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

**Amendment No. 3 to
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Biocept, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

8071
(Primary Standard Industrial
Classification Code Number)

80-0943522
(I.R.S. Employer
Identification Number)

**5810 Nancy Ridge Drive
San Diego, CA 92121
(858) 320-8200**

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

Michael W. Nall
Chief Executive Officer and President
Biocept, Inc.
**5810 Nancy Ridge Drive
San Diego, CA 92121
(858) 320-8200**

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

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

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, 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 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, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act:

Large accelerated filer ☐

Accelerated filer ☐

Non-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 complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☒

CALCULATION OF REGISTRATION FEE

Title of Securities being Registered	Proposed Maximum Aggregate Offering Price (1) (2) (3)	Amount of Registration Fee
Shares of common stock, \$0.0001 par value per share	\$11,500,000	\$1,492.70
Warrants to purchase shares of common stock ⁽⁴⁾		
Shares of common stock issuable upon exercise of the Warrants	\$11,500,000	\$1,492.70
Pre-Funded Warrants to purchase shares of common stock	(5)	
Shares of common stock issuable upon exercise of the Pre-Funded Warrants ⁽⁴⁾		
Total	\$23,000,000	\$2,985.40 ⁽⁶⁾

- (1)

Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended, or the Securities Act.
- (2)

Pursuant to Rule 416, the securities being registered hereunder include such indeterminate number of additional securities as may be issuable to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (3)

Includes the offering price of any additional shares of common stock and warrants to purchase shares of common stock that the underwriters have the right to purchase from the Registrant.
- (4)

No fee is required pursuant to Rule 457(i) under the Securities Act.
- (5)

The proposed maximum aggregate offering price of the common stock proposed to be sold in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any Pre-Funded Warrants offered and sold in the offering, and, as such, the proposed maximum aggregate offering price of the common stock and Pre-Funded Warrants (including the common stock issuable upon exercise of the Pre-Funded Warrants), if any, is \$11,500,000.
- (6)

Previously paid on November 4, 2019.

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 that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, 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 it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS, SUBJECT TO COMPLETION, DATED DECEMBER 4, 2019



18,518,518 Shares of Common Stock

Pre-Funded Warrants to Purchase up to 18,518,518 Shares of Common Stock

Warrants to Purchase up to 18,518,518 Shares of Common Stock

We are offering 18,518,518 shares of common stock and warrants to purchase up to 18,518,518 shares of our common stock at a combined public offering price of \$ per share of common stock and accompanying warrant.

We are also offering to those purchasers, if any, whose purchase of our common stock in this offering would otherwise result in such purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, the opportunity, in lieu of purchasing common stock, to purchase pre-funded warrants to purchase shares of our common stock, or Pre-Funded Warrants. Each Pre-Funded Warrant will be exercisable for one share of our common stock (subject to adjustment as provided for therein) at any time at the option of the holder until such Pre-Funded Warrant is exercised in full, provided that the holder will be prohibited from exercising Pre-Funded Warrants for shares of our common stock if, as a result of such exercise, the holder, together with its affiliates, would own more than 4.99% of the total number of shares of our common stock then issued and outstanding. However, any holder may increase such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice to us. The purchase price of each Pre-Funded Warrant will equal the price per share at which shares of our common stock and accompanying warrants to purchase common stock are being sold to the public in this offering, minus \$0.01, and the exercise price of each Pre-Funded Warrant will equal \$0.01 per share of common stock. For each Pre-Funded Warrant purchased in this offering in lieu of common stock, we will reduce the number of shares of common stock we are offering by one. Pursuant to this prospectus, we are also offering the shares of common stock issuable upon the exercise of the warrants and Pre-Funded Warrants offered hereby.

Each share of our common stock, or Pre-Funded Warrant in lieu thereof, is being sold together with a warrant to purchase one share of our common stock. Each warrant will have an exercise price of \$ per share, will be immediately exercisable and will expire on the fifth anniversary of the original issuance date. The shares of our common stock and warrants are immediately separable and will be issued separately, but will be purchased together in this offering.

Our common stock is listed on The Nasdaq Capital Market under the symbol "BIOC." On December 3, 2019, the last reported sale price of our common stock on The Nasdaq Capital Market was \$0.54 per share. The final public offering price of the securities offered hereby, as well as the exercise price of the warrants to purchase common stock, will be determined through negotiation between us and the lead underwriter in this offering and the recent market price used throughout the prospectus may not be indicative of the actual offering price. There is no established trading market for the warrants or Pre-Funded Warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the warrants or Pre-Funded Warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the warrants and the Pre-Funded Warrants will be limited.

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012, and, as such, we have elected to take advantage of certain reduced public company reporting requirements for this prospectus and future filings.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 5 of this prospectus for a discussion of information that should be considered in connection with an investment in our securities.

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

	Per Share and Accompanying Warrant	Per Pre-Funded Warrant and Accompanying Warrant	Total
Public offering price	\$	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

(1) See “Underwriting” beginning on page 17 for additional disclosure regarding underwriting discounts and commissions and reimbursement of expenses.

We have granted the underwriters an option for a period of 45 days from the date of this prospectus to purchase up to an additional 2,777,777 shares of common stock and/or warrants to purchase 2,777,777 shares of common stock at the public offering price, less the underwriting discounts.

We anticipate that delivery of the shares, Pre-Funded Warrants and warrants against payment will be made on or about , 2019.

Sole Book-Running Manager

Maxim Group LLC

Co-Manager

Dawson James Securities, Inc.

The date of this prospectus is , 2019.



The CEE Solution
Personalized Medicine from a Liquid Biopsy

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We have not, and the underwriters have not, authorized anyone to provide you with information that is different from that contained in this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. Neither the delivery of this prospectus nor the sale of our securities means that the information contained in this prospectus or any free writing prospectus is correct after the date of this prospectus or such free writing prospectus. This prospectus is not an offer to sell or the solicitation of an offer to buy our securities in any circumstances under which the offer or solicitation is unlawful.

For investors outside the United States: We have not, and the underwriters have not, taken any action that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities covered hereby and the distribution of this prospectus outside the United States.

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. Our management estimates have not been verified by any independent source, and we have not independently verified any third-party information. In addition, assumptions and estimates of our and our industry's future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors." These and other factors could cause our future performance to differ materially from our assumptions and estimates. See "Special Note Regarding Forward-Looking Statements."

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to the registration statement of which this prospectus is a part were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

We use in this prospectus our BIOCEPT logo, for which a United States trademark application has been filed. This prospectus also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus appear (after the first usage) without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

SUMMARY

This summary highlights information contained in other parts of this prospectus or incorporated by reference into this prospectus from our filings with the Securities and Exchange Commission, or SEC, listed in the section of the prospectus entitled “Incorporation of Certain Information by Reference.” Because it is only a summary, it does not contain all of the information that you should consider before purchasing our securities in this offering and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere or incorporated by reference into this prospectus. You should read the entire prospectus, the registration statement of which this prospectus is a part, and the information incorporated by reference herein in their entirety, including the “Risk Factors” and our financial statements and the related notes incorporated by reference into this prospectus, before purchasing our securities in this offering. Unless the context requires otherwise, references in this prospectus to “Biocept,” “we,” “us” and “our” refer to Biocept, Inc.

Our Company

We are an early stage molecular oncology diagnostics company that develops and commercializes proprietary circulating tumor cell, or CTC, and circulating tumor DNA, or ctDNA, assays utilizing a standard blood sample, or “liquid biopsy.” Our current and planned assays are intended to provide information to aid healthcare providers to identify specific oncogenic alterations that may qualify a subset of cancer patients for targeted therapy at diagnosis, show progression or be used for monitoring in order to identify specific resistance mechanisms. Sometimes traditional procedures, such as surgical tissue biopsies, result in tumor tissue that is insufficient and/or unable to provide the molecular subtype information necessary for clinical decisions. Our assays, performed on blood, have the potential to provide more contemporaneous information on the characteristics of a patient’s disease when compared with tissue biopsy and radiographic imaging. Our current assays and our planned future assays focus on key solid tumor indications utilizing our Target-Selector™ liquid biopsy technology platform for the biomarker analysis of CTCs and ctDNA from a standard blood sample. Our patented Target-Selector CTC offering is based on an internally developed microfluidics-based cell capture and analysis platform, with enabling features that change how information provided by CTC testing is used by clinicians. Our CTC technology also could be validated on cerebral spinal fluid in order to provide information for patients with central nervous system tumors both primary and metastatic. Our patented Target-Selector ctDNA technology enables detection of mutations and genome alterations with enhanced sensitivity and specificity, and is applicable to nucleic acid from ctDNA, could potentially be validated for interrogating other sample types such as bone marrow, tissue (surgical resections and/or biopsies) or cerebrospinal fluid. Our Target-Selector CTC and ctDNA platforms provide both biomarker detection as well as monitoring capabilities and require only a patient blood sample. In January 2019, we began offering Research Use Only, or RUO, liquid biopsy kits containing our ctDNA Target Selector ctDNA technology to laboratories worldwide. The liquid biopsy market is estimated to reach \$17 billion by 2023.

At our corporate headquarters facility located in San Diego, California, we operate a clinical laboratory that is certified under the Clinical Laboratory Improvement Amendments of 1988, or CLIA, and accredited by the College of American Pathologists, or CAP. We also performed the research and development that led to our current assays, and continue to perform research and development for our planned assays, at this same facility. In addition, we currently manufacture our microfluidic channels, related equipment and certain reagents, however, we have identified and have been working with a manufacturer to outsource certain manufacturing activities in the near term to reduce costs and improve efficiency. The assays we offer and intend to offer are classified as laboratory developed tests, or LDTs, under CLIA regulations. CLIA certification is required before any clinical laboratory, including ours, may perform testing on human specimens for the purpose of obtaining information for the diagnosis, prevention, or treatment of disease or the assessment of health. In addition, we participate in and have received CAP accreditation, which includes rigorous bi-annual laboratory inspections and requires adherence to specific quality standards.

Our primary sales strategy is to engage medical oncologists and other physicians in the United States at private and group practices, hospitals, laboratories and cancer centers. In addition, we market our clinical trial and research services to pharmaceutical and biopharmaceutical companies and clinical research organizations. Additionally, our pathology partnership program, branded as Empower TC™, provides the unique ability for pathologists to participate in the interpretation of liquid biopsy results and is available to pathology practices and hospital systems throughout the United States. Further, sales to laboratory supply distributors of our patented blood collection tubes, or BCTs, commenced in June 2018, which allow for the intact transport of liquid biopsy samples for RUO from regions around the world.

Our revenue generating efforts are focused in three areas:

- providing laboratory services to medical oncologists, surgical oncologists, urologists, pulmonologists, pathologists and other physicians who use the biomarker information we provide in order to determine the best treatment plan for their patients;

- providing laboratory services utilizing both our CTC and ctDNA testing in order to help pharmaceutical and biopharmaceutical companies developing drug candidate therapies to treat cancer; and
- licensing and/or selling our proprietary testing and/or technologies, including our BCTs, to partners in the United States and abroad.

We plan to grow our business by directly offering medical oncologists, surgical oncologists, pulmonologists, pathologists and other physicians our Target-Selector liquid biopsy CTC and ctDNA assays. Based on our product development data, as well as discussions with our collaborators, we believe that our planned future assays should provide important information and clinical value to physicians. In particular, CTC and ctDNA assays could deliver important, actionable information not provided by other assays. For example, the historic clinical CTC test is the United States Food and Drug Administration, or FDA, approved CellSearch[®] test, which provides CTC enumeration, but is not FDA approved to perform biomarker analysis. We believe our ability to rapidly translate research insights about the utility of cytogenetic, immunocytochemical and molecular biomarkers to provide information to medical oncologists, surgical oncologists, urologists, pulmonologists, pathologists and other physicians for treatment decisions in the clinical setting will improve patient treatment and management, and that these assays will become a key component of the standard of care for personalized cancer treatment.

Implications of Being an Emerging Growth Company

As a company with less than \$1.07 billion in gross revenues during our last fiscal year, we qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act, or JOBS Act, enacted in April 2012. An “emerging growth company” may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions until December 31, 2019. We have elected to take advantage of certain of the reduced disclosure obligations and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information that we provide to our stockholders may be different than the information you might receive from other public reporting companies in which you hold equity interests.

The Offering

Common stock offered by us 18,518,518 shares.

Pre-Funded Warrants offered by us We are also offering to those purchasers, if any, whose purchase of common stock in this offering would otherwise result in such purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, the opportunity, in lieu of purchasing common stock, to purchase Pre-Funded Warrants to purchase up to 18,518,518 shares of our common stock. For each Pre-Funded Warrant we sell, the number of shares of common stock we are offering will be decreased on a one-for-one basis. The purchase price of each Pre-Funded Warrant will equal the price per share at which the shares of common stock and accompanying warrants to purchase common stock are being sold to the public in this offering, minus \$0.01, and the exercise price of each Pre-Funded Warrant will be \$0.01 per share of common stock. Each Pre-Funded Warrant will be exercisable immediately upon issuance and will not expire. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of such Pre-Funded Warrants. See “Description of the Securities We are Offering—Pre-Funded Warrants” for a discussion on the terms of the Pre-Funded Warrants.

Each Pre-Funded Warrant is exercisable for one share of our common stock (subject to adjustment as provided therein) at any time at the option of the holder, provided that the holder will be prohibited from exercising its Pre-Funded Warrant for shares of our common stock if, as a result of such exercise, the holder, together with its affiliates, would own more than 4.99% of the total number of shares of our common stock then issued and outstanding. However, any holder may increase such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice to us.

Warrants offered by us Warrants to purchase up to 18,518,518 shares of our common stock. Each share of our common stock, or Pre-Funded Warrant in lieu thereof, is being sold together with a warrant to purchase one share of our common stock. Each warrant will have an initial exercise price of \$ per share, will be immediately exercisable and will expire on the fifth anniversary of the original issuance date. The warrants have an exercise price protection feature as described in the form of warrant attached as an exhibit to the registration statement of which this prospectus forms a part. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of such warrants.

Option to purchase additional shares and/or warrants We have granted the underwriters an option for a period of 45 days from the date of this prospectus to purchase up to an additional 2,777,777 shares of common stock and/or warrants to purchase 2,777,777 shares of common stock at the public offering price, less the underwriting discounts.

Common stock outstanding after this offering 41,536,753 shares (assuming no sale of any Pre-Funded Warrants and assuming none of the warrants to purchase common stock issued in this offering are exercised).

Use of proceeds

We currently expect to use the net proceeds from this offering for general corporate purposes and to fund ongoing operations and expansion of our business. For additional information please refer to the section entitled “Use of Proceeds” of this prospectus.

Risk Factors

Investing in our securities involves a high degree of risk. You should carefully review and consider the “Risk Factors” section of this prospectus for a discussion of factors to consider before deciding to purchase any of our securities in this offering.

Market Symbol and trading

Our common stock is listed on The Nasdaq Capital Market under the symbol “BIOC.” There is no established trading market for the warrants or Pre-Funded Warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the warrants or Pre-Funded Warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the warrants and Pre-Funded Warrants will be limited.

Unless otherwise stated, all information contained in this prospectus assumes no sale of any Pre-Funded Warrants in lieu of common stock in this offering and no exercise by the underwriters of their option to purchase additional shares and/or warrants in this offering.

The number of shares of our common stock to be outstanding after this offering is based on 23,018,235 shares of our common stock outstanding as of September 30, 2019 and excludes as of such date:

- up to 471,393 shares of common stock issuable upon the conversion of Series A Convertible Preferred Stock outstanding;
- 2,797,656 shares of our common stock issuable upon the exercise of stock options, with a weighted-average exercise price of \$3.62 per share;
- 360 shares of our common stock issuable upon the settlement of outstanding restricted stock units;
- 15,197,249 shares of our common stock issuable upon the exercise of outstanding warrants, with a weighted-average exercise price of \$3.08 per share; and
- 353,003 other shares of our common stock reserved for future issuance under our 2013 Amended and Restated Equity Incentive Plan.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should consider carefully the risks described below, together with all of the other information included or incorporated by reference in this prospectus, including the risks and uncertainties discussed under “Risk Factors” in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, which has been filed with the SEC and is incorporated by reference in this prospectus, as well as any updates thereto contained in subsequent filings with the SEC or any free writing prospectus, before deciding whether to purchase our securities in this offering. All of these risk factors are incorporated herein in their entirety. The risks described below and incorporated by reference are material risks currently known, expected or reasonably foreseeable by us. However, the risks described below are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business, operating results, prospects or financial condition. If any of these risks actually materialize, our business, prospects, financial condition, and results of operations could be seriously harmed. This could cause the trading price of our common stock and the value of the warrants to decline, resulting in a loss of all or part of your investment.

Risks Relating to This Offering

If you purchase our securities in this offering, you may incur immediate and substantial dilution in the book value of your shares.

The combined public offering price per share of our common stock and accompanying warrant may be substantially higher than the net tangible book value per share of our common stock immediately prior to the offering. After giving effect to the assumed sale of shares of our common stock and accompanying warrants in this offering, at an assumed combined public offering price of \$0.54 per share and accompanying warrant (the last reported sale price of our common stock on The Nasdaq Capital Market on December 3, 2019), and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us and attributing no value to the warrants sold in this offering, purchasers of our common stock in this offering will incur immediate dilution of \$0.14 per share in the net tangible book value of the common stock they acquire. In the event that you exercise your warrants, you may experience additional dilution to the extent that the exercise price of the warrants is higher than the tangible book value per share of our common stock. For a further description of the dilution that investors in this offering may experience, see “Dilution.”

In addition, to the extent that outstanding stock options or warrants have been or may be exercised or other shares issued, you may experience further dilution.

We have broad discretion in the use of the net proceeds we receive from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds we receive in this offering, including for any of the purposes described in the section entitled “Use of Proceeds,” and you will not have the opportunity as part of your investment decision to assess whether our management is using the net proceeds appropriately. Because of the number and variability of factors that will determine our use of our net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business and cause the price of our common stock to decline. Pending their use, we may invest our net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders.

Future sales of substantial amounts of our common stock could adversely affect the market price of our common stock.

We may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. If additional capital is raised through the sale of equity or convertible debt securities, or perceptions that those sales could occur, the issuance of these securities could result in further dilution to investors purchasing our common stock in this offering or result in downward pressure on the price of our common stock, and our ability to raise capital in the future.

Holders of our warrants and Pre-Funded Warrants will have no rights as a common stockholder until they acquire our common stock.

Until you acquire shares of our common stock upon exercise of your warrants or Pre-Funded Warrants, you will have no rights with respect to shares of our common stock issuable upon exercise of your warrants or Pre-Funded Warrants. Upon exercise of your warrants or Pre-Funded Warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

The warrants may not have any value.

Each warrant will have an exercise price of not less than 100% of the last reported sale price of our common stock as of the close of the trading day immediately preceding the pricing of this offering and will expire on the fifth 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.

There is no public market for the warrants to purchase shares of our common stock or Pre-Funded Warrants being offered in this offering.

There is no established public trading market for the warrants or Pre-Funded Warrants 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 Pre-Funded Warrants on any national securities exchange or other nationally recognized trading system, including The Nasdaq Capital Market. Without an active trading market, the liquidity of the warrants and Pre-Funded Warrants will be limited.

Intellectual Property Risks Related to Our Business

The following risk factor reflects changes from the similarly titled risk factor included in our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2019, filed with the SEC on November 13, 2019.

Third-party claims of intellectual property infringement may prevent or delay our development and commercialization efforts.

Our commercial success depends in part on our avoiding infringement of the patents and proprietary rights of third parties. There have been many lawsuits and other proceedings involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions, and reexamination proceedings before the USPTO and corresponding foreign patent offices. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing products and services. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our products and services may be subject to claims of infringement of the patent rights of third parties.

Third parties may assert that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture, or methods for treatment related to the use or manufacture of our products and services. We have conducted freedom to operate analyses with respect to only certain of our products and services, and therefore we do not know whether there are any third-party patents that would impair our ability to commercialize these products and services. We also cannot guarantee that any of our analyses are complete and thorough, nor can we be sure that we have identified each and every patent and pending application in the United States and abroad that is relevant or necessary to the commercialization of our products and services. Because patent applications can take many years to issue, there may be currently pending patent applications that may later result in issued patents that our products or services may infringe.

For example, in August 2016, we received a letter from MolecularMD Corp. offering a license to two U.S. Patents owned by the Memorial Sloan-Kettering Cancer Center, and licensed to MolecularMD Corp., that are relevant to one of the biomarkers we detect in our Liquid Biopsy Non-Small Cell Lung Cancer Profile Target-Selector assay and our Liquid Biopsy Lung Cancer Resistance Profile Target-Selector™ assay. One of the two patents is expected to expire in 2026. The other patent is expected to expire in 2028. Although we believe that the claims of both patents relevant to our assays would likely be held invalid, we cannot provide any assurances that a court or an administrative agency would agree with our assessment. If the validity of the relevant claims in question is upheld upon a validity challenge, then we may be liable for past damages and would need a license in order to continue commercializing our Liquid Biopsy Non-Small Cell Lung Cancer Profile Target-Selector Assay and our Liquid Biopsy Lung Cancer Resistance Profile Target-Selector Assay in the United States. However, such a license may not be available on commercially reasonable terms or at all, which could materially and adversely affect our business.

In addition, we are aware of a U.S. Patent owned by Amgen, Inc. that is relevant to one of the biomarkers we detect in our Liquid Biopsy Non-Small Cell Lung Cancer Profile Target-Selector assay and our Liquid Biopsy Lung Cancer Resistance Profile Target-Selector assay. The patent is expected to expire in 2028. Although we believe that the claims of the patent relevant to our assays would likely be held invalid, we cannot provide any assurances that a court or an administrative agency would agree with our assessment. If the validity of the relevant claims in question is upheld upon a validity challenge, then we may be liable for past damages and would need a license in order to continue commercializing our Liquid Biopsy Non-Small Cell Lung Cancer Profile Target-Selector assay and our Liquid Biopsy Lung Cancer Resistance Profile Target-Selector assay in the United States. However, such a license may not be available on commercially reasonable terms or at all, which could materially and adversely affect our business.

We are also aware of a U.S. Patent owned by Genentech, Inc. that is relevant to one of the biomarkers we detect in our Liquid

Biopsy Lung Cancer Resistance Profile Target-Selector assay and our Liquid Biopsy Colon Cancer Profile Target-Selector assay. The patent is expected to expire in 2025. Although we believe that the claims of the patent relevant to our assays would likely be held invalid, we cannot provide any assurances that a court or an administrative agency would agree with our assessment. If the validity of the relevant claims in question is upheld upon a validity challenge, then we may be liable for past damages and would need a license in order to continue commercializing our Liquid Biopsy Lung Cancer Resistance Profile Target-Selector assay and our Liquid Biopsy Colon Cancer Profile Target-Selector assay in the United States. However, such a license may not be available on commercially reasonable terms or at all, which could materially and adversely affect our business.

In addition, in July 2016, we received a communication from the Mayo Foundation for Medical Education and Research, or Mayo, offering a license to a U.S. Patent owned by Mayo that is relevant to an antibody that we use in our Liquid Biopsy Immuno-Oncology PD-L1 assay. The patent is expected to expire in 2021. At present, we believe that we will need a license to this patent to continue commercializing our Liquid Biopsy Immuno-Oncology PD-L1 assay. We are currently in discussions with Mayo and believe a license can be obtained on commercially reasonable terms. However, if we are unable to secure such a license, we may be liable for past damages, and our business could be materially and adversely affected.

In November 2019, we received a cease and desist letter and a notice of dispute from Aegea Biotechnologies, Inc., or Aegea, relating to the Assignment and Exclusive Cross License Agreement by and between us and Aegea dated June 2, 2012, or the Cross License. The letter claims that we are in breach of the Cross License due to sales of kits in the oncology field for research purposes and demands that we cease and desist all such kit sales, and the notice of dispute invokes the dispute resolution provisions of the Cross License with respect to the claimed breach. We are currently in discussions with Aegea and believe we will come to an amicable resolution, however, if we are unable to do so, our business could be harmed.

In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. If any third-party patents were held by a court of competent jurisdiction to cover aspects of our products or services, the holders of any such patents may be able to block our ability to commercialize such products or services unless we obtained a license under the applicable patents, or until such patents expire or are finally determined to be invalid or unenforceable. Such a license may not be available on commercially reasonable terms or at all.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our products or services. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated herein by reference contain forward-looking statements. The forward-looking statements are contained principally in the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business” in this prospectus or the documents incorporated herein by reference. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- our ability to increase sales of our products, assays and services;
- our ability to continually develop new products, diagnostic assays, services and enhance our current products, assays and services and future products, assays, and services;
- our ability to effectively compete with other products, diagnostic assays, methods and services that now exist or may hereafter be developed;
- our ability to expand our international business;
- our ability to obtain coverage and adequate reimbursement from governmental and other third-party payers for assays and services;
- our expectations regarding the use of our existing cash and the expected net proceeds of this offering;
- our ability to enter into agreements with commercialization partners for the sales, marketing and commercialization of our current products, assays and services, and our planned future products, assays and services;
- our ability to satisfy any applicable United States and international regulatory requirements with respect to products, assays and services; and
- our ability to obtain or maintain patents or other appropriate protection for the intellectual property utilized in our current and planned products, assays and services.

In some cases, you can identify these statements by terms such as “anticipate,” “believe,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes. These forward-looking statements reflect our management’s beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this prospectus and are subject to risks and uncertainties. We discuss many of these risks in greater detail in the documents incorporated by reference herein, usually under the heading “Risk Factors.” Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

You should carefully read this prospectus, the documents that we incorporate by reference into this prospectus and the documents we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus by these cautionary statements.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, whether as a result of new information, future events or otherwise.

This prospectus also refers to estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

USE OF PROCEEDS

We estimate that the net proceeds of this offering will be approximately \$9.0 million, based on the assumed combined public offering price of \$0.54 per share and accompanying warrant (the last reported sale price of our common stock on The Nasdaq Capital Market on December 3, 2019), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the warrants. If the underwriters exercise their option to purchase additional shares and warrants in full, we estimate that our net proceeds from this offering will be approximately \$10.3 million, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the warrants. Each \$0.25 increase (decrease) in the assumed combined public offering price of \$0.54 per share and accompanying warrant would increase (decrease) the net proceeds to us from this offering by approximately \$4.3 million, assuming the number of shares and warrants offered by us, as set forth on the cover page of this prospectus, remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares of our common stock and warrants we are offering. Each 1.0 million share increase (decrease) in the number of shares sold in this offering would increase (decrease) the expected net proceeds of the offering to us by approximately \$0.5 million, assuming that the assumed combined public offering price per share and accompanying warrant remains the same. We currently intend to use the net proceeds of the offering for general corporate purposes and to fund ongoing operations and expansion of our business. We may also use a portion of the net proceeds from this offering to in-license, acquire, or invest in complementary businesses, technologies, products or assets. However, we have no current plans, commitments or obligations to do so.

We cannot currently allocate specific percentages of the net proceeds to us from this offering that we may use for the purposes specified above and our management will have broad discretion in the allocation of the net proceeds.

DILUTION

If you purchase our securities in this offering, you may experience dilution to the extent of the difference between the combined public offering price per share and accompanying warrant in this offering and our as adjusted net tangible book value per share immediately after this offering, assuming no value is attributed to the warrants, and such warrants are accounted for and classified as equity. Net tangible book value per share is equal to the amount of our total tangible assets, less total liabilities, divided by the number of outstanding shares of our common stock. As of September 30, 2019, our net tangible book value was approximately \$7.7 million, or approximately \$0.33 per share.

After giving effect to the assumed sale by us of 18,518,518 shares of our common stock (assuming no Pre-Funded Warrants in lieu of common stock issued) and warrants to purchase up to 18,518,518 shares of our common stock in this offering at an assumed combined public offering price of \$0.54 per share and accompanying warrant (the last reported sale price of our common stock on The Nasdaq Capital Market on December 3, 2019), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2019 would have been approximately \$16.7 million, or approximately \$0.40 per share. This represents an immediate increase in net tangible book value of \$0.07 per share to existing stockholders and an immediate dilution of \$0.14 per share to new investors purchasing shares of our common stock and accompanying warrants in this offering, attributing none of the assumed combined public offering price to the warrants offered hereby. The following table illustrates this per share dilution:

Assumed combined public offering price per share and accompanying warrant	\$0.54
Net tangible book value per share as of September 30, 2019	\$0.33
Increase in net tangible book value per share after this offering	\$0.07
	<hr/>
As adjusted net tangible book value per share after this offering	\$0.40
	<hr/>
Dilution per share to new investors	\$0.14
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A \$0.25 increase in the assumed combined public offering price of \$0.54 per share and accompanying warrant (the last reported sale price of our common stock on The Nasdaq Capital Market on December 3, 2019) would result in an increase in our as adjusted net tangible book value after this offering of approximately \$4.3 million, or approximately \$0.10 per share, and the dilution per share to investors purchasing common stock and accompanying warrants in this offering would be approximately \$0.28 per share, assuming that the number of shares of our common stock and accompanying warrants sold by us remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a decrease of \$0.25 in the assumed combined public offering price of \$0.54 per share and accompanying warrant would result in a decrease in our as adjusted net tangible book value after this offering of approximately \$4.3 million, or approximately \$0.10 per share, and the dilution per share to investors purchasing common stock and accompanying warrants in this offering would be \$(0.01) per share, assuming that the number of shares of our common stock and accompanying warrants sold by us remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We may also increase or decrease the number of shares of common stock and accompanying warrants we are offering from the number of shares of common stock and accompanying warrants set forth above. An increase of 1.0 million in the assumed number of shares of common stock and accompanying warrants sold by us in this offering would result in an increase in our as adjusted net tangible book value of approximately \$0.5 million, or approximately \$0.01 per share, and the dilution per share to investors purchasing common stock and accompanying warrants in this offering would be approximately \$0.14 per share, assuming that the assumed combined public offering price per share of common stock and accompanying warrant remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. A decrease of 1.0 million in the assumed number of shares of common stock and accompanying warrants sold by us in this offering would result in a decrease in our as adjusted net tangible book value after this offering of approximately \$0.5 million, or approximately \$0.01 per share, and the dilution per share to investors purchasing common stock and accompanying warrants in this offering would be approximately \$0.14 per share, assuming that the assumed combined public offering price per share of common stock and accompanying warrant remains the same, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares and accompanying warrants sold in this offering and other terms of this offering determined at pricing.

The discussion and table above assume (i) no exercise of the underwriters' option to purchase up to an additional 2,777,777 shares of common stock and/or warrants to purchase 2,777,777 shares of common stock, (ii) no exercise of warrants offered in this offering, and (iii) no sale of Pre-Funded Warrants in this offering.

The foregoing discussion and table do not take into account further dilution to new investors that could occur upon the exercise of outstanding options or warrants having a per share exercise price less than the combined public offering price per share of common stock and accompanying sold in this offering. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The table and discussion above are based on 23,018,235 shares of our common stock outstanding as of September 30, 2019 and exclude as of such date:

- up to 471,393 shares of common stock issuable upon the conversion of Series A Convertible Preferred Stock outstanding;
- 2,797,656 shares of our common stock issuable upon the exercise of stock options, with a weighted-average exercise price of \$3.62 per share;
- 360 shares of our common stock issuable upon the settlement of outstanding restricted stock units;
- 15,197,249 shares of our common stock issuable upon the exercise of outstanding warrants, with a weighted-average exercise price of \$3.08 per share; and
- 353,003 other shares of our common stock reserved for future issuance under our 2013 Amended and Restated Equity Incentive Plan.

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, our amended certificate of incorporation authorizes us to issue 150,000,000 shares of common stock, par value \$0.0001 per share, and 5,000,000 shares of preferred stock, par value \$0.0001 per share.

The following description of our capital stock is not complete and is subject to and qualified in its entirety by our amended certificate of incorporation and amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part, and by the relevant provisions of the Delaware General Corporation Law.

Common Stock

The holders of our common stock are entitled to the following rights:

Voting Rights. Holders of our common stock are entitled to one vote per share in the election of directors and on all other matters on which stockholders are entitled or permitted to vote. Holders of our common stock are not entitled to cumulative voting rights.

Dividend Rights. Subject to the terms of any then outstanding series of preferred stock, the holders of our common stock are entitled to dividends in the amounts and at times as may be declared by the board of directors out of funds legally available therefor.

Liquidation Rights. Upon liquidation or dissolution, holders of our common stock are entitled to share ratably in all net assets available for distribution to stockholders after we have paid, or provided for payment of, all of our debts and liabilities, and after payment of any liquidation preferences to holders of any then outstanding shares of preferred stock.

Other Matters. Holders of our common stock have no redemption, conversion or preemptive rights pursuant to our amended certificate of incorporation or amended and restated bylaws. There are no sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to the rights of the holders of shares of any series of preferred stock that we may issue in the future.

Outstanding Registration Rights. Under the terms of the warrants issued to certain designees of the representative of the underwriters in connection with our initial public offering, the holders have the right to include its shares of common stock in any registration statement we file. If we register any securities for public sale, the holder will have the right to include its shares of common stock in the registration statement, provided that the underwriters of any such underwritten offering will have the right to limit the number of shares to be included in the registration statement. These piggyback registration rights expire on February 4, 2021.

All of our outstanding shares of common stock are fully paid and nonassessable.

Preferred Stock

Series A Convertible Preferred Stock

On August 9, 2018, we filed a Certificate of Designation of Preference, Rights and Limitations of Series A Convertible Preferred Stock, or the Certificate of Designation, with the Delaware Secretary of State creating a new series of our authorized preferred stock, par value \$0.0001 per share, designated as the “Series A Convertible Preferred Stock”. The number of shares initially constituting the Series A Convertible Preferred Stock, or Series A Preferred Stock, was set at 25,000 shares.

Each share of Series A Preferred Stock is convertible, at our option or at the option of the holder into the number of shares of our common stock determined by dividing the \$1,000 stated value per share of the Series A Preferred Stock by a conversion price of \$4.53 per share. In addition, the conversion price per share is subject to adjustment for stock dividends, distributions, subdivisions, combinations or reclassifications. Subject to limited exceptions, a holder of the Series A Preferred Stock will not have the right to convert any portion of the Series A Preferred Stock to the extent that, after giving effect to the conversion, the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the holder’s shares of Series A Preferred Stock. The holder, upon notice to us, may increase or decrease the beneficial ownership limitation applicable to its shares of Series A Preferred Stock, provided that in no event shall the limitation exceed 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the holder’s shares of Series A Preferred Stock.

In the event we effect certain mergers, consolidations, sales of substantially all of our assets, tender or exchange offers, reclassifications or share exchanges in which our common stock is effectively converted into or exchanged for other securities, cash or

property, or we consummate a business combination in which another person acquires 50% of the outstanding shares of our common stock, then, upon any subsequent conversion of the Series A Preferred Stock, the holders of the Series A Preferred Stock will have the right to receive shares of common stock of the acquiring corporation and any additional consideration it would have been entitled to receive if it had been a holder of the number of shares of our common stock then issuable upon conversion in full of the Series A Preferred Stock.

Holders of Series A Preferred Stock shall be entitled to receive dividends (on an as-if-converted-to-common-stock basis) in the same form as dividends actually paid on shares of our common stock when, as and if such dividends are paid on shares of our common stock. Except as otherwise provided in the Certificate of Designation or as otherwise required by law, the Series A Preferred Stock has no voting rights. Upon our liquidation, dissolution or winding-up, whether voluntary or involuntary, holders of Series A Preferred Stock will be entitled to receive out of our assets, whether capital or surplus, the same amount that a holder of our common stock would receive if the Series A Preferred Stock were fully converted (disregarding for such purpose any conversion limitations thereunder) to common stock, which amounts shall be paid pari passu with all holders of our common stock. We are not obligated to redeem or repurchase any shares of Series A Preferred Stock. Shares of Series A Preferred Stock are not otherwise entitled to any redemption rights, or mandatory sinking fund or analogous fund provisions.

Undesignated Preferred Stock

Other than the Series A Preferred Stock, none of our remaining 4,975,000 shares of authorized preferred stock is designated or issued. See “—Potential Effects of Authorized but Unissued Stock” below.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

The provisions of Delaware law, our certificate of incorporation and our bylaws described below may have the effect of delaying, deferring or discouraging another party from acquiring control of us.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least $66\frac{2}{3}\%$ of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years before the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Certificate of Incorporation and Bylaws

Our certificate of incorporation and/or bylaws provide that:

- our board of directors is classified into three classes of equal (or roughly equal) size, with all directors serving for a three-year term and the directors of only one class being elected at each annual meeting of stockholders, so that the terms of the classes of directors are “staggered”;
- the authorized number of directors can be changed only by resolution of our board of directors;
- our bylaws may be amended or repealed by our board of directors or our stockholders;
- no action can be taken by stockholders except at an annual or special meeting of the stockholders called in accordance with our bylaws, and stockholders may not act by written consent, unless the stockholders amend the certificate of incorporation to provide otherwise;
- stockholders may not call special meetings of the stockholders or fill vacancies on the board;
- our board of directors will be authorized to issue, without stockholder approval, preferred stock, the rights of which will be determined at the discretion of the board of directors and that, if issued, could operate as a “poison pill” to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that our board of directors does not approve;
- our stockholders do not have cumulative voting rights, and therefore our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors; and
- our stockholders must comply with advance notice provisions to bring business before or nominate directors for election at a stockholder meeting.

Potential Effects of Authorized but Unissued Stock

We have shares of common stock and preferred stock available for future issuance without stockholder approval. We may utilize these additional shares for a variety of corporate purposes, including future public offerings to raise additional capital, to facilitate corporate acquisitions or payment as a dividend on the capital stock.

The existence of unissued and unreserved common stock and preferred stock may enable our board of directors 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 by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, the board of directors has the discretion to determine designations, rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences of each series of preferred stock, all to the fullest extent permissible under the Delaware General Corporation Law and subject to any limitations set forth in our certificate of incorporation. The purpose of authorizing the board of directors to issue preferred stock and to determine the rights and preferences applicable to such preferred stock is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing desirable flexibility in connection with possible financings, acquisitions and other corporate purposes, could have the effect of making it more difficult for a third-party to acquire, or could discourage a third-party from acquiring, a majority of our outstanding voting stock.

Nasdaq Listing

Our common stock is listed on Nasdaq under the symbol “BIOC.”

Transfer Agent

The transfer agent of our common stock being offered hereby is Continental Stock Transfer & Trust Company.

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

We are offering (i) 18,518,518 shares of our common stock or Pre-Funded Warrants and (ii) warrants to purchase up to an aggregate of 18,518,518 shares of our common stock. Each share of common stock or Pre-Funded Warrant is being sold together with a warrant to purchase one share of common stock. The shares of common stock or Pre-Funded Warrants and accompanying warrants will be issued separately. We are also registering the shares of common stock issuable from time to time upon exercise of the Pre-Funded Warrants and warrants offered hereby.

Common Stock

The material terms and provisions of our common stock and each other class of our securities which qualifies or limits our common stock are described under the caption “Description of Capital Stock” in this prospectus.

Pre-Funded Warrants

The following summary of certain terms and provisions of the Pre-Funded Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by the provisions of, the Pre-Funded Warrant. Prospective investors should carefully review the terms and provisions of the form of Pre-Funded Warrant for a complete description of the terms and conditions of the Pre-Funded Warrants.

The term “pre-funded” refers to the fact that the purchase price of our common stock in this offering includes almost the entire exercise price that will be paid under the Pre-Funded Warrants, except for a nominal remaining exercise price of \$0.01. The purpose of the Pre-Funded Warrants is to enable investors that may have restrictions on their ability to beneficially own more than 4.99% (or, upon election of the holder, 9.99%) of our outstanding common stock following the consummation of this offering the opportunity to invest capital into the Company without triggering their ownership restrictions, by receiving Pre-Funded Warrants in lieu of our common stock which would result in such ownership of more than 4.99% (or 9.99%), and receive the ability to exercise their option to purchase the shares underlying the Pre-Funded Warrants at such nominal price at a later date.

Duration. The Pre-Funded Warrants offered hereby will entitle the holders thereof to purchase shares of our common stock at a nominal exercise price of \$0.01 per share, commencing immediately on the date of issuance.

Exercise Limitation. A holder will not have the right to exercise any portion of the Pre-Funded Warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or, upon election of the holder, 9.99%) of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Pre-Funded Warrants. However, any holder may increase or decrease such percentage, provided that any increase will not be effective until the 61st day after such election.

Exercise Price. The Pre-Funded Warrants will have an exercise price of \$0.01 per share. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

Transferability. Subject to applicable laws, the Pre-Funded Warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing. There is no established trading market for the Pre-Funded Warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the Pre-Funded Warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the Pre-Funded Warrants will be limited.

Fundamental Transactions. If a fundamental transaction occurs, then the successor entity will succeed to, and be substituted for us, and may exercise every right and power that we may exercise and will assume all of our obligations under the Pre-Funded Warrants with the same effect as if such successor entity had been named in the Pre-Funded Warrant itself. If holders of our common stock are given a choice as to the securities, cash or property to be received in a fundamental transaction, then the holder shall be given the same choice as to the consideration it receives upon any exercise of the Pre-Funded Warrant following such fundamental transaction.

Rights as a Stockholder. Except as otherwise provided in the Pre-Funded Warrants or by virtue of such holder’s ownership of shares of our common stock, the holder of a Pre-Funded Warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the Pre-Funded Warrant.

Warrants

The following summary of certain terms and provisions of the warrants offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the warrant, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions of the form of warrant for a complete description of the terms and conditions of the warrants.

Form. The warrants will be issued as individual warrant agreements to the investors.

Exercisability. The warrants are exercisable at any time after their original issuance, expected to be _____, 2019, and at any time up to the date that is five years after their original issuance. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. If a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is not effective or available and an exemption from registration under the Securities Act is not available for the issuance of such shares, the holder may, in its sole discretion, elect to exercise the warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Exercise Limitation. A holder will not have the right to exercise any portion of the warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or, upon election of the holder, 9.99%) of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder may increase or decrease such percentage, provided that any increase will not be effective until the 61st day after such election.

Exercise Price. The warrants will initially have an exercise price of \$ _____ per share. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders. The warrants have an exercise price protection feature such that if we, at any time while the warrants are outstanding, sell, grant or otherwise dispose of or issue any common stock or common stock equivalents, at an effective price per share that is lower than the exercise price of the warrants then in effect, subject to certain exceptions, then simultaneously with the consummation of such issuance the exercise price of the warrants shall be reduced to equal the lower price. This price protection feature is described in more detail in the form of warrant attached as an exhibit to the registration statement of which this prospectus forms a part.

Transferability. Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing. There is no established trading market for the warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the warrants will be limited.

Fundamental Transactions. If a fundamental transaction occurs, then the successor entity will succeed to, and be substituted for us, and may exercise every right and power that we may exercise and will assume all of our obligations under the warrants with the same effect as if such successor entity had been named in the warrant itself. If holders of our common stock are given a choice as to the securities, cash or property to be received in a fundamental transaction, then the holder shall be given the same choice as to the consideration it receives upon any exercise of the warrant following such fundamental transaction. In the event of a fundamental transaction that is within our control, we or any successor entity will be obligated, at each holder's option, to purchase the warrants from the holders thereof concurrently with the consummation of such transaction by paying the holders an amount of cash based on a Black Scholes formula as set forth in the warrants.

Rights as a Stockholder. Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the warrant.

UNDERWRITING

We have entered into an underwriting agreement with Maxim Group LLC, as representative of the underwriters named below with respect to the shares of our common stock and accompanying warrants and Pre-Funded Warrants and accompanying warrants subject to this offering. Subject to certain conditions, we have agreed to sell to the underwriters, and the underwriters have agreed to purchase, the number of shares of our common stock, Pre-Funded Warrants and corresponding warrants provided below opposite each underwriter's name.

<u>Underwriter</u>	<u>Number of Shares</u>	<u>Number of Pre- Funded Warrants</u>	<u>Number of Warrants</u>
Maxim Group LLC			
Dawson James Securities, Inc.			
Total			

The underwriters are offering the shares of our common stock and accompanying warrants and Pre-Funded Warrants and accompanying warrants subject to their acceptance of our common stock, the Pre-Funded Warrants and the warrants from us and subject to prior sale. The underwriting agreement provides that the obligations of the underwriters to pay for and accept delivery of the shares of our common stock and accompanying warrants and Pre-Funded Warrants and accompanying warrants offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of our common stock and accompanying warrants and Pre-Funded Warrants and accompanying warrants if any such shares of our common stock and accompanying warrants or Pre-Funded Warrants and accompanying warrants are taken.

We have granted the underwriters an option for a period of 45 days from the date of this prospectus to purchase up to an additional shares of common stock and/or warrants to purchase 2,777,777 shares of common stock at the public offering price, less the underwriting discount.

Underwriter Compensation

We have agreed to pay the underwriters an aggregate fee equal to 7.0% of the gross proceeds of this offering and expect the net proceeds from this offering to be approximately \$9.0 million after deducting approximately \$0.7 million in underwriting commissions and approximately \$0.3 million in our other estimated offering expenses. We have also agreed to pay the underwriters an accountable expense allowance for certain of the underwriters' expenses relating to the offering up to a maximum aggregate amount of \$85,000, including the underwriters' legal fees incurred in this offering.

We have paid an expense deposit of \$25,000 to Maxim Group LLC which will be applied against actual, out-of-pocket accountable expenses that will be paid by us to the underwriters in connection with this offering. Any portion of the \$25,000 expense deposit paid to Maxim Group LLC will be returned to us to the extent that offering expenses are not actually incurred by the underwriters in compliance with FINRA Rule 5110(f)(2)(C).

Discounts and Expenses

The underwriters have advised us that they propose to offer the shares of our common stock, Pre-Funded Warrants and accompanying warrants to the public at the respective public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of \$ per share of our common stock and accompanying warrant or \$ per Pre-Funded Warrants and accompanying warrants. After this offering, the public offering price and concession to dealers may be changed by the representative. No such change shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus. The shares of our common stock, Pre-Funded Warrants and accompanying warrants are offered by the underwriters as stated herein, subject to receipt and acceptance by them and subject to their right to reject any order in whole or in part. The underwriters have informed us that they do not intend to confirm sales to any accounts over which they exercise discretionary authority.

The following table shows the public offering price, underwriting discount payable to the underwriters by us and proceeds before expenses to us, assuming both no exercise and full exercise of the underwriters' option to purchase additional shares of common stock and/or warrants. The underwriting commissions are equal to the combined public offering price per share, Pre-Funded Warrants and accompanying warrants, less the amount per share the underwriters pay us for the shares of common stock, Pre-Funded Warrants and warrants:

	<u>Per Share</u>	<u>Per Pre-Funded Warrant</u>	<u>Per Warrant</u>	<u>Total (No Exercise)</u>	<u>Total (Full Exercise)</u>
Public offering price	\$		\$	\$	\$
Underwriting discounts and commissions					
Proceeds, before expenses, to us	\$		\$	\$	\$

In addition, we have agreed to reimburse the underwriters for reasonable out-of-pocket expenses not to exceed \$85,000 in the aggregate. We estimate that total expenses payable by us in connection with this offering, other than the underwriting discount referred to above, will be approximately \$325,000.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

Lock-up Agreements

We, as well as our officers and directors have agreed, subject to limited exceptions, for a period of 60 days after the closing of this offering, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any shares of common stock or any securities convertible into or exchangeable for our common stock either owned as of the date of the underwriting agreement or thereafter acquired without the prior written consent of Maxim Group LLC. Maxim Group LLC may, in its sole discretion and at any time or from time to time before the termination of the lock-up period, without notice, release all or any portion of the securities subject to lock-up agreements.

Price Stabilization, Short Positions and Penalty Bids

In connection with the offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Exchange Act:

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. A naked short position occurs if the underwriters sell more shares than could be covered by the over-allotment option. This position can only be closed out by buying shares 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 shares in the open market after pricing that could adversely affect investors who purchase in the offering.
- Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the

market price of our common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions 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 price of our shares of common stock. In addition, neither we nor the underwriters make any representation that the underwriters will engage in these transactions or that any transaction, if commenced, will not be discontinued without notice.

Electronic Distribution

This prospectus in electronic format may be made available on websites or through other online services maintained by the underwriters, or by their affiliates. Other than this prospectus in electronic format, the information on the underwriters' websites and any information contained in any other websites maintained by the underwriters is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the underwriters in their capacity as underwriters, and should not be relied upon by investors.

Other

From time to time, the underwriters and/or their affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services it has received and, may in the future receive, customary fees.

Except for the services provided in connection with this offering and as described below, the underwriters have not provided any investment banking or other financial services during the 180-day period preceding the date of this prospectus.

Maxim Group LLC acted as the exclusive financial advisor for the warrant exercise and exchange transaction described in our Current Report on Form 8-K filed with the SEC on May 29, 2019, which is incorporated by reference into this prospectus.

Notice to Prospective Investors in Canada

This prospectus constitutes an "exempt offering document" as defined in and for the purposes of applicable Canadian securities laws. No prospectus has been filed with any securities commission or similar regulatory authority in Canada in connection with the offer and sale of the securities. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon this prospectus or on the merits of the securities and any representation to the contrary is an offence.

Canadian investors are advised that this prospectus has been prepared in reliance on section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* ("NI 33-105"). Pursuant to section 3A.3 of NI 33-105, this prospectus is exempt from the requirement that the Company and the underwriter(s) provide Canadian investors with certain conflicts of interest disclosure pertaining to "connected issuer" and/or "related issuer" relationships that may exist between the Company and the underwriter(s) as would otherwise be required pursuant to subsection 2.1(1) of NI 33-105.

Resale Restrictions

The offer and sale of the securities in Canada is being made on a private placement basis only and is exempt from the requirement that the Company prepares and files a prospectus under applicable Canadian securities laws. Any resale of securities acquired by a Canadian investor in this offering must be made in accordance with applicable Canadian securities laws, which may vary depending on the relevant jurisdiction, and which may require resales to be made in accordance with Canadian prospectus requirements, pursuant to a statutory exemption from the prospectus requirements, in a transaction exempt from the prospectus requirements or otherwise under a discretionary exemption from the prospectus requirements granted by the applicable local Canadian securities regulatory authority. These resale restrictions may under certain circumstances apply to resales of the securities outside of Canada.

Representations of Purchasers

Each Canadian investor who purchases securities will be deemed to have represented to the Company, the underwriters and to each dealer from whom a purchase confirmation is received, as applicable, that the investor is (i) purchasing as principal, or is deemed to be purchasing as principal in accordance with applicable Canadian securities laws, for investment only and not with a view to resale or redistribution; (ii) an "accredited investor" as such term is defined in section 1.1 of National Instrument 45-106 *Prospectus Exemptions* or, in Ontario, as such term is defined in section 73.3(1) of the *Securities Act* (Ontario); and (iii) is a "permitted client" as such term is defined in section 1.1 of National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant*

Taxation and Eligibility for Investment

Any discussion of taxation and related matters contained in this prospectus does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a Canadian investor when deciding to purchase the securities and, in particular, does not address any Canadian tax considerations. No representation or warranty is hereby made as to the tax consequences to a resident, or deemed resident, of Canada of an investment in the securities or with respect to the eligibility of the securities for investment by such investor under relevant Canadian federal and provincial legislation and regulations.

Rights of Action for Damages or Rescission

Securities legislation in certain of the Canadian jurisdictions provides certain purchasers of securities pursuant to an offering memorandum (such as this prospectus), including where the distribution involves an “eligible foreign security” as such term is defined in Ontario Securities Commission Rule 45-501 *Ontario Prospectus and Registration Exemptions* and in Multilateral Instrument 45-107 *Listing Representation and Statutory Rights of Action Disclosure Exemptions* , as applicable, with a remedy for damages or rescission, or both, in addition to any other rights they may have at law, where the offering memorandum, or other offering document that constitutes an offering memorandum, and any amendment thereto, contains a “misrepresentation” as defined under applicable Canadian securities laws. These remedies, or notice with respect to these remedies, must be exercised or delivered, as the case may be, by the purchaser within the time limits prescribed under, and are subject to limitations and defenses under, applicable Canadian securities legislation. In addition, these remedies are in addition to and without derogation from any other right or remedy available at law to the investor.

Language of Documents

Upon receipt of this document, each Canadian investor hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of the securities described herein (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. *Par la réception de ce document, chaque investisseur canadien confirme par les présentes qu’il a expressément exigé que tous les documents faisant foi ou se rapportant de quelque manière que ce soit à la vente des valeurs mobilières décrites aux présentes (incluant, pour plus de certitude, toute confirmation d’achat ou tout avis) soient rédigés en anglais seulement.*

Offers Outside the United States

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities 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 into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

LEGAL MATTERS

The validity of the shares of common stock and warrants being offered by this prospectus will be passed upon for us by Cooley LLP, San Diego, California. The underwriters are being represented by Ellenoff Grossman & Schole LLP, New York, New York.

EXPERTS

Mayer Hoffman McCann P.C., our independent registered public accounting firm, has audited our balance sheets as of December 31, 2017 and 2018, and the related statements of operations and comprehensive loss, changes in shareholders' equity and cash flows for each of the two years in the period ended December 31, 2018, as set forth in their report, which report expresses an unqualified opinion and includes explanatory paragraphs relating to the change in the method of accounting for revenue, and the uncertainty of our ability to continue as a going concern. We have incorporated by reference such financial statements into this prospectus and into this registration statement in reliance on the report of Mayer Hoffman McCann P.C. given on their authority as experts in accounting and auditing.

MARKET AND INDUSTRY DATA

Unless otherwise indicated, information contained in this prospectus concerning the pharmaceutical industry, including our market opportunity, is based on information from independent industry analysts, third-party sources and management estimates. Management estimates are derived from publicly available information released by independent industry analysts and third-party sources, as well as data from our internal research, and are based on assumptions made by us based on such data and our knowledge of such industry and market, which we believe to be reasonable. In addition, while we believe the market opportunity information included in this prospectus is generally reliable and is based on reasonable assumptions, such data involves risks and uncertainties and are subject to change based on various factors, including those discussed under the heading "Risk Factors."

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock being offered by this prospectus. This prospectus does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at www.sec.gov. You may also request a copy of these filings, at no cost, by writing us at 5810 Nancy Ridge Drive, San Diego, California 92121 or telephoning us at (858) 320-8200.

We are subject to the information and periodic reporting requirements of the Exchange Act, and we file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information are available for inspection and copying at the public reference room and website of the SEC referred to above. We maintain a website at <http://www.biocept.com>. You may access our 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 with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference in, and is not part of, this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus.

We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below (except in each case the information contained in such document to the extent “furnished” and not “filed”) that we have filed with the SEC (Commission File No. 001-36284):

- our annual report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 29, 2019;
- the information specifically incorporated by reference into our annual report on Form 10-K for the year ended December 31, 2018 from our definitive proxy statement on Schedule 14A, filed with the SEC on April 30, 2019;
- our quarterly reports on Form 10-Q for the quarterly periods ended March 31, 2019, June 30, 2019 and September 30, 2019, filed with the SEC on May 14, 2019, August 14, 2019 and November 13, 2019, respectively;
- our current reports on Form 8-K, filed with the SEC on January 18, 2019, March 18, 2019, May 29, 2019, June 19, 2019, July 18, 2019 and September 27, 2019; and
- the description of our common stock contained in our registration statement on Form 8-A, filed with the SEC on January 28, 2014, including all amendments and reports 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 (excluding any information furnished rather than filed) shall be deemed to be incorporated by reference into this prospectus.

We will provide to each person, including any beneficial owners, to whom a prospectus is delivered, a copy of any or all of the reports or documents that have been incorporated by reference in the prospectus contained in the registration statement but not delivered with the prospectus. We will provide these reports or documents upon written or oral request at no cost to the requester. You should direct any written requests for documents to:

Biocept, Inc.
5810 Nancy Ridge Drive
San Diego, California 92121
Telephone: (858) 320-8200

In accordance with Rule 412 of the Securities Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

18,518,518 Shares of Common Stock
Pre-Funded Warrants to Purchase up to 18,518,518 Shares of Common Stock
Warrants to Purchase up to 18,518,518 Shares of Common Stock



PROSPECTUS

Sole Book-Running Manager

Maxim Group LLC

Co-Manager

Dawson James Securities, Inc.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, other than underwriting discounts, paid or payable by Biocept, Inc., or the Registrant, in connection with the sale and distribution of the securities being registered. All amounts are estimated except the SEC registration fee and the Financial Industry Authority, Inc., or FINRA, filing fee.

Item	Amount
SEC registration fee	\$ 2,986
FINRA filing fee	3,950
Legal fees and expenses	235,000
Accounting fees and expenses	40,000
Miscellaneous fees and expenses	43,064
<i>Total</i>	\$ 325,000

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act.

The Registrant's amended certificate of incorporation provides for indemnification of its directors and executive officers to the maximum extent permitted by the Delaware General Corporation Law, and the Registrant's amended and restated bylaws provide for indemnification of its directors and executive officers to the maximum extent permitted by the Delaware General Corporation Law.

In addition, the Registrant has entered into indemnification agreements with each of its current directors and executive officers. These agreements will require the Registrant to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to the Registrant and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. The Registrant also intends to enter into indemnification agreements with its future directors and executive officers.

Item 15. Recent Sales of Unregistered Securities.

Since January 1, 2016, the Registrant made sales of the unregistered securities discussed below. The offers, sales and issuances of the securities described below were exempt from registration under the Securities Act by virtue of Section 4(a)(2) of the Securities Act. The share and per share figures set forth below relating to issuances of the Registrant's securities that occurred before July 6, 2018 give retrospective effect to a 1-for-30 reverse stock split of the Registrant's outstanding common stock effected on July 6, 2018.

2017 Registered Direct and Private Warrant Issuance

On March 28, 2017, the Registrant entered into a Securities Purchase Agreement with certain purchasers identified on the signature pages thereto, pursuant to which the Registrant sold, in a registered direct offering, an aggregate of 144,000 shares of common stock at a negotiated purchase price of \$64.50 per share, pursuant to an effective shelf registration statement on Form S-3. The Registrant received aggregate gross proceeds of approximately \$9.3 million, before deducting fees to the placement agent and other offering expenses payable by the Registrant. In a concurrent private placement, the Registrant also sold to the purchasers a warrant to purchase one half of a share of common stock for each share purchased for cash in the offering. The warrants sold in the offering are exercisable beginning on the six-month anniversary of the date of issuance at an exercise price of \$75.00 per share and will expire five years following the date they become exercisable. The warrants are exercisable on a "cashless" basis in certain circumstances. Roth Capital Partners, LLC acted as the lead placement agent for the offering, and WestPark Capital and Chardan Capital Markets, LLC acted as co-placement agents and were entitled to a cash fee of 6.0% of the gross proceeds paid to the Registrant in the offering and reimbursement of certain out-of-pocket expenses.

Ally Bridge Private Placement

On August 9, 2017, the Registrant entered into a common stock and warrant purchase agreement with Ally Bridge LB Healthcare Master Fund Limited pursuant to which the Registrant issued and sold in a private placement an aggregate of 48,889 shares of common stock, together with a warrant to purchase an additional 47,821 shares of common stock, for an aggregate purchase price of approximately \$2.2 million. The warrant has an exercise price per share equal to \$45.00, is immediately exercisable and will expire on the fifth anniversary of the original issuance date.

Pursuant to the common stock and warrant purchase agreement, the Registrant agreed to file a registration statement to cover the resale of the shares of common stock issued to Ally Bridge LB Healthcare Master Fund Limited, as well as the shares of common stock issuable upon exercise of the warrant issued to Ally Bridge LB Healthcare Master Fund Limited, and to keep such registration statement effective until the date on which all of the 96,710 shares registered for resale under the registration statement have been sold or can be sold publicly without condition or restriction under Rule 144 under the Securities Act.

2018 Registered Direct and Private Warrant Issuance

On September 20, 2018, the Registrant entered into a Securities Purchase Agreement with certain purchasers identified on the signature pages thereto, pursuant to which the Registrant offered pursuant to an effective shelf registration statement on Form S-3 an aggregate of 642,438 shares of common stock and pre-funded warrants to purchase 120,000 shares of common stock, for aggregate gross proceeds to the Registrant of approximately \$2.5 million, before deducting fees to the placement agents and other estimated offering expenses payable by the Registrant. In a concurrent private placement, the Registrant issued Series A Common Stock Purchase Warrants to purchase an aggregate of 762,438 shares of our common stock that are exercisable beginning on the six-month anniversary of the date of issuance at an exercise price of \$3.16 per share and will expire on the five year anniversary of the initial exercise date. Maxim Group LLC acted as the lead placement agent and Dawson James Securities, Inc. acted as co-placement agent for the Registrant, each on a “reasonable best efforts” basis, in connection with the offering, and received a cash fee of 7.0% of the gross proceeds paid to the Registrant for the securities and reimbursement of certain out-of-pocket expenses.

March 2019 Private Warrant Issuance

On March 19, 2019, the Registrant sold and issued in a private placement warrants to purchase an aggregate of 5,950,000 share of common stock. The warrants were issued to purchasers who purchased shares of common stock in a concurrent registered offering. The warrants were exercisable immediately on the date of issuance at an exercise price of \$1.25 per share, with an expiration date of 5.5 years following the date of issuance. The warrants and the warrant shares were not registered at the time of issuance under the Securities Act, and were offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder.

Maxim Group LLC acted as the lead placement agent and Dawson James Securities, Inc. acted as co-placement agent for the Registrant, each on a “reasonable best efforts” basis, in connection with the offering, and received a cash fee of 6% of the gross proceeds paid to the Registrant for the securities sold in the private placement and concurrent public offering, and reimbursement of certain out-of-pocket expenses.

May 2019 Warrant Exchange

On January 30, 2018, the Registrant issued warrants to purchase up to an aggregate of 1,095,153 shares of common stock, which had an initial exercise price per share of \$15.00 which was subsequently reduced to \$1.20 per share (the “January Warrants”). On February 12, 2019, the Registrant issued warrants to purchase up to an aggregate of 7,165,000 shares of common stock with an exercise price per share of \$1.20 (the “February Warrants”). On March 19, 2019, the Registrant issued warrants to purchase up to an aggregate of 5,950,000 shares of common stock with an exercise price per share of \$1.25 (the “March Warrants” and together with the January Warrants and the February Warrants, the “Existing Warrants”). The January Warrants were immediately exercisable and are set to expire on January 30, 2023. The February Warrants were immediately exercisable and are set to expire on February 12, 2024. The March Warrants were immediately exercisable and are set to expire on September 19, 2024.

On May 28, 2019, the Registrant entered into Warrant Exercise Agreements (the “Exercise Agreements”) with certain of the holders of the Existing Warrants (the “Exercising Holders”). Pursuant to the Exercise Agreements, the Exercising Holders and the Registrant agreed that, subject to any applicable beneficial ownership limitations, the Exercising Holders would cash exercise up to 20% of their Existing Warrants (the “Investor Warrants”) into shares of common stock underlying such Existing Warrants (the “Exercised Shares”). In order to induce the Exercising Holders to cash exercise the Investor Warrants, the Exercise Agreements provide for the issuance of new warrants to purchase up to an aggregate of approximately 7,736,107 shares of common stock (the “New Warrants”), with such New Warrants to be issued in an amount equal to 75% of the number of Exercised Shares underlying any Investor Warrants that are cash exercised by July 15, 2019 (which was subsequently extended to July 31, 2019). The New Warrants are exercisable upon

issuance and terminate on the date that is five-years and six-months following the initial exercise date. The New Warrants have an exercise price per share of \$1.31.

The January Warrants and the underlying shares of common stock were registered pursuant to the Registrant's Registration Statement on Form S-1 (File No. 333-221648), as amended, filed with the SEC under the Securities Act on November 17, 2017, which became effective on January 25, 2018, and the Registrant's Registration Statement on Form S-1 (File No. 333-222706), filed with the SEC under the Securities Act on January 26, 2018, which became effective on January 25, 2018, and the related prospectus dated January 30, 2018. The February Warrants and the underlying shares of common stock were registered pursuant to the Registrant's Registration Statement on Form S-1 (File No. 333-228566), as amended, filed with the SEC under the Securities Act on November 28, 2018, which became effective on February 7, 2019, and the related prospectus dated February 12, 2019. The March Warrants and the underlying shares of common stock were registered pursuant to the Registrant's Registration Statement on Form S-1 (File No. 333-230797), as amended, filed with the SEC under the Securities Act on April 10, 2019, which became effective on April 23, 2019, and the related prospectus dated April 22, 2019.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits

The following exhibits are being filed with this Registration Statement:

Exhibits:	Description
1.1#	<u>Form of Underwriting Agreement.</u>
3.1	<u>Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1.4 of the Registrant's Current Report on Form 8-K, filed with the SEC on February 14, 2014).</u>
3.2	<u>Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
3.3	<u>Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on September 29, 2016).</u>
3.4	<u>Amendment to Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on September 29, 2017).</u>
3.5	<u>Certificate of Amendment to Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on July 6, 2018).</u>
3.6	<u>Certificate of Designation of Preference, Rights and Limitations of Series A Convertible Preferred Stock (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on August 13, 2018).</u>
4.1	Reference is made to Exhibits <u>3.1</u> , <u>3.2</u> , <u>3.3</u> , <u>3.4</u> , <u>3.5</u> and <u>3.6</u> .
4.2	<u>Specimen Common Stock certificate of Biocept, Inc. (incorporated by reference to Exhibit 4.3 of the Registrant's Annual Report on Form 10-K, filed with the SEC on March 28, 2017).</u>
4.3	<u>Form of Warrant issued to the lenders under the Loan and Security Agreement, dated as of April 30, 2014, by and among Biocept, Inc., Oxford Finance LLC, as collateral agent, and the lenders party thereto from time to time, including Oxford Finance LLC (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on May 6, 2014).</u>
4.4	<u>Form of Warrant to Purchase Common Stock (incorporated by reference to Exhibit 4.5 of the Registrant's Registration Statement on Form S-1 (File No. 333-201437), filed with the SEC on February 6, 2015).</u>
4.5	<u>Form of Common Stock Purchase Warrant issued to the investors under the Securities Purchase Agreement, dated April 29, 2016, by and among Biocept, Inc. and the purchasers signatory thereto (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on April 29, 2016).</u>
4.6	<u>Form of Warrant to Purchase Common Stock (incorporated by reference to Exhibit 4.16 of the Registrant's Post-Effective Amendment to Registration Statement on Form S-1 (File No. 333-213111), filed with the SEC on October 14, 2016).</u>

- 4.7 [Form of Common Stock Purchase Warrant issued to the investors under the Securities Purchase Agreement, dated March 28, 2017, by and among Biocept, Inc. and the purchasers signatory thereto \(incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on March 30, 2017\).](#)
- 4.8 [Common Stock Purchase Warrant issued by the Registrant in favor of Ally Bridge LB Healthcare Master Fund Limited under the Common Stock and Warrant Purchase Agreement dated August 9, 2017 \(incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on August 10, 2017\).](#)
- 4.9 [Common Stock Purchase Warrant issued in favor of Dawson James Securities, Inc. under the Securities Purchase Agreement dated December 5, 2017 \(incorporated by reference to Exhibit 4.18 of the Registrant's Registration Statement on Form S-1 \(File No. 333-221648\), filed with the SEC on January 22, 2018\).](#)
- 4.10 [Form of Warrant to Purchase Common Stock issued to the investors under the Securities Purchase Agreement, dated January 26, 2018 \(incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on January 30, 2018\).](#)
- 4.11 [Warrant Agency Agreement dated August 13, 2018 by and between the Registrant and Continental Stock Transfer & Trust Company \(incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on August 13, 2018\).](#)
- 4.12 [Form of Series A Common Stock Purchase Warrant \(incorporated by reference to Exhibit 3.6 of the Registrant's Registration Statement on Form S-1 \(File No. 333-225147\), filed with the SEC on July 11, 2018\).](#)
- 4.13 [Form of Pre-Funded Warrant \(incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on September 24, 2018\).](#)
- 4.14 [Form of Series A Common Stock Purchase Warrant \(incorporated by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on September 24, 2018\).](#)
- 4.15 [Form of Series B Common Stock Purchase Warrant \(incorporated by reference to Exhibit 4.24 of the Registrant's Registration Statement on Form S-1 \(File No. 333-228566\), filed with the SEC on November 28, 2018\).](#)
- 4.16 [Form of Pre-Funded Warrant \(incorporated by reference to Exhibit 4.25 of the Registrants Registrations Statement on Form S-1 \(File No. 333-228566\), filed with the SEC on November 28, 2018\).](#)
- 4.17 [Form of Series B Common Stock Purchase Warrant \(incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on March 18, 2019\).](#)
- 4.18 [Form of Series C Common Stock Purchase Warrant \(incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on May 29, 2019\).](#)
- 4.19 [Form of Common Stock Warrant](#)
- 4.20# [Form of Pre-Funded Warrant](#)
- 5.1 [Opinion of Cooley LLP.](#)
- 10.1+ [2007 Equity Incentive Plan \(incorporated by reference to Exhibit 10.1 of the Registrant's Registration Statement on Form S-1 \(File No. 333-191323\), filed with the SEC on September 23, 2013\).](#)
- 10.2+ [Form of Stock Option Grant Notice and Option Agreement under 2007 Equity Incentive Plan \(incorporated by reference to Exhibit 10.1.1 of the Registrant's Registration Statement on Form S-1 \(File No. 333-191323\), filed with the SEC on September 23, 2013\).](#)
- 10.3+ [Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under 2007 Equity Incentive Plan \(incorporated by reference to Exhibit 10.1.2 of the Registrant's Registration Statement on Form S-1 \(File No. 333-191323\), filed with the SEC on September 23, 2013\).](#)
- 10.4+ [Form of Indemnification Agreement between the Registrant and its officers and directors \(incorporated by reference to Exhibit 10.3 of the Registrant's Registration Statement on Form S-1 \(File No. 333-191323\), filed with the SEC on September 23, 2013\).](#)

10.5+	<u>Form of Indemnity Agreement between Biocept, Inc., a California corporation, and its officers and directors (incorporated by reference to Exhibit 10.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.6+	<u>Employment Agreement, between the Registrant and Michael W. Nall, effective as of August 26, 2013 (incorporated by reference to Exhibit 10.6 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.7+	<u>Employment Agreement, between the Registrant and Lyle J. Arnold, dated April 30, 2011(incorporated by reference to Exhibit 10.7 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.8	<u>Lease, between the Registrant and Nexus Equity VIII LLC, dated March 31, 2004 (incorporated by reference to Exhibit 10.11 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on November 5, 2013).</u>
10.9	<u>First Amendment to Lease, between the Registrant and ARE-SD Region No. 18, LLC, dated November 1, 2011(incorporated by reference to Exhibit 10.11.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.10	<u>Second Amendment to Lease, between the Registrant and ARE-SD Region No. 18, LLC, dated September 10, 2012 (incorporated by reference to Exhibit 10.11.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.11	<u>Third Amendment to Lease, between the Registrant and ARE-SD Region No. 18, LLC, dated as of January 31, 2013, and effective as of January 1, 2013 (incorporated by reference to Exhibit 10.11.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.12	<u>Fourth Amendment to Lease, between the Registrant and ARE-SD Region No. 18, LLC, dated as of September 10, 2013, and effective as of August 1, 2013 (incorporated by reference to Exhibit 10.11.5 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.13	<u>Assignment and Exclusive Cross-License Agreement between the Registrant and Aegea Biotechnologies, Inc. dated June 2, 2012 (incorporated by reference to Exhibit 10.22 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on January 30, 2014).</u>
10.14+	<u>2014 Annual Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on August 8, 2014).</u>
10.15+	<u>First Amendment to Employment Agreement by and between the Registrant and Michael W. Nall, dated November 6, 2015 (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on November 9, 2015).</u>
10.16+	<u>Employment Agreement between the Registrant and Timothy Kennedy, dated July 25, 2016 (incorporated by reference to Exhibit 99.2 to the Registrant's Current Report on Form 8-K, filed with the SEC on July 27, 2016).</u>
10.17+	<u>Second Amendment to Employment Agreement by and between the Registrant and Michael W. Nall dated November 1, 2017 (incorporated by reference to Exhibit 10.22 of the Registrant's Registration Statement on Form S-1 (File no. 333-21648), filed with the SEC on January 22, 2018).</u>
10.18+	<u>Biocept, Inc. Amended and Restated 2013 Equity Incentive Plan, Form of Stock Option Grant Notice, Option Agreement, Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit agreement for use thereunder (incorporated by reference to Exhibit 99.1 of the Registrant's Registration Statement on Form S-8, filed with the SEC on October 19, 2018).</u>
10.19	<u>Form of Securities Purchase Agreement by and between the Registrant and the purchasers party thereto, dated January 18, 2019 (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on January 18, 2019).</u>
10.20	<u>Placement Agency Agreement by and among the Registrant and Maxim Group LLC and Dawson James Securities, Inc., dated January 18, 2019 (incorporated by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on January 18, 2019).</u>

10.21	<u>Form of Securities Purchase Agreement (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on March 18, 2019).</u>
10.22	<u>Form of Warrant Exercise Agreement, dated May 28, 2019, by and between the Registrant and certain holders of warrants to purchase shares of the Registrant's common stock (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on May 29, 2019).</u>
10.23	<u>Form of Amendment to Warrant Exercise Agreement, dated July 15, 2019, by and between the Registrant and certain holders of warrants to purchase shares of the Registrant's common stock (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on July 18, 2019).</u>
10.24+	<u>Amended and Restated 2013 Equity Incentive Plan, as amended, Form of Stock Option Grant Notice, Option Agreement, Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement for use thereunder (incorporated by reference to Exhibit 99.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on June 19, 2019).</u>
23.1	<u>Consent of Mayer Hoffman McCann P.C.</u>
23.2	Consent of Cooley LLP (included in Exhibit <u>5.1</u>).
24.1#	<u>Power of Attorney.</u>

Previously filed.

+ Indicates management contract or compensatory plan.

(b) Financial Statement Schedules

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the notes thereto.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

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

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

(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 SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

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

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

(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 to any purchaser: each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, 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.

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 SEC such indemnification is against public policy as expressed in the Securities 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, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in San Diego, California, on the 4th day of December, 2019.

BIOCEPT, INC.

By: /s/ Michael W. Nall
Michael W. Nall
Chief Executive Officer and President

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Michael W. Nall</u> Michael W. Nall	Chief Executive Officer, President and Director (Principal Executive Officer)	December 4, 2019
<u>/s/ Timothy C. Kennedy</u> Timothy C. Kennedy	Chief Financial Officer, Senior VP of Operations and Secretary (Principal Financial Officer and Principal Accounting Officer)	December 4, 2019
<u>*</u> David F. Hale	Chairman of the Board of Directors	December 4, 2019
<u>*</u> Marsha A. Chandler	Director	December 4, 2019
<u>*</u> Bruce E. Gerhardt	Director	December 4, 2019
<u>*</u> Bruce A. Huebner	Director	December 4, 2019
<u>*</u> Ivor Royston	Director	December 4, 2019
<u>*</u> M. Faye Wilson	Director	December 4, 2019

*By: /s/ Michael W. Nall
Michael W. Nall
Attorney-in-fact

COMMON STOCK PURCHASE WARRANT

BIOCEPT, INC.

Warrant Shares: [_____] Initial Exercise Date: [____], 2019

THIS COMMON STOCK PURCHASE WARRANT (the “Warrant”) certifies that, for value received, _____ or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to 5:00 p.m. (New York City time) on [_____] ¹ (the “Termination Date”) but not thereafter, to subscribe for and purchase from Biocept, Inc., a Delaware corporation (the “Company”), up to _____ shares (as subject to adjustment hereunder, the “Warrant Shares”) of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

¹ Insert the date that is the five year anniversary of the Initial Exercise Date; provided, however, that, if such date is not a Trading Day, insert the immediately following Trading Day.

“Commission” means the United States Securities and Exchange Commission.

“Common Stock” means the common stock of the Company, par value \$0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

“Common Stock Equivalents” means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Registration Statement” means the Company’s registration statement on Form S-1 (File No. 333-234459).

“Rule 144” means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Subsidiary” or “Subsidiaries” means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

“Trading Day” means a day on which the Common Stock is traded on a Trading Market.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

“Transfer Agent” means Continental Stock Transfer & Trust Company, the current transfer agent of the Company with a mailing address of 1 State Street, 30th Floor, New York, New York 10004, a phone number of (212) 509-4000 and an email address of kjennings@continentalstock.com, and any successor transfer agent of the Company.

“Underwriting Agreement” means the underwriting agreement, dated as of [_____, 2019, between the Company and Maxim Group LLC as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Warrants” means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement.

Section 2. Exercise.

a) Exercise of Warrant. Subject to the provisions of Section 2(e) herein, exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have

the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be \$[____], subject to adjustment hereunder (the “Exercise Price”).

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b) (68) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder’s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares

shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

d) Mechanics of Exercise.

- i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth (5th) Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than any such failure that is solely due to any action or inaction by the Holder with respect to such exercise), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief

with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the 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.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to

the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be [4.99% /9.99%] of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Adjustments Upon Subsequent Equity Issuances. If the Company, or any Subsidiary thereof, as applicable, at any time while this Warrant is outstanding, shall sell or grant any option to purchase, or sell or grant any right to reprice, or otherwise dispose of or issue any Common Stock or Common Stock Equivalents, at an effective price per share less than the Exercise Price then in effect (such lower price, the “Base Share Price” and such issuances collectively, a “Dilutive Issuance”) (it being understood and agreed that if the holder of the Common Stock or Common Stock Equivalents so issued shall at any time, whether by operation of purchase price adjustments, reset provisions, floating conversion, exercise or exchange prices or otherwise, or due to warrants, options or rights per share which are issued in connection with such issuance, be entitled to receive shares of Common Stock at an effective price per share that is less than the Exercise Price, such issuance shall be deemed to have occurred for less than the Exercise Price on such date of the Dilutive Issuance at such effective price), then simultaneously with the consummation of each Dilutive Issuance the Exercise Price shall be reduced and only reduced to equal the Base Share Price. Notwithstanding the foregoing, no adjustments shall be made under this Section 3(b) in respect of an Exempt Issuance. The Company shall notify the Holder, in writing, no later than the Trading Day following the issuance or deemed issuance of any Common Stock or Common Stock Equivalents subject to this Section 3(b), indicating therein the applicable issuance price, or applicable reset price, exchange price, conversion price and other pricing terms (such notice, the “Dilutive Issuance Notice”). For purposes of clarification, whether or not the Company provides a Dilutive Issuance Notice pursuant to this Section 3(b), upon the occurrence of any Dilutive Issuance, the Holder is entitled to exercise this Warrant based upon the Base Share Price regardless of whether the Holder accurately refers to the Base Share Price in the Notice of Exercise. An “Exempt Issuance” means the issuance of (a) shares of Common Stock, restricted stock, restricted stock units or options to consultants, employees, officers or directors of the Company pursuant to any stock or option plan (the “Plan”) duly adopted for such purpose, by a majority of the non-employee members of the Board of Directors or a majority of the members of a committee

of non-employee directors established for such purpose for services rendered to the Company, provided that any issuances to consultants (other than the Company's Senior Medical Director) shall not exceed an aggregate of 50,000 shares of Common Stock (subject to adjustment for reverse and forward stock splits, recapitalizations and similar transactions following the date hereof) in the one (1) year period following the Initial Exercise Date and shall be issued pursuant to any Plan or as "restricted securities" (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the prohibition period in Section 4.21(a) of the Underwriting Agreement, (b) securities upon the exercise or exchange of or conversion of any securities issued hereunder and/or other Common Stock Equivalents issued and outstanding on the date of this Warrant, provided that such securities have not been amended since the date of this Warrant to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities (other than in connection with automatic price resets, stock splits, adjustments or combinations as set forth in such securities) or to extend the term of such securities, and (c) any shares of Common Stock and/or Common Stock Equivalents issued or issuable by the Company in connection with or as consideration for an acquisition by the Company (or by any of its Subsidiaries) of any corporation, business, asset, product or right(s) (including by way of in-licensing) or otherwise in connection with any material transaction determined by the Company, in its discretion, acting reasonably, to be of strategic importance to the Company and/or its Subsidiaries, including, without limitation, any merger, amalgamation, arrangement, business combination, joint venture transaction or strategic collaboration or partnership agreement; provided, that (1) the primary purpose of such issuance is not to raise capital, (2) the purchasers or acquirers of the securities in such issuance does not include any affiliate of the Company or any of its Subsidiaries and solely consists of either (x) the actual participants in such strategic alliance or strategic partnership, (y) the actual owners of such assets or securities acquired in such acquisition or merger or (z) the stockholders, partners or members of the foregoing Persons, (3) the number or amount of securities issued to such Person by the Company shall not be disproportionate to such Person's actual participation in such strategic alliance or strategic partnership or ownership of such assets or securities to be acquired by the Company, as applicable, and (4) such acquisition or other material transaction has been approved by a majority of the disinterested directors of the Company, provided that, during the prohibition period in Section 4.21(a) of the Underwriting Agreement, such securities are issued as "restricted securities" (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith, and provided that any such issuance shall only be to a Person (or to the equityholders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to all (or substantially all) of the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon

complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to all (or substantially all) of holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is

effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a “Fundamental Transaction”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder’s option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company’s control, including not approved by the Company’s Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity, as of the date of consummation of such Fundamental Transaction, the same type or form of consideration (and in the same proportion), at the Black Scholes Value (as defined below) of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction. Any cash payment will be made by wire transfer of immediately available funds within five (5) Business Days of the Holder’s election (or, if later, on the effective date of the

Fundamental Transaction). “Black Scholes Value” means the value of this Warrant based on the Black and Scholes Option Pricing Model obtained from the “OV” function on Bloomberg, L.P. (“Bloomberg”) determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the greater of (x) the last VWAP immediately prior to the public announcement of such Fundamental Transaction and (y) the last VWAP immediately prior to the consummation of such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the “Successor Entity”) to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction). Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the “Company” shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein. For the avoidance of doubt, if, at any time while this Warrant is outstanding, a Fundamental Transaction occurs, pursuant to the terms of this Section 3(e), the Holder shall not be entitled to receive more than one of (i) the consideration receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction, (ii) the purchase of this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental

Transaction, subject to the terms and conditions set forth above, or (iii) the assumption by the Successor Entity of all of the obligations of the Company under this Warrant and the option to receive a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant.

f) [Reserved.]

g) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

h) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least twenty (20) calendar days prior to the applicable record or effective date hereinafter specified, a notice (unless such information is filed with the Commission, in which case a notice shall not be required) stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to

become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the “Warrant Register”), in the name

of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting the rights of a Holder to receive Warrant Shares on a “cashless exercise,” and to receive the cash payments contemplated pursuant to Sections 2(d)(i) and 2(d)(iv), in no event will the Company be required to net cash settle a Warrant exercise.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by

the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other

manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding. Notwithstanding the foregoing, nothing in this paragraph shall limit or restrict the federal district court in which a Holder may bring a claim under the federal securities laws.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at 5810 Nancy Ridge Drive, San Diego, CA 92121, Attention: Chief Executive Officer, facsimile number (858) 320-8225, E-mail: mnull@biocept.com, or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

BIOCEPT, INC.

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: BIOCEPT, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified

below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name:

(Please Print)

Address:

(Please Print)

Phone Number:

Email

Address:

Dated: _____, _____

Holder's Signature:

Holder's Address:



Charles J. Bair
+1 858 550 6142
cbair@cooley.com

EXHIBIT 5.1

December 4, 2019

Biocept, Inc.
5810 Nancy Ridge Drive, Suite 150
San Diego, CA 92121

Ladies and Gentlemen:

You have requested our opinion, as counsel to Biocept, Inc., a Delaware corporation (the “**Company**”), in connection with the filing by the Company of a Registration Statement (No. 333-234459) on Form S-1 (the “**Registration Statement**”) with the Securities and Exchange Commission, including a related prospectus filed with the Registration Statement (the “**Prospectus**”), covering a public offering of (i) up to 21,296,295 shares (the “**Shares**”) of common stock of the Company (the “**Common Stock**”) and pre-funded warrants (the “**Pre-Funded Warrants**”) to purchase shares of Common Stock (the “**Pre-Funded Warrant Shares**”) and (ii) warrants (the “**Purchase Warrants**”, and, collectively with the Pre-Funded Warrants, the “**Warrants**”) to purchase up to 21,296,295 shares of Common Stock (the “**Purchase Warrant Shares**”, and, collectively with the Pre-Funded Warrant Shares, the “**Warrant Shares**”). This opinion relates to (i) Shares and Pre-Funded Warrants relating to up to 21,296,295 shares of Common Stock and (ii) Purchase Warrants exercisable for up to 21,296,295 shares of Common Stock. The Shares, the Warrants and the Warrant Shares are to be sold by the Company as described in the Registration Statement and the Prospectus.

In connection with this opinion, we have examined and relied upon the Registration Statement and Prospectus, the form of Purchase Warrant, the form of Pre-Funded Warrant, the Company's Certificate of Incorporation, as amended, its Amended and Restated Bylaws and the originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, and the conformity to originals of all documents submitted to us as copies thereof and the due execution and delivery of all documents by all persons other than the Company where due execution and delivery are a prerequisite to the effectiveness thereof. In addition, we have assumed that the Board of Directors of the Company or a pricing committee thereof has taken action to set the sale price of the Shares and Warrants and the exercise price of the Warrants.

With regard to our opinion regarding the Warrants and the Warrant Shares, we express no opinion to the extent that, notwithstanding its current reservation of shares of Common Stock, future issuances of securities, including the Warrant Shares, of the Company and/or antidilution adjustments to outstanding securities, including the Warrants, of the Company cause the Warrants to be exercisable for more shares of Common Stock than the number that then remain authorized but unissued.

With regard to our opinion concerning the Warrants constituting valid and binding obligations of the Company:

(i) Our opinion is subject to, and may be limited by, (a) applicable bankruptcy, reorganization, insolvency, moratorium, fraudulent conveyance, debtor and creditor, and similar laws which relate to or affect creditors' rights generally, and (b) general principles of equity (including, without limitation, concepts

of materiality, reasonableness, good faith and fair dealing) regardless of whether considered in a proceeding in equity or at law.

(ii) Our opinion is subject to the qualification that the availability of specific performance, an injunction or other equitable remedies is subject to the discretion of the court before which the request is brought.

(iii) We express no opinion as to any provision of the Warrants that: (a) provides for liquidated damages, buy-in damages, monetary penalties, prepayment or make-whole payments or other economic remedies to the extent such provisions may constitute unlawful penalties, (b) relates to advance waivers of claims, defenses, rights granted by law, or notice, opportunity for hearing, evidentiary requirements, statutes of limitations, trial by jury, or procedural rights, (c) restricts non-written modifications and waivers, (d) provides for the payment of legal and other professional fees where such payment is contrary to law or public policy, (e) relates to exclusivity, election or accumulation of rights or remedies, (f) authorizes or validates conclusive or discretionary determinations, or (g) provides that provisions of the Warrants are severable to the extent an essential part of the agreed exchange is determined to be invalid and unenforceable.

(iv) We express no opinion as to whether a state court outside of the State of New York or a federal court of the United States would give effect to the choice of New York law or jurisdiction provided for in the Warrants.

Our opinion herein is expressed solely with respect to the General Corporation Law of the State of Delaware and, as to the Warrants constituting valid and legally binding obligations of the Company, the laws of the State of New York. Our opinion is based on these laws as in effect on the date hereof. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation. Further, we have assumed the Exercise Price (as defined in the Warrants) will not be adjusted to an amount below the par value per share of the Common Stock.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that (i) the Shares, when sold in accordance with the Registration Statement and the Prospectus, will be validly issued, fully paid and nonassessable, (ii) provided that the Warrants have been duly executed and delivered by the Company to the purchasers thereof against payment therefor, the Warrants, when issued and sold as contemplated in the Registration Statement and the Prospectus will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms, and (iii) the Warrant Shares, when issued and paid for in accordance with the terms of the Warrants, will be validly issued, fully paid and nonassessable.

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus and to the filing of this opinion as an exhibit to the Registration Statement.

Very truly yours,

COOLEY LLP

By: /s/ Charles J. Bair
Charles J. Bair, Partner

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

As independent registered public accountants, we hereby consent to the incorporation by reference in this Amendment No. 3 to Registration Statement No. 333-234459 on Form S-1 and related Prospectus, of our report dated March 28, 2019, relating to the financial statements of Biocept, Inc., as of and for the years ended December 31, 2018 and 2017 (which report includes explanatory paragraphs related to the change in the method of accounting for revenue and the uncertainty of the Company's ability to continue as a going concern). We also consent to the reference to us under the heading "Experts" in the Prospectus which is part of this Registration Statement.

/s/ Mayer Hoffman McCann P.C.

San Diego, California
December 4, 2019