815,000 Shares of Common Stock,
3,600,000 Warrants to Purchase Shares of Common Stock and
1,114 Shares of Series C Convertible Preferred Stock

We are offering 815,000 shares of common stock, together with warrants (the "Series E Warrants") to purchase 3,600,000 shares of common stock at a combined public offering purchase price of $4.00 per fixed combination of a share of common stock and a warrant to purchase one share of common stock (and the shares issuable from time to time upon exercise of the warrants) pursuant to this prospectus. The shares and warrants will be separately issued, but the shares and warrants will be issued and sold to purchasers in the ratio of one to one. Each Series E Warrant will have an exercise price of $4.00 per share, will be exercisable upon issuance and will expire five years from the date of issuance. The warrants will be issued in book-entry form pursuant to a warrant agency agreement between us and American Stock Transfer and Trust Company, as warrant agent.

We are also offering to those purchasers, whose purchase of shares of common stock in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock following the consummation of this offering, the opportunity to purchase, if they so choose, in lieu of the shares of our common stock that would result in ownership in excess of 4.99% (or 9.99% at the election of each purchaser), 1,114 shares of Series C convertible preferred stock ("Series C Preferred Stock"), convertible at any time at the holder's option into a number of shares of common stock equal to $10,000 divided by $4.00 (the "Conversion Price") (or 2,500 shares of common stock for each share of Series C Preferred Stock converted), at a public offering price of $10,000 per fixed combination of a share of Series C Preferred Stock and a Series E Warrant to purchase 2,500 shares of common stock (and the shares issuable from time to time upon exercise of the warrants and conversion of the preferred stock) pursuant to this prospectus.

Our common stock is listed on the Nasdaq Capital Market under the symbol "CLRB." On July 26, 2018, the last reported sale price of our common stock on the Nasdaq Capital Market was $5.33 per share.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 13 of this prospectus for more information.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Per Share of Common Stock and Series E Warrant	Per Share of Series C Preferred Stock and Series E Warrant	Total
Public offering price[(1)]	$ 4.00	$ 10,000	$ 14,400,000
Underwriting discount[(2)(3)]	$ 0.30	$ 750	$ 1,080,000
Proceeds, before expenses, to us	$ 3.70	$ 9,250	$ 13,320,000

(1) The public offering price and underwriting discount corresponds to (i) a public offering price per share of common stock of $3.69075, (ii) a public offering price per warrant of $0.00925 and, (iii) a public offering price per share of Series C Preferred Stock of $9,226,875.

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

(3) We have granted a 45-day option to the underwriters to purchase additional shares of common stock and/or warrants (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 C Preferred Stock) and warrants sold in the primary offering) from us solely to cover over-allotments, if any. The shares of common stock and/or warrants issuable upon exercise of the underwriters' option are identical to those offered by this prospectus and have been registered under the registration statement of which this prospectus forms a part.

The underwriters expect to deliver the securities to purchasers in the offering on or about July 31, 2018.

Sole Book-Running Manager

Ladenburg Thalmann

Co-Manager

CIM Securities, LLC

The date of this prospectus is July 27, 2018.

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No dealer, salesperson or other person has been authorized to give any information or to make any representations other than those contained in this prospectus in connection with the offer contained in this prospectus and, if given or made, such information or representations must not be relied upon as having been authorized by us.

Neither the delivery of this prospectus nor any sale made hereunder will, under any circumstances, create an implication that there has been no change in our affairs since the date hereof. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy securities other than those specifically offered hereby or of any securities offered hereby in any jurisdiction where, or to any person to whom, it is unlawful to make such offer or solicitation. The information contained in this prospectus speaks only as of the date of this prospectus unless the information specifically indicates that another date applies. In this prospectus, references to "Cellectar Biosciences, Inc.," "Cellectar Biosciences," "Cellectar," "the Company," "we," "us," and "our," refer to Cellectar Biosciences, Inc.

This prospectus has been prepared based on information provided by us and by other sources that we believe are reliable. This prospectus summarizes certain documents and other information in a manner we believe to be accurate, but we refer you to the actual documents, if any, for a more complete understanding of what we discuss in this prospectus. All of such documents are filed as exhibits to the registration statement of which this prospectus is a part. In making a decision to invest in the securities offered in this prospectus, you must rely on your own examination of us and the terms of the offering and securities offered in this prospectus, including the merits and risks involved.

We are not making any representation to you regarding the legality of an investment in the securities offered in this prospectus under any legal investment or similar laws or regulations. You should not consider any information in this prospectus to be legal, business, tax or other advice. You should consult your own attorney, business advisor and tax advisor for legal, business and tax advice regarding an investment in our securities.

You should read and consider the information in the documents to which we have referred you under the captions "Where You Can Find More Information" and "Incorporation of Documents by Reference" in this prospectus. You may rely only on the information contained in or incorporated by reference into this prospectus or to which we have referred you.

On July 16, 2018, we effected a reverse stock split at a ratio of 1-for-10. All share and per share information presented herein has been retroactively restated to reflect the reverse split.

Please refer to the Glossary of Certain Scientific Terms on page 62 of this prospectus for definitions of certain technical and scientific terms used throughout this prospectus.

FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Examples of our forward-looking statements include:

- our current views with respect to our business strategy, business plan and research and development activities;
- the progress of our product development programs, including clinical testing and the timing of commencement and results thereof;
- our projected operating results, including research and development expenses;
- our ability to continue development plans for CLR 131, CLR 1700 series, CLR 1800 series, CLR 1900 series, CLR 2000 series, CLR 2100 series and CLR 2200 series;
- our ability to maintain orphan drug designation in the United States (the "U.S.") for CLR 131 as a therapeutic for the treatment of multiple myeloma, neuroblastoma, rhabdomyosarcoma and Ewing's sarcoma, and the expected benefits of orphan drug status;
- our ability to pursue strategic alternatives;
- our anticipated use of proceeds from this offering;
- our ability to advance our technologies into product candidates;
- our consumption of current resources and ability to obtain additional funding;
- our current view regarding general economic and market conditions, including our competitive strengths;
- assumptions underlying any of the foregoing; and
- any other statements that address events or developments that we intend or believe will or may occur in the future.

In some cases, you can identify forward-looking statements by terminology such as "expects," "anticipates," "intends," "estimates," "plans," "believes," "seeks," "may," "should," "could" or the negative of such terms or other similar expressions. Accordingly, these statements involve estimates, assumptions and uncertainties that could cause actual results to differ materially from those expressed in them. Forward-looking statements also involve risks and uncertainties, many of which are beyond our control. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this prospectus.

You should read this prospectus and the documents that we reference herein and therein and have filed as exhibits to the registration statement, of which this prospectus is part, completely and with the understanding that our actual future results may be materially different from what we expect. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus or such prospectus supplement. Because the risk factors referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this prospectus and any accompanying prospectus supplement, and particularly our forward-looking statements, by these cautionary statements.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our securities, you should carefully read this entire prospectus, including the documents to which we have referred you under the headings "Where You Can Find More Information" and "Incorporation of Documents by Reference" and the information set forth under the headings "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," in each case, included elsewhere in this prospectus or incorporated herein by reference.

Overview

We are a clinical stage biopharmaceutical company focused on the discovery, development and commercialization of drugs for the treatment of cancer. Our core objective is to leverage our proprietary phospholipid drug conjugate™ ("PDCs™") delivery platform to develop PDCs that specifically target cancer cells to deliver improved efficacy and better safety as a result of fewer off-target effects. The PDC platform possesses the potential for the discovery and development of the next generation of cancer-targeting treatments, and we plan to develop PDCs independently and through research and development collaborations.

CLR 131 and PDC Platform

Our lead PDC candidate, CLR 131, provides targeted delivery of the cytotoxic (cell-killing) radioisotope iodine 131. CLR 131 is in a Phase 2 study in relapsed or refractory ("R/R") multiple myeloma ("R/RMM") and a range of other B-cell malignancies, and a Phase 1 clinical study for R/RMM. We are currently initiating a Phase 1 study for pediatric solid tumors and lymphomas and are planning a second Phase 1 study of CLR 131 in combination with external beam radiation for head and neck cancer ("HNC") at the University of Wisconsin Madison. Our pipeline also includes two preclinical PDC chemotherapeutic programs, CLR 1700 and 1900. CLR 1700 possess a Burton's tyrosine kinase ("BTK") inhibitor payload and is targeted for development in hematologic cancers, and CLR 1900 is being developed for solid tumors with a payload that inhibits mitosis (cell division), which is a validated pathway for cell apoptosis.

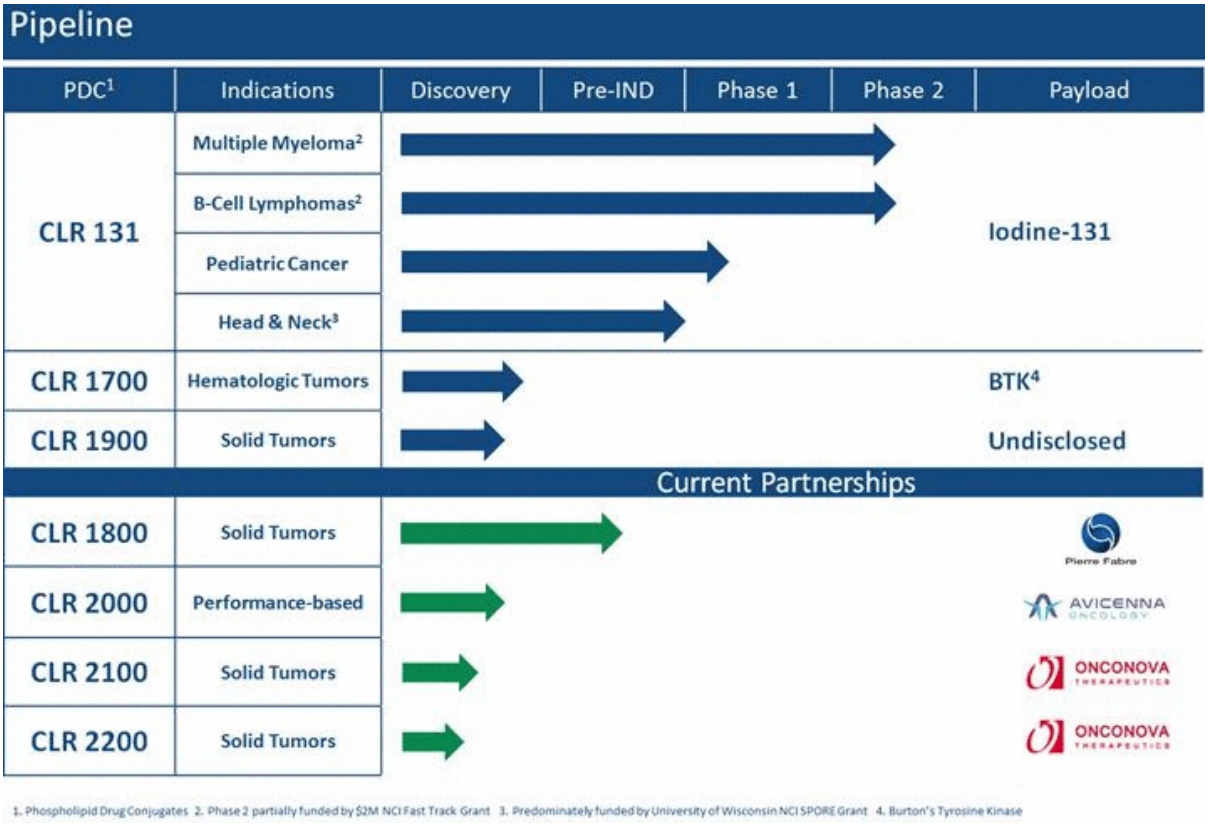
We have leveraged our PDC platform to establish three active collaborations featuring four unique payloads and mechanisms of action. Through research and development collaborations, our strategy is to generate near-term capital, supplement internal resources, gain access to novel molecules or payloads, accelerate product candidate development and broaden our proprietary and partnered product pipelines.

Our PDC platform provides selective delivery of a diverse range of oncologic payloads to cancerous cells, whether a hematologic cancer or solid tumor, the primary tumor, or a metastatic tumor and cancer stem cells. Our PDC platform takes advantage of a metabolic pathway utilized by all tumor cell types in all stages of the tumor "cycle." This allows the PDC molecules to gain access to the intracellular compartment of the tumor cells and for the PDCs to continue to accumulate over time, which enhances drug efficacy. The PDC platform's mechanism of entry does not rely upon specific cell surface epitopes or antigens as are required by other targeted delivery platforms. Specific cell surface epitopes are limited in number on the cell surface, undergo internalization and cycling upon binding, and are not present on all tumor cells of a particular cancer type. This means a subpopulation of tumor cells will always remain. In addition to the benefits provided by the mechanism of entry, PDCs offer the potential advantage of having the ability to be conjugated to molecules in numerous ways, thereby increasing the types of molecules selectively delivered via the PDC.

The PDC platform features include the capacity to link with almost any molecule and provide a significant increase in targeted oncologic payload delivery and the ability to target all tumor cells. As a result, we believe that we can generate PDCs to treat a broad range of cancers with the potential to improve the therapeutic index of oncologic drug payloads, enhance or maintain efficacy while reducing adverse events by minimizing drug delivery to healthy cells, and increasing delivery to cancerous cells and cancer stem cells.

We employ a drug discovery and development approach that allows us to efficiently design, research and advance drug candidates. Our iterative process allows us to rapidly and systematically produce multiple generations of incrementally improved targeted drug candidates.

Clinical Pipeline



CLR 131 is a small-molecule, cancer-targeting radiotherapeutic PDC designed to deliver cytotoxic radiation directly and selectively to cancer cells and cancer stem cells. CLR 131 is our lead therapeutic PDC product candidate and is currently being evaluated in both Phase 2 and Phase 1 clinical studies. The Investigational New Drug ("IND") application was accepted by the U.S. Food and Drug Administration (the "FDA") in March 2014. The Phase 2 study is evaluating CLR 131 as a potential therapy for R/RMM and was initiated in November of 2017. The primary goal of the study is to assess the compound's efficacy in a broad range of hematologic cancers. The Phase 1 study is assessing the compound's safety and tolerability in patients with R/RMM and was initiated in April 2015. This clinical study is a standard three-by-three dose escalation safety study. Multiple myeloma is an incurable cancer of the plasma cells and is the second most common form of hematologic cancers. This cancer type was selected for clinical, regulatory and commercial rationales, including multiple myeloma's highly radiosensitive nature and continued unmet medical need in the relapse/refractory setting, and has been determined to be a rare disease by the FDA based upon the current definition within the Orphan Drug Act. The primary goal of the Phase 1 study is to assess the compound's safety and tolerability in patients with R/RMM. Secondary objectives include the evaluation of therapeutic activity by assessing surrogate efficacy markers, which include M protein, free light chain ("FLC"), progression free survival ("PFS") and overall survival ("OS").

In December 2014, the FDA granted orphan drug designation for CLR 131 for the treatment of multiple myeloma. In March 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of neuroblastoma and the FDA subsequently granted a Rare Pediatric Disease Designation ("RPDD") for CLR 131. In May 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of rhabdomyosarcoma and the FDA subsequently granted an RPDD for CLR 131. In July 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of Ewing's sarcoma. The FDA previously accepted our IND application for a Phase 1 open-label, dose-escalating study to evaluate the safety and tolerability of a single intravenous administration of CLR 131 in up to 30 children and adolescents with cancers including neuroblastoma, sarcomas, lymphomas (including Hodgkin's lymphoma) and malignant brain tumors. We are currently initiating this Phase 1 study.

Phase 2 Study in Patients with R/R select B-Cell Malignancies

In July 2016, we were awarded a $2,000,000 National Cancer Institute Fast-Track Small Business Innovation Research grant to further advance the clinical development of CLR 131. The funds are supporting the Phase 2 study initiated in March 2017 to define the clinical benefits of CLR 131 in R/RMM and other niche hematologic malignancies with high unmet clinical need. These niche hematologic malignancies include Chronic Lymphocytic Leukemia, Small Lymphocytic Lymphoma, Marginal Zone Lymphoma, Lymphoplasmacytic Lymphoma and Diffuse Large B-Cell Lymphoma. The study will be conducted in approximately 10 top U.S. cancer centers in patients with orphan-designated relapse or refractory hematologic cancers. The study's primary endpoint is clinical benefit response, with additional endpoints of PFS, median OS and other markers of efficacy following a single 25.0 mCi/m^2 dose of CLR 131, with the option for a second 25.0 mCi/m^2 dose approximately 75-180 days later.

Phase 1 Study in Patients with R/R Multiple Myeloma

CLR 131 in combination with dexamethasone is currently under investigation in a Phase 1 trial in adult patients with R/RMM following treatment with both a proteasome inhibitor and an immunomodulatory agent. All patients have been heavily pretreated. To date, four dose cohorts have been examined: 12.5 mCi/m^2, 18.75 mCi/m^2, 25 mCi/m^2, and 31.25 mCi/m^2, all in combination with 40 mg dexamethasone weekly. 18 patients have

been dosed to date and an independent Data Monitoring Committee has confirmed all four dose levels safe and tolerable. Of the five patients in the first cohort, four achieved stable disease (one patient progressed at Day 15 after administration and was taken off the study). Of the five patients that have been admitted to the second cohort, four achieved stable disease (one patient progressed at Day 41 after administration and was taken off study). Four patients were enrolled to the third cohort and all achieved stable disease. In September 2017, Cohort 4 results were announced and these results showed that a single 30 minute infusion of 31.25mCi/m^2 of CLR 131 was safe and well tolerated by the three patients in the cohort. Additionally, all three patients experienced clinical benefit with one patient achieving a partial response ("PR"). We are monitoring response rates via surrogate markers of efficacy including M protein and FLC. The International Myeloma Working Group defines a PR as a greater than or equal to 50% decrease in FLC levels (for patients in whom M protein is unmeasurable) or 50% decrease in M protein. The patient experiencing a PR had an 82% reduction in FLC. This patient did not produce M protein, received seven prior lines of treatment including radiation, stem cell transplantation and multiple triple combination treatments including one with daratumumab that was not tolerated. One patient experiencing stable disease attained a 44% reduction in M protein. We have recently converted the Phase 1a clinical data (single CLR 131 dose) to pooled data for presentation of the total performance of the results to date as the pooled data is more likely to be reflective of larger Phase 2/3 clinical studies. This is beneficial as it is a compilation of all the data and results in an N of 15, which gives the data more weight and a sense of maturity compared to reporting on individual cohorts with an N of 3-4 in each. As of February 2018, the preliminary pooled OS data from the first four cohorts was 15.0 months.

Based on the safety observed to date as well as various efficacy signals, including reductions in M protein and FLC and the fact that we have not yet reached median OS, we modified the protocol to begin a second part and a cohort 5, the main objective of which is to determine an optimal dose-range for CLR 131. Cohort 5 is actively enrolling and should be completed by the end of the second quarter of 2018. In this cohort, we split the 31.25 mCi/m^2 dose into two 30-minute infusions of 15.625 mCi/m^2 each given approximately one week apart.

Phase 1 Study in R/R Pediatric Patients with Select Solid Tumors, Lymphomas and Malignant Brain Tumors

On December 14, 2017, we filed an IND application with the Division of Oncology at the FDA for a proposed Phase 1 study of CLR 131 in children and adolescents with select rare and orphan designated cancers. The Phase 1 clinical trial of CLR 131 is an open-label, sequential-group, dose-escalation study to evaluate the safety and tolerability of a single intravenous administration of CLR 131 in up to 30 children and adolescents with cancers including neuroblastoma, sarcomas, lymphomas (including Hodgkin's lymphoma) and malignant brain tumors. Secondary objectives of the study are to identify the recommended Phase 2 dose of CLR 131 and to determine preliminary antitumor activity (treatment response) of CLR 131 in children and adolescents. In March 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of neuroblastoma, a rare pediatric cancer, in May 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of rhabdomyosarcoma and in July 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of Ewing's sarcoma. We are currently initiating this Phase 1 study.

The study will be initiated with the pediatric oncologists and Nuclear Medicine/Radiology Group at the University of Wisconsin Carbone Cancer Center ("UWCCC"). Investigators at UWCCC have demonstrated uptake of CLR 131 and other fluorescently and isotopically tagged PDCs across a wide range of childhood solid cancer cell lines, including Ewing's sarcoma, rhabdomyosarcoma, pediatric brain tumors such as high-grade gliomas, medulloblastoma and atypical teratoid rhabdoid tumor. In subsequent testing in mouse xenograft models of neuroblastoma, Ewing's sarcoma, rhabdomyosarcoma and osteosarcoma, CLR 131 provided significant benefits on tumor growth rates and survival.

Phase 1 Study in R/R Head and Neck Cancer

In August 2016, the UWCCC was awarded a five-year Specialized Programs of Research Excellence grant from the National Cancer Institute to improve treatments and outcomes for head and neck cancer, HNC, patients. HNC is the sixth most common cancer across the world with approximately 56,000 new patients diagnosed every year in the U.S. As a key component of this grant, the UWCCC researchers will test CLR 131 in various animal HNC models as well as initiating the first human clinical trial combining CLR 131 and external beam radiation in patients with recurrent HNC. The UWCCC is currently anticipated to initiate this clinical trial in the second half of 2018.

Preclinical Pipeline

- CLR 1700 Series is an internally developed PDC program leveraging a payload that inhibits BTK and is designed to treat a broad range of hematologic cancers. The payload provides further specificity by targeting a pathway within hematologic cancers that is significantly upregulated in comparison to normal tissue. We believe that this additional level of targeting will allow us to provide a new drug candidate that has the ability to significantly improve patient outcomes. Leveraging our iterative discovery and screening process, we have been able to accelerate the development of this program.

- CLR 1800 Series is a collaborative PDC program with Pierre Fabre that was entered into in December 2015 and extended in October 2017. Pierre Fabre is the third largest French pharmaceutical company with an extensive oncology research and development infrastructure. The objective of the collaboration is to leverage Cellectar's expertise in conjugation, linker chemistry and phospholipid ether chemistry to codesign a library of PDCs employing Pierre Fabre's chemotherapeutics. The newly developed PDCs may provide enhanced therapeutic indices to otherwise highly potent, nontargeted payloads through the targeted delivery to cancer cells provided by our proprietary phospholipid ether delivery platform. Significant progress has been achieved, including showing improved tolerability in animal models, and the program continues to rapidly advance with a number of PDC molecules being evaluated for candidate selection and progression to IND enabling studies.

- CLR 1900 Series is an internally developed proprietary PDC program leveraging a novel small molecule cytotoxic compound as the payload. The payload inhibits mitosis (cell division) and targets a key pathway required to inhibit rapidly dividing cells that results in apoptosis. We believe that this program could produce a product candidate targeted to select solid tumors. Currently, the program is in early preclinical development.

- CLR 2000 Series is a collaborative PDC program with Avicenna Oncology, or Avicenna, that we entered into in July 2017. Avicenna is a leading developer of antibody drug conjugates ("ADCs"). The objective of the research collaboration is to design and develop a series of PDCs utilizing Avicenna's proprietary cytotoxic payload. Although Avicenna is a leading developer of ADCs, this collaboration was sought as a means to overcome many of the challenges associated with ADCs, including those associated with the targeting of specific cell surface epitopes.

- CLR 2100 and 2200 Series are collaborative PDC programs with Onconova Therapeutics, Inc., or Onconova, that we entered into in September 2017. Onconova is a biotechnology company specializing in the discovery and development of novel small molecule cancer therapies. The collaboration is structured such that we will design and develop a series of PDCs utilizing different small molecules that Onconova was developing as payloads with the intent to show improved targeting and specificity to the tumor. At least one of the molecules was taken into Phase 1 clinical trials previously by Onconova. We would own all new intellectual property associated with the design of the new PDCs, and both companies will have the option to advance compounds.

We believe our PDC platform has potential to provide targeted delivery of a diverse range of oncologic payloads, as exemplified by the product candidates listed above, that may result in improvements upon current standard of care for the treatment of a broad range of human cancers.

Our shares are listed on the Nasdaq Capital Market under the symbol "CLRB." Before August 15, 2014, our shares were quoted on the OTCQX marketplace, and prior to February 12, 2014, they were quoted under the symbol "NVLT."

Key Risks and Uncertainties

We are subject to numerous risks and uncertainties, including the following:

- We will require additional capital in order to continue our operations and may have difficulty raising additional capital.

- We are a clinical-stage company with a going concern qualification to our financial statements and a history of losses, and we can provide no assurance as to our future operating results.

- We rely on a collaborative outsourced business model, and disruptions with these third-party collaborators may impede our ability to gain FDA approval and delay or impair commercialization of any products.

- Controls we or our third-party collaborators have in place to ensure compliance with all applicable laws and regulations may not be effective.

- We may incur unanticipated costs in connection with our shutdown of our manufacturing operations in Madison, Wisconsin.
- We rely on a small number of key personnel who may terminate their employment with us at any time, and our success will depend on our ability to hire additional qualified personnel.
- We cannot assure the successful development and commercialization of our compounds in development.
- Our proposed products and their potential applications are in an early stage of clinical and manufacturing/process development and face a variety of risks and uncertainties.
- Failure to complete the development of our technologies, to obtain government approvals, including required FDA approvals, or comply with ongoing governmental regulations could prevent, delay or limit introduction or sale of proposed products and result in failure to achieve revenues or maintain our ongoing business.
- Clinical trials involve a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.
- We may be required to suspend or discontinue clinical trials due to unexpected side effects or other safety risks that could preclude approval of our product candidates.
- We expect to rely on our patents as well as specialized regulatory designations such as orphan drug classification for our product candidates, but regulatory drug designations may not confer marketing exclusivity or other expected commercial benefits.
- The FDA has granted rare pediatric disease designation, RPDD, to CLR 131 for treatment of neuroblastoma and rhabdomyosarcoma; however, we may not be able to realize any value from such designation.
- We are exposed to product, clinical and preclinical liability risks that could create a substantial financial burden should we be sued.
- Acceptance of our products in the marketplace is uncertain and failure to achieve market acceptance will prevent or delay our ability to generate revenues.
- The market for our proposed products is rapidly changing and competitive, and new therapeutics, drugs and treatments that may be developed by others could impair our ability to develop our business or become competitive.
- We may face litigation from third parties claiming that our products infringe on their intellectual property rights, particularly because there is often substantial uncertainty about the validity and breadth of medical patents.
- If we are unable to adequately protect or enforce our rights to intellectual property or to secure rights to third-party patents, we may lose valuable rights, experience reduced market share, assuming any, or incur costly litigation to protect our intellectual property rights.
- 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.
- We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.
- Due to continued changes in marketing, sales and distribution, we may be unsuccessful in our efforts to sell our proposed products, develop a direct sales organization, or enter into relationships with third parties.
- If we are unable to convince physicians of the benefits of our intended products, we may incur delays or additional expense in our attempt to establish market acceptance.
- If users of our products are unable to obtain adequate reimbursement from third-party payors, or if additional healthcare reform measures are adopted, it could hinder or prevent the commercial success of our product candidates.

- Our business and operations may be materially, adversely affected in the event of computer system failures or security breaches.
- Failure to maintain effective internal controls could adversely affect our ability to meet our reporting requirements.
- We have in the past received notices from Nasdaq of noncompliance with its listing rules, and delisting with Nasdaq could impact the price of our common stock and our ability to raise funds.
- Our stock price has experienced price fluctuations.
- Our common stock could be further diluted as the result of the issuance of additional shares of common stock, convertible securities, warrants or options.
- Provisions of our certificate of incorporation, by-laws, and Delaware law may make an acquisition of us or a change in our management more difficult.
- We have not paid dividends in the past and do not expect to pay dividends for the foreseeable future. Any return on investment may be limited to the value of our common stock.
- Our management team will have immediate and broad discretion over the use of the net proceeds from this offering, and you may not agree with our use of the net proceeds.
- You will experience immediate and substantial dilution as a result of this offering and may experience additional dilution in the future.
- You may experience future dilution as a result of future equity offerings.
- The warrants issued in this offering may not have any value.
- A warrant does not entitle the holder to any rights as common stockholders until the holder exercises the warrant for shares of our common stock.
- The warrants are subject to an issuer call.
- There is no public market for the warrants or preferred stock being offered by us in this offering.

For more information regarding the material risks and uncertainties we face, please see "Risk Factors" beginning on page 13 of this prospectus.

Corporate Information

Our principal executive offices are located at 3301 Agriculture Drive, Madison, Wisconsin 53716. We maintain a website at www.cellectar.com. The information included or referred to on, or accessible through, our website does not constitute part of, and is not incorporated by reference into, this prospectus.

Recent Developments

At a special meeting held on July 12, 2018, our stockholders approved an amendment to our certificate of incorporation to effect a reverse split of our common stock at a ratio between 1:5 to 1:10 and authorized the Board to determine the ratio at which the reverse split would be. The Board authorized the ratio of the reverse split, and effective at the close of business on July 16, 2018, our certificate of incorporation was amended to effect a 1-for-10 reverse split of our common stock (the "2018 Reverse Split"). The number of shares of common stock that we are authorized to issue remains unchanged at 80,000,000. All share and per share numbers included in this prospectus give effect to the 2018 Reverse Split.

The Offering

Securities offered by us:	815,000 shares of our common stock, Series E Warrants to purchase 3,600,000 shares of common stock, and 1,114 shares of Series C Preferred Stock.
Description of Series E Warrants:	The shares and warrants will be separately transferable immediately upon issuance, but the shares and warrants will be issued and sold to purchasers in the ratio of one to one. Each warrant will have an exercise price of $4.00 per share, will be exercisable upon issuance, and will expire five years from the date of issuance. The Series E Warrants are callable by us in certain circumstances. For additional information, see "Description of Securities—Series E Warrants to be Issued as Part of this Offering" on page 54 of this prospectus.

Description of Series C Preferred Stock:	Each share of Series C Preferred Stock is convertible at any time at the holder's option into a number of shares of common stock equal to $10,000 divided by the Conversion Price. Notwithstanding the foregoing, we will not effect any conversion of Series C Preferred Stock, to the extent that, after giving effect to an attempted conversion, the holder of shares of Series C 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 a holder prior to the date of issuance, 9.99%) of the shares of our common stock then outstanding after giving effect to such exercise. The Series C Preferred Stock is callable by us in certain circumstances. For additional information, see "Description of Securities—Preferred Stock" on page 52 of this prospectus.
Overallotment Option:	The underwriters have the option to purchase additional shares of common stock, and/or warrants to purchase shares of common stock solely to cover overallotments, if any, at the price to the public less the underwriting discounts and commissions. The overallotment option may be used to purchase shares of common stock, or warrants, or 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 C Preferred Stock) and warrants sold in the primary offering. The overallotment option is exercisable for 45 days from the date of this prospectus.
Shares of common stock outstanding before this offering:	1,800,325 shares
Shares of common stock to be outstanding after this offering:	2,615,325 shares
Shares of Series C Preferred to be outstanding after this offering:	1,114 shares
Use of proceeds:	We expect to use the net proceeds received from this offering to fund our research and development activities and for general corporate purposes. For a more complete description of our anticipated use of proceeds from this offering, see "Use of Proceeds."
Risk factors:	See "Risk Factors" beginning on page 13 and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding whether to purchase our securities.
Nasdaq symbol for our common stock:	CLRB
No listing of Series C Preferred Stock or Series E Warrants:	We do not intend to apply for listing of the shares of Series C Preferred Stock or the Series E Warrants on any securities exchange or trading system.

Unless we specifically state otherwise, the share information in this prospectus, including the number of shares of common stock outstanding before this offering, is as of July 26, 2018, and reflects or assumes no exercise of outstanding options or warrants to purchase shares of our common stock.

The number of shares of our common stock outstanding before and after this offering is based on 1,800,325 shares of common stock outstanding as of July 26, 2018, and excludes, as of that date:

- an aggregate of 57,526 shares of common stock issuable upon the exercise of outstanding stock options issued to employees, directors and consultants;
- an aggregate of 1,178,747 additional shares of common stock reserved for issuance under outstanding warrants having expiration dates between August 20, 2019, and October 14, 2024, and exercise prices ranging from $15.00 to $468 per share; and
- 6,385,000 shares of our common stock that may be issued upon the conversion of shares of Series C Preferred Stock and the exercise of the Series E Warrants issued in this offering.

Unless otherwise noted, the information in this prospectus reflects and assumes the following:

- no exercise of outstanding options and warrants; and
- no exercise of the underwriters' overallotment option to purchase additional shares of common stock and/or warrants.

Summary Historical Financial Information

The following table summarizes our financial data. We derived the following summary of our statements of operations data for the three months ended March 31, 2018 and 2017 and the summary of our balance sheet data as of March 31, 2018 from our unaudited consolidated financial statements, for the applicable periods, which have been incorporated by reference in this prospectus. We derived the following summary of our statements of operations data for the years ended December 31, 2017 and 2016, and the summary of our balance sheet data as of December 31, 2017 and 2016, from our audited consolidated financial statements, for the applicable periods, which have been incorporated by reference in this prospectus. The summary of our financial data set forth below should be read together with our financial statements and the related notes to those statements referred to under the heading "Documents Incorporated by Reference."

	Three Months Ended March 31,		Year Ended December 31,	
	2018	2017	2017	2016
Statement of Operations Data:				
Costs and expenses:				
Research and development	$ 2,124,060	$ 1,856,880	$ 9,465,666	$ 4,750,414
General and administrative	1,329,467	955,356	4,135,304	4,699,338
Total costs and expenses	3,453,527	2,812,236	13,600,970	9,449,752
Loss from operations	(3,453,527)	(2,812,236)	(13,600,970)	(9,449,752)
Other income:				
Gain (loss) on revaluation of derivative warrants	(26,950)	(82,475)	22,075	3,261,529
Interest income (expense), net	4,654	3,387	16,605	7,897
Total other income, net	(22,296)	(79,088)	38,680	3,269,426
Net loss	$ (3,475,823)	$ (2,891,324)	$ (13,562,290)	$ (6,180,326)
Deemed dividend on preferred stock			(1,448,945)	(3,179,981)
Net loss attributable to common stockholders	--	--	(15,011,235)	(9,360,307)
Basic and diluted net loss per common share	$ (2.07)	$ (2.41)	$ (10.70)	$ (21.44)
Shares used in computing basic and diluted net loss per common share	1,680,819	1,201,028	1,403,132	436,661

	March 31, 2018 (Unaudited)	December 31,	
		2017	2016
Balance Sheet Data:			
Current assets	$ 7,645,175	$ 10,939,417	$ 12,193,188
Working capital	5,537,309	8,824,629	10,560,312
Total assets	9,561,345	12,871,464	15,324,580
Long-term debt, including current portion	--	--	86,591
Total stockholders' equity	7,452,077	10,754,463	13,539,872

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the following risk factors, together with the other information about these risks contained in this prospectus, as well as the other information contained in this prospectus generally, before deciding to buy our securities. Any of the risks we describe below could adversely affect our business, financial condition, operating results, or prospects. The market price for our securities could decline if one or more of these risks and uncertainties develop into actual events and you could lose all or part of your investment. Additional risks and uncertainties that we do not yet know of, or that we currently think are immaterial, may also impair our business operations. You should also refer to the other information contained in this prospectus, including our financial statements and the related notes.

Risks Related to Our Business and Industry

We will require additional capital in order to continue our operations and may have difficulty raising additional capital.

We expect that we will continue to generate operating losses for the foreseeable future. At March 31, 2018, our consolidated cash balance was approximately $6.8 million. We believe our cash balance at March 31, 2018, is adequate to fund operations at budgeted levels into the first quarter of 2019. We will require additional funds to conduct research and development, establish and conduct clinical and preclinical trials, establish commercial-scale manufacturing arrangements and provide for the marketing and distribution of our products. Our ability to execute our operating plan depends on our ability to obtain additional funding via the sale of equity and/or debt securities, a strategic transaction or otherwise. We plan to actively pursue financing alternatives. However, there can be no assurance that we will obtain the necessary funding in the amounts we seek or that it will be available on a timely basis or upon terms acceptable to us. If we obtain capital by issuing debt or preferred stock, the holders of such securities would likely obtain rights that are superior to those of holders of our common stock.

Our capital requirements and our ability to meet them depend on many factors, including:

- the number of potential products and technologies in development;
- continued progress and cost of our research and development programs;
- progress with preclinical studies and clinical trials;
- the time and costs involved in obtaining regulatory clearance;
- costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims;
- costs of developing sales, marketing and distribution channels and our ability to sell our drugs;
- costs involved in establishing manufacturing capabilities for clinical trial and commercial quantities of our drugs;
- competing technological and market developments;
- claims or enforcement actions with respect to our products or operations;
- market acceptance of our products;
- costs for recruiting and retaining management, employees and consultants;
- our ability to manage computer system failures or security breaches;
- costs for educating physicians regarding the application and use of our products;
- whether we are able to maintain our listing on a national exchange;
- uncertainty and economic instability resulting from terrorist acts and other acts of violence or war; and
- the condition of capital markets and the economy generally, both in the U.S. and globally.

We may consume available resources more rapidly than currently anticipated, resulting in the need for additional funding sooner than expected. We may seek to raise any additional funds through the issuance of any combination of common stock, preferred stock, warrants and debt financings or by executing collaborative arrangements with corporate partners or other sources, any of which may be dilutive to existing stockholders or have a material effect on our current or future business prospects. If we cannot secure adequate financing when needed, we may be required to delay, scale back or eliminate one or more of our research and development programs or to enter into license or other arrangements with third parties to commercialize products or technologies that we would otherwise seek to develop and commercialize ourselves. In the event that additional funds are obtained through arrangements with collaborative partners or other sources, we may have to relinquish economic and/or proprietary rights to some of our technologies or products under development that we would otherwise seek to develop or commercialize by ourselves. In such an event, our business, prospects, financial condition and results of operations may be adversely affected.

We are a clinical-stage company with a going concern qualification to our financial statements and a history of losses, and we can provide no assurance as to our future operating results.

We are a clinical-stage company and have experienced net losses and negative cash flows from operating activities since inception, and we expect such losses and negative cash flows to continue for the foreseeable future. Whether or not we achieve profitability will depend on our success in developing, manufacturing and marketing our product candidates. Our primary activity to date has been research and development and conducting clinical trials. Development of our product candidates requires a process of preclinical and clinical testing during which our product candidates could fail. We do not expect to have any products on the market for several years. We currently have no product revenues and may not succeed in developing or commercializing any products that will generate product or licensing revenues. We may not be able to enter into agreements with companies experienced in the manufacturing and marketing of therapeutic drugs and, to the extent that we are unable to do so, we may not be able to market any product candidates.

As of March 31, 2018, we had working capital of approximately $5.5 million and stockholders' equity of approximately $7.5 million. For the period from our inception in November 2002 until the business combination with Novelos Therapeutics, Inc. on April 8, 2011, and thereafter through December 31, 2017, we incurred aggregate net losses of approximately $84.3 million. The net loss for the year ended December 31, 2017, was approximately $13.6 million. We may never achieve profitability.

Our financial statements as of December 31, 2017, were prepared under the assumption that we will continue as a going concern. The independent registered public accounting firm that audited our 2017 financial statements, in its report, included an explanatory paragraph referring to our recurring losses since inception and expressed substantial doubt in our ability to continue as a going concern. Our financial statements do not include any adjustments that might result from the outcome of this uncertainty. Our ability to continue as a going concern depends on our ability to obtain additional equity or debt financing, attain further operating efficiencies, reduce expenditures, and ultimately generate revenue.

We rely on a collaborative outsourced business model, and disruptions with these third-party collaborators may impede our ability to gain FDA approval and delay or impair commercialization of any products.

We are in the preclinical and clinical trial phases of product development and commercialization. We have ceased manufacturing, are closing manufacturing operations located at our corporate headquarters, and implementing a collaboration outsourcing model to more efficiently manage costs. We rely, and will increasingly rely, on contracts with third parties to use their facilities to conduct our research, development and manufacturing.

We have engaged Centre for Probe Development and Commercialization ("CPDC"), a validated Current Good Manufacturing Practices ("CGMPs") manufacturing organization specializing in radiopharmaceuticals, as our exclusive source to supply drug product for our ongoing research and clinical trials, including our Phase 1 and Phase 2 studies of CLR 131. In addition, we are in the process of expanding capacity for a Phase 3 study through our relationship with CPDC. We rely exclusively on contract research organizations to conduct research and development. Any inability of CPDC or other collaborators to fulfill the requirements of their agreements with us may delay or impair our ability to gain FDA approval and commercialization of our drug delivery technology and products.

Our reliance on third-party collaborators may expose us to the risk of not being able to directly oversee the activities of these parties. Furthermore, these collaborators, whether foreign or domestic, may experience regulatory compliance difficulties, mechanical shutdowns, employee strikes, or other unforeseeable acts that may delay fulfillment of their agreements with us. Failure of any of these collaborators to provide the required services in a timely manner or on commercially reasonable terms could materially delay the development and approval of our products, increase our expenses, and materially harm our business, prospects, financial condition and results of operations.

We believe that we have a good working relationship with our third-party collaborators. However, should the situation change, we may be required to relocate these activities on short notice, and we do not currently have access to alternate facilities to which we could relocate our research, development and/or manufacturing activities. The cost and time to establish or locate an alternate research, development and/or manufacturing facility to develop our technology would be substantial and would delay obtaining FDA approval and commercializing our products.

Furthermore, if our products are approved for commercial sale, we will need to work with our existing third-party collaborators to ensure sufficient capacity, or engage additional parties with the capacity, to commercially manufacture our products in accordance with FDA and other regulatory requirements. There can be no assurance that we would be able to successfully establish any such capacity or identify suitable manufacturing partners on acceptable terms.

Controls we or our third-party collaborators have in place to ensure compliance with all applicable laws and regulations may not be effective.

We and our third-party collaborators are subject to federal, state and local laws and regulations governing the storage, use and disposal of hazardous materials and waste products. Current or future regulations may impair our research, development, manufacturing and commercialization efforts. At our facility in Madison, Wisconsin, research and development, manufacturing and administration of our drugs involved the controlled use of hazardous materials, including chemicals and radioactive materials such as radioactive isotopes. We believe that our safety procedures for the storage, use and disposal of these materials has been in compliance with the standards prescribed by federal, state and local regulations. However, we cannot completely eliminate the risk of accidental contamination or injury from these materials. If there were to be an accident, we could be held liable for any damages that result, which could exceed our financial resources. We currently maintain insurance coverage, with limits of up to $2,500,000 depending on the nature of the claim, for damages resulting from the hazardous materials we use; however, future claims may exceed the amount of our coverage. Also, we do not have insurance coverage for pollution cleanup and removal. In connection with the shutdown of our manufacturing, research and development activities in Madison, Wisconsin, we are currently working with Wisconsin state agencies to transition our manufacturer's license and the radioactive materials license to a distribution license only.

The inability of our third-party collaborators to maintain the required licenses and permits for any reason will negatively impact our manufacturing, research and development activities. In addition, we may be required to indemnify third-party collaborators against certain liabilities arising out of any failure by them to comply with such regulations and/or laws. If we or our third party collaborators fail to comply with any of these regulations and/or laws, a range of consequences could result, including the suspension or termination of clinical trials, failure to obtain approval of a product candidate, restrictions on our products or manufacturing processes, withdrawal of our products from the market, significant fines, exclusion from government healthcare programs, or other sanctions or litigation.

We may incur unanticipated costs in connection with our shutdown of our manufacturing operations in Madison, Wisconsin.

In January 2018, we began implementing shutdown of our manufacturing operations at our corporate headquarters in Madison, Wisconsin, and terminated our manufacturing staff in 2018. In connection with this shutdown, we are responsible for decommissioning activities. Should the actual costs to fulfill these obligations exceed these estimated costs, our financial condition and results of operations may be adversely affected.

We rely on a small number of key personnel who may terminate their employment with us at any time, and our success will depend on our ability to hire additional qualified personnel.

Our success depends to a significant degree on the continued services of our executive officers, including our Chief Executive Officer, James V. Caruso. Our management and other employees may voluntarily terminate their employment with us at any time, and there can be no assurance that these individuals will continue to provide services to us. Our success will depend on our ability to attract and retain other highly skilled personnel. We may be unable to recruit such personnel on a timely basis, if at all. The loss of services of key personnel, or the inability to attract and retain additional qualified personnel, could result in delays in development or approval of our products, loss of sales and diversion of management resources.

We cannot assure the successful development and commercialization of our compounds in development.

At present, our success is dependent on one or more of the following to occur: the successful development of CLR 131 for the treatment of a hematologic or solid tumor cancer including multiple myeloma and B-Cell lymphomas or solid tumor cancer types; the development of new PDCs, specifically new products developed from our PDC program, and the advancement of our PDC agents through research and development; and/or commercialization partnerships.

We are a biopharmaceutical company focused on the discovery, development and commercialization of drugs for the treatment of cancer. We leverage our PDC platform to specifically target treatments to cancer cells. The PDC platform possesses the potential for the discovery and development of the next generation of cancer-targeting agents. The PDC platform features include the capacity to link with almost any molecule, the delivery of a significant increase in targeted oncologic payload, and the ability to target all tumor cells. As a result, we believe that we can generate PDCs to treat a broad range of cancers with the potential to improve the therapeutic index of oncologic drug payloads, enhance or maintain efficacy while reducing adverse events by minimizing drug delivery to healthy cells, and increase delivery to cancerous cells and cancer stem cells.

Our proposed products and their potential applications are in an early stage of clinical and manufacturing/process development and face a variety of risks and uncertainties, including the following:

- Future clinical trial results may show that our cancer-targeting and delivery technologies are not well-tolerated by patients at their effective doses or are not efficacious.
- Future clinical trial results may be inconsistent with testing results obtained to-date.
- Even if our cancer-targeting and delivery technologies are shown to be safe and effective for their intended purposes, we may face significant or unforeseen difficulties in obtaining or manufacturing sufficient quantities at reasonable prices or at all.
- Our ability to complete the development and commercialization of our cancer-targeting and delivery technologies for their intended use is substantially dependent upon our ability to raise sufficient capital or to obtain and maintain experienced and committed partners to assist us with obtaining clinical and regulatory approvals for, and the manufacturing, marketing and distribution of, our products.
- Even if our cancer-targeting and delivery technologies are successfully developed, approved by all necessary regulatory authorities, and commercially produced, there is no guarantee that there will be market acceptance of our products.
- Our competitors may develop therapeutics or other treatments that are superior or less costly than our own with the result that our product candidates, even if they are successfully developed, manufactured and approved, may not generate sufficient revenues to offset the development and manufacturing costs of our product candidates.

If we are unsuccessful in dealing with any of these risks, or if we are unable to successfully advance the development of our cancer-targeting and delivery technologies for some other reason, our business, prospects, financial condition and results of operations may be adversely affected.

Failure to complete the development of our technologies, obtain government approvals, including required FDA approvals, or comply with ongoing governmental regulations could prevent, delay or limit introduction or sale of proposed products and result in failure to achieve revenues or maintain our ongoing business.

Our research and development activities and the manufacture and marketing of our intended products are subject to extensive regulation for safety, efficacy and quality by numerous government authorities in the U.S. and abroad. Before receiving approval to market our proposed products by the FDA, we will have to demonstrate that our products are safe and effective for the patient population for the diseases that are to be treated. Clinical trials, manufacturing and marketing of drugs are subject to the rigorous testing and approval process of the FDA and equivalent foreign regulatory authorities. The Federal Food, Drug, and Cosmetic Act and other federal, state and foreign statutes and regulations govern and influence the testing, manufacturing, labeling, advertising, distribution and promotion of drugs and medical devices. As a result, clinical trials and regulatory approval can take many years to accomplish and require the expenditure of substantial financial, managerial and other resources.

In addition to the required regulatory approval described above, in order to be commercially viable, we must successfully research, develop, manufacture, introduce, market and distribute our technologies. This includes meeting a number of critical developmental milestones, including:

- demonstrating benefit from delivery of each specific drug for specific medical indications;
- demonstrating through preclinical and clinical trials that each drug is safe and effective; and
- demonstrating that we have established viable FDA CGMPs capable of potential scale-up.

The timeframe necessary to achieve these developmental milestones may be long and uncertain, and we may not successfully complete these milestones for any of our intended products in development.

In addition to the risks previously discussed, our technology is subject to developmental risks that include the following:

- uncertainties arising from the rapidly growing scientific aspects of drug therapies and potential treatments;
- uncertainties arising as a result of the broad array of alternative potential treatments related to cancer and other diseases; and
- expense and time associated with the development and regulatory approval of treatments for cancer and other diseases.

In order to conduct the clinical trials that are necessary to obtain approval by the FDA to market a product, it is necessary to receive clearance from the FDA to conduct such clinical trials. The FDA can halt clinical trials at any time for safety reasons or because we or our clinical investigators do not follow the FDA's requirements for conducting clinical trials. If any of our trials are halted, we will not be able to obtain FDA approval until and unless we can address the FDA's concerns. If we are unable to receive clearance to conduct clinical trials for a product, we will not be able to achieve any revenue from that product in the U.S., as it is illegal to sell any drug for use in humans in the U.S. without FDA approval.

Even if we do ultimately receive FDA approval for any of our products, these products will be subject to extensive ongoing regulation, including regulations governing manufacturing, labeling, packaging, testing, dispensing, prescription and procurement quotas, record keeping, reporting, handling, shipment and disposal of any such drug. Failure to obtain and maintain required registrations or to comply with any applicable regulations could further delay or preclude development and commercialization of our drugs and subject us to enforcement action.

Clinical trials involve a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.

In order to obtain regulatory approval for the commercialization of our product candidates, we must conduct, at our own expense, extensive clinical trials to demonstrate safety and efficacy of these product candidates. Clinical testing is expensive, it can take many years to complete, and its outcome is uncertain. Failure can occur at any time during the clinical trial process.

We may experience delays in clinical testing of our product candidates. We do not know whether planned clinical trials will begin on time, need to be redesigned, or be completed on schedule, if at all. Clinical trials can be delayed for a variety of reasons, including delays in obtaining regulatory approval to commence a trial, reaching agreement on acceptable clinical trial terms with prospective sites, obtaining institutional review board approval to conduct a trial at a prospective site, recruiting patients to participate in a trial, or obtaining sufficient supplies of clinical trial materials. Many factors affect patient enrollment, including the size of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, competing clinical trials, and new drugs approved for the conditions we are investigating. Prescribing physicians will also have to decide to use our product candidates over existing drugs that have established safety and efficacy profiles or other drugs undergoing development in clinical trials. Any delays in completing our clinical trials will increase our costs, slow down our product development and approval process, and delay our ability to generate revenue.

In addition, the results of preclinical studies and early clinical trials of our product candidates do not necessarily predict the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through initial clinical testing. The data collected from clinical trials of our product candidates may not be sufficient to support the submission of a new drug application or to obtain regulatory approval in the U.S. or elsewhere. Because of the uncertainties associated with drug development and regulatory approval, we cannot determine if or when we will have an approved product for commercialization or will achieve sales or profits.

Our clinical trials may not demonstrate sufficient levels of efficacy necessary to obtain the requisite regulatory approvals for our drugs, and our proposed drugs may not be approved for marketing.

We may be required to suspend or discontinue clinical trials due to unexpected side effects or other safety risks that could preclude approval of our product candidates.

Our clinical trials may be suspended at any time for a number of reasons. For example, we may voluntarily suspend or terminate our clinical trials if at any time we believe that they present an unacceptable risk to the clinical trial patients. In addition, regulatory agencies may order the temporary or permanent discontinuation of our clinical trials at any time if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements or that they present an unacceptable safety risk to the clinical trial patients.

Administering any product candidates to humans may produce undesirable side effects. These side effects could interrupt, delay or halt clinical trials of our product candidates and could result in the FDA or other regulatory authorities denying further development or approval of our product candidates for any or all targeted indications. Ultimately, some or all of our product candidates may prove to be unsafe for human use. Moreover, we could be subject to significant liability if any volunteer or patient suffers, or appears to suffer, adverse health effects as a result of participating in our clinical trials.

We expect to rely on our patents as well as specialized regulatory designations such as orphan drug classification for our product candidates, but regulatory drug designations may not confer marketing exclusivity or other expected commercial benefits.

We expect to file for orphan drug designation or other regulatory designations (fast track, break-through, priority review, etc.) as appropriate for our product candidates. Orphan drug status confers seven years of marketing exclusivity under the Federal Food, Drug, and Cosmetic Act in the U.S., and up to ten years of marketing exclusivity in Europe for a particular product in a specified indication. We have been granted orphan drug designation in the U.S. for CLR 131 as a therapeutic for the treatment of multiple myeloma, neuroblastoma, rhabdomyosarcoma and Ewing's sarcoma. While we have been granted this orphan designation, we will not be able to rely on it to exclude other companies from manufacturing or selling products using the same principal molecular structural features for the same indication beyond these timeframes without our patent portfolio. For any product candidate for which we have been or will be granted orphan drug designation in a particular indication, it is possible that another company also holding orphan drug designation for the same product candidate will receive marketing approval for the same indication before we do. If that were to happen, our applications for that indication may not be approved until the competing company's period of exclusivity expires. Even if we were the first to obtain marketing authorization for an orphan drug indication, there are circumstances under which a competing product may be approved for the same indication during the seven-year period of marketing exclusivity, such as if the later product is shown to be clinically superior to the orphan product or deemed a different product than ours. Further, the seven-year marketing exclusivity would not prevent competitors from obtaining approval of the same product candidate as ours for indications other than those in which we have been granted orphan drug designation, or for other indications if not for our patent portfolio, or for the use of other types of products in the same indications as our orphan product. Furthermore, although the orphan drug designation and exclusivity are in effect right now, the FDA has the authority to modify this assessment at any time.

The FDA has granted rare pediatric disease designation, RPDD, to CLR 131 for treatment of neuroblastoma and rhabdomyosarcoma; however, we may not be able to realize any value from such designation.

Our CLR 131 compound has received RPDD designation from the FDA for the treatment of neuroblastoma and rhabdomyosarcoma. The FDA defines a "rare pediatric disease" as a disease that affects fewer than 200,000 individuals in the U.S. primarily under the age of 18 years old. Under the FDA's Rare Pediatric Disease Priority Review Voucher program, upon the approval of a new drug application ("NDA") or a biologics license application ("BLA") for the treatment of a rare pediatric disease, the sponsor of such application would be eligible for a Rare Pediatric Disease Priority Review Voucher that can be used to obtain priority review for a subsequent NDA or BLA. There is no assurance we will receive a Rare Pediatric Disease Priority Review Voucher or that it will result in a faster development process, review or approval for a subsequent marketing application. Further, this program has been subject to criticism, including by the FDA, and it is possible that even if we obtain approval for CLR 131 and qualify for such a Priority Review Voucher, the program may no longer be in effect at the time of approval. Also, although Priority Review Vouchers may be sold or transferred to third parties, there is no guaranty that we will be able to realize any value if we were to sell a Priority Review Voucher.

We are exposed to product, clinical and preclinical liability risks that could create a substantial financial burden should we be sued.

Our business exposes us to potential product liability and other liability risks that are inherent in the testing, manufacturing and marketing of pharmaceutical products. In addition, the use in our clinical trials of pharmaceutical products that we, or our current or potential collaborators, may develop and then subsequently sell, may cause us to bear a portion of, or all, product liability risks. While we carry an insurance policy covering up to $5,000,000 per occurrence and $5,000,000 in the aggregate for liability incurred in connection with such claims should they arise, there can be no assurance that our insurance will be adequate to cover all situations. Moreover, there can be no assurance that such insurance, or additional insurance if required, will be available or, if available, will be available on commercially reasonable terms. Furthermore, our current and potential partners with whom we have collaborative agreements, or our future licensees, may not be willing to indemnify us against these types of liabilities and may not themselves be sufficiently insured or have a net worth sufficient to satisfy any product liability claims. A successful product liability claim or series of claims brought against us could have a material adverse effect on our business, prospects, financial condition and results of operations.

Acceptance of our products in the marketplace is uncertain and failure to achieve market acceptance will prevent or delay our ability to generate revenues.

Our future financial performance will depend, at least in part, on the introduction and customer acceptance of our proposed products. Even if approved for marketing by the necessary regulatory authorities, our products may not achieve market acceptance. The degree of market acceptance will depend on a number of factors including:

- receiving regulatory clearance of marketing claims for the uses that we are developing;
- establishing and demonstrating the advantages, safety and efficacy of our technologies;
- pricing and reimbursement policies of government and third-party payors such as insurance companies, health maintenance organizations and other health plan administrators;
- attracting corporate partners, including pharmaceutical companies, to assist in commercializing our intended products; and
- marketing our products.

Physicians, patients, payors or the medical community, in general, may be unwilling to accept, use or recommend any of our products. If we are unable to obtain regulatory approval or commercialize and market our proposed products as planned, we may not achieve any market acceptance or generate revenue.

The market for our proposed products is rapidly changing and competitive, and new therapeutics, drugs and treatments that may be developed by others could impair our ability to develop our business or become competitive.

The pharmaceutical and biotechnology industries are subject to rapid and substantial technological change. Developments by others may render our technologies and proposed products noncompetitive or obsolete, or we may be unable to keep pace with technological developments or other market factors. Technological competition from pharmaceutical and biotechnology companies, universities, governmental entities and others diversifying into the field is intense and expected to increase. Most of these entities have significantly greater research and development capabilities and budgets than we do, as well as substantially more marketing, manufacturing, financial and managerial resources. These entities represent significant competition for us. Acquisitions of, or investments in, competing pharmaceutical or biotechnology companies by large corporations could increase our competitors' financial, marketing, manufacturing and other resources.

Our resources are limited, and we may experience management, operational or technical challenges inherent in our activities and novel technologies. Competitors have developed, or are in the process of developing, technologies that are, or in the future may be, the basis for competition. Some of these technologies may accomplish therapeutic effects similar to those of our technology, but through different means. Our competitors may develop drugs and drug delivery technologies that are more effective than our intended products and, therefore, present a serious competitive threat to us.

The potential widespread acceptance of therapies that are alternatives to ours may limit market acceptance of our products even if they are commercialized. Many of our targeted diseases and conditions can also be treated by other medication or drug delivery technologies. These treatments may be widely accepted in medical communities and have a longer history of use. The established use of these competitive drugs may limit the potential for widespread acceptance of our technologies and products if commercialized.

We may face litigation from third parties claiming our products infringe on their intellectual property rights, particularly because there is often substantial uncertainty about the validity and breadth of medical patents.

We may be exposed to future litigation by third parties based on claims that our technologies, products or activities infringe on the intellectual property rights of others or that we have misappropriated the trade secrets of others. This risk is exacerbated by the fact that the validity and breadth of claims covered in medical technology patents, and the breadth and scope of trade-secret protection, involve complex legal and factual questions for which important legal principles are unresolved. Any litigation or claims against us, whether valid or not, could result in substantial costs, place a significant strain on our financial and managerial resources, and harm our reputation. License agreements that we may enter into in the future would likely require that we pay the costs associated with defending this type of litigation. In addition, intellectual property litigation or claims could force us to do one or more of the following:

- cease selling, incorporating or using any of our technologies and/or products that incorporate the challenged intellectual property, which would adversely affect our ability to generate revenue;
- obtain a license from the holder of the infringed intellectual property right, which license may be costly or may not be available on reasonable terms, if at all; or
- redesign our products, which would be costly and time-consuming.

If we are unable to adequately protect or enforce our rights to intellectual property or to secure rights to third-party patents, we may lose valuable rights, experience reduced market share, assuming any, or incur costly litigation to protect our intellectual property rights.

Our ability to obtain licenses to patents, maintain trade-secret protection, and operate without infringing the proprietary rights of others will be important to commercializing any products under development. Therefore, any disruption in access to the technology could substantially delay the development of our technology.

The patent positions of biotechnology and pharmaceutical companies, such as ours, for products that involve licensing agreements are frequently uncertain and involve complex legal and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued or in subsequent legal proceedings. Consequently, our patent applications and any issued and licensed patents may not provide protection against competitive technologies or may be held invalid if challenged or circumvented. To the extent we license patents from third parties, the early termination of any such license agreement would result in the loss of our rights to use the covered patents, which could severely delay, inhibit or eliminate our ability to develop and commercialize compounds based on the licensed patents. Our competitors may also independently develop products similar to ours or design around or otherwise circumvent patents issued or licensed to us. In addition, the laws of some foreign countries may not protect our proprietary rights to the same extent as U.S. law.

We also rely on trade secrets, technical know-how and continuing technological innovation to develop and maintain our competitive position. Although we generally require our employees, consultants, advisors and collaborators to execute appropriate confidentiality and assignment-of-inventions agreements, our competitors may independently develop substantially equivalent proprietary information and techniques, reverse engineer our information and techniques, or otherwise gain access to our proprietary technology. We may be unable to meaningfully protect our rights in trade secrets, technical know-how and other nonpatented technology.

We may have to resort to litigation to protect our rights for certain intellectual property or to determine the scope, validity or enforceability of our intellectual property rights. Enforcing or defending our rights would be expensive, could cause diversion of our resources, and may not prove successful. Any failure to enforce or protect our rights could cause us to lose the ability to exclude others from using our technology to develop or sell competing products.

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.

We operate in the highly technical field of research and development of small-molecule drugs and rely, in part, on trade-secret protection in order to protect our proprietary trade secrets and unpatented know-how. However, trade secrets are difficult to protect, and we cannot be certain that our competitors will not develop the same or similar technologies on their own. We have taken steps, including entering into confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors, to protect our trade secrets and unpatented know-how. 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. Also, we typically obtain agreements from these parties that inventions conceived by them 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 has illegally obtained, and is using our trade secrets or know-how, is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, courts outside the U.S. may be less willing to protect trade secrets or know-how. The failure to obtain or maintain trade-secret protection could adversely affect our competitive position.

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

As is common in the biotechnology and pharmaceutical industry, we employ individuals who were previously employed at 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 we, or these employees, have used or disclosed trade secrets or other proprietary information of their former employers, either inadvertently or otherwise. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Due to continued changes in marketing, sales and distribution, we may be unsuccessful in our efforts to sell our proposed products, develop a direct sales organization, or enter into relationships with third parties.

We have not established marketing, sales or distribution capabilities for our proposed products. Until such time as our proposed products are further along in the development process, we will not devote any meaningful time and resources to this effort. At the appropriate time, we will determine whether we will develop our own sales and marketing capabilities or enter into agreements with third parties to sell our products.

We have limited experience in developing, training or managing a sales force. If we choose to establish a direct sales force, we may incur substantial additional expenses in developing, training and managing such an organization. We may be unable to build a sales force on a cost-effective basis or at all. In addition, we will compete with many other companies that currently have extensive marketing and sales operations. Our marketing and sales efforts may be unable to compete against these other companies. We may be unable to establish a sufficient sales and marketing organization on a cost-effective or timely basis, if at all.

If we choose to enter into agreements with third parties to sell our proposed products, we may be unable to establish or maintain third-party relationships on a commercially reasonable basis, if at all. In addition, these third parties may have similar or more established relationships with our competitors.

We may be unable to engage qualified distributors. Even if engaged, these distributors may:

- fail to adequately market our products;
- fail to satisfy financial or contractual obligations to us;
- offer, design, manufacture or promote competing products; or
- cease operations with little or no notice.

If we fail to develop sales, marketing and distribution channels, we would experience delays in product sales and incur increased costs, which would have a material adverse effect on our business, prospects, financial condition and results of operation.

If we are unable to convince physicians of the benefits of our intended products, we may incur delays or additional expense in our attempt to establish market acceptance.

Achieving use of our products in the target market of cancer diagnosis and treatment may require physicians to be informed regarding these products and their intended benefits. The time and cost of such an educational process may be substantial. Inability to successfully carry out this physician education process may adversely affect market acceptance of our proposed products. We may be unable to educate physicians, in sufficient numbers, in a timely manner regarding our intended proposed products to achieve our marketing plans and product acceptance. Any delay in physician education may materially delay or reduce demand for our proposed products. In addition, we may expend significant funds towards physician education before any acceptance or demand for our proposed products is created, if at all.

If users of our products are unable to obtain adequate reimbursement from third-party payors, or if additional healthcare reform measures are adopted, it could hinder or prevent the commercial success of our product candidates.

The continuing efforts of government and insurance companies, health maintenance organizations and other payors of healthcare costs to contain or reduce costs of healthcare may adversely affect our ability to generate future revenues and achieve profitability, including by limiting the future revenues and profitability of our potential customers, suppliers and collaborative partners. For example, in certain foreign markets pricing or profitability of prescription pharmaceuticals are subject to government control. The U.S. government is implementing, and other governments have shown significant interest in pursuing, healthcare reform. Any government-adopted reform measures could adversely affect the pricing of healthcare products and services in the U.S. or internationally and the amount of reimbursement available from governmental agencies or other third-party payors. The continuing efforts of the U.S. and foreign governments, insurance companies, managed care organizations, and other payors of healthcare services to contain or reduce healthcare costs may adversely affect our ability to set prices for our products, should we be successful in commercializing them, and this would negatively affect our ability to generate revenues and achieve and maintain profitability.

New laws, regulations and judicial decisions, or new interpretations of existing laws, regulations and decisions, that relate to healthcare availability, methods of delivery or payment for healthcare products and services, or sales, marketing or pricing of healthcare products and services may also limit our potential revenue and may require us to revise our research and development programs. The pricing and reimbursement environment may change in the future and become more challenging for several reasons, including policies advanced by the current or future executive administrations in the U.S., new healthcare legislation, or fiscal challenges faced by government health administration authorities. Specifically, in both the U.S. and some foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our products profitably. In the U.S., changes in the federal healthcare policy were enacted in 2010 and are being implemented. Some reforms could result in reduced reimbursement rates for our product candidates, which would adversely affect our business strategy, operations and financial results. Our ability to commercialize our products will depend in part on the extent to which appropriate reimbursement levels for the cost of our products and related treatment are obtained by governmental authorities, private health insurers, and other organizations such as health maintenance organizations ("HMOs"). Third-party payors are increasingly challenging the prices charged for medical drugs and services. Also, the trend toward managed healthcare in the U.S. and the concurrent growth of organizations such as HMOs that could control or significantly influence the purchase of healthcare services and drugs, as well as legislative proposals to reform healthcare or change government insurance programs, may all result in lower prices for or rejection of our drugs. The cost containment measures that healthcare payors and providers are instituting, and the effect of any healthcare reform, could materially harm our ability to operate profitably.

Our business and operations may be materially adversely affected in the event of computer system failures or security breaches.

Despite the implementation of security measures, our internal computer systems, and those of our third-party manufacturers, contract research organizations and other third parties on which we rely, are vulnerable to damage from computer viruses, unauthorized access, cyber-attacks, natural disasters, fire, terrorism, war and telecommunication and electrical failures. If such an event were to occur and interrupt our operations, it could result in a material disruption in our business. For example, the loss of clinical trial data from 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 results in a loss of or damage to our data or applications, loss of trade secrets, inappropriate disclosure of confidential or proprietary information, including protected health information or personal data of employees or former employees, lack of access to our clinical data, or disruption of the manufacturing process, we could incur liability and the further development of our drug candidates could be delayed. We may also be vulnerable to cyber-attacks or other malfeasance by hackers. This type of breach of our cybersecurity may compromise our confidential and financial information, adversely affect our business, or result in legal proceedings. Further, these cybersecurity breaches may inflict reputational harm upon us that may result in decreased market value and erode public trust.

Failure to maintain effective internal controls could adversely affect our ability to meet our reporting requirements.

We are required to establish and maintain appropriate internal controls over financial reporting. Rules adopted by the SEC pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 require an annual assessment of internal controls over financial reporting and for certain issuers an attestation of this assessment by the issuer's independent registered public accounting firm. The standards to assess that our internal controls over financial reporting are effective are evolving and complex, require significant documentation and testing, and may require remediation if they are not met. We expect to incur significant expenses and to devote resources to Section 404 compliance on an ongoing basis. It is difficult for us to predict how long it will take or costly it will be to complete the assessment of the effectiveness of our internal control over financial reporting for each year and to remediate any deficiencies in our internal control over financial reporting. As a result, we may not be able to complete the assessment and remediation process on a timely basis. In addition, although attestation requirements by our independent registered public accounting firm are not presently applicable to us, we could become subject to these requirements in the future, and we may encounter problems or delays in completing the implementation of any resulting changes to internal controls over financial reporting.

Effective internal controls are necessary for us to provide reasonable assurance with respect to our financial reports and to effectively prevent fraud. Failure to maintain effective internal controls could adversely affect our public disclosures regarding our business, prospects, financial condition or results of operations. In addition, management's assessment of internal controls over financial reporting may identify weaknesses and conditions that need to be addressed in our internal controls over financial reporting or other matters that may raise concerns for investors. Any actual or perceived weaknesses and conditions that need to be addressed in our internal control over financial reporting or disclosure of management's assessment of our internal controls over financial reporting our business and results of operations could be harmed, we could fail to meet our reporting obligations, and there could be a material adverse effect on our common stock price.

Risks Related to Our Equity Securities

We have in the past received notices from Nasdaq of noncompliance with its listing rules, and delisting with Nasdaq could impact the price of our common stock and our ability to raise funds.

On January 21, 2016, we received a notice from Nasdaq of noncompliance with its listing rules regarding the requirement that our securities maintain a minimum bid price of $1 per share. Based upon the closing bid price for the 30 consecutive business days preceding the notice, we no longer met this requirement. However, the rules also provided us a period of 180 calendar days in which to regain compliance. On March 4, 2016, we effected a reverse stock split at a ratio of 1-for-10 that, among other things, resulted in an increase in the bid price adequate to allow us to regain compliance with the minimum bid price requirement. On March 21, 2016, Nasdaq notified us that we had regained compliance with the minimum bid price requirement.

On August 14, 2015, we received a notice from Nasdaq of noncompliance with its continuing listing rules, namely that our stockholders' equity of $2,373,371 at June 30, 2015, as reported in our Form 10-Q for the quarter then ended, was less than the $2,500,000 minimum. The failure to meet continuing compliance standards subjects our common stock to delisting. We submitted a plan to Nasdaq to regain compliance, which was approved by Nasdaq, that required a number of actions to be completed by February 10, 2016, including the filing of a registration statement with the SEC for an underwritten public offering of equity and the closing of that offering. The registration statement was timely filed; however, we did not complete the offering by the anticipated date. Nasdaq issued a second notice of noncompliance on February 11, 2016, which we appealed. At a hearing on March 31, 2016, we requested, and Nasdaq subsequently granted, an extension of time to effect transactions to allow us to regain compliance and to report the same. On April 20, 2016, we closed an underwritten offering, and on May 16, 2016, Nasdaq issued a determination that we had evidenced compliance with all requirements for continued listing on The Nasdaq Capital Market and, accordingly, the listing qualifications matter was closed.

We have not received any other notices of noncompliance with Nasdaq listing rules. However, any future failure to comply with Nasdaq's listing rules and any resulting delisting from the Nasdaq would reduce the visibility, liquidity and price of our common stock and could limit our ability to raise funds in the future.

Our stock price has experienced price fluctuations.

There can be no assurance that the market price for our common stock will remain at its current level, and a decrease in the market price could result in substantial losses for investors. The market price of our common stock may be significantly affected by one or more of the following factors:

- announcements or press releases relating to the biopharmaceutical sector or to our own business or prospects;
- regulatory, legislative or other developments affecting us or the healthcare industry generally;
- sales by holders of restricted securities pursuant to effective registration statements or exemptions from registration;

- market conditions specific to biopharmaceutical companies, the healthcare industry and the stock market generally; and
- our ability to maintain our listing on the Nasdaq exchange.

Our common stock could be further diluted as the result of the issuance of additional shares of common stock, convertible securities, warrants or options.

In the past, we have issued common stock, convertible securities (such as convertible preferred stock and notes) and warrants in order to raise capital. We have also issued equity as compensation for services and incentive compensation for our employees and directors. We have shares of common stock reserved for issuance upon the exercise of certain of these securities and may increase the shares reserved for these purposes in the future. Our issuance of additional common stock, convertible securities, options and warrants could dilute our common stock, affect the rights of our stockholders, reduce the market price of our common stock, result in adjustments to exercise prices of outstanding warrants (resulting in these securities becoming exercisable for, as the case may be, a greater number of shares of our common stock), or obligate us to issue additional shares of common stock to certain of our stockholders.

Provisions of our certificate of incorporation, by-laws, and Delaware law may make an acquisition of us or a change in our management more difficult.

Certain provisions of our certificate of incorporation and by-laws could discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which an investor might otherwise receive a premium for its shares. These provisions also could limit the price that investors might be willing to pay in the future for shares of our common stock or warrants, thereby depressing the market price of our common stock. Stockholders who wish to participate in these transactions may not have the opportunity to do so.

Furthermore, these provisions could prevent or frustrate attempts by our stockholders to replace or remove our management. These provisions:

- provide for the division of the Board into three classes as nearly equal in size as possible with staggered three-year terms and further limit the removal of directors and the filling of vacancies;
- authorize our Board to issue without stockholder approval blank-check preferred stock that, if issued, could operate as a "poison pill" to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that is not approved by our Board;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit stockholder action by written consent;
- establish advance notice requirements for stockholder nominations to our Board or for stockholder proposals that can be acted on at stockholder meetings;
- limit who may call stockholder meetings; and
- require the approval of the holders of 75% of the outstanding shares of our capital stock entitled to vote in order to amend certain provisions of our certificate of incorporation and by-laws.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may, unless certain criteria are met, prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a prescribed period of time.

We have not paid dividends in the past and do not expect to pay dividends for the foreseeable future. Any return on investment may be limited to the value of our common stock.

No cash dividends have been paid on our common stock. We do not expect to pay cash dividends in the near future. Payment of dividends would depend upon our profitability at the time, cash available for those dividends, and other factors as our Board may consider relevant. If we do not pay dividends, our common stock may be less valuable because a return on an investor's investment will occur only if our stock price appreciates.

Risks Related to this Offering

Our management team will have immediate and broad discretion over the use of the net proceeds from this offering, and you may not agree with our use of the net proceeds.

The net proceeds from this offering will be immediately available to our management to use at its discretion. We currently intend to use the net proceeds from this offering to fund our research and development activities, general corporate purposes, and possibly for acquisitions of other companies, products or technologies, although no such acquisitions are currently contemplated. See "Use of Proceeds." We have not allocated specific amounts of the net proceeds from this offering for any of the foregoing purposes. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us or our stockholders. The failure of our management to use such funds effectively could have a material adverse effect on our business, prospects, financial condition and results of operation.

You will experience immediate and substantial dilution as a result of this offering and may experience additional dilution in the future.

You will incur immediate and substantial dilution as a result of this offering. After giving effect to the sale by of the securities offered in this offering, at a public offering price of $4.00 per share and warrant, and after deducting the underwriters' discounts and commissions and other estimated offering expenses payable by us, investors in this offering can expect an immediate dilution of $0.44 per share, or 11%, at the public offering price of $4.00 per share and warrant, assuming no exercise of the warrants. In addition, in the past, we issued options and warrants to acquire shares of common stock. To the extent these options are ultimately exercised, you will sustain future dilution.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, in the future we may offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price in this offering. We may sell shares or other securities in any other offering at a price that is less than the price paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price paid by investors in this offering.

The warrants issued in this offering may not have any value.

Each warrant will have an exercise price equal to $4.00 and will expire on the five year anniversary of the date they first become exercisable. In the event our common stock price does not exceed the exercise price of the warrants during the period when the warrants are exercisable, the warrants may not have any value.

A warrant does not entitle the holder to any rights as common stockholders until the holder exercises the warrant for shares of our common stock.

Until you acquire shares of our common stock upon exercise of your warrants, the warrants will not provide you any rights as a common stockholder. Upon exercise of your warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs on or after the exercise date.

The warrants are subject to an issuer call.

If at any time after the initial exercise date, (i) the volume weighted average price for each of thirty consecutive trading days, or Measurement Period, exceeds 300% of the exercise price (subject to adjustment for forward and reverse stock splits, recapitalizations, stock dividends and the like after the initial exercise date), (ii) the average daily volume for such Measurement Period exceeds $400,000 per trading day and, (iii) the warrant holder is not in possession of any material non-public information which was provided by the Company or its affiliates, then the Company may, within one trading day of the end of such Measurement Period, call for cancellation of all or any portion of the warrants for which an exercise notice has not yet been delivered for consideration equal to $0.001 per warrant share. The Company's right to call the warrants shall be exercised ratably among the holders based on the then outstanding warrants. You may be unable to reinvest your proceeds from the call in an investment with a return that is as high as the return on the warrants would have been if they had not been called.

There is no public market for the warrants or the preferred stock being offered by us in this offering.

There is no established public trading market for the warrants or the preferred stock being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the warrants or the preferred stock on any national securities exchange or other nationally recognized trading system, including The Nasdaq Capital Market. Without an active market, the liquidity of the warrants and the preferred stock will be limited.

USE OF PROCEEDS

Based on an a public offering price of $4.00 per share of common stock and warrant, we estimate that the net proceeds to us from the sale of the securities that we are offering, gross proceeds of $14.4 million and no exercise of the overallotment option, will be approximately $13 million, after deducting underwriting discounts and commissions and estimated offering expenses. In addition, if all of the warrants offered pursuant to this prospectus are exercised in full for cash, we will receive approximately an additional $14.4 million in cash.

We expect to use any proceeds received from this offering as follows:

- research and development activities, including the further development of CLR 131, and the research advancement of our PDC platform, including product candidates, CLR 1700, CLR 1800, CLR 1900, CLR 2000, CLR 2100, CLR 2200 series.

- general corporate purposes, such as human resource acquisition to support organizational priorities, general and administrative expenses, capital expenditures, working capital, repayment of debt, prosecution and maintenance of our intellectual property, and the potential investment in technologies, products or collaborations that complement our business.

Even if we sell all of the securities subject to this offering, we will still need to obtain additional financing in the future in order to fully fund these product candidates through the regulatory approval process. We may seek such additional financing through public or private equity or debt offerings or other sources, including collaborative or other arrangements with corporate partners, and through government grants and contracts. There can be no assurance we will be able to obtain additional financing. Although we currently anticipate that we will use the net proceeds of this offering as described above, there may be circumstances when a reallocation of funds is necessary. The amounts and timing of our actual expenditures will depend upon numerous factors, including the progress of our development and commercialization efforts, the progress of our clinical studies, whether or not we enter into strategic collaborations or partnerships, and our operating costs and expenditures. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering.

The costs and timing of drug development and regulatory approval, particularly conducting clinical studies, are highly uncertain, subject to substantial risks, and can often change. Accordingly, we may change the allocation of use of these proceeds as a result of contingencies such as the progress and results of our clinical studies and other development activities, the establishment of collaborations, our manufacturing requirements, and regulatory or competitive developments.

Pending the application of the net proceeds as described above or otherwise, we may invest the proceeds in short-term, investment-grade, interest-bearing securities or guaranteed obligations of the U.S. government or other securities.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization, each as of March 31, 2018:

- on an actual basis; and
- on a pro forma basis, as adjusted to give effect to the issuance of the securities offered hereby at a combined public offering price of $4.00 per share of common stock and Series E Warrant, after deducting the estimated underwriting discounts and commissions and estimated offering expenses.

You should consider this table in conjunction with our financial statements and the notes to those financial statements incorporated by reference in this prospectus.

	As of March 31, 2018 (Unaudited)	
	Actual	Pro Forma, As Adjusted
Cash and cash equivalents	$ 6,820,163	$ 19,809,227
Deferred rent	88,964	88,964
Capital lease obligations	4,521	4,521
Total debt obligations	93,485	93,485
Stockholders' equity:		
Preferred stock, par value $0.00001 per share: 7,000 shares authorized; 11.5 actual; 1,125.5 pro forma	637,017	637,017
Common stock, par value $0.00001 per share: 80,000,000 shares authorized; 1,710,167 actual; 2,525,167 pro forma	17	25
Additional paid-in capital	94,640,182	107,629,238
Accumulated deficit	(87,825,139)	(87,825,139)
Total stockholders' equity	7,452,077	20,441,141
Total capitalization	$ 7,545,562	$ 20,534,626

The information set forth above assumes no exercise by the underwriter of its over-allotment option and excludes, as of that date:

- an aggregate of 50,939 shares of common stock issuable upon the exercise of outstanding stock options issued to employees, directors and consultants;
- an aggregate of 1,178,747 additional shares of common stock reserved for issuance under outstanding warrants having expiration dates between August 20, 2019, and October 14, 2024, and exercise prices ranging from $15.00 to $468.00 per share; and
- 6,385,000 shares of our common stock that may be issued upon the conversion of shares of Series C Preferred Stock and the exercise of the Series E Warrants issued in this offering.

MARKET FOR COMMON EQUITY

Our common stock is quoted under the CLRB ticker symbol on the Nasdaq Capital Market.

The following table provides, for the periods indicated, the high and low intraday sale prices for our common stock as reported by Nasdaq. Historical stock prices have been adjusted to give effect to a 1-for-10 reverse split of our common stock effective at the close of business on July 26, 2018:

	High	Low
2018:		
Third Quarter (through July 26, 2018)	$ 12.76	$ 5.20
Second Quarter	12.90	6.10
First Quarter	14.40	10.60
2017:		
Fourth Quarter	20.40	10.80
Third Quarter	20.60	14.00
Second Quarter	23.40	15.00
First Quarter	30.70	12.10
2016:		
Fourth Quarter	29.10	11.20
Third Quarter	35.70	20.60
Second Quarter	50.50	10.00
First Quarter	123.00	32.50

On July 26, 2018, there were 294 holders of record of our common stock. This number does not include stockholders for whom shares were held in a "nominee" or "street" name.

We have not declared or paid any cash dividends on our common stock and do not anticipate declaring or paying any cash dividends in the foreseeable future. We currently expect to retain future earnings, if any, for the continued development of our business.

Our transfer agent and registrar is American Stock Transfer and Trust Company, 6201 15th Avenue, Brooklyn, NY 11219.

DILUTION

Our net tangible book value as of March 31, 2018, was approximately $5.9 million, or $3.45 per share of common stock, based upon 1,710,167 shares outstanding. Net tangible book value per share is determined by dividing such number of outstanding shares of common stock into our net tangible book value, which is our total tangible assets, less total liabilities, excluding the derivative liability of $132,000 at that date.

After giving effect to the sale of the securities in this offering at the public offering price of $4.00 per share of common stock, and assuming the conversion of all of the shares of Series C Preferred Stock to common stock, but excluding the exercise of the underwriters' overallotment option and after deducting underwriting discounts and commission and other estimated offering expenses payable by us, our adjusted net tangible book value at March 31, 2018, would have been approximately $18.9 million, or $3.56 per share. This represents an immediate increase in net tangible book value of approximately $0.11 per share to our existing stockholders, and an immediate dilution of $0.44 per share to investors purchasing securities in the offering.

The following table illustrates the per share dilution to investors purchasing securities in the offering:

Public offering price per share of common stock			$	4.00
Net tangible book value per share as of March 31, 2018	$	3.45		
Increase per share attributable to the sale of securities to investors	$	0.11		
Adjusted net tangible book value per share after the offering			$	3.56
Dilution per share to investors in this offering			$	0.44

The foregoing illustration does not reflect potential dilution from the exercise of outstanding options or warrants to purchase shares of our common stock. The foregoing illustration also does not reflect the dilution that would result from the exercise of the warrants sold in the offering.

The information set forth above is based on 1,710,167 shares of common stock outstanding as of March 31, 2018 and excludes, as of that date:

- an aggregate of 50,939 shares of common stock issuable upon the exercise of outstanding stock options issued to employees, directors and consultants;
- an aggregate of 1,178,747 additional shares of common stock reserved for issuance under outstanding warrants having expiration dates between August 20, 2019, and October 14, 2024, and exercise prices ranging from $15.00 to $468.00 per share; and
- 3,600,000 shares of our common stock that may be issued upon the exercise of the Series E Warrants issued in this offering.

BUSINESS

Business Overview

We are a clinical stage biopharmaceutical company focused on the discovery, development and commercialization of drugs for the treatment of cancer. Our core objective is to leverage our proprietary phospholipid drug conjugate™ ("PDCs™") delivery platform to develop PDCs that specifically target cancer cells to deliver improved efficacy and better safety as a result of fewer off-target effects. The PDC platform possesses the potential for the discovery and development of the next generation of cancer-targeting treatments, and we plan to develop PDCs independently and through research and development collaborations.

Our lead PDC candidate, CLR 131, provides targeted delivery of the cytotoxic (cell-killing) radioisotope iodine 131. CLR 131 is in a Phase 2 study in relapsed or refractory ("R/R") multiple myeloma ("R/RMM") and a range of other B-cell malignancies, and a Phase 1 clinical study for R/RMM. We are currently initiating a Phase 1 study for pediatric solid tumors and lymphomas and plan to initiate a second Phase 1 study of CLR 131 in combination with external beam radiation for head and neck cancer ("HNC") at the University of Wisconsin Madison. Our pipeline also includes two preclinical PDC chemotherapeutic programs, CLR 1700 and 1900. CLR 1700 possess a Burton's tyrosine kinase ("BTK") inhibitor payload and is targeted for development in hematologic cancers, and CLR 1900 is being developed for solid tumors with a payload that inhibits mitosis (cell division), which is a validated pathway for cell apoptosis.

We have leveraged our PDC platform to establish three active collaborations featuring four unique payloads and mechanisms of action. Through research and development collaborations, our strategy is to generate near-term capital, supplement internal resources, gain access to novel molecules or payloads, accelerate product candidate development, and broaden our proprietary and partnered product pipelines.

Our PDC platform provides selective delivery of a diverse range of oncologic payloads to cancerous cells, whether a hematologic cancer or solid tumor, the primary tumor, or a metastatic tumor and cancer stem cells. Our PDC platform takes advantage of a metabolic pathway utilized by all tumor cell types in all stages of the tumor "cycle." This allows the PDC molecules to gain access to the intracellular compartment of the tumor cells and for the PDCs to continue to accumulate over time, which enhances drug efficacy. The PDC platform's mechanism of entry does not rely upon specific cell surface epitopes or antigens as are required by other targeted delivery platforms. Specific cell surface epitopes are limited in number on the cell surface, undergo internalization and cycling upon binding, and are not present on all tumor cells of a particular cancer type. This means a subpopulation of tumor cells will always remain. In addition to the benefits provided by the mechanism of entry, PDCs offer the potential advantage of having the ability to be conjugated to molecules in numerous ways, thereby increasing the types of molecules selectively delivered via the PDC.

The PDC platform features include the capacity to link with almost any molecule, provide a significant increase in targeted oncologic payload delivery and the ability to target all tumor cells. As a result, we believe that we can generate PDCs to treat a broad range of cancers with the potential to improve the therapeutic index of oncologic drug payloads, enhance or maintain efficacy while reducing adverse events by minimizing drug delivery to healthy cells, and increasing delivery to cancerous cells and cancer stem cells.

We employ a drug discovery and development approach that allows us to efficiently design, research and advance drug candidates. Our iterative process allows us to rapidly and systematically produce multiple generations of incrementally improved targeted drug candidates.

Clinical Pipeline

CLR 131 is a small-molecule, cancer-targeting radiotherapeutic PDC designed to deliver cytotoxic radiation directly and selectively to cancer cells and cancer stem cells. CLR 131 is our lead therapeutic PDC product candidate and is currently being evaluated in both Phase 2 and Phase 1 clinical studies. The Investigational New Drug ("IND") application was accepted by the FDA in March 2014. The Phase 2 study is evaluating CLR 131 as a potential therapy for R/RMM and was initiated in November of 2017. The primary goal of the study is to assess the compound's efficacy in a broad range of hematologic cancers. The Phase 1 study is assessing the compound's safety and tolerability in patients with R/RMM and was initiated in April 2015. This clinical study is a standard three-by-three dose escalation safety. Multiple myeloma is an incurable cancer of the plasma cells and is the second most common form of hematologic cancers. This cancer type was selected for clinical, regulatory and commercial rationales, including multiple myeloma's highly radiosensitive nature and continued unmet medical need in the relapse/refractory setting, and has been determined to be a rare disease by the FDA based upon the current definition within the Orphan Drug Act. The primary goal of the Phase 1 study is to assess the compound's safety and tolerability in patients with R/RMM. Secondary objectives include the evaluation of therapeutic activity by assessing surrogate efficacy markers, which include M protein, free light chain ("FLC"), progression free survival ("PFS") and overall survival ("OS").

In December 2014, the FDA granted orphan drug designation for CLR 131 for the treatment of multiple myeloma. In March 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of neuroblastoma and the FDA subsequently granted a RPDD for CLR 131. In May 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of rhabdomyosarcoma and the FDA subsequently granted an RPDD for CLR 131. In July 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of Ewing's sarcoma. The FDA previously accepted our IND application for a Phase 1 open-label, dose-escalating study to evaluate the safety and tolerability of a single intravenous administration of CLR 131 in up to 30 children and adolescents with cancers including neuroblastoma, sarcomas, lymphomas (including Hodgkin's lymphoma) and malignant brain tumors. We are currently initiating a Phase 1 clinical study evaluating CLR 131 for the potential treatment of pediatric patients with Ewing's sarcoma, rhabdomyosarcoma, osteosarcoma, neuroblastoma, high grade glioma and lymphomas.

Phase 2 Study in Patients with R/R select B-Cell Malignancies

In July 2016, we were awarded a $2,000,000 National Cancer Institute Fast-Track Small Business Innovation Research grant to further advance the clinical development of CLR 131. The funds are supporting the Phase 2 study initiated in March 2017 to define the clinical benefits of CLR 131 in R/RMM and other niche hematologic malignancies with high unmet clinical need. These niche hematologic malignancies include Chronic Lymphocytic Leukemia, Small Lymphocytic Lymphoma, Marginal Zone Lymphoma, Lymphoplasmacytic Lymphoma and Diffuse Large B-Cell Lymphoma. The study will be conducted in approximately 10 top U.S. cancer centers in patients with orphan-designated relapse or refractory hematologic cancers. The study's primary endpoint is clinical benefit response, with additional endpoints of PFS, median OS and other markers of efficacy following a single 25.0 mCi/m^2 dose of CLR 131, with the option for a second 25.0 mCi/m^2 dose approximately 75-180 days later.

Phase 1 Study in Patients with R/R Multiple Myeloma

CLR 131 in combination with dexamethasone is currently under investigation in a Phase 1 trial in adult patients with R/RMM following treatment with both a proteasome inhibitor and an immunomodulatory agent. All patients have been heavily pretreated. To date, four dose cohorts have been examined: 12.5 mCi/m^2, 18.75 mCi/m^2, 25 mCi/m^2, and 31.25 mCi/m^2, all in combination with 40 mg dexamethasone weekly. 18 patients have been dosed to date and an independent Data Monitoring Committee has confirmed all four dose levels safe and tolerable. Of the five patients in the first cohort, four achieved stable disease (one patient progressed at Day 15 after administration and was taken off the study). Of the five patients that have been admitted to the second cohort, four achieved stable disease (one patient progressed at Day 41 after administration and was taken off study). Four patients were enrolled to the third cohort and all achieved stable disease. In September 2017, Cohort 4 results were announced and these results showed that a single 30 minute infusion of 31.25mCi/m^2 of CLR 131 was safe and well tolerated by the three patients in the cohort. Additionally, all three patients experienced clinical benefit with one patient achieving a partial response ("PR"). We are monitoring response rates via surrogate markers of efficacy including M protein and FLC. The International Myeloma Working Group defines a PR as a greater than or equal to 50% decrease in FLC levels (for patients in whom M protein is unmeasurable) or 50% decrease in M protein. The patient experiencing a PR had an 82% reduction in FLC. This patient did not produce M protein, received seven prior lines of treatment including radiation, stem cell transplantation and multiple triple combination treatments including one with daratumumab that was not tolerated. One patient experiencing stable disease attained a 44% reduction in M protein. We have recently converted the Phase 1a clinical data (single CLR 131 dose) to pooled data for presentation of the total performance of the results to date as the pooled data is more likely to be reflective of larger Phase 2/3 clinical studies. This is beneficial as it is a compilation of all the data and results in an N of 15, which gives the data more weight and a sense of maturity compared to reporting on individual cohorts with an N of 3-4 in each. As of February 2018, the preliminary pooled OS data from the first four cohorts was 15.0 months.

Based on the safety observed to date as well as various efficacy signals, including reductions in M protein and FLC and the fact that we have not yet reached median OS, we modified the protocol to begin a second part and a cohort 5, the main objective of which is to determine an optimal dose-range for CLR 131. Cohort 5 is actively enrolling and should be completed by the end of the second quarter of 2018. In this cohort, we split the 31.25 mCi/m^2 dose into two 30-minute infusions of 15.625 mCi/m^2 each given approximately one week apart.

Phase 1 Study in R/R Pediatric Patients with select Solid Tumors, Lymphomas and Malignant Brain Tumors

On December 14, 2017, we filed an IND application with the Division of Oncology at the FDA for a proposed Phase 1 study of CLR 131 in children and adolescents with select rare and orphan designated cancers. The Phase 1 clinical trial of CLR 131 is an open-label, sequential-group, dose-escalation study to evaluate the safety and tolerability of a single intravenous administration of CLR 131 in up to 30 children and adolescents with cancers such as neuroblastoma, sarcomas, lymphomas (including Hodgkin's lymphoma) and malignant brain tumors. Secondary objectives of the study are to identify the recommended Phase 2 dose of CLR 131 and to determine preliminary antitumor activity (treatment response) of CLR 131 in children and adolescents. In March 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of neuroblastoma, in May 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of rhabdomyosarcoma, and in July 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of Ewing's sarcoma, all rare pediatric cancers. Additionally the FDA granted rare pediatric disease designation for CLR 131 for the treatment of neuroblastoma and rhabdomyosarcoma. We are currently initiating a Phase 1 clinical study evaluating CLR 131 for the potential treatment of pediatric patients with Ewing's sarcoma, rhabdomyosarcoma, osteosarcoma, neuroblastoma, high grade glioma and lymphomas.

The study will be initiated with the pediatric oncologists and Nuclear Medicine/Radiology Group at the University of Wisconsin Carbone Cancer Center ("UWCCC"). Investigators at UWCCC have demonstrated uptake of CLR 131 and other fluorescently and isotopically tagged PDCs across a wide range of childhood solid cancer cell lines, including Ewing's sarcoma, rhabdomyosarcoma, pediatric brain tumors such as high-grade gliomas, medulloblastoma and atypical teratoid rhabdoid tumor. In subsequent testing in mouse xenograft models of neuroblastoma, Ewing's sarcoma, rhabdomyosarcoma and osteosarcoma, CLR 131 provided significant benefits on tumor growth rates and survival.

Phase 1 Study in R/R Head and Neck Cancer

In August 2016, the UWCCC was awarded a five-year Specialized Programs of Research Excellence grant from the National Cancer Institute to improve treatments and outcomes for head and neck cancer, HNC, patients. HNC is the sixth most common cancer across the world with approximately 56,000 new patients diagnosed every year in the U.S. As a key component of this grant, the UWCCC researchers will test CLR 131 in various animal HNC models as well as initiating the first human clinical trial combining CLR 131 and external beam radiation in patients with recurrent HNC. The UWCCC is currently anticipated to initiate this clinical trial in the second half of 2018.

Preclinical Pipeline

- CLR 1700 Series is an internally developed PDC program leveraging a payload that inhibits BTK and is designed to treat a broad range of hematologic cancers. The payload provides further specificity by targeting a pathway within hematologic cancers that is significantly upregulated in comparison to normal tissue. We believe that this additional level of targeting will allow us to provide a new drug candidate that has the ability to significantly improve patient outcomes. Leveraging our iterative discovery and screening process, we have been able to accelerate the development of this program.

- CLR 1800 Series is a collaborative PDC program with Pierre Fabre that was entered into in December 2015 and extended in October 2017. Pierre Fabre is the third largest French pharmaceutical company with an extensive oncology research and development infrastructure. The objective of the collaboration is to leverage Cellectar's expertise in conjugation, linker chemistry and phospholipid ether chemistry to codesign a library of PDCs employing Pierre Fabre's chemotherapeutics. The newly developed PDCs may provide enhanced therapeutic indices to otherwise highly potent, nontargeted payloads through the targeted delivery to cancer cells provided by our proprietary phospholipid ether delivery platform. Significant progress has been achieved, including showing improved tolerability in animal models, and the program continues to rapidly advance with a number of PDC molecules being evaluated for candidate selection and progression to IND enabling studies.

- CLR 1900 Series is an internally developed proprietary PDC program leveraging a novel small molecule cytotoxic compound as the payload. The payload inhibits mitosis (cell division) and targets a key pathway required to inhibit rapidly dividing cells that results in apoptosis. We believe that this program could produce a product candidate targeted to select solid tumors. Currently, the program is in early preclinical development.

- CLR 2000 Series is a collaborative PDC program with Avicenna Oncology, or Avicenna, that we entered into in July 2017. Avicenna is a leading developer of antibody drug conjugates (ADCs). The objective of the research collaboration is to design and develop a series of PDCs utilizing Avicenna's proprietary cytotoxic payload. Although Avicenna is a leading developer of ADCs, this collaboration was sought as a means to overcome many of the challenges associated with ADCs, including those associated with the targeting of specific cell surface epitopes.

- CLR 2100 and 2200 Series are collaborative PDC programs with Onconova Therapeutics, Inc., or Onconova, that we entered into in September 2017. Onconova is a biotechnology company specializing in the discovery and development of novel small molecule cancer therapies. The collaboration is structured such that we will design and develop a series of PDCs utilizing different small molecules that Onconova was developing as payloads with the intent to show improved targeting and specificity to the tumor. At least one of the molecules was taken into Phase 1 clinical trials previously by Onconova. We would own all new intellectual property associated with the design of the new PDCs, and both companies will have the option to advance compounds.

We believe our PDC platform has potential to provide targeted delivery of a diverse range of oncologic payloads, as exemplified by the product candidates listed above, that may result in improvements upon current standard of care for the treatment of a broad range of human cancers.

Technology Overview

Our product candidates are based on a cancer-targeting delivery platform of optimized phospholipid ether ("PLE") analogs (PLE proprietary delivery vehicle) that interact with lipid rafts. Lipid rafts are specialized regions of a cell's membrane phospholipid bilayer that contain high concentrations of cholesterol and sphingolipids and serve to organize cell surface and intracellular signaling molecules. As a result of enrichment of lipid rafts in cancer cells, including cancer stem cells, our product candidates provide selective targeting preferentially over normal healthy cells. The cancer-targeting PLE delivery vehicle was deliberately designed to be combined with therapeutic, diagnostic and imaging molecules. For example, iodine can be attached via a very stable covalent bond resulting in distinct products differing only with respect to the isotope of iodine they contain; CLR 131 contains radioactive iodine-131 and nonradioactive molecules, including cytotoxic compounds, can also be attached to the delivery vehicle.

We are focused on exploring the creation of additional PDCs ranging from newly discovered to well-characterized chemotherapeutic payloads under our CLR hemotherapeutic PDC program. The objective of our PDC program is to develop PDC chemotherapeutics through conjugation of our delivery vehicle and nontargeted anticancer agents to improve therapeutic indices and expand potential indications through the targeted delivery of chemotherapeutic payloads. Initial PDC product candidates include our CLR 1700, 1800, 1900, 2000, 2100 and 2200 series of conjugated compounds currently being researched independently and through partnerships. All are small-molecule, cancer-targeting chemotherapeutics in preclinical research. To date, multiple cancer-targeting product profiles have been generated from a single chemical core structure that is the foundation of our technology platform. We also believe that additional cytotoxic PDCs may be developed possessing enhanced therapeutic indices versus the original, nontargeted cytotoxic payload as a monotherapy.

Malignant tumor targeting, including targeting of cancer stem cells, has been demonstrated *in vivo*. Mice without intact immune systems, and inoculated with Panc-1 (pancreatic carcinoma) cells, were injected with CLR 1502, 24 or 96 hours prior to imaging. *In vivo* optical imaging showed pronounced accumulation of CLR 1502 in tumors versus nontarget organs and tissues. Similarly, positron emission tomography ("PET") imaging of tumor-bearing animals (colon, glioma, triple negative breast and pancreatic tumor xenograft models) administered the imaging agent CLR 124 clearly showed selective uptake and retention by both primary tumors and metastases, including cancer stem cells. PET/CT analysis following co-injection of CLR 131 (for therapy) and CLR 124 (for imaging) revealed time-dependent tumor responses and disappearance over nine days in a cancer xenograft model. We believe that the capability of our technology to target and be selectively retained by cancer stem cells *in vivo* was demonstrated by treating glioma stem cell-derived orthotopic tumor-bearing mice with another fluorescent-labeled PDC (CLR 1501), and then removing the tumor and isolating cancer stem cells, which continued to display CLR 1501 labeling even after three weeks in cell culture.

The basis for selective tumor targeting of our compounds lies in differences between the plasma membranes of cancer cells as compared to those of most normal cells. Data suggests that lipid rafts serve as portals of entry for PDCs such as CLR 131 and our multiple series of drug conjugates. The marked selectivity of our compounds for cancer cells versus noncancer cells is due to the fact that cancer cells maintain an overabundance of lipid rafts and have stabilized these microdomains within the plasma membrane as compared to normal cells. For example, following cell entry via lipid rafts, CLR 131 is transported into the cytoplasm, where it traffics along the Golgi apparatus and is distributed to various perinuclear organelles (mitochondria, endoplasmic reticulum) but not the nucleus. The pivotal role played by lipid rafts is underscored by the fact that disruption of lipid raft architecture significantly suppresses uptake of our PDC delivery vehicle into cancer cells.

Products in Development

CLR 131

CLR 131 is a small-molecule, cancer-targeting molecular radiotherapeutic PDC that we believe has the potential to be the first radiotherapeutic agent to use PLEs to target cancer cells. CLR 131 is comprised of our proprietary PLE, 18-(p-[I-131]iodophenyl) octadacyl phosphocholine, acting as a cancer-targeting delivery and retention vehicle, covalently labeled with iodine-131, a cytotoxic (cell-killing) radioisotope with a half-life of eight days that is already in common use to treat thyroid, pediatric tumors and other cancer types, including non-Hodgkin's lymphoma. It is this "intracellular radiation" mechanism of cancer cell killing, coupled with delivery to a wide range of malignant tumor types, which we believe provides CLR 131 with anticancer activity. Selective uptake and retention has been demonstrated in cancer stem cells compared with normal cells, offering the prospect of longer lasting anticancer activity.

Preclinical experiments in tumor models have demonstrated selective killing of cancer cells along with a safe and tolerable product profile. CLR 131's antitumor/survival-prolonging activities have been demonstrated in more than a dozen models, including breast, prostate, lung, brain, pancreatic, ovarian, uterine, renal and colorectal cancers as well as melanoma and multiple myeloma. In all but two models, a single administration of a well-tolerated dose of CLR 131 was sufficient to demonstrate efficacy. Moreover, efficacy was also seen in a model employing human uterine sarcoma cells that have known resistance to many standard chemotherapeutic drugs. CLR 131 was also tested in combination with a standard efficacious dose of gemcitabine in a pancreatic cancer model. Single doses of CLR 131 or gemcitabine given alone were equally efficacious, while the combination therapy was significantly more efficacious than either treatment alone (additive). While single doses of CLR 131 have been effective and well-tolerated in multiple preclinical animal models, CLR 131 has been shown to provide a statistically significant improvement in efficacy and survival when provided in a multi-dose format and remains well-tolerated. In each study, the dose of CLR 131 was ~100 μCi, which is approximately 50-fold less than the maximum tolerated dose of CLR 131 determined in a six-month rat radiotoxicity study.

Extensive IND-enabling, FDA's Good Laboratory Practices (GLP) regulations *in vivo* and *in vitro* preclinical pharmacokinetic/distribution, toxicology and drug safety studies were successfully completed in 2007 through 2009 using nonpharmacological concentrations/doses of PLE consistent with its role as a delivery/retention vehicle in CLR 131. Tissue distribution studies supported prediction of acceptable human organ exposures and body clearance for CLR 131. Importantly, and in sharp distinction from biological products labeled with iodine-131, the small-molecule CLR 131 showed very minimal variation in excretion kinetics and tissue distribution among individuals within species or across a 500-fold variation in dose. Single- and repeat-dose animal toxicology studies indicated very high margins of safety with our PLE delivery and retention vehicle, even when administered at 80-200x over the amount required to deliver the anticipated maximum human therapy dose of CLR 131.

In 2009, we filed an IND with the FDA to study CLR 131 in humans. In February 2010, we completed a Phase 1 dosimetry trial with a single intravenous dose of 10 mCi/m^2 CLR 131 in eight patients with R/R advanced solid tumors. Single doses of CLR 131 were well-tolerated, and the reported adverse events were all considered minimal, manageable and either not dose limiting or not related to CLR 131. There were no serious adverse events reported. Analysis of total body imaging and blood and urine samples collected over 42 days following injection indicated that doses of CLR 131 expected to be therapeutically effective could be administered without harming vital organs. Two subjects (one with colorectal cancer metastasized to lung and another with prostate cancer) had tumors that were imaged with 3D nuclear scanning (SPECT/CT) on day six after administration of CLR 131. Uptake of CLR 131 into tumor tissue (but not adjacent normal tissue or bone marrow) was clearly demonstrated in both subjects. Confirming animal studies, pharmacokinetic analyses demonstrated a prolonged half-life of radioactivity in the plasma after CLR 131 administration (approximately 200 hours) and that there was no significant variation in excretion or radiation dosimetry among subjects. The trial established an initial dose of 12.5 mCi/m^2, for the Phase 1b escalating-dose trial that commenced in January 2012.

The primary objective of the multicenter Phase 1b dose-escalation trial in patients with a range of advanced solid tumors was to define the maximum tolerated dose of CLR 131. In addition, the Phase 1b trial was intended to evaluate overall tumor response (using standard RESIST 1.1 criteria) and safety. In September 2012, we announced that we had successfully completed the second cohort in this Phase 1b dose-escalation trial. Dose escalation in four cohorts subsequently occurred with refractory cancer patients receiving single doses of 25 mCi/m^2, 31.25 mCi/m^2 or 37.5 mCi/m^2.

Tumor treatment with radioactive isotopes has been used as a fundamental cancer therapeutic for decades. The goals of targeted cancer therapy — selective delivery of effective doses of isotopes that destroy tumor tissue, sparing of surrounding normal tissue, and nonaccumulation in vital organs such as the liver and kidneys — remain goals of new therapies as well. We believe our isotope delivery technology has the potential to achieve these goals. To date, CLR 131 has been shown in animal models to reliably and near-universally accumulate in cancer cells, including cancer stem cells, and because the therapeutic properties of iodine-131 are well known, we believe the risk of nonefficacy in human clinical trials is less than that of other cancer therapies at this stage of development, although no assurance can be given.

In view of CLR 131's selective uptake and retention in a wide range of solid tumors and in cancer stem cells, its single-agent efficacy in animal models and its nonspecific mechanism of cancer-killing (radiation), we are initially developing CLR 131 as a monotherapy for cancer indications with significant unmet medical need. While a number of indications were evaluated as the initial target treatment, multiple myeloma was selected principally because it is an incurable hematologic disease that is highly radiosensitive, with significant unmet medical need in the relapse or refractory clinical setting, and is designated as an orphan disease. As a result, this may provide an accelerated regulatory pathway due to CLR 131's unique benefits such as a novel mechanism of action, ease of administration, and positive benefit/risk profile potential in various high unmet cancer populations. The IND application for multiple myeloma was accepted by the FDA in September 2014. In December 2014, the FDA granted orphan drug designation for CLR 131 for the treatment of multiple myeloma. We initiated our Phase 1 study of CLR 131 for the treatment of R/RMM in April 2015 and have provided periodic clinical updates. CLR 131 is being evaluated as a monotherapy and will subsequently be explored as a combination therapy with chemotherapeutic agents and immunomodulatory agents and in combination with external beam radiotherapy. CLR 131 is being evaluated in a Phase 2 clinical study examining R/RMM patients as well as selected other B-cell hematological malignancies. Patients will receive a 25 mCi/m^2 dose infused over approximately 30 minutes with the option of a second 25 mCi/m^2 dose 75-180 days later based on physician assessment. This study is partially funded through a $2,000,000 National Cancer Institute Fast-Track Small Business Innovation Research award granted in July 2016.

In September 2017, the CLR 131 Phase 1 Cohort 4 results were announced. These results showed that a single 30-minute infusion of 31.25mCi/m^2 of CLR 131 was safe and well-tolerated by the three patients in the cohort. We are also monitoring signals of efficacy, including surrogate markers M protein and FLC. The International Myeloma Working Group defines a PR as a greater than or equal to a 50% decrease in FLC levels (for patients in whom M protein is unmeasurable) or a 50% decrease in M protein. Additionally, all three patients in the cohort experienced clinical benefit with one patient achieving a PR and two patients achieving stable disease. One patient experiencing stable disease attained a 44% reduction in M protein. The patient experiencing a PR had an 82% reduction in FLC. This patient did not produce M protein and received seven prior lines of treatment including radiation, stem cell transplantation and multiple combination treatments (including one with daratumumab that was not tolerated). Median OS for the study has not been reached at the time of this document and data is still being collected for the Phase 1 study and will not be considered final until the end of the study. As of November 3, 2017, patients in Cohort 1 who received a single 12.5mCi/m^2 dose experienced a median OS of 26.4 months with all patients remaining alive. Median OS for Cohorts 2 and 3 also continue to mature with patients experiencing OS of 15.6 months and 10 months, respectively as of November 3, 2017. We initiated a Phase 2 clinical study using Cohort 3's dose of 25.0 mCi/m^2 with the option of a second 25 mCi/m^2 dose 75-180 days later based on physician assessment. We may modify this dose based on safety and efficacy signals from the Phase 1 study's ongoing Cohort 5 multi-dose regimen.

On December 14, 2017, we filed an IND application with the Division of Oncology at the FDA for a proposed Phase 1 study of CLR 131 in children and adolescents with select rare and orphan designated cancers. The Phase 1 clinical trial of CLR 131 is an open-label, sequential-group, dose-escalation study to evaluate the safety and tolerability of a single intravenous administration of CLR 131 in up to 30 children and adolescents with cancers including neuroblastoma, sarcomas, lymphomas (including Hodgkin's lymphoma) and malignant brain tumors. Secondary objectives of the study are to identify the recommended Phase 2 dose of CLR 131 and to determine preliminary antitumor activity (treatment response) of CLR 131 in children and adolescents. The study will be initiated with the pediatric oncologists and Nuclear Medicine/Radiology Group at UWCCC. Investigators at UWCCC have demonstrated uptake of CLR 131 and other fluorescently and isotopically tagged PDCs across a wide range of childhood solid cancer cell lines, including Ewing's sarcoma, rhabdomyosarcoma, pediatric brain tumors such as high-grade gliomas, medulloblastoma and atypical teratoid rhabdoid tumor. In subsequent testing in mouse xenograft models of neuroblastoma, Ewing's sarcoma, rhabdomyosarcoma and osteosarcoma, CLR 131 provided significant benefits on tumor growth rates and survival. In March 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of neuroblastoma, in May 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of rhabdomyosarcoma and in July2018, the FDA granted orphan drug designation for CLR 131 for the treatment of Ewing's sarcoma, all rare pediatric cancers. Additionally the FDA granted rare pediatric disease designation for CLR 131 for the treatment of neuroblastoma and rhabdomyosarcoma. We are currently initiating a Phase 1 clinical study evaluating CLR 131 for the potential treatment of pediatric patients with Ewing's sarcoma, rhabdomyosarcoma, osteosarcoma, neuroblastoma, high grade glioma and lymphomas.

CLR 1700 Series

CLR 1700 Series is an internally developed PDC program leveraging a payload that inhibits BTK and is designed to treat a broad range of hematologic cancers. The payload provides further specificity by targeting a pathway within hematologic cancers that is significantly upregulated in comparison to normal tissue. We believe that this additional level of targeting will allow us to provide a new drug candidate that has the ability to significantly improve patient outcomes. Leveraging our iterative discovery and screening process, we have been able to accelerate the development of this program.

CLR 1800 Series

CLR 1800 Series is a collaborative PDC program with Pierre Fabre that was entered into in December 2015 and extended in October 2017. Pierre Fabre is the third largest French pharmaceutical company with an extensive oncology research and development infrastructure. The objective of the collaboration is to leverage Cellectar's expertise in conjugation, linker chemistry and phospholipid ether chemistry to codesign a library of PDCs employing Pierre Fabre's chemotherapeutics. The newly developed PDCs may provide enhanced therapeutic indices to otherwise highly potent, nontargeted payloads through the targeted delivery to cancer cells provided by our proprietary phospholipid ether delivery platform. Significant progress has been achieved, including showing improved tolerability in animal models, and the program continues to rapidly advance with a number of PDC molecules being evaluated for candidate selection and progression to IND enabling studies.

CLR 1900 Series

CLR 1900 Series is an internally developed proprietary PDC program leveraging a novel small molecule cytotoxic compound as the payload. The payload inhibits mitosis (cell division) and targets a key pathway required to inhibit rapidly dividing cells that results in apoptosis. We believe that this program could produce a product candidate targeted to select solid tumors. Currently, the program is in early preclinical development.

CLR 2000 Series

CLR 2000 Series is a collaborative PDC program with Avicenna Oncology, or Avicenna, that we entered into in July 2017. Avicenna is a leading developer of antibody ADCs. The objective of the research collaboration is to design and develop a series of PDCs utilizing Avicenna's proprietary cytotoxic payload. Although Avicenna is a leading developer of ADCs, this collaboration was sought as a means to overcome many of the challenges associated with ADCs, including those associated with the targeting of specific cell surface epitopes.

CLR 2100 and 2200 Series

CLR 2100 and 2200 Series are collaborative PDC programs with Onconova Therapeutics, Inc., or Onconova, that we entered into in September 2017. Onconova is a biotechnology company specializing in the discovery and development of novel small molecule cancer therapies. The collaboration is structured such that we will design and develop a series of PDCs utilizing different small molecules that Onconova was developing as payloads with the intent to show improved targeting and specificity to the tumor. At least one of the molecules was taken into Phase 1 clinical trials previously by Onconova. We would own all new intellectual property associated with the design of the new PDCs, and both companies will have the option to advance compounds.

Market Overview

Our target market is broad and represents the market for the treatment of cancer. The American Cancer Society estimated that approximately 1.69 million new cancer cases were expected to be diagnosed in the U.S. in 2016 and approximately 596,000 people were expected to die of cancer, which is the equivalent of about 1,630 per day. The global market for cancer drugs reached $107 billion in annual sales (June 2015), and could reach $150 billion by 2020, according to a report dated June 2016 by the IMS Institute for Healthcare Informatics, a unit of drug data provider IQVIA. This growth will be driven by emerging targeted therapies, which are expected to change the cancer treatment landscape (Cowen Report), and an increased use of cancer drug combination regimens.

Multiple Myeloma

According to the National Cancer Institute Surveillance, Epidemiology, and End Results ("SEER") database, multiple myeloma is the second most common hematologic cancer with a U.S. incidence rate and a relapse or refractory patient population of 10,000 to 15,000. The Global Data Report for 2015 estimated the multiple myeloma dollar market size to be $8.9 billion in 2014 and forecasted an increase to $22.4 billion by 2023. The increase in drug sales over this period will be mainly driven by the increasing incidence of multiple myeloma in each of the seven key markets with the U.S. market remaining the largest potential market.

Chronic Lymphocytic Lymphoma and Small Lymphocytic Lymphoma/Lymphoplasmacytic Lymphoma/Mantle Cell Lymphoma/Marginal Zone Lymphoma

According to the National Cancer Institute SEER data base, chronic lymphocytic lymphoma and small lymphocytic lymphoma represents about 47,000 cases per year in the U.S. Lymphoplasmacytic lymphoma is one of the rarer forms of lymphoma, with approximately 5,000 new cases per year in the U.S. Meanwhile, mantel cell and marginal zone lymphomas combined represent approximately 22,000 patients per year. The incidence rate in these diseases significantly increases with an aging population (majority of patients over the age of 60). According to a Datamonitor report from 2016, the markets for these conditions are expected to grow at a compound annual growth rate of nearly 5.5% in the U.S. and 7.6% in Europe until 2024, with combined sales of approximately $2 billion.

Diffuse Large B-Cell Lymphoma

Diffuse large B-cell lymphoma (DLBCL) is an aggressive (fast-growing) lymphoma that can arise in lymph nodes or outside of the lymphatic system in the gastrointestinal tract, testes, thyroid, skin, breast, bone or brain. DLBCL is one of the most common forms of lymphoma with an incidence of approximately 57,000 patients per year (National Cancer Institute SEER data base). Datamonitor reports that the DLBCL market will expand at a compound annual growth rate of approximately 2.9%.

Neuroblastoma

Neuroblastoma, a neoplasm of the sympathetic nervous system, is the most common extracranial solid tumor of childhood, accounting for approximately 7.8% of childhood cancers in the U.S. The National Cancer Institute states the incidence is about 10.54 cases per 1 million per year in children younger than 15 years and 90% are younger than five years at diagnosis. Over 650 new cases are diagnosed each year in North America. Approximately 50% of patients present with metastatic disease requiring systemic treatment. Clinical consequences include abdominal distension, proptosis, bone pain, pancytopenia, fever and paralysis. Although the prognosis is favorable in children under one year of age with an 86% to 95% five-year survival, in children aged one to 14 years the five-year survival ranges from 34% to 68%.

Rhabdomyosarcoma

Rhabdomyosarcoma, a malignant tumor of mesenchymal origin, is the most common soft tissue sarcoma in children, accounting for approximately 40% of childhood soft tissue sarcomas in the U.S. The annual incidence is about 4.5 cases per 1 million in children younger than 15 years and more than 50% are younger than 10 years at diagnosis. Rhabdomyosarcoma has a 64% five-year survival in a pediatric population, with at least one-third of all patients experiencing disease progression or relapse. The median progression-free survival following the first recurrence or progression is approximately nine months.

Pediatric High-Grade Glioma

Pediatric high-grade gliomas represent a rare and orphan pediatric tumor that has limited treatment options. High-grade gliomas are usually defined as tumors of glial origin with the most common pediatric high-grade gliomas being anaplastic astrocytoma and glioblastoma multiform. The Central for Brain Tumor Registry of the U.S. estimates the incidence at approximately 3,600 pediatric patients per year.

Ewing's Sarcoma

Ewing's sarcoma is the second most common bone malignancy among children and adolescents. The incidence is about 3 cases per 1 million per year in children younger than age 20. Approximately 30-40% of patients develop metastases or local recurrence, and the long-term survival rate for refractory or recurrent disease is approximately 22-24%.

Manufacturing

In January 2018, we initiated the planned shutdown of our radiopharmaceutical manufacturing facility in Madison, Wisconsin. This facility was designed to provide pilot and small-scale production of our lead clinical program CLR 131. In December 2017, we successfully transferred the manufacturing of CLR 131 to Centre for Probe Development and Commercialization, CPDC, a validated CGMP manufacturing organization specializing in radiopharmaceuticals, as our exclusive source to supply drug product for our ongoing research and clinical trials, including our Phase 1 and Phase 2 studies of CLR 131. We believe that CPDC and our other third-party manufacturers have the ability to supply large-scale clinical and commercial-scale material. Our third-party manufacturing partners have been inspected and approved to supply clinical and commercial radiopharmaceutical material by the FDA and the European Medicines Agency.

CLR 131 drug product is made via a five-step synthetic scheme. The release specifications for the drug product have been established and validated. Through process improvements, we have been able to achieve a longer expiry dating for the compound extending finished product shelf-life to further facilitate distribution outside the U.S.

The drug substance base molecule is a dry powder produced via a six-step synthetic scheme. The release specifications for the drug substance have been established and validated. We have successfully executed large-scale production of the drug substance via a contract manufacturing organization that has been inspected and approved by the FDA and the European Medicines Agency. We have also demonstrated 60-month stability for the drug substance in desiccated and refrigerated forms at small scale and are replicating this at large scale.

Sales and Marketing

We plan to pursue and evaluate all available options to develop, launch and commercialize our compounds. These options presently include entering into an agreement for a contract sales organization or partnering arrangement with one or more biotechnology or pharmaceutical company with strong product development and commercialization expertise and distribution infrastructure in the U.S., Europe and/or Japan. While we currently do not plan to build our own commercial organization for the launch and commercialization of our compounds, we may reconsider that in the future.

Competition for Our Clinical-Stage Compounds

Currently, several classes of approved products with various mechanisms of action exist, including immune-modulating agents, proteasome inhibitors, histone deacetylase inhibitors, monoclonal antibodies, corticosteroids and traditional chemotherapeutics for the treatment of liquid and solid tumors. While a number of indications were evaluated as the initial target treatment for CLR 131, multiple myeloma and hematologic cancers were selected for initial clinical development principally because of their highly radiosensitive nature, single- or multi-dose treatment, and novel mechanism of action relative to all existing classes of approved drugs. As a result, we believe CLR 131 is a therapeutic option in the relapse or refractory setting either as a monotherapy or in combination with currently approved agents, some of which are radiosensitizing and maintain a differential adverse event profile from that of CLR 131.

Intellectual Property

Our core technology platform is based on research conducted at the University of Michigan in 1994, where phospholipid ether (PLE) analogs were initially designed, synthesized, radiolabeled and evaluated. This research was transferred to the University of Wisconsin—Madison between 1998 and the subsequent founding of our company in 2002 to further develop and commercialize the technology. We obtained exclusive rights to the related technology patents owned by University of Michigan in 2003 and continued development of the PDC platform while obtaining ownership of numerous additional patents and patent applications (with various expiry until 2034 without extensions). We have established a broad U.S. and international intellectual property rights portfolio around our proprietary cancer-targeting PLE technology platform, including CLR 131, and our PDC programs.

PDC Chemotherapeutic Programs

In November 2015, we converted our previously filed provisional patent application for Phospholipid-Ether Analogs as Cancer Targeting Drug Vehicles to nonprovisional U.S. and international Patent Cooperation Treaty ("PCT") patent applications, which were published by the U.S. Patent & Trade Office ("USPTO") in May of 2016. These patent applications further protect composition of matter and method of use for PDCs developed with our proprietary PLE delivery vehicle conjugated with any existing or future cytotoxic agents, including chemotherapeutics for targeted delivery to cancer cells and cancer stem cells. Additional cytotoxic PDC compounds are covered by pending patent applications directed to the composition of matter and method of use for cancer therapy and provide intellectual property protection in the U.S. and up to 148 additional countries. These applications, if granted, offer protection extending through at least 2035 in the U.S. and key international markets.

CLR 131

We have taken a broad approach to creating market exclusivity for CLR 131 both within the U.S, and globally, including all major markets. This approach includes numerous patents, patent applications and regulatory filings to provide maximum market exclusivity. Our patent portfolio for CLR 131 includes all of the typical filings as well as unique methods of use, methods of manufacturing, use in combinations, use to treat cancer stem cells, novel formulations, etc. In addition to our patents, we were granted orphan designation for CLR 131 for the treatment of multiple myeloma by the FDA in December 2014 and expect to file additional orphan designations for other rare diseases. We continue to evaluate CLR 131 in additional hematologic and solid tumor orphan designated indications. Our patents have varied expiration dates, with some potentially being extended on a country-by-country basis. In March 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of neuroblastoma, in May 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of rhabdomyosarcoma and in July 2018, the FDA granted orphan drug designation for CLR 131 for the treatment of Ewing's sarcoma, all rare pediatric cancers. Additionally the FDA granted rare pediatric disease designation for CLR 131 for the treatment of neuroblastoma and rhabdomyosarcoma. We are currently initiating a Phase 1 clinical study evaluating CLR 131 for the potential treatment of pediatric patients with Ewing's sarcoma, rhabdomyosarcoma, osteosarcoma, neuroblastoma, high grade glioma and lymphomas.

We expect to continue to file patent applications and acquire licenses to other patents covering methods of use, composition of matter, formulation, method of manufacture, and other patentable claims related to CLR 131 and new PDCs. These patent applications will be filed in key commercial markets worldwide. The issued patents will generally expire between 2025 and 2035, unless extended, most likely under clinical development extensions.

In addition to the above noted patents/applications directed to CLR 131 and our PDC pipeline portfolio, we own other patents/applications directed to different forms of PLE, methods of use and methods of manufacturing of PLE.

Separate from any patent protection and following product approval by regulatory authorities, data exclusivity may be available for various compounds for up to 10 years on a country-by-country basis (e.g., up to five years in the U.S. and up to ten years in Europe).

Licenses/Collaborations

On September 18, 2017, we entered into an arrangement with Onconova Therapeutics, Inc. ("Onconova"). Under this arrangement, Onconova will provide us a selection of its proprietary compounds. We will use our proprietary technology to perform research studies on these compounds with the goal of developing new conjugates. We agreed to perform the studies within 24 months. We granted Onconova an exclusive option to acquire a royalty-bearing license for each conjugate developed. In the event an executed license agreement for a particular conjugate is not obtained, then Onconova's exclusive option will terminate for such conjugate.

On July 9, 2017, we entered into an arrangement with Avicenna Oncology GMBH ("Avicenna"). Under this arrangement, Avicenna will provide us a selection of its proprietary toxins. We will use our proprietary conjugation capabilities to proceed with the conjugation in order to obtain PDCs. We will process various *in vitro* and *in cellulo* screening against such PDCs to develop new conjugates. We granted Avicenna an option to acquire an exclusive license to our intellectual property for each conjugate developed. In the event the parties cannot reach agreement on the terms of a definitive agreement despite good-faith negotiations, Avicenna's exclusive option terminates as to such conjugate. Avicenna also granted to us an option to acquire an exclusive license to its intellectual property for the material provided. In the event the parties do not reach agreement on the terms of a definitive agreement, our exclusive option terminates as to the material of Avicenna.

On December 14, 2015, we entered into an arrangement with Pierre Fabre. Under this arrangement, Pierre Fabre provided us a selection of its proprietary cytotoxics for use in a series of in vitro and in vivo screening studies to evaluate the potential to create new PDCs in combination with our proprietary phospholipid ether delivery platform technology. We are entitled to all intellectual property associated with the PDCs developed as part of the research collaboration. Based upon the results of these screening studies, the parties jointly elected to extend the collaboration with the express intent to advance several PDCs into preclinical studies. If it is determined that these molecules should be further advanced to IND enabling studies, we will enter into discussions with Pierre Fabre regarding their interest in exercising the option granted to them in the agreement for further advancement of the PDCs or for Cellectar to acquire an option to in-license the Pierre Fabre materials and advance the compounds. Pierre Fabre currently holds a right of first refusal as it relates to any molecules we develop under the agreement which is exercisable by Pierre Fabre within 60 days of notification by us regarding our intent to enter into a business relationship with a third party as it relates to any of the PDCs. Pierre Fabre's right to option any PDC and the results of the studies continues for four years past the termination of any jointly agreed upon extension.

Research and Development

Our primary activity to date has been research and development. The research has historically been conducted at our facility in Madison, Wisconsin, which has now ceased operations, and through third-party laboratories and academic universities. The clinical development has been completed primarily through contract research organizations at hospitals and academic centers. We have established a collaboration outsourcing model to leverage third-party expertise, accelerate project timelines, improve productivity, and manage costs. Our research and development expenses were approximately $9,466,000 and $4,750,000 for the years ended December 31, 2017 and 2016, respectively.

Regulation

The production, distribution and marketing of products employing our technology, and our development activities, are subject to extensive governmental regulation in the U.S. and in other countries. In the U.S., we are subject to the Federal Food, Drug, and Cosmetic Act, as amended, and the regulations of the FDA, as well as to other federal, state and local statutes and regulations, including the federal, state and local laws and regulations governing the storage, use and disposal of hazardous materials, including radioactive isotopes. These laws, and similar laws outside the U.S., govern the clinical and preclinical testing, manufacture, safety, effectiveness, approval, labeling, distribution, sale, import, export, storage, record-keeping, reporting, advertising and promotion of drugs. Product development and approval within this regulatory framework, if successful, will take many years and involve the expenditure of substantial resources. Violations of regulatory requirements at any stage may result in various adverse consequences, including the delay in approving or refusal to approve a product by the FDA or other health authorities. Violations of regulatory requirements also may result in enforcement actions, which include civil money penalties, injunctions, seizure of regulated product, and civil and criminal charges. The following paragraphs provide further information on certain legal and regulatory issues with a particular potential to affect our operations or future marketing of products employing our technology.

Research, Development, and Product Approval Process

The research, development and approval process in the U.S. and elsewhere is intensive and rigorous and generally takes many years to complete. The typical process required by the FDA before a therapeutic drug may be marketed in the U.S. includes:

- preclinical laboratory and animal tests performed under the FDA's GLP regulations;
- submission to the FDA of an IND application, which must become effective before human clinical trials may commence;
- human clinical studies performed under the FDA's Good Clinical Practices regulations, to evaluate the drug's safety and effectiveness for its intended uses;
- FDA review of whether the facility in which the drug is manufactured, processed, packed or held meets standards designed to assure the product's continued quality; and
- submission of a marketing application to the FDA, and approval of the application by the FDA.

Preclinical Testing

During preclinical testing, studies are performed with respect to the chemical and physical properties of candidate formulations. These studies are subject to GLP requirements. Biological testing is typically done in animal models to demonstrate the activity of the compound against the targeted disease or condition and to assess the apparent effects of the new product candidate on various organ systems as well as its relative therapeutic effectiveness and safety.

Submission of IND

An IND must be submitted to the FDA and become effective before studies in humans may commence. The IND must include a sufficient amount of data and other information concerning the safety and effectiveness of the compound from laboratory, animal and human clinical testing, manufacturing, product quality and stability, and proposed product labeling.

Clinical Trials

Clinical trial programs in humans generally follow a three-phase process. Typically, Phase 1 studies are conducted in small numbers of healthy volunteers or, on occasion, in patients afflicted with the target disease. Phase 1 studies are conducted to determine the metabolic and pharmacological action of the product candidate in humans and the side effects associated with increasing doses, and if possible, to gain early evidence of effectiveness. In Phase 2, studies are generally conducted in larger groups of patients having the target disease or condition in order to validate clinical endpoints and to obtain preliminary data on the effectiveness of the product candidate and optimal dosing. This phase also helps determine further the safety profile of the product candidate. In Phase 3, large-scale clinical trials are generally conducted in patients having the target disease or condition to provide sufficient data for the statistical proof of effectiveness and safety of the product candidate as required by U.S. regulatory agencies.

In the case of products for certain serious or life-threatening diseases, the initial human testing may be done in patients with the disease rather than in healthy volunteers. Because these patients are already afflicted with the target disease or condition, it is possible that such studies will also provide results traditionally obtained in Phase 2 studies. These studies are often referred to as "Phase 1/2" studies. However, even if patients participate in initial human testing and a Phase 1/2 study is carried out, the sponsor is still responsible for obtaining all the data usually obtained in both Phase 1 and Phase 2 studies.

U.S. law requires that studies conducted to support approval for product marketing be "adequate and well controlled." In general, this means that either a placebo or a product already approved for the treatment of the disease or condition under study must be used as a reference control. Studies must also be conducted in compliance with good clinical practice requirements, and informed consent must be obtained from all study subjects. The clinical trial process for a new compound can take ten years or more to complete. The FDA may prevent clinical trials from beginning or may place clinical trials on hold at any point in this process if, among other reasons, it concludes that study subjects are being exposed to an unacceptable health risk. Trials may also be prevented from beginning or may be terminated by institutional review boards, which must review and approve all research involving human subjects. Side effects or adverse events that are reported during clinical trials can delay, impede or prevent marketing authorization. Similarly, adverse events that are reported after marketing authorization can result in additional limitations being placed on a product's use and, potentially, withdrawal of the product from the market.

Submission of New Drug Application

Following the completion of clinical trials, the data is analyzed to determine whether the trials successfully demonstrated safety and effectiveness and whether a product approval application may be submitted. In the U.S., if the product is regulated as a drug, a new drug application, or NDA, must be submitted and approved before commercial marketing may begin. The NDA must include a substantial amount of data and other information concerning the safety and effectiveness of the compound from laboratory, animal and human clinical testing, manufacturing, product quality and stability, and proposed product labeling.

Each domestic and foreign manufacturing establishment, including any contract manufacturers we may decide to use, must be listed in the NDA and must be registered with the FDA. The application generally will not be approved until the FDA conducts a manufacturing inspection, approves the applicable manufacturing process, and determines that the facility is in compliance with CGMP requirements.

Under the Prescription Drug User Fee Act, as amended, the FDA receives fees for reviewing an NDA and supplements thereto, as well as annual fees for commercial manufacturing establishments and for approved products. These fees can be significant. For fiscal year 2018, the NDA review fee alone is $2,421,495, although certain limited deferral, waivers and reductions may be available.

Each NDA submitted for FDA approval is usually reviewed for administrative completeness and reviewability within 45 to 60 days following submission of the application. If deemed complete, the FDA will "file" the NDA, thereby triggering substantive review of the application. The FDA can refuse to file any NDA that it deems incomplete or not properly reviewable. The FDA has established performance goals for the review of NDAs—six months for priority applications and ten months for standard applications. However, the FDA is not legally required to complete its review within these periods, and these performance goals may change over time.

Moreover, the outcome of the review, even if generally favorable, typically is not an actual approval but an "action letter" that describes additional work that must be done before the application can be approved. The FDA's review of an application may involve review and recommendations by an independent FDA advisory committee. Even if the FDA approves a product, it may limit the approved therapeutic uses for the product as described in the product labeling, require that warning statements be included in the product labeling, require that additional studies be conducted following approval as a condition of the approval, impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a risk management plan, or otherwise limit the scope of any approval.

Post NDA Regulation

Significant legal and regulatory requirements also apply after FDA approval to market under an NDA. These include, among other things, requirements related to adverse event and other reporting, product advertising and promotion, manufacturing process, and ongoing adherence to CGMP requirements, as well as the need to submit appropriate new or supplemental applications and obtain FDA approval for certain changes to the approved product labeling. The FDA also enforces the requirements of the Prescription Drug Marketing Act which, among other things, imposes various requirements in connection with the distribution of product samples to physicians.

The regulatory framework applicable to the production, distribution, marketing and/or sale of our product pipeline may change significantly from the current descriptions provided herein in the time that it may take for any of our products to reach a point at which an NDA is approved.

Overall research, development and approval times depend on a number of factors, including the period of review at FDA, the number of questions posed by the FDA during review, how long it takes to respond to the FDA's questions, the severity or life-threatening nature of the disease in question, the availability of alternative treatments, the availability of clinical investigators and eligible patients, the rate of enrollment of patients in clinical trials, and the risks and benefits demonstrated in the clinical trials.

Other U.S. Regulatory Requirements

In the U.S., the research, manufacturing, distribution, sale and promotion of drug and biological products are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including the Centers for Medicare and Medicaid Services, other divisions of the U.S. Department of Health and Human Services (e.g., the Office of Inspector General), the U.S. Department of Justice and individual U.S. Attorney offices within the Department of Justice, and state and local governments. For example, sales, marketing and scientific/educational grant programs must comply with the antifraud and abuse provisions of the Social Security Act, the False Claims Act, the privacy provision of the Health Insurance Portability and Accountability Act, and similar state laws, each as amended. Pricing and rebate programs must comply with the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990 and the Veterans Health Care Act of 1992, each as amended. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. All of these activities are also potentially subject to federal and state consumer protection, unfair competition, and other laws.

The research and development, manufacturing and administration of our drugs involve the controlled use of hazardous materials, including chemicals and radioactive materials, such as radioactive isotopes. Therefore, these activities are subject to federal, state and local laws and regulations governing the storage, use and disposal of these materials and some waste products, requiring both a manufacturer's license and a radioactive materials license with state agencies.

Moreover, we are now, and may become subject to, additional federal, state and local laws, regulations and policies relating to safe working conditions, laboratory practices, the experimental use of animals, and/or the use, storage, handling, transportation and disposal of human tissue, waste and hazardous substances, including radioactive and toxic materials and infectious disease agents used in conjunction with our research work.

Foreign Regulatory Requirements

We, and any future collaborative partners, may be subject to widely varying foreign regulations that may be quite different from those of the FDA governing clinical trials, manufacture, product registration and approval, and pharmaceutical sales. Whether or not FDA approval has been obtained, we or any future collaboration partners must obtain a separate approval for a product by the comparable regulatory authorities of foreign countries prior to the commencement of product marketing in these countries. In certain countries, regulatory authorities also establish pricing and reimbursement criteria. The approval process varies from country to country, and the time may be longer or shorter than that required for FDA approval. In addition, under current U.S. law, there are restrictions on the export of products not approved by the FDA, depending on the country involved and the status of the product in that country.

Reimbursement and Pricing Controls

In many of the markets where we, or any future collaborative partners, would commercialize a product following regulatory approval, the prices of pharmaceutical products are subject to direct price controls by law and to drug reimbursement programs with varying price control mechanisms. Public and private health care payors control costs and influence drug pricing through a variety of mechanisms, including through negotiating discounts with the manufacturers and the use of tiered formularies and other mechanisms that provide preferential access to certain drugs over others within a therapeutic class. Payors also set other criteria to govern the uses of a drug that will be deemed medically appropriate and therefore reimbursed or otherwise covered. In particular, many public and private health care payors limit reimbursement and coverage to the uses of a drug that are either approved by the FDA or supported by other appropriate evidence (for example, published medical literature) and appear in a recognized drug compendium. Drug compendia are publications that summarize the available medical evidence for particular drug products and identify which uses of a drug are supported or not supported by the available evidence, whether or not such uses have been approved by the FDA. For example, in the case of Medicare coverage for physician-administered oncology drugs, the Omnibus Budget Reconciliation Act of 1993, with certain exceptions, prohibits Medicare carriers from refusing to cover unapproved uses of an FDA-approved drug if the unapproved use is supported by one or more citations in the American Hospital Formulary Service Drug Information, the American Medical Association Drug Evaluations, or the U.S. Pharmacopoeia Drug Information. Another commonly cited compendium, for example under Medicaid, is the DRUGDEX Information System.

Employees

As of July 26, 2018, we had 9 full-time employees.

Legal Proceedings

We are a party to proceedings in the ordinary course of business; however, we do not anticipate that the outcome of such matters and disputes will materially affect our financial statements.

Corporate Information

We were formerly known as Novelos Therapeutics, Inc., and incorporated in Delaware in June 1996. On April 8, 2011, we entered into a business combination with Cellectar, Inc., a privately held Wisconsin corporation that designed and developed products to detect, treat and monitor a wide variety of human cancers. On February 11, 2014, we changed our name to Cellectar Biosciences, Inc. Our common stock is listed on the Nasdaq Capital Market under the symbol “CLRB.”

Our principal executive offices are located at 3301 Agriculture Drive, Madison, Wisconsin 53716, and our telephone number is (608) 441-8120. Our corporate website address is www.cellectar.com. Information contained on or accessible through our website is not a part of this registration statement.

MANAGEMENT

Our executive officers and directors are as follows:

Name	Age	Position
James V. Caruso	59	President, Chief Executive Officer and Director
Jarrod Longcor	45	Chief Business Officer
John E. Friend II, MD	48	Vice President and Chief Medical Officer
Brian Posner	56	Vice President and Chief Financial Officer
Douglas J. Swirsky[(1)(2)]	48	Chairman of the Board and Director
Stephen A. Hill, B.M. B.Ch., M.A., F.R.C.S. [(1)(2)]	60	Director
John Neis[(1)(3)]	63	Director
Stefan D. Loren, PhD[(2)(3)]	54	Director
Frederick W. Driscoll[(3)]	67	Director

(1) Member of the Compensation Committee.
(2) Member of the Nominating and Corporate Governance Committee.
(3) Member of the Audit Committee.

The following biographical descriptions are based on information furnished by the respective individual.

James V. Caruso. Mr. Caruso was appointed our President and Chief Executive Officer and a director in June 2015. He came to us from Hip Innovation Technology, a medical device company, where he was a founder and served as Executive Vice President and Chief Operating Officer from August 2010 to June 2015, and he currently serves on its board. Prior to his time at Hip Innovation Technology, he was Executive Vice President and Chief Commercial Officer of Allos Therapeutics, Inc., an oncology company acquired by Spectrum Pharmaceuticals, from June 2006 to August 2010. He was also Senior Vice President, Sales and Marketing, from June 2002 to May 2005, at Bone Care International, Inc., a specialty pharmaceutical company that was acquired by Genzyme Corporation. In addition, Mr. Caruso has held key positions at several well-known pharmaceutical companies, including Novartis, where he was Vice President of Neuroscience Specialty Sales, BASF Pharmaceuticals-Knoll, where we was Vice President, Sales, and Bristol-Myers Squibb Company, serving in several senior roles. Mr. Caruso earned a Bachelor of Science degree in finance from the University of Nevada. Mr. Caruso's extensive experience in the biotechnology industry and his recent experience as our Chief Executive Officer make him a highly qualified member of our Board.

Jarrod Longcor. Mr. Longcor was appointed Chief Business Officer of Cellectar in September 2017. He previously served as Senior Vice President of Corporate Development and Operations since July 2016. Mr. Longcor brings years of pharmaceutical and biotech experience to Cellectar and was previously the Chief Business Officer for Avillion LLP. In this role, he was responsible for executing the company's unique co-development partnership strategy. Prior to Avillion, Mr. Longcor was the Vice President of Corporate Development for Rib-X Pharmaceuticals, Inc. (now Melinta Therapeutics), where he was responsible for identifying and concluding several critical collaborations for the company, including a major discovery collaboration with Sanofi Aventis valued over $700 million. Prior to Rib-X, Mr. Longcor held key positions in several small-to- midsized biotech companies, where he was responsible for business development, strategic planning and operations. Mr. Longcor earned a BS from Dickinson College, an MS from Boston University School of Medicine, and an MBA from Saint Joseph's University's Haub School of Business.

John E. Friend II, MD. Dr. Friend was appointed Vice President and Chief Medical Officer of Cellectar in April 2017. Dr. Friend has 15 years of global drug development expertise and general management experience in oncology, inflammation, endocrine/metabolism, and pain fields. From March 2010 to April 2017, he was the Senior Vice President, Research & Development (and later Sr. VP Medical and Scientific Affairs) at Helsinn Therapeutics, where he built the clinical, medical and regulatory affairs team to lead multiple global franchises from early development to market expansion. Prior to this time, Dr. Friend held executive responsibility for clinical research, medical affairs, pharmacovigilance and risk management at various pharmaceutical companies, including Akros Pharma, Actavis, Alpharma, Hospira and Abbott. Dr. Friend holds a degree in Chemistry from Southern Methodist University and received his medical degree from the University of Medicine and Dentistry of New Jersey (now Rutgers, Robert Wood Johnson Medical School).

Brian Posner. Mr. Posner was appointed our Vice President and Chief Financial Officer in April 2018. Mr. Posner has more than 30 years of diversified management experience, at both public and private companies. Most recently, he served as Chief Financial Officer, Treasurer and Secretary of Alliqua BioMedical, Inc., a regenerative technologies company, from September 2013 to March 2018. Prior to that, he served as Chief Financial Officer of Ocean Power Technologies, Inc., a publicly traded renewable energy company specializing in wave power technology, from June 2010 to August 2013, and Chief Financial Officer of Power Medical Interventions, Inc., a publicly traded medical device company, from January 2009 until its sale to Covidien Plc in September 2009. From June 1999 to December 2008, Mr. Posner served in a series of positions of increasing responsibility with Pharmacopeia, Inc., a clinical development stage biopharmaceutical company, culminating in his service as Executive Vice President and Chief Financial Officer from May 2006 to December 2008. Mr. Posner also worked at Phytomedics, Inc., and as Regional Chief Financial Officer of Omnicare, Inc. Mr. Posner earned an MBA in Managerial Accounting from Pace University's Lubin School of Business and a BA in Accounting from Queens College.

Douglas J. Swirsky. Mr. Swirsky was appointed as a director of Cellectar in April 2017 and Chairman of our Board in August 2017. Mr. Swirsky serves as President and Chief Financial Officer of Rexahn Pharmaceuticals, a position he was appointed to in January 2018. Mr. Swirsky previously served as President and Chief Executive Officer of GenVec, Inc., a clinical-stage biopharmaceutical company, from 2014 to June 2017. From 2006 through 2014, Mr. Swirsky served as Senior Vice President, Chief Financial Officer, Treasurer and Corporate Secretary of GenVec. Prior to joining GenVec in September 2006, Mr. Swirsky worked at Stifel Nicolaus, where he served as a Managing Director and the Head of Life Sciences Investment Banking. Mr. Swirsky previously held investment banking positions at UBS, PaineWebber, Morgan Stanley, and Legg Mason. His experience also includes positions in public accounting and consulting. Mr. Swirsky received his undergraduate degree in business administration from Boston University and his MBA from the Kellogg School of Management at Northwestern University. Mr. Swirsky is a Certified Public Accountant and a CFA Institute charterholder. Mr. Swirsky is a member of the board of directors of Fibrocell Science, Inc. and Pernix Therapeutics Holdings, Inc. Within the past five years, Mr. Swirsky has also served on the board of PolyMedix, Inc. and GenVec, Inc. Our Board concluded that Mr. Swirsky should serve as a director because of his distinguished career in financial services and corporate management, including his investment banking experience and his experience serving as a principal executive officer and principal financial officer.

Stephen A. Hill. Dr. Hill has been a member of the Board since 2007 and served as its Chairman from 2007 until 2015. Dr. Hill was appointed Chief Executive Officer of Faraday Pharmaceuticals, Inc. in September 2015. Dr. Hill was the President and Chief Executive Officer of Targacept Inc. from December 2012 until the company merged with Catalyst Biosciences, Inc. in August 2015, and he remains a director of the new company. Dr. Hill was the President and Chief Executive Officer of 21CB, a nonprofit initiative of the University of Pittsburgh Medical Center designed to provide the U.S. government with a domestic solution for its biodefense and infectious disease biologics portfolio, from March 2011 until December 2011. Dr. Hill served as the President and Chief Executive Officer of Solvay Pharmaceuticals, Inc. from April 2008 until its acquisition by Abbott Laboratories in 2010. Prior to joining Solvay, Dr. Hill had served as ArQule's President and Chief Executive Officer since April 1999. Prior to his tenure at ArQule, Dr. Hill was the Head of Global Drug Development at F. Hoffmann-La Roche Ltd. from 1997 to 1999. Dr. Hill joined Roche in 1989 as Medical Adviser to Roche Products in the United Kingdom. He held several senior positions at Roche, including Medical Director, where he was responsible for clinical trials of compounds across a broad range of therapeutic areas, including CNS, HIV, cardiovascular, metabolic and oncology products. Subsequently, he served as Head of International Drug Regulatory Affairs at Roche headquarters in Basel, Switzerland, where he led the regulatory submissions for seven major new chemical entities. Dr. Hill also was a member of Roche's Portfolio Management, Research, Development and Pharmaceutical Division Executive Boards. Prior to Roche, Dr. Hill served seven years with the National Health Service in the United Kingdom in General and Orthopedic Surgery. Dr. Hill has served on the board of directors of Lipocine, Inc. since January 2014 and Catalyst since August 2015. Dr. Hill is a Fellow of the Royal College of Surgeons of England and holds his scientific and medical degrees from St. Catherine's College at Oxford University. Dr. Hill chairs the Compensation Committee. Dr. Hill's extensive experience in a broad range of senior management positions with companies in the life sciences sector makes him a highly qualified member of our Board.

John Neis. John Neis is a Managing Director of Venture Investors LLC, where he leads the firm and heads the firm's health care practice. He also serves on the boards of directors of privately held Deltanoid Pharmaceuticals, Inc., Prevacept Infection Control, Inc., Delphinus Medical Technologies, Inc., and TAI Diagnostics, Inc. He serves on the Board of the Wisconsin Technology Council, the science and technology advisor to Wisconsin's Governor and Legislature. He also serves on the Weinert Applied Ventures Program Advisory Board in the School of Business and chairs the Tandem Press Advisory Board in the School of Education at the University of Wisconsin—Madison. He is current President and a Director of the Wisconsin Venture Capital Association. He holds a BS in finance from the University of Utah, and received an MS in marketing and finance from the University of Wisconsin—Madison. He is a Chartered Financial Analyst. Mr. Neis's extensive experience leading emerging companies and his financial experience makes him a highly qualified member of our Board.

Stefan D. Loren, Ph.D. Dr. Loren began serving as a director of Cellectar in June 2015. Dr. Loren is the founder of Loren Capital Strategy (LCS), a strategic consulting and investment firm focused on life science companies since February 2014. Prior to LCS, he headed the life science practice of Westwicke Partners, a healthcare-focused consulting firm from July 2008 to February 2014. Prior to joining Westwicke, he worked as an Analyst/Portfolio Manager with Perceptive Advisors, a health care hedge fund, and MTB Investment Advisors, a long-term oriented family of equity funds. His focus areas included biotechnology, specialty pharmaceuticals, life science tools, and health care service companies. Prior to moving to the buy side, Dr. Loren was Managing Director, Health Care Specialist/Desk Analyst for Legg Mason, where he discovered, evaluated and communicated investment opportunities in the health care area to select clients. In addition, he assisted both advising management teams on strategic options. He started his Wall Street career as a sell-side analyst at Legg Mason covering biotechnology, specialty pharmaceuticals, life science tools, pharmaceuticals, and chemistry outsourcing companies. In his research career, Dr. Loren was an early member of Abbott Laboratories Advanced Technologies Division, analyzing and integrating new technological advances in Abbott's pharmaceutical research. Before industry, he was a researcher at The Scripps Research Institute, working with Nobel Laureate K. Barry Sharpless on novel synthetic routes to chiral drugs. Dr. Loren received a doctorate in Organic Chemistry from the University of California at Berkeley and an undergraduate degree in chemistry from University of California San Diego. His scientific work has been featured in Scientific American, Time, Newsweek, and Discover, as well as other periodicals and journals. Dr. Loren is Chair of the Nominating and Corporate Governance Committee. Dr. Loren's extensive experience in the biotechnology and financial industries makes him a highly qualified member of our Board.

Frederick W. Driscoll. Mr. Driscoll was appointed as a director of Cellectar in April 2017. Mr. Driscoll served as Chief Financial Officer at Flexion Therapeutics from 2013 to 2017, spearheading an initial public offering in 2014. Prior to joining Flexion, he was Chief Financial Officer at Novavax, Inc., a publicly traded biopharmaceutical company from 2009 to 2013. From 2008 to 2009, Mr. Driscoll served as Chief Executive Officer of Genelabs Technologies, Inc., a publicly traded biopharmaceutical and diagnostics company later acquired by GlaxoSmithKline. He previously served as Genelabs' Chief Financial Officer from 2007 to 2008. From 2000 to 2006, Mr. Driscoll served as Chief Executive Officer at OXiGENE, Inc., a biopharmaceutical company. Mr. Driscoll has also served as Chairman of the Board and Audit Committee Chair at OXiGENE and as a member of the Audit Committee for Cynapsus, which was sold to Sunovion Pharmaceuticals in 2016. Mr. Driscoll earned a Bachelor's degree in accounting and finance from Bentley University. Mr. Driscoll is a member of the board of directors of Abpro Therapeutics, MEI Pharma and NantKwest. Mr. Driscoll chairs the Audit Committee and our Board concluded that Mr. Driscoll should serve as a director because of his significant corporate management and board experience at multiple biotechnology companies as well as his strong financial background.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

At the close of business on July 26, 2018, there were 1,800,325 shares of our common stock outstanding. The following table provides information regarding beneficial ownership of our common stock as of July 26, 2018:

- each person known by us to be the beneficial owner of more than 5% of our common stock;
- each of our directors;
- each executive officer named in the summary compensation table; and
- all of our current directors and executive officers as a group.

The address of each executive officer and director is c/o Cellectar Biosciences, Inc., 3301 Agriculture Drive, Madison, Wisconsin 53716, except as otherwise indicated. The persons named in this table have sole voting and investment power for the shares listed, except as otherwise indicated. In these cases, the information respecting voting and investment power has been provided to us by the security holder. The identification of natural persons having voting or investment power over securities held by a beneficial owner listed in the table below does not constitute an admission of beneficial ownership of any such natural person. Shares included in the "Right to Acquire" column consist of shares that may be purchased through the exercise of options or warrants that are exercisable within 60 days of July 26, 2018.

Name and Address of Beneficial Owner	Outstanding	Right to Acquire	Total	Percentage
James V. Caruso	21,354	17,812	39,166	2.11%
Jarrod Longcor	6,700	5,833	12,533	*
John E. Friend II, MD	10,000	—	10,000	*
Brian Posner	—	—	—	—
Frederick W. Driscoll	—	333	333	*
Stephen A. Hill	992	2,876	3,868	*
Stefan D. Loren, Ph.D.	—	2,683	2,683	*
John Neis[(1)]	62,610	27,226	89,836	4.84%
Douglas Swirsky	—	333	333	*
All directors and officers as a group (9 persons)	101,656	57,096	158,752	8.55%

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* Less than 1%

(1) Consists of shares of common stock held by Venture Investors Early Stage Fund IV Limited Partnership. VIESF IV GP LLC is the general partner of Venture Investors Early Stage Fund IV Limited Partnership. The investment decisions of VIESF IV GP LLC and Venture Investors LLC are made collectively by five managers, including Mr. Neis. Each such manager and Mr. Neis disclaim such beneficial ownership except to the extent of his pecuniary interest therein. The address of Mr. Neis is c/o Venture Investors LLC, 505 South Rosa Road, #201, Madison, Wisconsin 53719. Shares in the "Right to Acquire" column consist of 24,423 shares of common stock issuable upon the exercise of warrants held by Venture Investors Early Stage Fund IV Limited and common stock issuable upon options to purchase 2,808 shares of common stock issued to Mr. Neis in his capacity as director. Shares in the "Right to Acquire" column consist of shares of common stock issuable upon the exercise of warrants at exercise prices ranging from $15.00 to $468.00 per share expiring between August 20, 2019, and November 29, 2021. Certain warrants held by the stockholder provide that the number of shares of common stock to be obtained upon exercise cannot exceed the number of shares that, when combined with all other shares of our common stock and securities beneficially owned by it, would result in it owning more than 4.99% of our outstanding common stock; *provided*, *however* that this limitation may be increased to 9.99% by the stockholder upon 61 days' prior notice to us. Due to this limitation, 24,418 shares of common stock issuable upon exercise of these warrants have been included and 35,076 shares of common stock issuable upon exercise of such warrants have been excluded from the "Right to Acquire" column of this table.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

We do not have a written policy for the review, approval or ratification of transactions with related parties or conflicted transactions. When such transactions arise, they are referred to the Audit Committee or the Board of Directors for consideration. During 2017, there were no related party transactions.

DESCRIPTION OF SECURITIES

The following summary description of our common stock is based on the provisions of our Second Amended and Restated Certificate of Incorporation, as amended, which we refer to as our certificate of incorporation or charter, our by-laws, and the applicable provisions of the Delaware General Corporation Law, which we refer to as the DGCL. This description may not contain all of the information that is important to you and is subject to, and is qualified in its entirety by reference to, our certificate of incorporation, our by-laws and the applicable provisions of the DGCL. For information on how to obtain copies of our certificate of incorporation and by-laws, see "Where You Can Find More Information."

Authorized and Outstanding Capital Stock

Our authorized capital stock consists of 80,000,000 shares of common stock, $0.00001 par value per share and 7,000 shares of preferred stock, $0.00001 par value per share. Our certificate of incorporation, as amended, authorizes us to issue shares of our preferred stock from time to time in one or more series without stockholder approval, each such series to have rights and preferences, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, as our Board may determine. The rights of the holders of common stock will be subject to, and may be adversely affected by, the rights of holders of any preferred stock that we may issue in the future. The issuance of preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for others to acquire, or of discouraging others from attempting to acquire, a majority of our outstanding voting stock.

As of July 26, 2018, there were 1,800,325 shares of common stock outstanding. All outstanding shares of our common stock are duly authorized, validly issued, fully paid and nonassessable.

Common Stock

Voting. Holders of our common stock are entitled to one vote per share held of record on all matters to be voted upon by our stockholders. Our common stock does not have cumulative voting rights. Persons who hold a majority of the outstanding common stock entitled to vote on the election of directors can elect all of the directors who are eligible for election.

Dividends. Subject to preferences that may be applicable to the holders of any outstanding shares of our preferred stock, the holders of our common stock are entitled to receive such lawful dividends as may be declared by our Board.

Liquidation and Dissolution. In the event of our liquidation, dissolution or winding up, and subject to the rights of the holders of any outstanding shares of our preferred stock, the holders of shares of our common stock will be entitled to receive pro rata all of our remaining assets available for distribution to our stockholders.

Other Rights and Restrictions. Our charter prohibits us from granting preemptive rights to any of our stockholders.

Preferred Stock

Series A Preferred Stock and Series B Preferred Stock

Our Board has designated 68 shares of our preferred stock as Series A Convertible Preferred Stock ("Series A Preferred Stock"), none of which is currently outstanding. The preferences and rights of the Series A Preferred Stock are set forth in a Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock.

Our Board has designated 42 shares of our preferred stock as Series B Convertible Preferred Stock ("Series B Preferred Stock"), none of which are currently issued and outstanding. The preferences and rights of the Series B Preferred Stock are set forth in a Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible Preferred Stock.

Series C Preferred Stock to be Issued as Part of this Offering

Our Board has designated 1,114 shares of our preferred stock as Series C Convertible Preferred Stock ("Series C Preferred Stock"), none of which are currently issued and outstanding. The preferences and rights of the Series C Preferred Stock are as set forth in a Certificate of Designation (the "Series C Certificate of Designation") filed as an exhibit to the registration statement of which this prospectus is a part.

Pursuant to a transfer agency agreement between us and American Stock Transfer & Trust Company, LLC, as transfer agent, the Series C Preferred Stock will be issued in book-entry form and initially will be represented only by one or more global certificates deposited with The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC.

The following is a summary of the material terms of the Series C Preferred Stock.

Voting. Except as otherwise required by law, the Series C Preferred Stock will have no voting rights. However, as long as any shares of Series C Preferred Stock are outstanding, we may not, without the affirmative vote of the holders of a majority of the then-outstanding shares of Series C Preferred Stock: (a) alter or change adversely the powers, preferences or rights given to the Series C Preferred Stock or alter or amend the Series C Certificate of Designation; (b) amend our certificate of incorporation or other charter documents in any manner that adversely affects any rights of the holders of Series C Preferred Stock; (c) increase the number of authorized shares of preferred stock, or (d) enter into any agreement with respect to any of the foregoing.

Dividends. Except for stock dividends or distributions for which adjustments are to be made to the conversion rate of the Series C Preferred Stock, holders of Series C Preferred Stock will be entitled to receive, and we will be required to pay, dividends on shares of Series C Preferred Stock equal (on an as-if-converted-to-common-stock basis without regard to conversion limitations) to and in the same form as dividends actually paid on shares of the common stock when, as and if such dividends are paid on shares of the common stock. No other dividends will be paid on shares of Series C Preferred Stock.

Liquidation. Upon our liquidation, dissolution or winding-up, whether voluntary or involuntary, the holders of the Series C Preferred Stock will be entitled to receive out of our assets, whether capital or surplus, the same amount that a holder of common stock would receive if the Series C Preferred Stock were fully converted (disregarding for such purposes any conversion limitations) to common stock, which amounts will be paid *pari passu* with all holders of common stock.

Conversion. Each share of Series C Preferred Stock will be convertible, at any time and from time to time, at the option of the holder thereof, into that number of shares of common stock determined by dividing the stated value of such share of Series C Preferred Stock by the Series C Conversion Price. The stated value of one share of Series C Preferred Stock is initially $10,000 and the "Series C Conversion Price" is $4.00, subject to adjustment for stock splits, stock dividends, distributions, subdivisions and combinations.

Conversion Limitation. A holder will not have the right to convert any shares of Series C Preferred Stock if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or, at the election of the purchaser prior to the date of issuance, 9.99%) of the number of shares of our common stock outstanding immediately after giving effect to the conversion, as such percentage ownership is determined in accordance with the terms of the Series C Certificate of Designation. Any holder may increase or decrease such percentage to any other percentage, but in no event above 9.99%, provided that any increase of such percentage will not be effective until 61 days after notice of such increase from the holder to us.

Exchange Listing. We do not plan to list the Series C Preferred Stock on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

Fundamental Transactions. In the event of a fundamental transaction, as described in the Series C Certificate of Designation, and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Series C Preferred Stock will be entitled to receive upon conversion of the Series C Preferred Stock the kind and amount of securities, cash or other property that the holders would have received had they converted the Series C Preferred Stock immediately prior to such fundamental transaction.

Redemption. Subject to certain exceptions, at any time after the issuance of the Series C Preferred Stock, subject to the preferred stock beneficial ownership limitation, we will have the right to cause each holder of the Series C Preferred Stock to convert all or part of such holder's Series C Preferred Stock in the event that (i) the volume weighted average price of our common stock for 30 consecutive trading days (the "Measurement Period") exceeds 300 % of the conversion price of the preferred stock issued in this offering (subject to adjustment for forward and reverse stock splits, recapitalizations, stock dividends and similar transactions), (ii) the average daily trading volume for such Measurement Period exceeds $400,000 per trading day and (iii) the holder is not in possession of any information that constitutes or might constitute, material non-public information which was provided by the Company and subject to the Preferred Beneficial Ownership Limitation. Our right to cause each holder of the Series C Preferred Stock to convert all or part of such holder's Series C Preferred Stock shall be exercised ratably among the holders of the then outstanding Series C Preferred Stock.

Series E Warrants to be Issued as Part of this Offering

The warrants offered in this offering will be issued in the form of Series E Warrant filed as an exhibit to the registration statement of which this prospectus is a part. You should review a copy of the form of warrant for a complete description of the terms and conditions applicable to the warrants. The following is a brief summary of the Series E Warrant and is subject in all respects to the provisions contained in the form of warrant. Pursuant to a warrant agency agreement between us and American Stock Transfer and Trust Company, as warrant agent, the Series E Warrant will be issued in book-entry form and initially will be represented by one or more global certificates deposited with The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC. We do not plan to list the Series E Warrants on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

No fractional shares of common stock will be issued in connection with the exercise of a Series E Warrant. As to any fraction of a share which a holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price or round up to the next whole share. A Series E Warrant may be transferred by a holder, upon surrender of the warrant, properly endorsed (by the holder executing an assignment in the form attached to the warrant). Prior to the exercise of any warrants to purchase common stock, holders of the warrants will not have any of the rights of holders of the common stock purchasable upon exercise, including the right to vote, except as set forth therein.

Each Series E Warrant represents the right to purchase one share of common stock at an exercise price equal to $4.00, subject to adjustment as described below. Each Series E Warrant may be exercised on or after the closing date of this offering through and including the close of business on the fifth anniversary of the date of issuance. Each Series E Warrant will have a cashless exercise right in the event that the shares of common stock underlying such warrants are not covered by an effective registration statement at the time of such exercise.

The Series E Warrants are callable by us in certain circumstances. Subject to certain exceptions, in the event that while the warrants are outstanding and: (i) the Measurement Period exceeds 300% of initial Exercise Price (subject to adjustment for forward and reverse stock splits, recapitalizations, stock dividends and similar transactions); (ii) the average daily trading volume for such Measurement Period exceeds $400,000 per trading day; and (iii) the holder is not in possession of any information that constitutes or might constitute, material nonpublic information that was provided by us, then we may, within one trading day of the end of such Measurement Period, upon notice (a "Call Notice"), call for cancellation of all or any portion of the Series E Warrants for which a notice of exercise has not yet been delivered for consideration equal to $0.001 per share. Any portion of a Series E Warrant subject to such Call Notice for which a notice of exercise will not have been received by the Call Date (as hereinafter defined) will be canceled at 6:30 p.m. (New York City time) on the tenth trading day after the date the Call Notice is sent by us (such date and time, the "Call Date"). Our right to call the Series E Warrants will be exercised ratably among the holders based on each holder's initial purchase of warrants from us.

The exercise price and the number of shares underlying the Series E Warrants are subject to appropriate adjustment in the event of stock splits, stock dividends on our common stock, stock combinations or similar events affecting our common stock. In addition, in the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common shares are converted or exchange for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding common shares, then following such event, the holders of the warrants will be entitled to receive upon exercise of the warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised the warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity will assume the obligations under the warrants. Further, as more fully described in the warrants, in the event of certain fundamental transactions where the exercise price of the warrant exceeds the value of the common stock, the holders of the warrants will be entitled to receive consideration in an amount equal to the Black-Scholes value of the warrants as of the date of such transaction, payable in the same kind and amount of consideration as that received by the holders of common stock.

The Series E Warrants are not exercisable by their holder to the extent (but only to the extent) that such holder or any of its affiliates would beneficially own in excess of 4.99% (or, at the election of the purchaser prior to the date of issuance, 9.99%), of our common stock.

Anti-Takeover Effect of Certain Charter and By-Law Provisions

Provisions of our charter and by-laws could make it more difficult to acquire us by means of a merger, tender offer, proxy contest, open market purchases, removal of incumbent directors and otherwise. These provisions, which are summarized below, are expected to discourage types of coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of us to first negotiate with us. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging takeover or acquisition proposals because negotiation of these proposals could result in an improvement of their terms.

Authorized but Unissued Stock. We have shares of common stock and preferred stock available for future issuance, in some cases, without stockholder approval. We may issue these additional shares for a variety of corporate purposes, including public offerings to raise additional capital, corporate acquisitions, stock dividends on our capital stock or equity compensation plans. The existence of unissued and unreserved common stock and preferred stock may enable our Board to issue shares to persons friendly to current management or to issue preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us, thereby protecting the continuity of our management. In addition, if we issue preferred stock, the issuance could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation.

Amendments to By-laws. Our certificate of incorporation and by-laws authorize the Board to amend, repeal, alter or rescind the by-laws at any time without stockholder approval. Allowing the Board to amend our by-laws without stockholder approval enhances Board control over our by-laws.

Classification of Board; Removal of Directors; Vacancies. Our certificate of incorporation provides for the division of the Board into three classes as nearly equal in size as possible with staggered three-year terms; that directors may be removed only for cause by the affirmative vote of the holders of two-thirds of our shares of capital stock entitled to vote; and that any vacancy on the Board, however occurring, including a vacancy resulting from an enlargement of the Board, may be filled only by the vote of a majority of the directors then in office. The limitations on the removal of directors and the filling of vacancies could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, control of us. Our certificate of incorporation requires the affirmative vote of the holders of at least 75% of our shares of capital stock issued and outstanding and entitled to vote to amend or repeal any of these provisions.

Notice Periods for Stockholder Meetings. Our by-laws provide that for business to be brought by a stockholder before an annual meeting of stockholders, the stockholder must give written notice to the corporation not less than 90 nor more than 120 days prior to the one-year anniversary of the date of the annual meeting of stockholders of the previous year; provided, however, that in the event that the annual meeting of stockholders is called for a date that is not within 30 days before or after such anniversary date, notice by the stockholder must be received not later than the close of business on the tenth day following the day on which the corporation's notice of the date of the meeting is first given or made to the stockholders or disclosed to the general public, whichever occurs first.

Stockholder Action; Special Meetings. Our certificate of incorporation provides that stockholder action may not be taken by written action in lieu of a meeting and provides special meetings of the stockholders may be called only by our president or Board. These provisions could have the effect of delaying until the next stockholders' meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. These provisions may also discourage another person or entity from making a tender offer for our common stock, because that person or entity, even if it acquired a majority of our outstanding voting securities, would be able to take action as a stockholder only at a duly called stockholders' meeting, and not by written consent. Our certificate of incorporation requires the affirmative vote of the holders of at least 75% of our shares of capital stock issued and outstanding and entitled to vote to amend or repeal the provisions relating to prohibition on action by written consent and the calling of a special meeting of stockholders.

Nominations. Our by-laws provide that nominations for election of directors may be made only by: (i) the Board or a committee appointed by the Board; or (ii) a stockholder entitled to vote on director election, if the stockholder provides notice to the Secretary of the corporation presented not less than 90 days nor more than 120 days prior to the anniversary of the last annual meeting (subject to the limited exceptions set forth in the by-laws). These provisions may deter takeovers by requiring that any stockholder wishing to conduct a proxy contest have its position solidified well in advance of the meeting at which directors are to be elected and by providing the incumbent Board with sufficient notice to allow it to put an election strategy in place.

Nasdaq Capital Market Listing

Our common stock is listed for trading and quotation on the Nasdaq Capital Market under the trading symbol "CLRB." Certain warrants to purchase shares of our common stock expiring on August 20, 2019, are listed on the Nasdaq Capital Market under the trading symbol "CLRBW," and certain warrants to purchase shares of our common stock expiring on November 29, 2021, are listed on the Nasdaq Capital Market under the trading symbol "CLRBZ."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company.

UNDERWRITING

We have entered into an underwriting agreement dated July 26, 2018, with Ladenburg Thalmann & Co. Inc., as the representative of the underwriters (the "representative") named below and the sole book-running manager of this offering. Subject to the terms and conditions of the underwriting agreement, the underwriters have agreed to purchase the number of our securities set forth opposite its name below.

Underwriter	Shares of Common Stock	Shares of Series C Preferred Stock	Series E Warrants
Ladenburg Thalmann & Co. Inc.	709,050	969	3,132,00
CIM Securities, LLC	105,950	145	468,000
Total	815,000	1,114	3,600,000

A copy of the underwriting agreement has been filed as an exhibit to the registration statement of which this prospectus is part.

We have been advised by the underwriters that they propose to offer the shares of common stock, shares of preferred stock and warrants directly to the public at the public offering price set forth on the cover page of this prospectus. Any securities sold by the underwriters to securities dealers will be sold at the public offering price less a selling concession not in excess of $0.179550 per share and $0.000450 per warrant.

The underwriting agreement provides that the underwriters' obligation to purchase the securities we are offering is subject to conditions contained in the underwriting agreement.

No action has been taken by us or the underwriters that would permit a public offering of the shares and warrants in any jurisdiction where action for that purpose is required. None of our securities included in this offering may be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sales of any of the securities offering hereby be distributed or published, in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus are advised to inform themselves about, and to observe any restrictions relating to, this offering of securities and the distribution of this prospectus. This prospectus is neither an offer to sell nor a solicitation of any offer to buy the shares and warrants in any jurisdiction where that would not be permitted or legal.

The underwriters have advised us that they do not intend to confirm sales to any accounts over which they exercise discretionary authority.

Underwriting Discount and Expenses

The following table summarizes the underwriting discount and commission to be paid to the underwriters by us.

	Per Share of Common Stock and Series E Warrant	Per Share of Series C Preferred Stock and Series E Warrant	Total
Public offering price[(1)]	$ 4.00	$ 10,000	$ 14,400,000
Underwriting discount to be paid to the underwriters by us (7.5%)	$ 0.30	$ 750	$ 1,080,000
Proceeds to us (before expenses)	$ 3.70	$ 9,250	$ 13,320,000

(1) The public offering price and underwriting discount corresponds to (i) a public offering price per share of common stock of $3.69075, (ii) a public offering price per warrant of $0.00925 and, (iii) a public offering price per share of Series C Preferred Stock of $9,226,875.

(2) We estimate the total expenses payable by us for this offering to be approximately $1,410,936, which amount includes: (i) the underwriting discount of $1,080,000 ($1,242,000 if the underwriters' over-allotment option is exercised in full); (ii) reimbursement of the accountable expenses of the representative equal to $100,000, including the legal fees of the representative being paid by us; and (iii) other estimated company expenses of approximately $230,936, which includes legal, accounting, printing costs and various fees associated with the registration and listing of our shares. In no event will the aggregated expenses of the representative reimbursed exceed $100,000.

The securities we are offering are being offered by the underwriters subject to certain conditions specified in the underwriting agreement.

Over-allotment Option

We have granted to the underwriters an option, exercisable not later than 45 days after the date of this prospectus, to purchase up to a number of additional shares of common stock equal to 15% of the number of shares of common stock and shares of common stock underlying the Series C Preferred Stock sold in the primary offering and/or up to a number of additional warrants to purchase shares of common stock equal to 15% of the number of warrants sold in the primary offering, in any combination. Any shares so purchased will be sold at a price per share equal to the public offering price, less the underwriting discount. Any warrants so purchased will be sold at a price per warrant equal to the public offering price less the underwriting discount. The underwriters may exercise the option solely to cover over-allotments, if any, made in connection with this offering. If any additional shares of common stock and/or warrants are purchased pursuant to the over-allotment option, the underwriters will offer these shares of common stock and/or warrants on the same terms as those on which the other securities are being offered hereby. The over-allotment option may be used to purchase shares of common stock or warrants, or any combination thereof, as determined by the representative.

Determination of Offering Price

Our common stock is currently traded on the Nasdaq Capital Market under the symbol "CLRB." On July 26, 2018, the closing price of our common stock was $5.33 per share.

The public offering price of the securities offered by this prospectus will be determined by negotiation between us and the underwriters. Among the factors considered in determining the public offering price of the shares were:

- our history and our prospects;
- the industry in which we operate;
- our past and present operating results;
- the previous experience of our executive officers; and
- the general condition of the securities markets at the time of this offering

The offering price stated on the cover page of this prospectus should not be considered an indication of the actual value of the securities. That price is subject to change as a result of market conditions and other factors, and we cannot assure you that the securities can be resold at or above the public offering price.

Lock-up Agreements

Our officers and directors have agreed with the representative to be subject to a lock-up period of 90 days following the date of this prospectus. This means that, during the applicable lock-up period, such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions. We have also agreed, in the underwriting agreement, to similar lock-up restrictions on the issuance and sale of our securities for 90 days following the closing of this offering, although we will be permitted to issue stock options or stock awards to directors, officers and employees under our existing plans. The lock-up period is subject to an additional extension to accommodate for our reports of financial results or material news releases. The representative may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements.

Other Relationships

Upon completion of an offering that meets certain criteria, we have granted the representative a right of first refusal to act as sole bookrunner or exclusive placement agent in connection with any subsequent public or private offering of equity securities or other capital markets financing by us. This right of first refusal extends for nine months from the effective date of this registration statement. The terms of any such engagement of the representative will be determined by separate agreement.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company.

Stabilization, Short Positions and Penalty Bids

The underwriters may engage in syndicate covering transactions, stabilizing transactions and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of our common stock:

- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. Such a naked short position would be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum.

- Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These syndicate covering transactions, stabilizing transactions and penalty bids may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on The Nasdaq Capital Market, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this offering, the underwriters also may engage in passive market-making transactions in our common stock in accordance with Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of the distribution. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Neither we nor the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the prices of our securities. In addition, neither we nor the underwriters make any representation that the underwriters will engage in these transactions or that any transactions, once commenced, will not be discontinued without notice.

Indemnification

We have agreed to indemnify the underwriters and selected dealers against certain liabilities, including certain liabilities arising under the Securities Act, or to contribute to payments that the underwriters or selected dealers may be required to make for these liabilities.

LEGAL MATTERS

The validity of the securities being offered by this prospectus has been passed upon for us by Michael Best & Friedrich LLP, Madison, Wisconsin. Ellenoff Grossman & Schole LLP, New York, New York, is acting as counsel to the underwriters in this offering.

EXPERTS

The audited financial statements incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Baker Tilly Virchow Krause, LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and special reports, and other information with the SEC. Copies of the reports and other information may be read and copied at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You can request copies of such documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a web site at http://www.sec.gov that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC.

This prospectus is part of a registration statement on Form S-1 that we filed with the SEC. Certain information in the registration statement has been omitted from this prospectus in accordance with the rules and regulations of the SEC. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus. For further information you may:

- read a copy of the registration statement, including the exhibits and schedules, without charge at the SEC's Public Reference Room; or
- obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

We are subject to the information and reporting requirements of the Exchange Act and, in accordance with this law, are required to file periodic reports, proxy statements and other information with the SEC. We make available free of charge, on or through the investor relations section of our website, annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information found on our website, other than as specifically incorporated by reference in this prospectus, is not part of this prospectus.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be a part of this prospectus, except for any information that is superseded by other information that is included in this prospectus.

We incorporate by reference into this prospectus the following document, which we have previously filed with the SEC:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the SEC on March 21, 2018;
- our Quarterly Report on Form 10-Q for the quarter year ended March 31, 2018, filed with the SEC on May 11, 2018;
- our Definitive Proxy Statement on Schedule 14A for the annual meeting of stockholders, filed with the SEC on April 23, 2018;
- our Definitive Proxy Statement on Schedule 14A for a special meeting of stockholders, filed with the SEC on June 11, 2018;
- our Current Report on Form 8-K, filed with the SEC on January 8, 2018;
- our Current Report on Form 8-K, filed with the SEC on April 4, 2018;
- our Current Report on Form 8-K, filed with the SEC on June 1, 2018;
- our Current Report on Form 8-K, filed with the SEC on June 8, 2018;
- our Current Report on Form 8-K, filed with the SEC on July 13, 2018; and
- the description of our securities contained in our Registration Statement on Form 8-A filed on April 18, 2016, including any amendment or report filed for the purpose of updating such description.

In addition, all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering will be deemed to be incorporated by reference into this prospectus.

You should rely only on the information contained in this prospectus, as updated and supplemented by any prospectus supplement, or that information to which this prospectus or any prospectus supplement has referred you by reference. We have not authorized anyone to provide you with any additional information.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein modifies or supersedes such statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request and obtain a copy of any of the filings incorporated herein by reference, at no cost, by writing or telephoning us at the following address or phone number:

Cellectar Biosciences, Inc.
3301 Agriculture Drive
Madison, WI 53716
Attention: Chief Financial Officer (608) 441-8120

GLOSSARY OF CERTAIN SCIENTIFIC TERMS

CT — A procedure that uses a computer linked to an x-ray machine to make a series of detailed pictures of areas inside the body.

Cytotoxic — Cytotoxicity is the quality of being toxic to cells (i.e. cell-killing). Many cancer chemotherapeutic drugs are cytotoxic to cancer cells (and, to some extent, normal cells) thus resulting in unwanted side-effects, e.g. nausea/vomiting, hair loss, suppression of the immune system.

Dexamethasone — Dexamethasone is a corticosteroid (cortisone-like medicine or steroid). It works on the immune system to help relieve swelling, redness, itching and allergic reactions and is used in the treatment of numerous medical conditions.

Dosimetry — Radiation dosimetry is the calculation of absorbed dose and optimization of dose delivery in radiation therapy.

Lipid rafts — Lipid rafts are specialized regions of the membrane phospholipid bilayer that contain high concentrations of cholesterol and sphingolipids and serve to organize cell surface and intracellular signaling molecules (e.g. growth factor and cytokine receptors, the phosphatidylinositol 3-kinase (P13K)/Akt survival pathway).

Orphan drug status — Orphan drug status confers seven years of marketing exclusivity under the Federal Food, Drug, and Cosmetic Act, and up to 10 years of marketing exclusivity in Europe for a particular product in a specified indication.

Radiolabeled — Radiolabeled refers to a molecule containing a radioisotope as a part of its structure.

Radioisotope — Also referred to as radioactive isotopes or radionuclides, radioisotopes are variants of atoms of particular chemical elements (e.g. iodine) with an unstable nucleus that can undergo radioactive decay during which ionizing radiation (e.g. gamma rays, subatomic particles) is emitted.

Uptake — Uptake is an act of taking in or absorbing, especially into a living organism, tissue or cell.

Xenograft — Xenograft is a graft of tissue, organs or cells from an individual of one species transplanted into or grafted onto an individual of another species.

PROSPECTUS

815,000 Shares of Common Stock,
3,600,000 Warrants to Purchase Shares of Common Stock and
1,114 Shares of Series C Convertible Preferred Stock

Sole Book-Running Manager

Ladenburg Thalmann

Co-Manager

CIM Securities, LLC

Through and including August 24, 2018 (the 25th day after the date of this offering), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.