

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

FORM S-1
REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

CELLECTAR BIOSCIENCES, INC.
(Exact name of registrant as specified in its charter)

Delaware
*(State or other jurisdiction of
incorporation or organization)*

04-3321804
*(I.R.S. Employer
Identification Number)*

**3301 Agriculture Drive
Madison, WI 53716
(608) 441-8120**
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**James V. Caruso
President and Chief Executive Officer
3301 Agriculture Drive
Madison, WI 53716
(608) 441-8120**
(Name, address, including zip code, and telephone number, including area code, of agent for service)

With copies to:

**Gregory J. Lynch, Esq.
Michael Best & Friedrich LLP
One South Pinckney Street, Suite 700
Madison, Wisconsin 53703
(608) 257-3501**

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☒

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐

Non-accelerated filer ☐ (Do not check if a smaller reporting company)

Accelerated filer ☐

Smaller reporting company ☒

Emerging growth company ☐

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock	3,108,538	\$ 1.78	\$ 5,533,198	\$ 688.89

- (1) Consists of 3,108,538 shares of common stock of the registrant, par value \$0.00001 per share, issuable upon exercise of certain outstanding warrants at an exercise price of \$1.78 per share, to be offered and sold by the selling stockholders identified in this registration statement. This registration statement also relates to an indeterminate number of shares of common stock that may be issued upon stock splits, stock dividends or similar transactions in accordance with Rule 416 under the Securities Act of 1933 (the "Securities Act").
- (2) Estimated solely for the purpose of calculating the registration fee for the shares of common stock issuable upon the exercise of warrants to be registered in accordance with Rule 457(g) under the Securities Act, based upon the higher of (i) the price at which the warrants may be exercised and (ii) \$1.575, the average of the high and low prices for a share of the registrant's common stock as reported on the Nasdaq Capital Market on November 7, 2017, which date is a date within five business days of the filing of this registration statement.

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

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS

SUBJECT TO COMPLETION, DATED NOVEMBER 9, 2017



**3,108,538 SHARES OF COMMON STOCK
ISSUABLE UPON EXERCISE OF OUTSTANDING WARRANTS**

We are not selling any shares of our common stock under this prospectus and will not receive any proceeds from the sale of shares by the selling stockholders. This prospectus relates to the resale of up to 3,108,538 shares of our common stock issuable upon the exercise of outstanding Series D warrants to purchase common stock. The selling stockholders will bear all commissions and discounts, if any, attributable to the sale of the shares. We will bear all costs, expenses and fees in connection with the registration of the shares.

The selling stockholders may sell the shares of our common stock offered by this prospectus from time to time on terms to be determined at the time of sale through ordinary brokerage transactions or through any other means described in this prospectus under "Plan of Distribution." The prices at which the selling stockholder may sell the shares will be determined by the prevailing market price for the shares or in negotiated transactions.

Our common stock is listed on the Nasdaq Capital Market under the symbol "CLRB." On November 8, 2017, the last reported sale price of our common stock on the Nasdaq Capital Market was \$1.56 per share.

Investing in our securities involves a high degree of risk. See "Risk Factors" on page 7 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.

The date of this prospectus is November 9, 2017.

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ABOUT THIS PROSPECTUS

You should rely only on the information we have provided or incorporated by reference into this prospectus and any related free writing prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus or any related free writing prospectus. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus or any related free writing prospectus. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the common stock offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

We may authorize one or more free writing prospectuses to be provided to you that may contain material information relating to that offering. We may also use any related free writing prospectus to add, update or change any of the information contained in this prospectus or in documents we have incorporated by reference. This prospectus, together with any related free writing prospectuses and the documents incorporated by reference into this prospectus, includes all material information relating to this offering. Please carefully read both this prospectus together with the additional information described below under “Incorporation of Documents by Reference”.

Unless otherwise stated or unless the context otherwise requires, all references to “we,” “us,” “our,” “our company” or “the Company” in this prospectus refer collectively to Collectar Biosciences, Inc., a Delaware corporation.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus or incorporated by reference in this prospectus, and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus and any related free writing prospectus, including the risks of investing in our common stock discussed under the heading "Risk Factors" contained in this prospectus and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus forms a part.

Overview

We are a clinical stage biopharmaceutical company focused on the discovery, development and commercialization of drugs for the treatment of cancer. We leverage our proprietary phospholipid drug conjugateTM (PDCsTM) 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. Our lead product candidate, CLR 131, is a PDC providing targeted delivery of a cytotoxic (cell-killing) radioisotope iodine 131. Our pipeline also includes a series of pre-clinical chemotherapeutic PDC programs. We believe our proprietary PDC platform can provide the next-generation of targeted cancer treatments that result in greater efficacy and less off-target effects reducing patient adverse events.

Our core strategy is to develop new targeted treatments for cancer patients that leverage our PDC cancer-targeting delivery platform. 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. By combining this approach with our PDC platform, we plan to develop proprietary compounds independently and in collaborations with other companies. Through strategic acquisitions and research collaborations, our strategy is to seek to generate near-term capital, supplement internal resources, gain access to novel molecules or payloads, accelerate product candidate development and broaden our product pipeline.

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 to a wide variety of molecules, 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. A description of our PDC product candidates follows:

- 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 1 and Phase 2 clinical studies. The Investigational New Drug (IND) application was accepted by the U.S. Food and Drug Administration (FDA) in March 2014. In December 2014, the FDA granted orphan drug designation for CLR 131 for the treatment of multiple myeloma and the Phase 1 study was initiated in April 2015. This clinical study is a standard three-by-three dose escalation safety study in patients with relapse or refractory multiple myeloma. 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. The primary goal of the Phase 1 study is to assess the compound's safety and tolerability in patients with relapsed or refractory multiple myeloma.

In September 2017, Cohort 4 results were announced. The data monitoring committee determined that these results showed that a single 30 minute infusion of 31.25mCi/m² of CLR 131 was deemed safe and tolerated by the three patients in the cohort with one of those patients achieving a partial response (PR). The International Myeloma Working Group (IMWG) defines a (PR) as a greater than or equal to 50 percent decrease in free light chain (FLC) levels (for patients in whom M protein is unmeasurable) or 50 percent decrease in M protein. Additionally the other two evaluable patients achieved stable disease. One patient experiencing stable disease attained a 44 percent reduction in M protein. The patient experiencing a partial response had an 82 percent reduction in FLC. This patient did not produce M protein, had received seven prior lines of treatment including radiation, stem cell transplantation and multiple combination treatments including one with daratumumab that was not tolerated. As of November 2017, patients in Cohort 1 who received a single 12.5mCi/m² dose experienced a median overall survival (OS) of 26.2 months. Median OS for Cohorts 2 (18.75 mCi/m²) and 3 (25.0 mCi/m²) also continue to progress with patients experiencing OS of 15.4 months and 10 months, respectively as of November 2017. Based upon these data, we elected to initiate a Phase 2 clinical study using Cohort 3's dose of 25.0 mCi/m² with the option to increase the dose based on our ongoing Phase 1 safety and efficacy signals.

In August, 2016 the University of Wisconsin Carbone Cancer Center (UWCCC) was awarded a five year Specialized Programs of Research Excellence (SPORE) 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 United States. As a key component of this grant, the UWCCC researchers have tested 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 2019.

In July 2016, we were awarded a \$2,000,000 National Cancer Institute Fast-Track Small Business Innovation Research (SBIR) grant to further advance CLR 131. The funds are supporting the Phase 2 study initiated in March 2017 to further define the clinical benefits of CLR 131 in multiple myeloma 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 10-15 top cancer centers in the United States in patients with orphan-designated relapse or refractory hematologic cancers. The study's primary endpoint is clinical benefit response (CBR), with additional endpoints of progression free survival (PFS), median OS and other markers of efficacy following a single 25.0 mCi/m² dose of CLR 131, with the option for a second 25.0 mCi/m² dose approximately 75-180 days later.

- CLR 1700 Series is an internally developed PDC program leveraging a payload 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 part of a collaborative PDC program with Pierre Fabre that we 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 research collaboration is to co-design a library of PDCs employing Pierre Fabre's chemotherapeutics in combination with our proprietary cancer-targeting delivery vehicle. The newly developed PDCs may provide enhanced therapeutic indices to otherwise highly potent, non-targeted payloads through the targeted delivery to cancer cells provided by our cancer-targeting delivery vehicle. Significant progress has been achieved and the program continues to rapidly advance with a number of PDC molecules showing enhanced pharmacologic behavior over the parent compound alone.

- CLR 1900 Series is an internally developed proprietary PDC program leveraging a novel small molecule cytotoxic compound as the payload. 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 part of 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 part of 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 the 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 the 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 (SOC) for the treatment of a broad range of human cancers.

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

Corporate Information

Our headquarters and manufacturing operation is located at 3301 Agriculture Drive, Madison, Wisconsin 53716. We maintain a website at www.collectar.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.

Description of the Private Placement

On October 10, 2017, we entered into a Securities Purchase Agreement (the “Purchase Agreement”) with certain purchasers named therein (the “Purchasers”) who are the selling stockholders identified in this prospectus under the caption “Selling Stockholders,” pursuant to which we issued and sold, in a registered offering directly to the Purchasers on October 12, 2017, an aggregate of 1,954,388 shares (the “Shares”) of our common stock at an offering price of \$1.87375 per share.

We also issued to those Purchasers, whose purchase of shares of common stock in the offering would result in the purchaser beneficially owning more than 4.99% of our outstanding common stock, 41.0412949 shares of Series B Convertible Preferred Stock (the “Preferred Shares” and together with the purchase of the Shares, the “Registered Offering”) at a public offering price of \$100,000, convertible into an aggregate of 2,190,330 shares of common stock, which equates to a number of shares of common stock equal to \$100,000 divided by \$1.87375 per Preferred Share.

Gross proceeds of the offering were approximately \$7.76 million before deducting the placement agent fee and related offering expenses. The Shares and the Preferred Shares were issued pursuant to a registration statement on Form S-3 (File No. 333-218514), which was initially filed with the Securities and Exchange Commission on June 5, 2017 and was declared effective by the Commission on September 20, 2017.

In a concurrent private placement on October 12, 2017 (the “Private Placement”), we issued to the Purchasers who participated in the registered offering, Series D warrants to purchase an aggregate of 3,108,538 shares of common stock at an exercise price of \$1.78 per share. Each warrant was immediately exercisable and expires seven years from the date of issuance. If at any time after the six-month anniversary of the date of issuance there is no effective registration statement registering, or no current prospectus available for, the resale of the shares of common stock issuable upon the exercise of the Series D warrants, then the holders have the right to exercise the Series D warrants on a cashless basis at such time. Subject to limited exceptions, a holder of a Series D warrant does not have the right to exercise any portion of its warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of common stock outstanding immediately after giving effect to such exercise (the “Beneficial Ownership Limitation”); provided, however, that upon 61 days’ prior notice to the Company, the holder may increase or decrease the Beneficial Ownership Limitation, provided further that in no event shall the Beneficial Ownership Limitation exceed 9.99%.

We filed the registration statement on Form S-1, of which this prospectus is a part, to fulfill our contractual obligations under the Purchase Agreement to provide for the resale by the Purchasers of up to 3,108,538 shares of common stock issuable upon exercise of the Series D warrants. We agreed to file a registration statement with respect to such warrant shares within 60 days following the date of issuance of the warrants and to use commercially reasonable efforts to keep such registration statement effective at all times until (a) the warrant shares are sold under such registration statement or pursuant to Rule 144 under the Securities Act, (b) the warrant shares may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 under the Securities Act.

The Offering

Shares of common stock offered by us:	None
Shares of common stock offered by the selling stockholders:	3,108,538 shares issuable upon the exercise of outstanding warrants to purchase common stock
Shares of common stock outstanding before this offering, assuming no exercise of the Series D warrants:	15,813,961 shares
Shares of common stock outstanding after completion of this offering, assuming full exercise of the Series D warrants:	18,922,499 shares
Use of Proceeds:	We will not receive any proceeds from the resale of the shares of common stock by the selling stockholders.
Risk Factors:	See “Risk Factors” on page 7 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

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 November 7, 2017 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 15,813,961 shares of common stock outstanding as of November 7, 2017 and excludes, as of that date:

- an aggregate of 531,729 shares of common stock issuable upon the exercise of outstanding stock options issued to employees, directors and consultants;
- an aggregate of 869,766 additional shares of common stock reserved for future issuance under our stock incentive plans;
- an aggregate of 2,190,330 additional shares of common stock issuable upon the exercise of Series B preferred stock issued on October 12, 2017; and
- an aggregate of 11,835,074 additional shares of common stock reserved for issuance under outstanding warrant agreements having expiration dates between November 2, 2017 and October 14, 2024, and exercise prices ranging from \$1.50 per share to \$250.00 per share.

RISK FACTORS

Prior to making an investment decision, prospective investors should carefully consider, in light of their particular investment objectives and financial circumstances, the specific factors set forth under the caption “Risk Factors” in the applicable prospectus supplement pertaining thereto and in our most recent annual report on Form 10-K and any subsequent quarterly reports on Form 10-Q filed with the SEC, as well as any amendments thereto reflected in subsequent filings with the SEC, and in any of our other filings with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, incorporated by reference into this prospectus and the applicable prospectus supplement. For more information, see “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

CAUTIONARY NOTE REGARDING 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, and Section 21E of 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 for CLR 131 as a therapeutic for the treatment of multiple myeloma and the expected benefits of orphan drug status;
- our ability to pursue strategic alternatives;
- our ability to further 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; and
- 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 as of the date on the front cover of this prospectus or such prospectus supplement only. 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.

USE OF PROCEEDS

All proceeds from the resale of the shares of our common stock offered by this prospectus will belong to the selling stockholders. We will not receive any proceeds from the sale or other disposition by the selling stockholders of the shares of our common stock covered by this prospectus. However, we will receive proceeds upon any cash exercise of the Series D warrants, the underlying shares of which are offered by this prospectus. If the Series D warrants are all exercised for cash, we will receive gross proceeds of approximately \$5,533,000. We intend to use any proceeds from any such exercise to fund our research and development activities and for general corporate purposes. There is no assurance that the Series D warrants will ever be exercised.

SELLING STOCKHOLDERS

The common stock being offered by the selling stockholders are those issuable to the selling stockholders, upon exercise of the Series D warrants. For additional information regarding the issuances of those shares of common stock and warrants, see "Description of the Private Placement" in this prospectus. We are registering the shares of common stock in order to permit the selling shareholders to offer the shares for resale from time to time. Except for the ownership of the warrants and the sale of shares of common stock, the selling shareholders have not had any material relationship with us within the past three years.

The table below lists the selling stockholders and other information regarding the beneficial ownership of the shares of common stock by each of the selling stockholders. The second column lists the number of shares of common stock beneficially owned by each selling shareholder, based on its ownership of the shares of common stock, preferred stock and warrants, as of November 7, 2017, assuming exercise of the warrants and conversion of the preferred stock held by the selling shareholders on that date. The third column lists the shares of common stock being offered by this prospectus by the selling shareholders.

In accordance with the terms of a registration rights agreement with the selling shareholders, this prospectus generally covers the resale of the maximum number of shares of common stock issuable upon exercise of the Series D warrants, determined as if the Series D outstanding warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the Securities and Exchange Commission, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the registration right agreement, without regard to any limitations on the exercise of the warrants. The fourth column assumes the sale of all of the shares offered by the selling shareholders pursuant to this prospectus.

Under the terms of the Series D warrants, a selling stockholder may not exercise the Series D warrants to the extent such exercise would cause such selling stockholder, together with its affiliates and attribution parties, to beneficially own a number of shares of common stock which would exceed 4.99% of our then outstanding common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon exercise of the Series D warrants which have not been exercised. The number of shares in the second and fourth columns reflects this limitation. The selling stockholder may sell all, some or none of their shares in this offering. See "Plan of Distribution." The percentage of beneficial ownership after this offering is based on 15,813,961 shares outstanding on November 7, 2017.

Selling Stockholder(1)	Number of Shares of Common Stock Beneficially Owned Prior to Offering	Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus	Number of Shares of Common Stock Beneficially Owned After Offering	Percentage of Shares Beneficially Owned After Offering
Anson Investments Master Fund LP (2)	789,117 (5)	1,038,951	789,117 (5)	4.99%
CVI Investments, Inc. (3)	789,117 (6)	1,028,893	789,117 (6)	4.99%
Lincoln Park Capital Fund LLC (4)	789,117 (7)	1,040,694	789,117 (7)	4.99%

- (1) This table and the information in the notes below are based upon information supplied by the selling stockholders.
- (2) Anson Advisors Inc and Anson Funds Management LP, the Co-Investment Advisers of Anson Investments Master Fund LP ("Anson"), hold voting and dispositive power over the common stock held by Anson. Bruce Winson is the managing member of Anson Management GP LLC, which is the general partner of Anson Funds Management LP. Moez Kassam and Adam Spears are directors of Anson Advisors Inc. Mr. Winson, Mr. Kassam and Mr. Spears each disclaim beneficial ownership of these common stock except to the extent of their pecuniary interest therein.
- (3) Heights Capital Management, Inc., the authorized agent of CVI Investments, Inc. ("CVI"), has discretionary authority to vote and dispose of the shares held by CVI and may be deemed to be the beneficial owner of these shares. Martin Kobinger, in his capacity as Investment Manager of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the shares held by CVI. Mr. Kobinger disclaims any such beneficial ownership of the shares.
- (4) Josh Scheinfeld and Jonathan Cope, the Managing Members of Lincoln Park Capital, LLC, are deemed to be beneficial owners of all of the shares of common stock owned by Lincoln Park Capital Fund, LLC. Messrs. Cope and Scheinfeld have shared voting and investment power over the shares.
- (5) Excludes 1,038,951 shares of common stock issuable upon exercise of the Series D warrants being offered for resale pursuant to this prospectus and 130,262 shares of common stock issuable upon conversion of Preferred Shares. The terms of such warrants and Preferred Shares include blocker provisions that restricts exercise of such warrants or conversion of Preferred Shares to the extent the securities beneficially owned by the selling stockholder and its affiliates would represent beneficial ownership in excess of 4.99% of shares of our common stock outstanding immediately after giving effect to such exercise. See the section titled "Description of the Private Placement" in this prospectus.
- (6) Excludes 1,028,893 shares of common stock issuable upon exercise of the Series D warrants being offered for resale pursuant to this prospectus, and 1,813,914 shares of common stock issuable upon conversion of Preferred Shares and exercise of other outstanding warrants of the Company held by such holder. The terms of such warrants and Preferred Shares include blocker provisions that restricts exercise of such warrants or conversion of Preferred Shares to the extent the securities beneficially owned by the selling stockholder and its affiliates would represent beneficial ownership in excess of 4.99% of shares of our common stock outstanding immediately after giving effect to such exercise. See the section titled "Description of the Private Placement" in this prospectus.
- (7) Excludes 1,040,694 shares of common stock issuable upon exercise of the Series D warrants being offered for resale pursuant to this prospectus, and 2,325,009 shares of common stock issuable upon conversion of Preferred Shares and exercise of other outstanding warrants of the Company held by such holder. The terms of such warrants and Preferred Shares include blocker provisions that restricts exercise of such warrants or conversion of Preferred Shares to the extent the securities beneficially owned by the selling stockholder and its affiliates would represent beneficial ownership in excess of 4.99% of shares of our common stock outstanding immediately after giving effect to such exercise. See the section titled "Description of the Private Placement" in this prospectus.

PLAN OF DISTRIBUTION

Each selling stockholder and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the Nasdaq Capital Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A selling stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the selling stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

In connection with the sale of the securities or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The selling stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to use commercially reasonable efforts to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the selling stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for the Company to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect, or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the selling stockholders or any other person. We will make copies of this prospectus available to the selling stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and special reports, and other information with the Securities and Exchange Commission. 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.

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.

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.

INCORPORATION OF DOCUMENTS BY REFERENCE

The Securities and Exchange Commission 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 documents, which we have previously filed with the SEC:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the SEC on March 15, 2017;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017, filed with the SEC on May 11, 2017;
- our Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, filed with the SEC on August 14, 2017;
- our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed with the SEC on November 9, 2017;
- our Definitive Proxy Statement on Schedule 14A for the annual meeting of stockholders, filed with the SEC on April 25, 2017;
- our Definitive Proxy Statement on Schedule 14A for a special meeting of stockholders, filed with the SEC on August 11, 2017;
- our Current Report on Form 8-K, filed with the SEC on February 3, 2017;
- our Current Report on Form 8-K, filed with the SEC on April 11, 2017;
- our Current Report on Form 8-K, filed with the SEC on June 1, 2017;
- our Current Report on Form 8-K, filed with the SEC on August 18, 2017;
- our Current Report on Form 8-K, filed with the SEC on September 12, 2017;
- our Current Report on Form 8-K, filed with the SEC on October 11, 2017; and
- the description of our securities contained in our Registration Statement on Form 8-A filed on August 14, 2014, 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 Securities Exchange Act of 1934, as amended, prior to the termination of the offering shall 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 shall 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 shall 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:

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

PROSPECTUS



3,108,538 SHARES OF COMMON STOCK

We have not authorized any dealer, salesperson or other person to give any information or to make any representations not contained in this prospectus. You must not rely on any unauthorized information. This prospectus is not an offer to sell these securities in any jurisdiction where an offer or sale is not permitted. The information in this prospectus is current as of the date of this prospectus. You should not assume that this prospectus is accurate as of any other date.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

We estimate that expenses in connection with the distribution described in this registration statement (other than brokerage commissions, discounts or other expenses relating to the sale of the shares by the selling stockholders) will be as set forth below. We will pay all of the expenses with respect to the distribution, and such amounts, with the exception of the Securities and Exchange Commission registration fee and FINRA fee, are estimates.

SEC registration fee	\$	689
Accounting fees and expenses		9,250
Legal fees and expenses		30,000
Miscellaneous		3,000
Total		42,939

Item 14. Indemnification of Directors and Officers

Our charter contains provisions to indemnify our directors and officers to the maximum extent permitted by Delaware law. We believe that indemnification under our charter covers at least negligence on the part of an indemnified person. Our charter permits us to advance expenses incurred by an indemnified person in connection with the defense of any action or proceeding arising out of the person's status or service as our director, officer, employee or other agent upon an undertaking by the person to repay those advances if it is ultimately determined that the person is not entitled to indemnification.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Item 15. Recent Sales of Unregistered Securities

On October 12, 2017, the Company issued and sold, in a registered offering by the Company directly to the purchasers, an aggregate of 1,954,388 shares of common stock at an offering price of \$1.87375 per share.

The Company also sold to those purchasers whose purchase of shares of common stock in the registered offering would result in the purchaser beneficially owning more than 4.99% of our outstanding common stock following the consummation of the offering, the opportunity to purchase, in lieu of the shares of our common stock that would result in ownership in excess of 4.99%, 41.0412949 shares of Series B Convertible Preferred Stock convertible into an aggregate of 2,190,330 shares of common stock, convertible at any time at the holder's option into a number of shares of common stock equal to \$100,000 divided by \$1.87375, at a public offering price of \$100,000 per share.

Gross proceeds of the sale of the common stock and preferred stock were approximately \$7.76 million before deducting the placement agent fee and related offering expenses.

In a concurrent private placement, the Company issued to the purchasers who participated in the offering, Series D warrants to purchase an aggregate of 3,108,538 shares of common stock at an exercise price of \$1.78 per share. Each Series D warrant was immediately exercisable and expires seven years from the date of issuance.

The private placement of the Series D warrants was structured to comply with the requirements of Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder.

During the three months ended June 30, 2017, the Company issued 460,000 shares of restricted stock to members of our executive team, 80,000 of which have since been forfeited. The restricted stock was granted at a price of either \$2.08 or \$2.10, which was the closing price of the stock on the date of issuance, and vests in equal annual amounts over three years. The related expense will be amortized ratably over the vesting period.

The unvested portion of the restricted stock grants is not considered outstanding for accounting purposes; therefore, the related shares are not included in the earnings per share calculation or included in the shares reported as outstanding on the balance sheet, as of or for the periods ended September 30, 2017. Note that such shares are considered outstanding from a legal perspective as of the date of grant.

Item 16. Exhibits.

(a) Exhibits.

The exhibits to the registration statement are listed in the Exhibit Index attached hereto and incorporated by reference herein.

(b) Financial Statement Schedules.

Financial statement schedules have been omitted, as the information required to be set forth therein is included in the consolidated financial statements or notes thereto appearing in the prospectus made part of this registration statement.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

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

- (i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

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

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

4. That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to the offering shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

5. That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

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

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

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-1 and has duly caused this amendment to the registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Madison, State of Wisconsin, on November 9, 2017.

CELLECTAR BIOSCIENCES, INC.

By: /s/ James V. Caruso

James V. Caruso

President and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Cellectar Biosciences, Inc., hereby severally constitute and appoint James V. Caruso and John P. Hamill, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign for us and in our names in the capacities indicated below any and all amendments (including post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ James V. Caruso</u> James V. Caruso	Chief Executive Officer and Director (<i>principal executive officer</i>)	November 9, 2017
<u>/s/ John P. Hamill</u> John P. Hamill	Interim Chief Financial Officer (<i>principal financial officer and principal accounting officer</i>)	November 9, 2017
<u>/s/ Frederick W. Driscoll</u> Frederick W. Driscoll	Director	November 9, 2017
<u>/s/ Stephen A. Hill</u> Stephen A. Hill	Director	November 9, 2017
<u>/s/ Stefan D. Loren</u> Stefan D. Loren	Director	November 9, 2017
<u>/s/ John L. Neis</u> John L. Neis	Director	November 9, 2017
<u>/s/ Douglas J. Swirsky</u> Douglas J. Swirsky	Director	November 9, 2017

EXHIBIT INDEX

Exhibit No.	Description	Filed with this Form S-1	Incorporated by Reference	
			Form	Filing Date
<u>2.1</u>	<u>Agreement and Plan of Merger by and among Novelos Therapeutics, Inc., Cell Acquisition Corp. and Collectar, Inc. dated April 8, 2011</u>		<u>8-K</u>	<u>April 11, 2011</u>
<u>3.1</u>	<u>Second Amended and Restated Certificate of Incorporation</u>		<u>8-K</u>	<u>April 11, 2011</u>
<u>3.2</u>	<u>Certificate of Ownership and Merger of Collectar Biosciences, Inc. with and into Novelos Therapeutics, Inc.</u>		<u>8-K</u>	<u>February 13, 2014</u>
<u>3.3</u>	<u>Certificate of Amendment to Second Amended and Restated Certificate of Incorporation</u>		<u>8-K</u>	<u>June 13, 2014</u>
<u>3.4</u>	<u>Certificate of Amendment to Second Amended and Restated Certificate of Incorporation</u>		<u>8-K</u>	<u>June 19, 2015</u>
<u>3.5</u>	<u>Certificate of Amendment to Second Amended and Restated Certificate of Incorporation</u>		<u>8-K</u>	<u>March 4, 2016</u>
<u>3.6</u>	<u>Certificate of Amendment to Second Amended and Restated Certificate of Incorporation</u>		<u>8-K</u>	<u>June 1, 2017</u>
<u>3.7</u>	<u>Amended and Restated By-laws</u>		<u>8-K</u>	<u>June 1, 2011</u>
<u>3.8</u>	<u>Form of Certificate of Designation of Series A Preferred Stock</u>		<u>S-1/A</u>	<u>November 18, 2016</u>
<u>3.9</u>	<u>Form of Certificate of Designation of Series B Preferred Stock</u>		<u>8-K</u>	<u>October 11, 2017</u>
<u>4.1</u>	<u>Form of common stock certificate</u>		<u>S-1/A</u>	<u>November 9, 2011</u>
<u>4.2</u>	<u>Form of Series A Preferred Stock certificate</u>		<u>S-1/A</u>	<u>November 18, 2016</u>
<u>4.3</u>	<u>Form of Series B Preferred Stock certificate</u>		<u>8-K</u>	<u>October 11, 2017</u>
<u>5.1</u>	<u>Legal Opinion of Michael Best & Friedrich LLP</u>	<u>X</u>		
<u>10.1</u>	<u>Form of non-plan non-qualified stock option used from February to May 2005</u>		<u>SB-2</u>	<u>November 16, 2005</u>
<u>10.2</u>	<u>Form of non-plan non-qualified stock option used after May 2005</u>		<u>SB-2</u>	<u>November 16, 2005</u>
<u>10.3</u>	<u>2006 Stock Incentive Plan, as amended</u>		<u>8-K</u>	<u>December 18, 2013</u>
<u>10.4</u>	<u>Form of Incentive Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan</u>		<u>8-K</u>	<u>December 15, 2006</u>
<u>10.5</u>	<u>Form of Non-Statutory Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan</u>		<u>8-K</u>	<u>December 15, 2006</u>
<u>10.6</u>	<u>Common Stock Purchase Warrant dated February 11, 2009</u>		<u>8-K</u>	<u>February 18, 2009</u>
<u>10.7</u>	<u>Form of Common Stock Purchase Warrant issued pursuant to the Consent and Waiver of Holders of Series C Convertible Preferred Stock and Series E Convertible Preferred Stock dated July 6, 2010</u>		<u>S-1A</u>	<u>July 7, 2010</u>
<u>10.8</u>	<u>Form of Common Stock Purchase Warrant dated April 8, 2011</u>		<u>8-K</u>	<u>April 11, 2011</u>
<u>10.9</u>	<u>Securities Purchase Agreement dated April 8, 2011</u>		<u>8-K</u>	<u>April 11, 2011</u>

<u>10.10</u>	<u>License Agreement between Collectar, LLC and the Regents of the University of Michigan dated September 14, 2003, as amended through June 2010</u>	<u>S-1</u>	<u>July 1, 2011</u>	<u>10.31</u>
<u>10.11</u>	<u>Lease Agreement between Collectar, LLC and McAllen Properties LLC, as amended and extended</u>	<u>S-1</u>	<u>July 1, 2011</u>	<u>10.32</u>
<u>10.12</u>	<u>Loan Agreement between the Wisconsin Department of Commerce and Collectar, Inc. dated September 15, 2010</u>	<u>S-1</u>	<u>July 1, 2011</u>	<u>10.33</u>
<u>10.13</u>	<u>General Business Security Agreement dated September 15, 2010</u>	<u>S-1</u>	<u>July 1, 2011</u>	<u>10.34</u>
<u>10.14</u>	<u>Form of Warrant dated December 6, 2011</u>	<u>S-1/A</u>	<u>November 9, 2011</u>	<u>4.2</u>
<u>10.15</u>	<u>Placement Agent Agreement dated April 9, 2012 between the Company and Rodman and Renshaw, LLC</u>	<u>S-1</u>	<u>April 9, 2012</u>	<u>10.31</u>
<u>10.16</u>	<u>Securities Purchase Agreement dated June 7, 2012</u>	<u>8-K</u>	<u>June 11, 2012</u>	<u>10.1</u>
<u>10.17</u>	<u>Amendment Agreement dated May 11, 2012 between the Company and Rodman and Renshaw, LLC</u>	<u>S-1/A</u>	<u>May 14, 2012</u>	<u>10.33</u>
<u>10.18</u>	<u>Form of Common Stock Purchase Warrant dated June 13, 2012</u>	<u>8-K</u>	<u>June 11, 2012</u>	<u>4.1</u>
<u>10.19</u>	<u>Securities Purchase Agreement between the Company and Renova Industries Ltd.</u>	<u>10-Q</u>	<u>November 6, 2012</u>	<u>10.2</u>
<u>10.20</u>	<u>Form of Securities Purchase Agreement</u>	<u>8-K</u>	<u>February 14, 2013</u>	<u>10.1</u>
<u>10.21</u>	<u>Form of Common Stock Purchase Warrant</u>	<u>8-K</u>	<u>February 14, 2013</u>	<u>4.1</u>
<u>10.22</u>	<u>Amendment and restated Placement Agent Agreement dated January 8, 2013 between the Company and Burrill LLC</u>	<u>S-1/A</u>	<u>January 31, 2013</u>	<u>10.37</u>
<u>10.23</u>	<u>Retention Agreement between the Company and Christopher Pazoles dated July 26, 2013</u>	<u>10-Q</u>	<u>November 13, 2013</u>	<u>10.2</u>
<u>10.24</u>	<u>Retention Agreement between the Company and Joanne M. Protano dated July 26, 2013</u>	<u>10-Q</u>	<u>November 13, 2013</u>	<u>10.3</u>
<u>10.25</u>	<u>Consulting Agreement between the Company and Simon Pedder dated October 4, 2013</u>	<u>10-Q</u>	<u>November 13, 2013</u>	<u>10.4</u>
<u>10.26</u>	<u>Employment Agreement between the Company and Simon Pedder dated October 4, 2013</u>	<u>10-Q</u>	<u>November 13, 2013</u>	<u>10.5</u>
<u>10.27</u>	<u>Waiver Agreement between the Company and Renova Assets Ltd. dated October 9, 2013</u>	<u>8-K</u>	<u>October 11, 2013</u>	<u>10.1</u>
<u>10.28</u>	<u>Securities Purchase Agreement dated February 5, 2014</u>	<u>8-K</u>	<u>February 10, 2014</u>	<u>10.1</u>
<u>10.29</u>	<u>Form of Convertible Debenture</u>	<u>8-K</u>	<u>February 10, 2014</u>	<u>4.1</u>
<u>10.30</u>	<u>Form of Common Stock Purchase Warrant</u>	<u>8-K</u>	<u>February 10, 2014</u>	<u>4.2</u>
<u>10.31</u>	<u>Form of Warrant Agreement between Collectar Biosciences, Inc. and American Stock Transfer and Trust Company</u>	<u>S-1/A</u>	<u>July 7, 2014</u>	<u>10.31</u>
<u>10.32</u>	<u>Form of Underwriting Agreement</u>	<u>S-1/A</u>	<u>July 7, 2014</u>	<u>1.1</u>
<u>10.33</u>	<u>Form of Note Purchase and Security Agreement</u>	<u>10-Q</u>	<u>August 4, 2014</u>	<u>10.1</u>
<u>10.34</u>	<u>Form of 8% Secured Promissory Note</u>	<u>10-Q</u>	<u>August 4, 2014</u>	<u>10.2</u>

<u>10.35</u>	<u>Form of Consent Agreement with Debenture Holders</u>	<u>10-Q</u>	<u>August 4, 2014</u>	<u>10.3</u>
<u>10.36</u>	<u>2015 Stock Incentive Plan</u>	<u>10-Q</u>	<u>August 12, 2015</u>	<u>10.1</u>
<u>10.37</u>	<u>Employment Agreement between the Company and James Caruso, dated June 15, 2015</u>	<u>10-Q</u>	<u>August 12, 2015</u>	<u>10.2</u>
<u>10.38</u>	<u>Placement Agency Agreement dated September 28, 2015 between the Company and Ladenburg Thalmann & Co. Inc.</u>	<u>8-K</u>	<u>September 30, 2015</u>	<u>1.1</u>
<u>10.39</u>	<u>Form of Series B Pre-Funded Warrant</u>	<u>8-K</u>	<u>September 30, 2015</u>	<u>4.1</u>
<u>10.40</u>	<u>Form of Series A Warrant</u>	<u>8-K</u>	<u>September 30, 2015</u>	<u>4.2</u>
<u>10.41</u>	<u>Securities Purchase Agreement dated September 28, 2015</u>	<u>8-K</u>	<u>September 30, 2015</u>	<u>10.1</u>
<u>10.42</u>	<u>Registration Rights Agreement dated September 28, 2015</u>	<u>8-K</u>	<u>September 30, 2015</u>	<u>10.2</u>
<u>10.43</u>	<u>Amendment and Exchange Agreement dated April 13, 2016</u>	<u>S-1/A</u>	<u>April 14, 2016</u>	<u>10.43</u>
<u>10.44</u>	<u>Form of Underwriting Agreement</u>	<u>S-1/A</u>	<u>April 14, 2016</u>	<u>1.1</u>
<u>10.45</u>	<u>Form of Series A Warrant</u>	<u>S-1/A</u>	<u>April 14, 2016</u>	<u>4.2</u>
<u>10.46</u>	<u>Form of Series B Pre-Funded Warrant</u>	<u>S-1/A</u>	<u>April 14, 2016</u>	<u>4.3</u>
<u>10.47</u>	<u>Form of Warrant Agency Agreement</u>	<u>S-1/A</u>	<u>April 14, 2016</u>	<u>4.4</u>
<u>10.48</u>	<u>Form of Underwriting Agreement</u>	<u>S-1/A</u>	<u>November 18, 2016</u>	<u>1.1</u>
<u>10.49</u>	<u>Form of Series C Warrant</u>	<u>S-1/A</u>	<u>November 18, 2016</u>	<u>4.3</u>
<u>10.50</u>	<u>Form of Warrant Agency Agreement</u>	<u>S-1/A</u>	<u>November 18, 2016</u>	<u>4.4</u>
<u>10.51</u>	<u>Form of Restricted Common Stock Agreement</u>	<u>10-Q</u>	<u>August 14, 2017</u>	<u>10.1</u>
<u>10.52</u>	<u>Form of Series D Common Stock Purchase Warrant</u>	<u>8-K</u>	<u>October 11, 2017</u>	<u>4.1</u>
<u>10.53</u>	<u>Securities Purchase Agreement dated October 10, 2017</u>	<u>8-K</u>	<u>October 11, 2017</u>	<u>10.1</u>
<u>10.54</u>	<u>Registration Right Agreement dated October 10, 2017</u>	<u>8-K</u>	<u>October 11, 2017</u>	<u>10.2</u>
<u>21.1</u>	<u>List of Subsidiaries</u>	<u>10-K</u>	<u>March 15, 2017</u>	<u>21.1</u>
<u>23.1</u>	<u>Consent of Michael Best & Friedrich LLP (included in Exhibit 5.1)</u>	<u>X</u>		
<u>23.2</u>	<u>Consent of Baker Tilly Virchow Krause, LLP</u>	<u>X</u>		
<u>24.1</u>	<u>Powers of Attorney (included on signature page)</u>	<u>X</u>		

* To be filed by amendment.



November 9, 2017

Cellectar Biosciences, Inc.
3301 Agriculture Drive
Madison, Wisconsin 53716

Ladies and Gentlemen:

We have acted as counsel to Cellectar Biosciences, Inc., a Delaware corporation (the “Company”), in connection with the registration statement on Form S-1 (the “Registration Statement”), filed with the Securities and Exchange Commission (the “Commission”) under the Securities Act of 1933, as amended (the “Act”), as to the offering by the Company of 3,108,538 shares (the “Warrant Shares”) of the Company’s common stock, \$0.00001 par value per share (“Common Stock”) that may be issued upon the exercise of certain outstanding warrants to purchase Common Stock issued by the Company on October 12, 2017 to the selling stockholders identified in the Registration Statement (the “Selling Stockholders”). The Warrant Shares are to be sold by the Selling Stockholders pursuant to the prospectus filed with the Registration Statement (the “Prospectus”).

You have requested our opinion with respect to the matters set forth below.

We are familiar with the Company’s Second Amended and Restated Certificate of Incorporation, as amended, its Bylaws, as amended and restated and in the form appearing in the Company’s minute books, and the records of meetings and consents of its Board of Directors and committees thereof and of its stockholders provided to us by the Company. In addition, we have examined and relied on the originals or copies certified or otherwise identified to our satisfaction of all such corporate records of the Company and such other instruments and other certificates of public officials, officers and representatives of the Company and such other persons, and we have made such investigations of law, as we have deemed appropriate as a basis for the opinions expressed below.

We express no opinion as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware (including applicable provisions of the Delaware Constitution and reported judicial decisions interpreting such Law and such Constitution) and the federal laws of the United States of America.

Based upon and subject to the foregoing, it is our opinion that:

1. The issuance, offer and sale of the Warrant Shares, as described in the Registration Statement, have been duly authorized by all necessary corporate action on the part of the Company.
2. The Warrant Shares, when issued, sold and delivered in the manner and for the consideration set forth in the Prospectus, will be validly issued, fully paid and non-assessable.

November 9, 2017
Collectar Biosciences, Inc.
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We consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to us under the heading “Legal Matters” in the Prospectus. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Securities and Exchange Commission.

This opinion letter is given as of the date hereof, and we express no opinion as to the effect of subsequent events or changes in law occurring or becoming effective after the date hereof. We assume no obligation to update this opinion letter or otherwise advise you with respect to any facts or circumstances or changes in law that may hereafter occur or come to our attention (even though the change may affect the legal conclusions stated in this opinion letter).

Very truly yours,

MICHAEL BEST & FRIEDRICH LLP

/s/ Michael Best & Friedrich LLP



Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated March 15, 2017, with respect to the consolidated financial statements of Collectar Biosciences, Inc. and Subsidiary included in the Annual Report on Form 10-K for the years ended December 31, 2016 and 2015, which is incorporated by reference in this Registration Statement on Form S-1. We consent to the incorporation by reference of the aforementioned report in this Registration Statement, and to the use of our name as it appears under the caption "Experts."

/s/ BAKER TILLY VIRCHOW KRAUSE, LLP

Baker Tilly Virchow Krause, LLP

Madison, Wisconsin
November 9, 2017
