be included in the Fund's Annual Report for the past fiscal period.

Nominating and Governance Committee The Board has a Nominating and Governance Committee, which is composed of Randall C. Barnes, James R. Imhoff, Jr., Ronald A. Nyberg, Ronald E. Toupin, Jr. and Lorence D. Wheeler, each of whom is an Independent Trustee as defined above and is "independent" as defined by NYSE listing standards. Mr. Nyberg serves as chairperson of the Nominating and Governance Committee.

The Nominating and Governance Committee is governed by a written charter (the "Nominating and Governance Committee Charter"), the most recent version of which was approved by the Board on January 20, 2009. In accordance with proxy rules promulgated by the SEC, a fund's nominating committee charter is required to be filed at least once every three years as an exhibit to a fund's proxy statement. The Fund's Nominating and Governance Committee Charter was attached as Appendix A to the Fund's 2009 proxy statement.

The Nominating and Governance Committee (i) evaluates and recommends all candidates for election or appointment as members of the Board and recommends the appointment of members and chairs of each committee of the Board, (ii) reviews policy matters affecting the operation of the Board and committees of the Board, (iii) periodically evaluates the effectiveness of the Board and committees of the Board and (iv) oversees the contract review process, including review of the Fund's advisory agreements and other contracts with affiliated service providers. In considering Trustee nominee candidates, the Nominating and Governance Committee requires that Trustee candidates have a college degree or equivalent business experience and may take into account a wide variety of factors in considering Trustee candidates, including (but not limited to) availability and commitment of a candidate to attend meetings and perform the responsibilities of a Trustee, relevant experience, educational background, financial expertise, the candidate's ability, judgment and expertise and overall diversity of the Board's composition. The Nominating and Governance Committee may consider candidates recommended by various sources, including (but not limited to) such Fund's Trustees, officers, investment advisers and shareholders. The Nominating and Governance Committee will not nominate a person for election to the Board as a Trustee after such person has reached the age of seventy-three (73), unless such person is an "interested person" of such Fund as defined in the 1940 Act. The Nominating and Governance Committee may, but is not required to, retain

a third party search firm to identify potential candidates.

A Trustee candidate must (i) be prepared to submit written answers to a questionnaire seeking professional and personal information that will assist the Nominating and Governance Committee to evaluate the candidate and to determine, among other matters, whether the candidate would qualify as a Trustee who is not an "interested person" of the Fund as such term is defined under the 1940 Act; (ii) be prepared to submit character references and agree to appropriate background checks; and (iii) be prepared to meet with one or more members of the Nominating and Governance Committee at a time and location convenient to those Nominating and Governance Committee members in order to discuss the nominee's qualifications.

The Nominating and Governance Committee will consider Trustee candidates recommended by the Fund's shareholders. The Nominating and Governance Committee will consider and evaluate Trustee nominee candidates properly submitted by shareholders on the same basis as it considers and evaluates candidates recommended by other sources.

In considering Trustee nominee candidates, the Nominating and Governance Committee takes into account a wide variety of factors, including the overall diversity of the Board's composition. The Nominating and Governance Committee believes the Board generally benefits from diversity of background, experience and views among its members, and considers this a factor in evaluating the composition of the Board, but has not adopted any specific policy in this regard.

To have a candidate considered by the Nominating and Governance Committee, a shareholder must submit the recommendation in writing and must include the information required by the "Procedures for Shareholders to Submit Nominee Candidates" that are set forth as Appendix B to the Nominating and Governance Committee Charter, which was attached as Appendix A to the Fund's 2009 proxy statement. Shareholder recommendations must be sent to the Fund's Secretary, c/o Guggenheim Funds Investment Advisors, LLC, 2455 Corporate West Drive, Lisle, Illinois 60532.

The nominees for election at the Annual Meeting currently serve as Trustees and were unanimously nominated by the Board of Trustees and the Nominating and Governance Committee.

Board's Role in Risk Oversight

Consistent with its responsibility for oversight of the Fund, the Board, among other things, oversees risk management of the Fund's investment program and business affairs directly and through the committee structure it has established. The Board has established the Audit Committee and the Nominating and Governance Committee to assist in its oversight functions, including its oversight of the risks the Fund faces. Each committee reports its activities to the Board on a regular basis. Risks to the Fund include, among others, investment risk, credit risk, liquidity risk, valuation risk and operational risk, as well as the overall business risk

relating to the Fund. The Board has adopted, and periodically reviews, policies, procedures and controls designed to address these different types of risks. Under the Board's supervision, the officers of the Fund, the Adviser, the Manager and other service providers to the Fund also have implemented a variety of processes, procedures and controls to address various risks. In addition, as part of the Board's periodic review of the Fund's advisory, subadvisory and other service provider agreements, the Board may consider risk management aspects of the service providers' operations and the functions for which they are responsible.

The Board requires officers of the Fund to report to the full Board on a variety of matters at regular and special meetings of the Board and its committees, as applicable, including matters relating to risk management. The Audit Committee also receives reports from the Fund's independent registered public accounting firm on internal control and financial reporting matters. On at least a quarterly basis, the Board meets with the Fund's Chief Compliance Officer, including separate meetings with the Independent Trustees in executive session, to discuss compliance matters and, on at least an annual basis, receives a report from the Chief Compliance Officer regarding the effectiveness of the Fund's compliance program. The Board, with the assistance of Fund management, reviews investment policies and risks in connection with its review of the Fund's performance. In addition, the Board receives reports from the Adviser and Manager on the investments and securities trading of the Fund. With respect to valuation, the Board oversees a pricing committee comprised of Fund officers and Adviser personnel and has approved Fair Valuation procedures applicable to valuing the Fund's securities, which the Board and the Audit Committee periodically review. The Board also requires the Adviser to report to the Board on other matters relating to risk management on a regular and as-needed basis.

Shareholder Communications

Shareholders and other interested parties may contact the Board or any member of the Board by mail. To communicate with the Board or any member of the Board, correspondence should be addressed to the Board of Trustees or the Board members with whom you wish to communicate by either name or title. All such correspondence should be sent c/o the Fund's Secretary, c/o Guggenheim Funds Investment Advisors, LLC, 2455 Corporate West Drive, Lisle, Illinois 60532.

Trustee Beneficial Ownership of Securities

As of June 30, 2011, each Trustee beneficially owned equity securities of the Fund and other funds in the Fund Complex overseen by the Trustee in the dollar range amounts as specified below:

Name of Trustee	Dollar Range of Equity Securities in the Fund	Aggregate Dollar Range of Equity Securities Overseen by Trustees in the Fund Complex
Independent Trustees:		
Randall C. Barnes	None	Over $100,000
James R. Imhoff, Jr.	$50,001-$100,000	$50,001-$100,000
Ronald A. Nyberg	$1-$10,000	Over $100,000
Ronald E. Toupin, Jr.	None	None
Lorence D. Wheeler	$50,001-$100,000	$50,001-$100,000
Interested Trustee		
Frank E. Burgess	Over $100,000	Over $100,000

As of June 30, 2011, Trustees and officers of the Fund beneficially owned Shares of the Fund as specified below:

Independent Trustees:	
Randall C. Barnes	None
James R. Imhoff, Jr.	9,077
Ronald A. Nyberg	974
Ronald E. Toupin, Jr.	None
Lorence D. Wheeler	5,646
Interested Trustee	
Frank E. Burgess	43,000

As of June 30, 2011, each Trustee and the Trustees and officers of the Fund as a group owned less than 1% of the outstanding Shares of the Fund.

Board and Committee Meetings

During the Fund's fiscal year ended December 31, 2010, the Board held four meetings, the Fund's Audit Committee held two meetings and the Fund's Nominating and Governance Committee held three meetings.

Each Trustee attended at least 75% of the meetings of the Board (and any committee thereof on which he serves) held during the Fund's fiscal year ended December 31, 2010. It is the Fund's policy to encourage Trustees to attend annual shareholders' meetings.

Trustee Compensation

The Fund pays an annual retainer and fee per meeting attended to each Trustee who is not affiliated with the Adviser, the Investment Manager or their respective affiliates and pays an additional annual fee to the chairman of the Board and of any committee of the Board. The following table provides information regarding the compensation of the Fund's Trustees for the Fund's fiscal year ended December 31, 2010. The Fund does not accrue or pay retirement or pension benefits to Trustees as of the date of this proxy statement.

Name of Trustee(1)	Compensation from the Fund	Total Compensation from the Fund Complex
Randall C. Barnes	$23,000	$279,125
James R. Imhoff, Jr.	$21,500	$ 21,500
Ronald A. Nyberg	$23,000	$363,000
Ronald E. Toupin, Jr.	$26,000	$305,250
Lorence D. Wheeler	$21,500	$ 21,500

(1) Trustees not eligible for compensation are not included in the above table.

Shareholder Approval

The affirmative vote of a majority of the Shares present in person or represented by proxy and entitled to vote on the Proposal at the Annual Meeting at which a quorum (i.e., a majority of the Shares entitled to vote on the Proposal) is present in person or by proxy is necessary to approve the Proposal. The holders of the Fund's Shares will have equal voting rights (i.e., one vote per Share).

Votes withheld will have the same effect as votes against the proposal. "Broker non-votes" (i.e. Shares held by brokers or nominees as to which (i) instructions have not been received from the beneficial owner or the persons entitled to vote and (ii) the broker does not have discretionary voting power on a particular matter) will have no effect on the outcome of the vote on the proposal.

Board Recommendation

The Board of the Fund, including all of the Independent Trustees, unanimously recommends that you vote "FOR ALL" of the nominees for the Board of Trustees (Mr. Randall C. Barnes and Mr. Frank E. Burgess).

ADDITIONAL INFORMATION

Further Information About Voting and the Annual Meeting

The holders of a majority of the Shares entitled to vote on any matter at a meeting present in person or by proxy shall constitute a quorum at such meeting of the shareholders for purposes of conducting business on such matter. Votes withheld and broker non-votes will be counted as Shares present at the Annual Meeting for quorum purposes.

The Board has fixed the close of business on June 30, 2011 as the Record Date for the determination of shareholders of the Fund entitled to notice of, and to vote at, the Annual Meeting. Shareholders of the Fund as of the close of business on the Record Date will be entitled to one vote on each matter to be voted on by the Fund for each Share held and a fractional vote with respect to fractional Shares with no cumulative voting rights.

Whether or not you plan to attend the Annual Meeting, we urge you to complete, sign, date, and return the enclosed proxy card in the postage-paid envelope provided or vote your proxy via telephone or the Internet so your Shares will be represented at the Annual Meeting. Information regarding how to vote your proxy via telephone or the Internet is included on the enclosed proxy card. The required control number for Internet and telephone voting is printed on the enclosed proxy card. The control number is used to match proxy cards with shareholders' respective accounts and to ensure that, if multiple proxy cards are executed, Shares are voted in accordance with the proxy card bearing the latest date. If you wish to attend the Annual Meeting and vote in person, you will be able to do so. You may contact the Fund at (800) 851-0264 to obtain directions to the site of the Annual Meeting.

All Shares represented by properly executed proxies received prior to the Annual Meeting will be voted at the Annual Meeting in accordance with the instructions marked thereon or otherwise as provided therein. If you sign the proxy card, but don't fill in a vote, your Shares will be voted in accordance with the Board's recommendation. If any other business is brought before the Annual Meeting, your Shares will be voted at the proxies' discretion if your properly executed proxy card has been received.

Shareholders who execute proxy cards or vote proxies via telephone or the Internet may revoke them at any time before they are voted by filing with the Secretary of the Fund a written notice of revocation, by delivering (including via telephone or the Internet) a duly executed proxy bearing a later date or by attending the Annual Meeting and voting in person. Merely attending the Annual Meeting, however, will not revoke any previously submitted proxy.

Adviser and Investment Manager

GFIA and its affiliates ("Guggenheim Funds") offer strategic investment solutions for financial advisors and their valued clients. As an innovator in exchange-traded funds (ETFs), unit investment trusts (UITs) and closed-end funds

(CEFs), Guggenheim Funds often leads its peers with creative investment strategy solutions. Guggenheim Funds provides supervision, management or servicing of assets with a commitment to consistently delivering exceptional service.

Guggenheim Funds is a subsidiary of Guggenheim Partners, LLC, a global, diversified financial services firm with more than $100 billion in assets under management and supervision. Guggenheim, through its affiliates, provides investment management, investment advisory, insurance, investment banking, and capital markets services. The firm is headquartered in Chicago and New York with a global network of offices throughout the United States, Europe, and Asia.

Madison Asset Management, LLC, a subsidiary of Madison Investment Advisors, Inc., acts as the Fund's investment manager and is responsible for the day-to-day management of the Fund's portfolio. Madison is located at 550 Science Drive, Madison, Wisconsin 53711. Madison and its affiliated entities act as investment adviser for individuals, corporations, pension funds, endowments, insurance companies, mutual funds and closed-end investment companies, with assets under management of approximately $16 billion as of March 31, 2011.

Administrator

Guggenheim Funds Investment Advisors, LLC, located at 2455 Corporate West Drive, Lisle, Illinois 60532, serves as the Fund's administrator.

Independent Registered Public Accounting Firm

Ernst & Young LLP ("E&Y") has been selected as the independent registered public accounting firm by the Audit Committee of the Fund and approved by a majority of the Fund's Board, including a majority of the Independent Trustees, to audit the accounts of the Fund for and during the Fund's fiscal year ended in 2010 and fiscal year ending in 2011. The Fund does not know of any direct or indirect financial interest of E&Y in the Fund.

Representatives of E&Y will be available to attend the Annual Meeting, will have the opportunity to make a statement if they desire to do so and will be available to answer questions.

Audit Fees

The aggregate fees billed to the Fund by E&Y for professional services rendered for the audit of the Fund's annual financial statements for the Fund's fiscal year ended December 31, 2010, were approximately $46,000 and for the Fund's fiscal year ended December 31, 2009, were approximately $46,000.

Audit-Related Fees

The aggregate fees billed by E&Y and approved by the Audit Committee of the Fund for assurance and related services reasonably related to the performance of the audit of the Fund's annual financial statements (such fees relate to services rendered, and out of pocket expenses incurred, in connection with the Fund's registration statements, comfort letters and consents) for the Fund's fiscal year

ended December 31, 2010, were $0 and for the Fund's fiscal year ended December 31, 2009, were $0. E&Y did not perform any other assurance and related services that were required to be approved by the Fund's Audit Committee for such periods.

Tax Fees

The aggregate fees billed by E&Y and approved by the Audit Committee of the Fund for professional services rendered for tax compliance, tax advice, and tax planning (such fees relate to tax services provided by E&Y in connection with the Fund's excise tax calculations and review of the Fund's tax returns) for the Fund's fiscal year ended December 31, 2010, were approximately $6,000 and for the Fund's fiscal year ended December 31, 2009, were approximately $6,900. E&Y did not perform any other tax compliance or tax planning services or render any tax advice that were required to be approved by the Fund's Audit Committee for such periods.

All Other Fees

Other than those services described above, E&Y did not perform any other services on behalf of the Fund for the Fund's fiscal year ended December 31, 2010, or for the Fund's fiscal year ended December 31, 2009.

Aggregate Non-Audit Fees

The aggregate non-audit fees billed by E&Y for services rendered to the Fund, the Adviser and any entity controlling, controlled by or under common control with the Adviser that provides ongoing services to the Fund (not including a sub-adviser whose primary role is portfolio management and is sub-contracted with or overseen by another investment adviser) that directly related to the operations and financial reporting of the Fund for the Fund's fiscal year ended December 31, 2010, were approximately $6,000 and for the Fund's fiscal year ended December 31, 2009, were approximately $6,900.

Audit Committee's Pre-Approval Policies and Procedures

As noted above, the Audit Committee is governed by the Audit Committee Charter, which was attached as Appendix A to the Fund's 2010 proxy statement, which includes Pre-Approval Policies and Procedures in Section IV of such Charter.

Specifically, sections IV.C.2 and IV.C.3 of the Audit Committee Charter contain the Pre-Approval Policies and Procedures and such sections are included below.

IV. To fulfill its responsibilities and duties the Audit Committee shall:

C. 2. Pre-approve any engagement of the independent auditors to provide any non-prohibited services to the Trust, including the fees and other compensation to be paid to the independent auditors (unless an exception is available under Rule 2-01 of Regulation S-X).

(a) The Chairman or any member of the Audit Committee may grant the pre-approval of services to the Fund for non-prohibited services up to $10,000. All such delegated pre-approvals shall be presented to the Audit Committee no later than the next Audit Committee meeting.

C.3. Pre-approve any engagement of the independent auditors, including the fees and other compensation to be paid to the independent auditors, to provide any nonaudit services to the Adviser (or any "control affiliate" of the Adviser providing ongoing services to the Trust), if the engagement relates directly to the operations and financial reporting of the Trust (unless an exception is available under Rule 2-01 of Regulation S-X).

(a) The Chairman or any member of the Audit Committee may grant the pre-approval for non-audit services to the Adviser up to $10,000. All such delegated pre-approvals shall be presented to the Audit Committee no later than the next Audit Committee meeting.

The Audit Committee of the Fund has pre-approved all audit and non-audit services provided by E&Y to the Fund, and all non-audit services provided by E&Y to the Adviser, or any entity controlling, controlled by, or under common control with the Adviser that provides ongoing services to the Fund that are related to the operations of the Fund for the fiscal years ended December 31, 2010, and December 31, 2009.

None of the services described above for the Fund's fiscal years ended December 31, 2010, and December 31, 2009, were approved by the Audit Committee pursuant to the pre-approval exception under Rule 2-01(c)(7)(i)(C) of Regulation S-X promulgated by the SEC.

Principal Shareholders

As of the record date, to the knowledge of the Fund, one person (shown in the table below) beneficially owned more than 5% of the voting securities of the Fund.

Shareholder Name and Address	Share Holdings	Percentage Owned
First Trust Portfolios L.P. (1) 120 East Liberty Drive, Suite 400 Wheaton, IL 60187	2,319,484	12.04%

(1) Based on information obtained from a Schedule 13G filed with the U.S. Securities and Exchange Commission on December 31, 2010. According to the Schedule 13G filing, First Trust Portfolios L.P. is sponsor of several unit investment trusts which hold shares of common stock of the Fund. No unit investment trust sponsored by First Trust Portfolios L.P. holds 5% or more of the Fund's common stock.

Financial Statements and Other Information

The Fund will furnish, without charge, a copy of the Fund's most recent Annual Report and Semi-Annual Report to any Shareholder upon request. Requests should be directed to Guggenheim Funds Distributors, Inc., 2455 Corporate West Drive, Lisle, Illinois 60532, (800) 851-0264.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 and Section 30(h) of the 1940 Act require the Fund's officers and Trustees, certain officers of the Fund's investment adviser, affiliated persons of the investment adviser, and persons who beneficially own more than ten percent of the Fund's Shares to file certain reports of ownership ("Section 16 filings") with the SEC and the New York Stock Exchange. Based upon the Fund's review of the copies of such forms effecting the Section 16 filings received by it, the Fund believes that for Fund's fiscal year ended December 31, 2010, all filings applicable to such persons were completed and filed in a timely manner.

Privacy Principles of the Fund

The Fund is committed to maintaining the privacy of Shareholders and to safeguarding their non-public personal information. The following information is provided to help you understand what personal information the Fund collects, how the Fund protects that information and why, in certain cases, the Fund may share information with select other parties.

Generally, the Fund does not receive any non-public personal information relating to its Shareholders, although certain non-public personal information of its Shareholders may become available to the Fund. The Fund does not disclose any non-public personal information about its Shareholders or former shareholders to anyone, except as permitted by law or as is necessary in order to service Shareholder accounts (for example, to a transfer agent or third party administrator).

The Fund restricts access to non-public personal information about the Shareholders to employees of the Adviser with a legitimate business need for the information. The Fund maintains physical, electronic and procedural safeguards designed to protect the non-public personal information of its Shareholders.

Deadline for Shareholder Proposals

The Fund's Amended and Restated By-Laws (the "By-Laws") require compliance with certain procedures for a shareholder to properly make a nomination for election as a Trustee or to propose other business for the Fund. If a shareholder who is entitled to do so under the Fund's By-Laws wishes to nominate a person or persons for election as a Trustee or propose other business for the Fund, that shareholder must provide a written notice to the Secretary of the Fund at the Fund's principal executive offices.

The notice must set forth: (a) as to each person whom the shareholder proposes to nominate for election as a Trustee (i) all information relating to such

person that is required to be disclosed in solicitations of proxies for election of Trustees in an election contest, or is otherwise required, in each case pursuant to and in accordance with Regulation 14A under the Exchange Act and (ii) such person's written consent to being named as a nominee and to serving as a Trustee if elected; (b) as to any other business that the shareholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration), the reasons for conducting such business at the meeting and any material interest in such business of such shareholder and the beneficial owner, if any, on whose behalf the proposal is made; and (c) as to the shareholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such shareholder, as they appear on the Fund's books, and of such beneficial owner, (ii) the class or series and number of Shares which are owned beneficially and of record by such shareholder and such beneficial owner, (iii) a description of any agreement, arrangement or understanding with respect to the nomination or proposal between or among such shareholder and such beneficial owner, any of their respective affiliates or associates, and any others acting in concert with any of the foregoing, (iv) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, options, warrants, stock appreciation or similar rights, hedging transactions, and borrowed or loaned Shares) that has been entered into as of the date of the shareholder's notice by, or on behalf of, such shareholder and such beneficial owners, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such shareholder or such beneficial owner, with respect to Shares of the Fund, (v) a representation that the shareholder is a holder of record of Shares of the Fund entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such business or nomination, and (vi) a representation whether the shareholder or the beneficial owner, if any, intends or is part of a group which intends (a) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Fund's outstanding Shares required to approve or adopt the proposal or elect the nominee and/or (b) otherwise to solicit proxies from shareholders in support of such proposal or nomination. The Fund may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve as a Trustee of the Fund.

To be timely, the notice must be delivered to the Secretary of the Fund at the Fund's principal executive offices not later than the close of business on the ninetieth (90th) day, nor earlier than the close of business on the one hundred twentieth (120th) day, prior to the first anniversary of the preceding year's annual meeting (provided, however, that in the event that the date of the annual meeting is more than thirty (30) days before or more than seventy (70) days after such anniversary date, notice by the shareholder must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th)

day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made by the Fund).

The foregoing description of the procedures for a shareholder properly to make a nomination for election as a Trustee or to propose other business for the Fund is only a summary and is not complete. A copy of the Fund's By-Laws, which includes the provisions regarding the requirements for shareholder nominations and proposals, may be obtained by writing to the Secretary of the Fund at 2455 Corporate West Drive, Lisle, Illinois 60532. Any shareholder considering making a nomination or other proposal should carefully review and comply with those provisions of the Fund's By-Laws.

Shareholder proposals intended for inclusion in the Fund's proxy statement in connection with such annual meeting of shareholders pursuant to Rule 14a-8 under the Exchange Act must be received by the Fund at the Fund's principal executive offices by March 13, 2012. Proposals made outside of Rule 14a-8 under the Exchange Act must be submitted, in accordance with the notice requirements of the Fund's By-Laws, not earlier than the close of business on March 28, 2012 nor later than the close of business on April 27, 2012 (which is also the date after which shareholder nominations and proposals made outside of Rule 14a-8 under the Exchange Act would not be considered "timely" within the meaning of Rule 14a-4(c) under the Exchange Act).

Expenses of Proxy Solicitation

The cost of soliciting proxies will be borne by the Fund. Certain officers of the Fund and certain officers and employees of Guggenheim Funds or its affiliates (none of whom will receive additional compensation therefore), may solicit proxies by telephone, mail, e-mail and personal interviews. Brokerage houses, banks and other fiduciaries may be requested to forward proxy solicitation material to their principals to obtain authorization for the execution of proxies, and will be reimbursed by the Fund for such out-of-pocket expenses.

Other Matters

The management of the Fund knows of no other matters which are to be brought before the Annual Meeting. However, if any other matters not now known properly come before the Annual Meeting, it is the intention of the persons named in the enclosed form of proxy to vote such proxy in accordance with their judgment on such matters.

In the event a quorum is present at the Annual Meeting but sufficient votes to approve the Proposal is not received, proxies (including broker non-votes) would vote in favor of one or more adjournments of the Annual Meeting with respect to the Proposal to permit further solicitation of proxies, provided they determine that such an adjournment and additional solicitation is reasonable and in the interest of shareholders based on a consideration of all relevant factors, including the nature of the relevant proposal, the percentage of votes then cast, the percentage of negative

votes then cast, the nature of the proposed solicitation activities and the nature of the reasons for such further solicitation.

Very truly yours,

KEVIN M. ROBINSON
Chief Executive Officer and
Chief Legal Officer

July 6, 2011

PROXY TABULATOR
P.O. BOX 9112
FARMINGDALE, NY 11735

To vote by Mail

1) Read the Proxy Statement.
2) Check the appropriate boxes on the proxy card below.
3) Sign and date the proxy card.
4) Return the proxy card in the envelope provided.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

M37583-P15334

KEEP THIS PORTION FOR YOUR RECORDS

THIS PROXY CARD IS VALID ONLY WHEN SIGNEDAND DATED.

DETACH AND RETURN THIS PORTION ONLY

Madison/Claymore Covered Call
&
Equity Strategy Fund

	For All	Withhold All	For All Except	To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the name(s) of the nominee(s) on the line below.
1. Election of Trustees Class I Nominees	o	o	o	

Nominees:

01) Randall C. Barnes

02) Frank Burgess

2. To transact such other business as may properly come before the Annual Meeting or any adjournments or postponements thereof.

Please mark, date, sign & return the proxy promptly in the enclosed envelope.

Please sign here exactly as your name appears in the records of the Fund and date. If the shares are held jointly, each holder should sign. When signing as an attorney, executor, administrator, trustee, guardian, officer of a corporation or other entity or in any other representative capacity, please give the full title under signature(s).

Signature [PLEASE SIGN WITHIN BOX]	Date	Signature (Joint Owners)	Date

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS
FOR THE SHAREHOLDER MEETING: THE PROXY STATEMENT IS AVAILABLE AT
https://materials.proxyvote.com/556582

M37584-P15334

Solicited by the Board of Trustees
Madison/Claymore Covered Call & Equity Strategy Fund
Annual Meeting of Shareholders
July 26, 2011

MADISON/CLAYMORE COVERED CALL & EQUITY STRATEGY FUND

The annual meeting of shareholders of Madison/Claymore Covered Call & Equity Strategy Fund (the "Fund") will be held at the offices of the Fund, 2455 Corporate West Drive, Lisle, Illinois, 60532, on Tuesday, July 26, 2011, at 11:30 a.m. Central time (the "Annual Meeting"). The undersigned hereby appoints Elizabeth H. Hudson and Kevin M. Robinson, and each of them or their respective designees, with full power of substitution and revocation, as proxies to represent and to vote all shares of the undersigned at theAnnual Meeting and all adjournments thereof, with all powers the undersigned would possess if personally present, upon the matters specified on the reverse side.

SHARES REPRESENTED BY THIS PROXY WILL BE VOTED AS DIRECTED. IF NO DIRECTION IS INDICATED AS TO THE PROPOSAL, THE PROXIES SHALL VOTE FOR SUCH PROPOSAL. THE PROXIES MAY VOTE AT THEIR DISCRETION ON ANY OTHER MATTER WHICH MAY PROPERLY COME BEFORE THE MEETING.

PLEASE SIGN AND DATE ON THE REVERSE SIDE.
