UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

BRICKELL BIOTECH, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

93-0948554

(I.R.S. Employer Identification No.)

5777 Central Avenue Suite 102 Boulder, CO 80301 (720) 505-4755

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

Robert B. Brown Chief Executive Officer 5777 Central Avenue Suite 102 Boulder, CO 80301 (720) 505-4755

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

Please send copies of all communications to:

Anna T. Pinedo, Esq. Brian D. Hirshberg, Esq. Mayer Brown LLP 1221 Avenue of the Americas New York, NY 10020 Telephone: (212) 506-2500

Approximate date of commencement of proposed sale to the public: From time to time 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, please check the following box and list the Securities Act

registration statement number of the earlier effective registration statement for the same offering:

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 □		Accele	rated filer			
Non-accelerated filer □		Smalle	r reporting company	X		
_	ging growth company, indicate by check mark if standards provided pursuant to Section 7(a)(2)(E	C	t to use the extended transition	88	□ g with an	ny new or revised financial
Title	of each class of Securities to be registered	Amount to be registered	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering pri		Amount of registration fee
Common sto	ock, par value \$0.01 per share	2,598,829	\$1.19	\$3,092	,607	\$401.42
(1)	Pursuant to Rule 416 under the Securities Act of indeterminate number of shares of common stock a dividends or similar transactions. Estimated solely for purposes of calculating the replaced Nasdaq Capital Market on March 31, 2020, in acco	s may be issuable with respect gistration fee, based on the av	to the shares of common stock erage of the \$1.24 (high) and \$	being registered hereund	der as a re	sult of stock splits, stock
amendmen	rant hereby amends this registration statemen nt that specifically states that this registration n statement shall become effective on such dat	statement shall thereafter	become effective in accord	ance with Section 8(a)) of the S	Securities Act or until the
,						

The information in this prospectus is not complete and may be changed. The selling stockholder 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.

SUBJECT TO COMPLETION, DATED APRIL 3, 2020

PROSPECTUS



2,598,829 Shares of Common Stock

This prospectus relates to the resale, from time to time, of up to 2,598,829 shares of our common stock by Lincoln Park Capital Fund, LLC (the **'selling stockholder**" or "**Lincoln Park**"). The shares of our common stock that may be offered by Lincoln Park are issuable pursuant to a Purchase Agreement that we entered into with Lincoln Park on February 17, 2020 (the "**Purchase Agreement**") relating to the sale of up to \$28,000,000 in shares of our common stock. See the section of this prospectus entitled "The Lincoln Park Transaction" on page 10 of this prospectus for a description of the Purchase Agreement and the section entitled "Selling Stockholder" on page 15 of this prospectus for additional information about the selling stockholder.

The shares of common stock described in this prospectus may be sold from time to time pursuant to this prospectus by the selling stockholder in ordinary brokerage transactions, in transactions in which brokers solicit purchases, in negotiated transactions, or in a combination of such methods of sale, at market prices prevailing at the time of sale, at prices related to such prevailing market prices, at fixed prices or prices subject to change, or at negotiated prices. See "Plan of Distribution." We cannot predict when or in what amounts the selling stockholder may sell any of the shares offered by this prospectus.

We are not selling any shares of our common stock, and we will not receive any of the proceeds from any sale of shares by the selling stockholder. However, we may receive gross proceeds of up to \$28,000,000 under the Purchase Agreement. The selling stockholder will pay all brokerage fees and commissions and similar sale-related expenses. We are only paying expenses relating to the registration of the shares with the Securities and Exchange Commission (the "SEC"). The registration of the shares of our common stock does not necessarily mean that any of such shares will be issued by us or offered and sold by the selling stockholder.

You should read this prospectus, together with the documents we incorporate by reference, carefully before you invest in shares of our common stock.

Our common stock is listed on The Nasdaq Capital Market under the symbol "BBI." OnMarch 31, 2020, the last reported sale price of our common stock on The Nasdaq Capital Market was \$1.19 per share.

INVESTING IN OUR SHARES INVOLVES RISKS. SEE THE SECTION ENTITLED "RISK FACTORS" BEGINNING ON PAGE 5 OF THIS PROSPECTUS AND IN OUR MOST RECENT ANNUAL REPORT FILED ON FORM 10-K AND ANY SIMILAR SECTION CONTAINED IN ANY DOCUMENTS THAT ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS BEFORE INVESTING IN OUR SHARES.

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

The date of this prospectus is April , 2020.

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS	<u>1</u>
CAUTIONARY NOTE CONCERNING FORWARD-LOOKING STATEMENTS	<u>2</u>
SUMMARY INFORMATION	<u>3</u>
RISK FACTORS	<u>5</u>
USE OF PROCEEDS	<u>8</u>
DILUTION	9
THE LINCOLN PARK TRANSACTION	<u>10</u>
DESCRIPTION OF CAPITAL STOCK	<u>13</u>
SELLING STOCKHOLDER	<u>15</u>
PLAN OF DISTRIBUTION	<u>17</u>
INFORMATION INCORPORATED BY REFERENCE	<u>19</u>
WHERE YOU CAN FIND MORE INFORMATION	<u>19</u>
LEGAL MATTERS	<u>21</u>
EXPERTS	<u>21</u>

i

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-1 that we filed with the SEC. Pursuant to this prospectus, the selling stockholder may, from time to time, sell up to 2,598,829 shares of our common stock that it may purchase from us from time to time at our sole discretion in the future pursuant to the Purchase Agreement.

This prospectus provides you with a general description of our common stock. The selling stockholder is required to provide you with this prospectus and, in certain cases, a prospectus supplement containing specific information about the selling stockholder and the terms upon which the securities are being offered. A prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with the additional information described under the headings "Incorporation by Reference" and "Where You Can Find More Information" below.

We may also add, update or change information contained in this prospectus by incorporating by reference information that we file or furnish to the SEC. The registration statement that we filed with the SEC includes exhibits that provide more detail on the matters discussed in this prospectus. If the information in this prospectus is inconsistent with a prospectus supplement, you should rely on the information in that prospectus supplement. Please carefully read this prospectus and any prospectus supplement, together with the additional information described under the headings "Incorporation by Reference" and "Where You Can Find More Information" before purchasing any shares.

You should rely only on the information contained or incorporated by reference in this prospectus, any prospectus supplement and any issuer free writing prospectus. "Incorporated by reference" means that we can disclose important information to you by referring you to another document filed separately with the SEC. We have not authorized any other person to provide you with different information. If anyone provides you with different information, you should not rely on it. The selling stockholder is not making an offer of these shares in any state or jurisdiction where the offer is not permitted. You should only assume that the information in this prospectus or in any prospectus supplement or issuer free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates.

In this prospectus, "Brickell," the "Company," "we," "us" and "our" refer to Brickell Biotech, Inc. and its consolidated subsidiaries, except where the context otherwise requires.

CAUTIONARY NOTE CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties for purposes of the safe harbor provided by the Private Securities Litigation Reform Act of 1995. All statements contained in this prospectus other than statements of historical fact, including statements regarding our strategy, future operations, future financial position, liquidity, future revenue, projected expenses, results of operations, expectations concerning the timing and our ability to commence and subsequently report data from planned non-clinical studies and clinical trials, prospects, plans and objectives of management are forward-looking statements. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "plan," "expect," "predict," "potential," "opportunity," "goals," or "should," and similar expressions are intended to identify forward-looking statements. Such statements are based on management's current expectations and involve risks and uncertainties. Actual results and performance could differ materially from those projected in the forward-looking statements as a result of many factors. Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus, to "Brickell," "Brickell Subsidiary," "company," "we," "us," and "our," or similar references, refer to Brickell Biotech, Inc., and our consolidated subsidiaries.

We based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including those described in "Risk Factors" in this prospectus, and under a similar heading in any other periodic or current report we may file with the. SEC in the future. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge quickly and 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. In light of these risks, uncertainties and assumptions, the future events and trends discussed in this prospectus, may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. All forward-looking statements are qualified in their entirety by this cautionary statement.

You should also read carefully the factors described in the "Risk Factors" section of this prospectus to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. You are advised to consult any further disclosures we make on related subjects in our future public filings and on our website.

SUMMARY INFORMATION

This summary does not contain all the information that you should consider before investing in our Company. You should carefully read the entire prospectus and any accompanying prospectus supplement, including all documents incorporated by reference herein and therein.

Overview

We are a clinical-stage pharmaceutical company focused on the development of innovative and differentiated prescription therapeutics for the treatment of debilitating skin diseases. Our pipeline consists of potential novel therapeutics for hyperhidrosis and other prevalent dermatological conditions. Our executive management team and board of directors bring extensive experience in product development and global commercialization, having served in leadership roles at large global pharmaceutical companies and biotechs that have developed and/or launched successful products, including several that were first-in-class and/or achieved iconic status, such as Cialis®, Taltz®, Gemzar®, Prozac®, Cymbalta® and Juvederm®.

Our pivotal Phase 3-ready clinical-stage product candidate, sofpironium bromide, is a proprietary new molecular entity. It belongs to a class of medications called anticholinergics. Anticholinergics block the action of acetylcholine, a chemical that transmits signals within the nervous system that are responsible for a range of bodily functions, including activation of the sweat glands. Sofpironium bromide was retrometabolically designed. Retrometabolic drugs are designed to exert their action topically and are potentially rapidly metabolized once absorbed into the blood. This proposed mechanism of action may allow for highly effective doses to be used while limiting systemic side effects. We intend to develop sofpironium bromide as a potential best- in-class, self-administered, once-daily, topical therapy for the treatment of primary axillary hyperhidrosis is a life-altering condition of sweating beyond what is physiologically required to maintain normal thermal regulation. It is believed to be caused by an overactive cholinergic response of the sweat glands and affects an estimated 15.3 million, or 4.8%, of the U.S. population. According to a 2016 update on the prevalence and severity of hyperhidrosis in the United States by Doolittle et al., axillary (underarm) hyperhidrosis, which is the targeted first potential indication for sofpironium bromide, is the most common occurrence of hyperhidrosis, affecting approximately 65% of patients in the United States or an estimated 10 million individuals.

We and our development partner in Asia, Kaken Pharmaceutical Co. Ltd., ("Kaken"), have conducted 19 clinical trials of sofpironium bromide gel that encompass over 1,300 subjects in the United States and Japan. These trials evaluated the potential safety, tolerability, pharmacokinetics (PK), and efficacy of sofpironium bromide gel in adult and pediatric primary axillary hyperhidrosis patients and healthy adult subjects. Under our License, Development and Commercialization Agreement with Kaken, dated March 31, 2015, (the "Kaken Agreement") in exchange for paying us an upfront, nonrefundable payment, we granted Kaken the exclusive right to develop, manufacture and commercialize sofpironium bromide in Japan and certain other Asian countries. In March 2019, Kaken completed a Phase 3 trial in patients with primary axillary hyperhidrosis in Japan, achieving statistical significance (p<0.05) on all primary and secondary endpoints. In January 2020, we announced that Kaken submitted a new drug application ("NDA") for approval in Japan of manufacturing and marketing of sofpironium bromide for primary axillary hyperhidrosis.

Based on the positive results in the clinical trials for sofpironium bromide globally to date, we intend to initiate two pivotal Phase 3 clinical trials in up to 350 subjects per trial with primary axillary hyperhidrosis in the United States, subject to obtaining substantial additional funding. Assuming the results of the Phase 3 clinical trials are favorable, we plan thereafter to submit an NDA to the U.S. Food and Drug Administration (the "FDA"), for the treatment of primary axillary hyperhidrosis by sofpironium bromide.

Our corporate headquarters are located in Boulder, Colorado, where we occupy facilities totaling approximately 3,038 square feet under lease agreements that expire in October 2021. We use our current facilities primarily for research and development and general and administrative personnel.

This prospectus contains references to our trademarks and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork, and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other company.

The Lincoln Park Transaction

On February 17, 2020, we and Lincoln Park entered into the Purchase Agreement. Under the terms and subject to the conditions of the Purchase Agreement, we have the right, but not the obligation, to sell to Lincoln Park, and Lincoln Park is obligated to purchase up to in the aggregate \$28,000,000 worth of shares of common stock. Sales of common stock by the Company, if any, will be subject to certain limitations, and may occur from time to time, at the Company's sole discretion, over the 36-month period commencing on the date that a registration statement covering the resale of shares of common stock that have been or may be issued under the Purchase Agreement, which the Company agreed to file with the SEC pursuant to the registration rights agreement (the "Registration Rights Agreement") we entered into with Lincoln Park on February 17, 2020 in connection with the Purchase Agreement, is declared effective by the SEC and a final prospectus in connection therewith is filed and the other conditions set forth in the Purchase Agreement are satisfied (such date on which all of such conditions are satisfied, the "Commencement Date").

Following the Commencement Date, under the Purchase Agreement, on any business day selected by the Company, the Company may direct Lincoln Park to purchase up to 100,000 shares of common stock on such business day (each, a "Regular Purchase"), provided, however, that (i) the share limit for a Regular Purchase may be increased to up to 125,000 shares, provided that the closing sale price of the common stock is not below \$3.00 on the purchase date; and (ii) the share limit for a Regular Purchase may be increased to up to 150,000 shares, provided that the closing sale price of the common stock is not below \$5.00 on the purchase date. In each case, Lincoln Park's maximum commitment in any single Regular Purchase may not exceed \$1,000,000. The purchase price per share for each such Regular Purchase will be based off of prevailing market prices of common stock immediately preceding the time of sale. In addition to Regular Purchases, the Company may direct Lincoln Park to purchase other amounts as accelerated purchases or as additional accelerated purchases if the closing sale price of the common stock exceeds certain threshold prices as set forth in the Purchase Agreement. In all instances, the Company may not sell shares of its common stock to Lincoln Park under the Purchase Agreement if it would result in Lincoln Park beneficially owning more than 9.99% of the outstanding shares of common stock.

We agreed with Lincoln Park that it we will not enter into any "variable rate" transactions with any third party for a period defined in the Purchase Agreement. We have the right to terminate the Purchase Agreement at any time, at no cost or penalty.

Actual sales of shares of common stock to Lincoln Park under the Purchase Agreement will depend on a variety of factors to be determined by the Company from time to time, including, among others, market conditions, the trading price of the common stock and determinations by the Company as to the appropriate sources of funding for the Company and its operations. We expect that any net proceeds received by the Company from such sales to Lincoln Park will be used for research and development, working capital and general corporate purposes.

The Purchase Agreement contains customary representations, warranties, covenants, closing conditions and indemnification and termination provisions by, among and for the benefit of the parties. Lincoln Park has covenanted not to cause or engage in any manner whatsoever, any direct or indirect short selling or hedging of the Company's common stock. Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement, and the Purchase Agreement may be terminated by the Company at any time at its discretion without any cost to the Company.

RISK FACTORS

An investment in our shares involves risks. We urge you to carefully consider all of the information contained in or incorporated by reference in this prospectus and other information which may be incorporated by reference in this prospectus or any prospectus supplement as provided under "Information Incorporated by Reference." In particular, you should consider the risk factors under the heading "Risk Factors" in our most recent Annual Report on Form 10-K, which is incorporated by reference in this prospectus, as those risk factors are amended or supplemented by our subsequent filings with the SEC. This prospectus also contains forward-looking statements that involve risks and uncertainties. Please read "Cautionary Note Concerning Forward-Looking Statements." Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including the risks described in the documents incorporated by reference into this prospectus or any prospectus supplement. If any of these risks occur, this could expose us to liability, and our business, financial condition or results of operation could be adversely affected. As a result, you could lose all or part of your investment.

RISKS RELATED TO OUR BUSINESS AND REGULATORY MATTERS

Major public health issues, and specifically the pandemic caused by the spread of COVID-19, could have an adverse impact on our financial condition and results of operations and other aspects of our business.

The outbreak of the novel Coronavirus (COVID-19) has evolved into a global pandemic. The coronavirus has spread to many regions of the world. The extent to which the coronavirus impacts our business and operating results will depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning the coronavirus and the actions to contain the coronavirus or treat its impact, among others.

Should the coronavirus continue to spread, our business operations could be delayed or interrupted. For instance, our clinical trials may be affected by the pandemic. Site initiation, participant recruitment and enrollment, participant dosing, distribution of clinical trial materials, study monitoring and data analysis may be paused or delayed due to changes in hospital or university policies, federal, state or local regulations, prioritization of hospital resources toward pandemic efforts, or other reasons related to the pandemic. If the coronavirus continues to spread, some participants and clinical investigators may not be able to comply with clinical trial protocols. For example, quarantines or other travel limitations (whether voluntary or required) may impede participant movement, affect sponsor access to study sites, or interrupt healthcare services, and we may be unable to conduct our clinical trials. Further, if the spread of the coronavirus pandemic continues and our operations are adversely impacted, we risk a delay, default and/or nonperformance under existing agreements which may increase our costs. These cost increases may not be fully recoverable or adequately covered by insurance. Infections and deaths related to the pandemic may disrupt the United States' and other countries' healthcare and healthcare regulatory systems. Such disruptions could divert healthcare resources away from, or materially delay FDA or other regulatory review and/or approval with respect to, our clinical trials. It is unknown how long these disruptions could continue, were they to occur. Any elongation or de-prioritization of our clinical trials or delay in regulatory review resulting from such disruptions could materially affect the development and study of our product candidates.

We currently rely on third parties, such as contract laboratories, contract research organizations, medical institutions and clinical investigators to conduct these studies and clinical trials. If these third-party parties themselves are adversely impacted by restrictions resulting from the coronavirus outbreak we will likely experience delays and/or realize additional costs. As a result, our efforts to obtain regulatory approvals for, and to commercialize, our therapeutic candidates may be delayed or disrupted.

The spread of the coronavirus, which has caused a broad impact globally, including restrictions on travel and quarantine policies put into place by businesses and governments, may have a material economic effect on our business. While the potential economic impact brought by and the duration of the pandemic may be difficult to assess or predict, it has already caused, and is likely to result in further, significant disruption of global financial markets, which may reduce our ability to access capital either at all or on favorable terms. In addition, a recession, depression or other sustained adverse market event resulting from the spread of the coronavirus could materially and adversely affect our business and the value of our common stock.

The ultimate impact of the current pandemic, or any other health epidemic, is highly uncertain and subject to change. We do not yet know the full extent of potential delays or impacts on our business, our clinical trials, our research programs, healthcare systems or the global economy as a whole. However, these effects could have a material adverse effect on our business, financial condition and results of operations and cash flows.

RISKS RELATED TO THIS OFFERING

The sale or issuance of our common stock to Lincoln Park may cause dilution and the sale of the shares of common stock acquired by Lincoln Park, or the perception that such sales may occur, could cause the price of our common stock to fall.

On February 17, 2020, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has committed to purchase up to \$28,000,000 of shares of our common stock. The 2,598,829 shares of our common stock being registered for resale hereunder that may be issued under the Purchase Agreement may be sold by us to Lincoln Park at our discretion from time to time commencing after the satisfaction of certain conditions set forth in the Purchase Agreement, including that the SEC has declared effective the registration statement that includes this prospectus. The purchase price for the shares that we may sell to Lincoln Park under the Purchase Agreement will fluctuate based on the price of our common stock. Depending on market liquidity at the time, sales of such shares may cause the trading price of our common stock to fall.

We generally have the right to control the timing and amount of any future sales of our shares to Lincoln Park. Sales of our common stock, if any, to Lincoln Park will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Lincoln Park all, some or none of the additional shares of our common stock that may be available for us to sell pursuant to the Purchase Agreement. Therefore, sales to Lincoln Park by us could result in substantial dilution to the interests of other holders of our common stock. Additionally, the sale of a substantial number of shares of our common stock to Lincoln Park, or the anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales. If and when we do sell shares to Lincoln Park, after Lincoln Park has acquired the shares, Lincoln Park may resell all, some or none of those shares at any time or from time to time in its discretion.

We may not have access to the full amount available under the Purchase Agreement with Lincoln Park,

Under the Purchase Agreement with Lincoln Park, we may direct Lincoln Park to purchase up to a Regular Purchase on any business day, provided, however, that (i) the share limit for a Regular Purchase may be increased to up to 125,000 shares, provided that the closing sale price of the common stock is not below \$3.00 on the purchase date; and (ii) the share limit for a Regular Purchase may be increased to up to 150,000 shares, provided that the closing sale price of the common stock is not below \$5.00 on the purchase date. In each case, Lincoln Park's maximum commitment in any single Regular Purchase may not exceed \$1,000,000. Although the Purchase Agreement provides that we may sell up to \$28,000,000 of our common stock to Lincoln Park, only 2,598,829 shares of our common stock are being offered under this prospectus which may be issued to Lincoln Park in the future under the Purchase Agreement, if and when we sell shares to Lincoln Park under the Purchase Agreement. As a result, depending on the market prices of our common stock, we may not be able to sell the full \$28,000,000 commitment amount contemplated by the Purchase Agreement. For example, assuming that we sell all of the 2,598,829 shares of our common stock at an average purchase price o\\$1.19 per share (which was the closing price of our common stock on the Exchange on March 31, 2020), our total gross proceeds would only be\\$3,092,607.

In the event that the market prices of our common stock increases, we may be able to issue and sell more than the \$2,598,829\$ shares of our common stock to Lincoln Park in an effort to obtain up to the full \$28,000,000 commitment amount contemplated by the Purchase Agreement; provided in such case we will need to register for resale under the Securities Act such incremental additional shares of our common stock, which will require additional time, resources and cost to us. In addition, the issuance and sale of such additional shares could cause substantial dilution to our stockholders.

The extent we rely on Lincoln Park as a source of funding will depend on a number of factors including, the prevailing market price of our common stock and the extent to which we are able to secure working capital from other sources. If obtaining sufficient funding from Lincoln Park were to prove unavailable or prohibitively dilutive, we will need to secure another source of funding in order to satisfy our working capital needs. Even if we sell all \$28,000,000 under the Purchase Agreement to Lincoln Park, we may still need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, the consequences could be a material adverse effect on our business, operating results, financial condition and prospects.

Our management might apply the net proceeds from this offering in ways with which you do not agree and in ways that may impair the value of your investment.

We currently intend to use the net proceeds from this offering for general corporate purposes. Our management has broad discretion as to the use of these proceeds and you will be relying on the judgment of our management regarding the application

of these proceeds. We might apply these proceeds in ways with which you do not agree, or in ways that do not yield a favorable return. If our management applies these proceeds in a manner that does not yield a significant return, if any, on our investment of these net proceeds, it could compromise our ability to pursue our growth strategy and adversely affect the market price of our common stock.

USE OF PROCEEDS

This prospectus relates to shares of our common stock that may be offered and sold from time to time by the selling stockholder. We will receive no proceeds from the sale of shares of common stock by the selling stockholder in this offering. However, we may receive gross proceeds of up to \$28,000,000 under the Purchase Agreement, including the sale of up to 2,598,829 shares of common stock issuable pursuant to the Purchase Agreement, which are being registered hereunder for resale by the selling stockholder. These proceeds received from our sale of common stock to the selling stockholder under the Purchase Agreement will be used for working capital and general corporate purposes. Please see "Selling Stockholder."

DILUTION

The sale of our common stock to Lincoln Park pursuant to the Purchase Agreement will have a dilutive impact on our stockholders. In addition, the lower our stock price is at the time we exercise our right to sell shares to Lincoln Park, the more shares of our common stock we will have to issue to Lincoln Park pursuant to the Purchase Agreement and our existing stockholders would experience greater dilution.

Our net tangible book value as of December 31, 2019 was approximately \$7.6 million, or \$0.89 per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of December 31, 2019. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by Lincoln Park in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale of 2,598,829 shares of our common stock to Lincoln Park pursuant to the Purchase Agreement at an assumed average sale price of 1.19 per share of our common stock, the last reported sale price of our common stock on the Exchange on March 31, 2020, and after deducting estimated offering expenses payable by us, our as-adjusted net tangible book value as of December 31, 2019 would have been approximately \$10.6 million, or \$0.95 per share. This represents an immediate increase in net tangible book value of \$0.06 per share to existing stockholders and dilution of \$0.24 per share of as-adjusted net tangible book value to new investors based on the assumed average sales price of \$1.19 per share of common stock.

To the extent that stock options or warrants outstanding as of December 31, 2019 have been or may be exercised or other shares are issued, investors purchasing our common stock in this offering may experience further dilution. 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 LINCOLN PARK TRANSACTION

General

On February 17, 2020, we and Lincoln Park entered into the Purchase Agreement with Lincoln Park. Under the terms and subject to the conditions of the Purchase Agreement, we have the right, but not the obligation, to sell to Lincoln Park, and Lincoln Park is obligated to purchase up to in the aggregate \$28,000,000 worth of shares of common stock. Sales of common stock by the Company, if any, will be subject to certain limitations, and may occur from time to time, at the Company's sole discretion, over the 36-month period commencing on the Commencement Date. Also, in in connection with the Purchase Agreement, we entered into the Registration Rights Agreement with Lincoln Park, pursuant to which we agreed, *inter alia*, to register shares of common stock that have been or may be issued under the Purchase Agreement under the registration statement of which this prospectus is a part.

Actual sales of shares of common stock to Lincoln Park under the Purchase Agreement will depend on a variety of factors to be determined by the Company from time to time, including, among others, market conditions, the trading price of the common stock and determinations by the Company as to the appropriate sources of funding for the Company and its operations. We expect that any net proceeds received by the Company from such sales to Lincoln Park will be used for research and development, working capital and general corporate purposes.

Under applicable rules of the Nasdaq Capital Market, in no event may we issue or sell to Lincoln Park under the Purchase Agreement shares of our common stock in excess of 1,740,452 shares (inclusive of any shares which may be aggregated with sales under the Purchase Agreement pursuant to the rules of the Nasdaq Capital Market), which represents 19.99% of the shares of our common stock outstanding immediately prior to the execution of the Purchase Agreement (the "Exchange Cap"), unless (i) we obtain stockholder approval to issue shares of our common stock in excess of the Exchange Cap or (ii) the average price of all applicable sales of our common stock to Lincoln Park under the Purchase Agreement equals or exceeds the lower of (i) the Nasdaq official closing price immediately preceding the execution of the Purchase Agreement or (ii) the arithmetic average of the five Nasdaq official closing prices for our common stock immediately preceding the execution of the Purchase Agreement, plus an incremental amount such that the transactions contemplated by the Purchase Agreement are exempt from the Exchange Cap limitation under applicable Nasdaq rules.

The Purchase Agreement contains customary representations, warranties, covenants, closing conditions and indemnification and termination provisions by, among and for the benefit of the parties. Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement, and the Purchase Agreement may be terminated by the Company at any time at its discretion without any cost to the Company.

Purchase of Shares under the Purchase Agreement

Following the Commencement Date, under the Purchase Agreement, on any business day selected by the Company, the Company may direct Lincoln Park to purchase a Regular Purchase, provided, however, that (i) the Regular Purchase may be increased to up to 125,000 shares, provided that the closing sale price of the common stock is not below \$3.00 on the purchase date; and (ii) the Regular Purchase may be increased to up to 150,000 shares, provided that the closing sale price of the common stock is not below \$5.00 on the purchase date, subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction. In each case, Lincoln Park's maximum commitment in any single Regular Purchase may not exceed \$1,000,000. The purchase price per share for each such Regular Purchase will be based off of prevailing market prices of common stock immediately preceding the time of sale. In addition to Regular Purchases, the Company may direct Lincoln Park to purchase other amounts as accelerated purchases or as additional accelerated purchases if the closing sale price of the common stock exceeds certain threshold prices as set forth in the Purchase Agreement. In all instances, the Company may not sell shares of its common stock to Lincoln Park under the Purchase Agreement if it would result in Lincoln Park beneficially owning more than 9.99% of the outstanding shares of common stock.

Other than as set forth above, there are no trading volume requirements or restrictions under the Purchase Agreement, and we will control the timing and amount of any sales of our common stock to Lincoln Park.

Events of Default

Events of default under the Purchase Agreement include the following:

- (a) the effectiveness of the registration statement of which this prospectus forms a part lapses for any reason (including, without limitation, the issuance of a stop order), or any required prospectus supplement and accompanying prospectus are unavailable for the resale by Lincoln Park of our common stock offered hereby, and such lapse or unavailability continues for a period of 10 consecutive business days or for more than an aggregate of 30 business days in any 365-day period;
- (b) the suspension of our common stock from trading on The Nasdaq Capital Market for a period of one (1) business day, provided that we may not direct Lincoln Park to purchase any shares of our common stock during any such suspension;
- (c) the delisting of our common stock from The Nasdaq Capital Market, provided, however, that our common stock is not immediately thereafter trading on the New York Stock Exchange, The Nasdaq Global Market, The Nasdaq Global Select Market, the NYSE American, the NYSE Arca, the OTC Bulletin Board or the OTCQB or OTCQX operated by the OTC Markets Group, Inc. (or nationally recognized successor to any of the foregoing);
- (d) If at any time after the Commencement Date, the Exchange Cap is applicable and the Company has issued more than 19.99% of our common stock under the Purchase Agreement unless and until stockholder approval is obtained pursuant to the Purchase Agreement. The Exchange Cap shall be deemed to be exceeded at such time if, upon submission of a purchase notice under the Purchase Agreement, the issuance of such shares of our common stock would exceed that number of shares of common stock which we may issue under the Purchase Agreement without breaching our obligations under the rules or regulations of The Nasdaq Capital Market:
- (e) the transfer agent's failure for three business days to issue to Lincoln Park shares of our common stock which Lincoln Park is entitled to receive under the Purchase Agreement;
- (f) any breach of the representations or warranties or covenants contained in the Purchase Agreement or any related agreement which has or which could have a material adverse effect on us subject to a cure period of five business days;
- (g) any voluntary or involuntary participation or threatened participation in insolvency or bankruptcy proceedings by or against us;
- (h) if at any time we are not eligible to transfer our common stock electronically.

In addition to any other rights and remedies under applicable law and the Purchase Agreement, so long as an Event of Default has occurred and is continuing, or if any event which, after notice and/or lapse of time, would become an Event of Default, has occurred and is continuing, the Company shall not deliver to the Investor any Regular Purchase Notice or Accelerated Purchase Notice.

Our Termination Rights

We have the unconditional right, at any time, for any reason and without any payment or liability to us, to give notice to Lincoln Park to terminate the Purchase Agreement. In the event of bankruptcy proceedings by or against us, the Purchase Agreement will automatically terminate without action of any party.

No Short-Selling or Hedging by Lincoln Park

Lincoln Park has agreed that neither it nor any of its affiliates shall engage in any direct or indirect short-selling or hedging of our common stock during any time prior to the termination of the Purchase Agreement.

Prohibitions on Variable Rate Transactions

There are no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement or Registration Rights Agreement other than a prohibition on entering into a "Variable Rate Transaction," as defined in the Purchase Agreement.

Effect of Performance of the Purchase Agreement on Our Stockholders

All 2,598,829 shares registered in this offering which may be issued or sold by us to Lincoln Park under the Purchase Agreement are expected to be freely tradable. It is anticipated that shares registered in this offering will be sold over a period of up to 36-months from April of 2020. The sale by Lincoln Park of a significant amount of shares registered in this offering at any given time could cause the market price of our common stock to decline and to be highly volatile. Sales of our common stock to Lincoln Park, if any, will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Lincoln Park all, some or none of the additional shares of our common stock that may be available for us to sell pursuant to the Purchase Agreement. If and when we do sell shares to Lincoln Park, after Lincoln Park has acquired the shares, Lincoln Park may result all, some or none of those shares at any time or from time to time in its discretion. Therefore, sales to Lincoln Park by us under the Purchase Agreement may result in substantial dilution to the interests of other holders of our common stock. In addition, if we sell a substantial number of shares to Lincoln Park under the Purchase Agreement, or if investors expect that we will do so, the actual sales of shares or the mere existence of our arrangement with Lincoln Park may make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect such sales. However, we have the right to control the timing and amount of any additional sales of our shares to Lincoln Park and the Purchase Agreement may be terminated by us at any time at our discretion without any cost to us.

Purchase Agreement prohibits us from issuing or selling to Lincoln Park (i) shares of our common stock in excess of the Exchange Cap, unless (i) we obtain stockholder approval to issue shares of our common stock in excess of the Exchange Cap or (ii) the average price of all applicable sales of our common stock to Lincoln Park under the Purchase Agreement equals or exceeds the lower of (i) the Nasdaq official closing price immediately preceding the execution of the Purchase Agreement or (ii) the arithmetic average of the five Nasdaq official closing prices for our common stock immediately preceding the execution of the Purchase Agreement, plus an incremental amount such that the transactions contemplated by the Purchase Agreement are exempt from the Exchange Cap limitation under applicable Nasdaq rules. Depending on the price per share at which we sell our common stock to Lincoln Park pursuant to the Purchase Agreement, we may need to sell to Lincoln Park under the Purchase Agreement more shares of our common stock than are offered under this prospectus in order to receive aggregate gross proceeds equal to the \$28,000,000 total commitment available to us under the Purchase Agreement. If we choose to do so, we must first register for resale under the Securities Act such additional shares of our common stock, which could cause additional substantial dilution to our stockholders. The number of shares ultimately offered for resale by Lincoln Park under this prospectus is dependent upon the number of shares we direct Lincoln Park to purchase under the Purchase Agreement.

The following table sets forth the amount of gross proceeds we would receive from Lincoln Park from our sale of shares to Lincoln Park under the Purchase Agreement at varying purchase prices:

Assumed Average Purchase Price Per Share	Number of Registered Shares to be Issued if Full Purchase ⁽¹⁾	Percentage of Outstanding Shares After Giving Effect to the Issuance to Lincoln Park ⁽²⁾	Proceeds from the Sale of Shares to Lincoln Park Under the \$28 Million Purchase Agreement
\$0.50	1,740,452	15.3%	\$870,226
\$1.00	1,740,452	15.3%	\$1,740,452
\$1.19 (3)	2,598,829	21.2%	\$3,092,607
\$2.00	2,598,829	21.2%	\$5,197,658
\$3.00	2,598,829	21.2%	\$7,796,487

- Although the Purchase Agreement provides that we may sell shares of common stock valued at up to \$28,000,000, the shares of common stock registered hereunder may or may not cover all the shares of common stock we ultimately sell to Lincoln Park under the Purchase Agreement, depending on the purchase price per share. As a result, we have included in this column only those shares of common stock that we are registering in this offering, while giving effect to the Exchange Cap and without regard for the Beneficial Ownership Cap.
- (2) The denominator is based on 9,671,904 shares outstanding as of March 31, 2020, adjusted to include the number of shares of common stock set forth in the adjacent column which we would have issued to Lincoln Park based on the applicable assumed average purchase price per purchase share.
- (3) The closing sale price of our shares onMarch 31, 2020.

DESCRIPTION OF CAPITAL STOCK

As of March 31, 2020, our restated certificate of incorporation authorizes us to issue 50,000,000 shares of common stock, par value \$0.01 per share, and 5,000,000 shares of preferred stock, par value \$0.01 per share. As of March 31, 2020, we had outstanding warrants to purchase (i) one share of our common stock at an exercise price of \$0.07 per share; (ii) 490,683 shares of our common stock at an exercise price of \$10.36 per share; (iii) 9,005 shares of our common stock at an exercise price of \$3.3.31 per share; (iv) 606,420 shares of our common stock at an exercise price of \$0.01 per share; and (v) 1,556,420 shares of our common stock at an exercise price of \$1.16 per share. As of March 31, 2020, we also had 1,654,198 options issued and outstanding to purchase our common stock at a weighted average exercise price of \$12.95 per share. If the holders of our outstanding stock options and warrants exercise their rights to acquire our common stock, the percentage ownership of our stockholders existing prior to the exercise of such rights will be diluted. No shares of preferred stock were outstanding.

Common Stock

The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of our stockholders. The holders of our common stock are entitled to receive ratably the dividends, if any, that may be declared from time to time by our board of directors out of funds legally available for such dividends. In the event of a liquidation, dissolution or winding up of the Company, the holders of our common stock would be entitled to share ratably in all assets remaining after payment of liabilities and the satisfaction of any liquidation preferences granted to the holders of any outstanding shares of preferred stock.

Holders of our common stock have no preemptive rights and no conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to our common stock. All the outstanding shares of common stock are, and all shares of common stock offered, when issued and paid for, will be validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of any shares of our preferred stock.

Anti-Takeover Provisions

Delaware Anti-Takeover Law

We are subject to Section 203 of the Delaware General Corporation Law ("DGCL"). Section 203 generally prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or 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 commenced, excluding for purposes of determining the number of shares outstanding (a) shares owned by persons who are directors and also officers of the corporation and (b) shares issued under employee stock plans under which employee participants do not have the right to determine whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder:
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to 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 its stock owned by the interested stockholder;
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 of the DGCL defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Certificate of Incorporation and Bylaws

Some provisions of our restated certificate of incorporation and amended and restated bylaws could also have anti-takeover effects. These provisions:

- provide for a board comprised of three classes of directors with each class serving a staggered three-year term:
- authorize our board of directors to issue preferred stock from time to time, in one or more classes or series, without stockholder approval:
- require the approval of at least two-thirds of our outstanding voting stock to amend specified provisions of our restated certificate of incorporation;
- require the approval of at least two-thirds of our total number of authorized directors, or two-thirds of our outstanding voting stock, to amend our amended and restated bylaws;
- provide that special meetings of our stockholders may be called only by our Chief Executive Officer, or by our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- do not include a provision for cumulative voting for directors (under cumulative voting, a minority stockholder holding a sufficient percentage of a class of shares may be able to ensure the election of one or more directors).

The Nasdaq Capital Market Listing

Our common stock is listed on The Nasdaq Capital Market under the symbol "BBI."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. Its address is 250 Royall Street, Canton, Massachusetts 02021 and its telephone number is (800) 522-6645.

SELLING STOCKHOLDER

The shares of common stock being offered by the selling stockholder are those which may be issued to such selling stockholder pursuant to the Purchase Agreement. We are registering these shares of common stock in order to permit the selling stockholder, to offer the shares for resale from time to time. Should we direct the selling stockholder to purchase shares of our common stock, it may resell such shares pursuant to the shares being registered hereunder pursuant to the Purchase Agreement.

We do not know how long the selling stockholder will hold the shares before selling them or how many shares the selling stockholder will sell and we currently have no agreements, arrangements or understandings with the selling stockholder regarding the sale of any of the shares of common stock registered under the registration statement of which this prospectus is a part.

The following table sets forth the maximum number of shares of our common stock to be sold by the selling stockholder. The table also sets forth the name of the selling stockholder, the nature of any position, office, or other material relationship which the selling stockholder has had, within the past three years, with us or with any of our predecessors or affiliates, and the number of shares of our common stock to be owned by such selling stockholder after completion of the offering.

We prepared the table based on information provided to us by the selling stockholder. We have not sought to verify such information. Additionally, the selling stockholder may have sold or transferred some or all of its shares of our common stock in transactions exempt from the registration requirements of the Securities Act since the date on which the information in the table was provided to us. Other information about the selling stockholder may also change over time.

Except as otherwise indicated, each selling stockholder has sole voting and dispositive power with respect to such shares.

		Shares of Common Stock Beneficially Owned Prior to the Offering(1)(2)		Shares of Common Stock Beneficially Owned After Completion of the Offering(5)	
Name of Selling Stockholder	Number	Percent(3)	Number	Number	Percent(3)
Lincoln Park Capital Fund, LLC	977,979	9.99%	2,598,829	977,979	7.89%

- (1) Beneficial ownership is determined in accordance with Rule 13d-3 under the Exchange Act. In computing the number of shares beneficially owned by a person and the percentage ownership of the selling stockholder, securities that are currently exercisable into shares of our common stock, or exercisable into shares of our common stock within 60 days of the date hereof are deemed outstanding.
- Ownership prior to the offering excludes the 2,598,829 shares of common stock which may be issued to the selling stock under the Purchase Agreement and are registered hereunder. Ownership prior to the offering consists of (i) 860,300 shares directly owned by the selling stockholder, (ii) 117,679 shares issuable upon the exercise of the Series A Warrant held by the selling stockholder, which is subject to beneficial ownership limitations which restrict the exercise of the Series A Warrant if, as a result of such exercise, the selling stockholder, the holder, together with its affiliates and any other person whose beneficial ownership of common stock would be aggregated with the selling stockholder for purposes of Section 13(d) of the Exchange Act would exceed 9.99% of the number of shares of our common stock outstanding. Does not include any shares of common stock underlying the Series B Warrant because the Series B Warrant is not exercisable until the six-month anniversary of the Closing Date, which is more than 60 days from the date of this prospectus.
- (3) Calculated based on 9,671,904 shares of our common stock outstanding onMarch 31,
- (4) Although the Purchase Agreement provides that we may sell up to \$28,000,000 of our common stock to the selling stockholder, only2,598,829 shares of our common stock are being offered under this prospectus. Depending on the price per share at which we sell our common stock to the selling stockholder pursuant to the Purchase Agreement, we may need to sell to the selling stockholder under the Purchase Agreement more shares of our common stock than are offered under this prospectus in order to receive aggregate gross proceeds equal to the \$28,000,000 total commitment available to us under the Purchase Agreement. If we choose to do so, we must first register for resale under the Securities Act such additional shares. The number of shares ultimately offered for resale by the selling stockholder is dependent upon the number of shares we sell to the selling stockholder under the Purchase Agreement.

Calculated by dividing (i) the total number of shares beneficially owned by the selling stockholder on March 31, 2020, assuming all shares of common stock registered hereunder have been resold by the selling stockholder, by (ii) the number of shares of our common stock outstanding as of March 31, 2020, as adjusted to include the 2,598,829 shares which may be issued to the selling stockholder hereunder in connection with the Purchase Agreement that are registered hereunder.

PLAN OF DISTRIBUTION

The shares of common stock listed in the table appearing under "Selling Stockholder" are being registered to permit the resale of the shares by the selling stockholder from time to time after the date of this prospectus. There can be no assurance that the selling stockholder will sell any or all of the common stock offered hereby. We will not receive any of the proceeds from the sale of the common stock by the selling stockholder. We will pay substantially all of the expenses incident to this offering of the shares by the selling stockholder to the public other than commissions and discounts of underwriters, brokers, dealers or agents.

The selling stockholder may sell all or a portion of the shares of common stock beneficially owned by it and offered hereby from time to time directly to purchasers or through one or more underwriters, broker-dealers or agents, at market prices prevailing at the time of sale, at prices related to such market prices, at a fixed price or prices subject to change or at negotiated prices, by a variety of methods including the following:

- on any national securities exchange or over-the-counter market on which the shares of common stock may be listed or quoted at the time of sale:
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which a broker-dealer may attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction:
- purchases by a broker-dealer, as principal, and a subsequent resale by the broker-dealer for its
 account.
- in "at the market" offerings to or through market makers into an existing market for the shares:
- an exchange distribution in accordance with the rules of the applicable exchange:
- privately negotiated transactions;
- in transactions otherwise than on such exchanges or in the over-the-counter market;
- through a combination of any such methods;
- through any other method permitted under applicable law.

In addition, the selling stockholder may enter into option, derivative or hedging transactions with respect to the shares, and any related offers or sales of shares may be made pursuant to this prospectus. For example, the selling stockholder may:

- enter into transactions involving short sales of the shares by broker-dealers in the course of hedging the positions they assume with selling stockholder;
- sell shares short itself and deliver the shares registered hereby to settle such short sales or to close out stock loans incurred in connection with their short positions;
- write call options, put options or other derivative instruments (including exchange-traded options or privately negotiated options) with respect to the shares, or which they settle through delivery of the shares;
- enter into option transactions or other types of transactions that require the selling stockholder to deliver shares to a broker, dealer or other financial institution, who may then resell or transfer the shares under this prospectus; or
- lend or pledge the shares to a broker, dealer or other financial institution, which may sell the shares under this prospectus.

In effecting sales, brokers-dealers engaged by the selling stockholder may arrange for other brokers-dealers to participate. If the selling stockholder effects such transactions by selling the common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholder or commissions from purchasers of the common stock for whom they may act as agent or to whom

they may sell as principal. Underwriters may sell securities to or through dealers, and dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agent.

The selling stockholder and any underwriters, brokers, dealers or agents that participate in such distribution may be deemed to be "underwriters" within the meaning of the Securities Act, and any discounts, commissions or concessions received by any underwriters, brokers, dealers or agents might be deemed to be underwriting discounts and commissions under the Securities Act. Any selling stockholder who is an "underwriter" within the meaning of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act and the provisions of the Exchange Act and the rules thereunder relating to stock manipulation.

In order to comply with the securities laws of some states, the shares sold in those jurisdictions may only be sold through registered or licensed brokers or dealers. In addition, in some states, the shares may not be sold unless the shares have been registered or qualified for sale in that state or an exemption from registration or qualification is available and is complied with.

Underwriters, dealers and agents who participate in the distribution of securities and their controlling persons may be entitled, under agreements that may be entered into with us, to indemnification by us and the selling stockholder against certain liabilities, including liabilities under the Securities Act, or to contribution with respect to payments that the underwriters, dealers or agents and their controlling persons may be required to make in respect of those liabilities.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference information into this document. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act made subsequent to the date of this prospectus until the termination of the offering of the securities described in this prospectus (other than information in such filings that was "furnished," under applicable SEC rules, rather than "filed").

We incorporate by reference the following documents or information that we have filed with the SEC:

- our annual report on Form 10-K for the year ended December 31, 2019 filed with the SEC on March 18, 2020:
- our current reports on Form 8-K filed with the SEC on February 10, 2020 and February 18, 2020(in each case, except for information contained therein which is furnished rather than filed);
- our definitive proxy statement on Schedule 14A filed with the SEC on March 30, 2020;
 and
- the description of our common stock contained in our registration statement on Form S-8 filed with the SEC on September 10, 2019, including any amendment
 or report filed for the purpose of updating such description.

Any statement contained in this prospectus or contained in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded to the extent that a statement contained in this prospectus or any subsequently filed supplement to this prospectus, or document deemed to be incorporated by reference into this prospectus, modifies or supersedes such statement.

You may request a copy of these filings at no cost, by writing or telephoning us at the following address:

Brickell Biotech, Inc. 5777 Central Avenue Suite 102 Boulder, CO 80301 (720) 505-4755

E-mail: investorrelations@brickellbio.com

You should rely only on the information incorporated by reference or provided in this prospectus or in any prospectus supplement. We have not authorized anyone else to provide you with different or additional information. An offer of these securities is not being made in any jurisdiction where the offer or sale is not permitted. You should not assume that the information in this prospectus or any prospectus supplement is accurate as of any date other than the date on the front of those documents.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus or incorporated by reference in this prospectus. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public from commercial document retrieval services and over the Internet at the SEC's website at http://www.sec.gov.

Copies of certain information filed by us with the SEC are also available on our website at www.brickellbio.com. Information contained in or accessible through our website does not constitute a part of this prospectus and is not incorporated by reference in this prospectus.

LEGAL MATTERS

The validity of the common stock and certain other legal matters will be passed upon for us by Mayer Brown LLP, New York, New York.

EXPERTS

The consolidated financial statements of Brickell Biotech, Inc. appearing in Brickell Biotech, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2019, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon included therein, and incorporated herein by reference. Such financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated herein in reliance upon the reports of Ernst & Young LLP pertaining to such financial statements (to the extent covered by consents filed with the Securities and Exchange Commission) given on the authority of such firm as experts in accounting and auditing.



2,598,829 Shares of Common Stock

PROSPECTUS

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 and commissions, payable by us in connection with the sale and distribution of the securities being registered. All of the amounts shown are estimates:

	Amount to be paid	
SEC registration fee	\$ 401	
Printing expenses	5,000	*
Legal fees and expenses	65,000	*
Accounting fees and expenses	15,000	*
Miscellaneous	_	
Total	\$ 85,401	

^{*} Estimates

Item 14. Indemnification of Directors and Officers.

The Company is incorporated under the laws of the State of Delaware. Section 145 of the DGCL provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person was an officer, director, employee or agent of such corporation, or is or was serving at the request of such person as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal. A Delaware corporation may indemnify any persons who are, or are threatened to be made, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses which such officer or director has actually and reasonably incurred. Article XI of the Company's amended and restated certificate of incorporation provides for indemnification of its directors and officers, and Article V of the Company's amended and restated bylaws provides for indemnification of its directors, officers, employees and other agents, to the maximum extent permitted by the DGCL. In addition, the Company maintains a policy providing directors' and officers' liability insurance.

Section 102 of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability:

- for any breach of the director's duty of loyalty to the corporation or its stockholders:
- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law.
- for acts related to unlawful stock repurchases, redemptions or other distributions or payment of dividends;
 or
- for any transaction from which the director derived an improper personal benefit.

The Company's amended and restated certificate of incorporation includes such a provision. Expenses incurred by any officer or director in defending any such action, suit or proceeding in advance of its final disposition shall be paid by the Company upon delivery of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified by the Company.

Item 15. Recent Sales of Unregistered Securities.

Sales to Lincoln Park

On February 17, 2020, we and Lincoln Park entered into the Securities Purchase Agreement pursuant to which, Lincoln Park agreed to purchase, and we agreed to sell, upon the terms and subject conditions stated therein (i) an aggregate of 950,000 shares of our Common Shares (ii) a Series A Warrant to purchase an aggregate of up to 606,420 shares of common stock at an exercise price of \$0.01 per share and (iii) a Series B Warrant to purchase an aggregate of up to 1,556,420 shares of our common stock at an exercise price of \$1.16 per share, in each case in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the Securities Act, for an aggregate gross purchase price of \$2.0 million. The sale of the Common Shares and the Warrants closed on February 20, 2020.

Item 16. Exhibits.

The list of exhibits following the signature page of this registration statement is incorporated by reference herein.

Item 17. Undertakings.

(1)The undersigned registrant hereby undertakes:

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

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

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 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

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;

provided, however, that the undertaking set forth in paragraphs (1)(a)(i), (1)(a)(ii) and (1)(a)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act, that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement;

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

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

- d.That, for the purpose of determining liability under the Securities Act to any purchaser:
 - i.Each prospectus filed by a registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - ii.Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. 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 effective date, 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 effective date.
- e.That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant hereby undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - i.Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - ii. Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - iii.The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - iv. Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (2)The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3)The undersigned registrant hereby undertakes that:
 - a. For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance on Rule 430A and contained in a form of prospectus filed by the undersigned registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and

- b.For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus 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.
- (4) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act of 1939 (the "Trust Indenture Act") in accordance with the rules and regulations prescribed by the SEC under Section 305(b)(2) of the Trust Indenture Act.
- (5)Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the undersigned 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 undersigned 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 Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all the requirements for filing on Form S-1 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Boulder, Colorado, on April 3, 2020.

BRICKELL BIOTECH, INC.

By:	/s/ Robert B. Brown
	Robert B. Brown Chief Executive Officer

SIGNATURES AND POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Robert B. Brown and R. Michael Carruthers, and each of them, as his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this registration statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons on April 3, 2020, in the capacities indicated.

<u>Signature</u>	<u>Title</u>
/s/ ROBERT B. BROWN Robert B. Brown	Chief Executive Officer and Director (Principal Executive Officer)
/s/ R. MICHAEL CARRUTHERS R. Michael Carruthers	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
/s/ JOSE BRETON Jose Breton	Controller and Chief Accounting Officer
/s/ REGINALD L. HARDY Reginald L. Hardy	Co-Founder and Chairman of the Board of Directors
/s/ GEORGE ABERCROMBIE George Abercrombie	———— Director
/s/ DENNISON T. VERU Dennison T. Veru	Director
/s/ VIJAY B. SAMANT Vijay B. Samant	————Director
/s/ GARY A. LYONS Gary A. Lyons	———Director
	II-6

EXHIBIT INDEX

Exhibit Number	Description of Exhibit
3.1	Restated Certificate of Incorporation, as currently in effect (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
3.2	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.3 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
<u>4.1</u>	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Company's registration statement on Form S-8 filed with the SEC on September 10, 2019).
<u>4.2</u>	Securities Purchase Agreement, dated February 17, 2020, by and between Brickell Biotech, Inc. and Lincoln Park Capital Fund, LLC (schedules omitted) (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed with the SEC on February 18, 2020).
4.3	Purchase Agreement, dated February 17, 2020, by and between Brickell Biotech, Inc. and Lincoln Park Capital Fund, LLC (incorporated by reference to Exhibit 10.6 to the Company's Current Report on Form 8-K filed with the SEC on February 18, 2020).
<u>4.4</u>	Registration Rights Agreement, dated February 17, 2020, by and between Brickell Biotech, Inc. and Lincoln Park Capital Fund, LLC (incorporated by reference to Exhibit 10.7 to the Company's Current Report on Form 8-K filed with the SEC on February 18, 2020).
<u>5.1</u>	Opinion of Mayer Brown LLP.
<u>10.1†</u>	License, Development and Commercialization Agreement, as amended, dated March 31, 2015, by and between Brickell Biotech, Inc. and Kaken Pharmaceutical Co., Ltd. (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
10.2†	Right of First Negotiation Agreement, as amended, dated March 31, 2015, by and between Brickell Biotech, Inc. and Kaken Pharmaceutical Co., Ltd. (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
<u>10.3†</u>	Amended and Restated License Agreement, dated February 17, 2020, by and among Brickell Biotech, Inc., Brickell Subsidiary, Inc., Bodor Laboratories, Inc. and Dr. Nicholas S. Bodor (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on February 18, 2020).
<u>10.4†</u>	Settlement Agreement, dated February 17, 2020, by and among Brickell Biotech, Inc., Brickell Subsidiary, Inc., Bodor Laboratories, Inc. and Dr. Nicholas S. Bodor (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the SEC on February 18, 2020).
10.5†	UAB Research Foundation License Agreement, as amended, dated June 26, 2012, by and between Brickell Biotech, Inc. and the UAB Research Foundation (incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
<u>10.6†</u>	License Agreement, as amended, dated June 6, 2013, by and among Brickell Biotech, Inc, Orca Pharmaceuticals LLC and the New York University (incorporated by reference to Exhibit 10.7 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
<u>10.7†</u>	Orca Pharmaceuticals LLC Asset Purchase Agreement, dated November 23, 2015 by and between Brickell Biotech, Inc. and Orca Pharmaceutics (incorporated by reference to Exhibit 10.8 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
10.8†	Panmira Pharmaceuticals LLC Purchase Agreement, dated January 30, 2015, by and between Brickell Biotech, Inc. and Panmira Pharmaceuticals (incorporated by reference to Exhibit 10.9 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
10.9	Boulder Lease Agreement, as amended, dated August 4, 2016, by and between Brickell Biotech, Inc. and BMC Properties, LLC (incorporated by reference to Exhibit 10.10 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
<u>10.10</u>	Employment Agreement, dated November 16, 2018, by and between Brickell Biotech, Inc. and Robert Brown (incorporated by reference to Exhibit 10.11 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
<u>10.11</u>	Second Amended and Restated Employment Agreement, dated November 27, 2018, by and between Brickell Biotech, Inc. and Andy Sklawer (incorporated by reference to Exhibit 10.12 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
10.12	Employment Agreement, dated August 1, 2016, and Amendment to Employment Agreement, dated August 28, 2019, by and between Brickell Biotech, Inc. and Deepak Chadha (incorporated by reference to Exhibit 10.13 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).

<u>10.13</u>	Brickell Biotech, Inc. Letter Agreement, dated July 10, 2018 by and between Brickell Biotech Inc. and Jose Breton (incorporated by reference to Exhibit
	10.14 to the Company's Current Report on Form 8-K filed with the, SEC on September 3, 2019).

- Employment Agreement, dated July 1, 2019, and Amendment to Employment Agreement, dated August 27, 2019, by and between Brickell Biotech, Inc. and David R. McAvoy (incorporated by reference to Exhibit 10.15 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
- 10.15 Employment Agreement, dated August 1, 2019, by and between Brickell Biotech, Inc. and Adam Levy (incorporated by reference to Exhibit 10.16 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
- 10.16 Settlement and Termination Agreement, dated November 25, 2019, by and between Brickell Subsidiary, Inc., Brickell Biotech, Inc. and NovaQuest Co-Investment Fund X, L.P. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on November 25, 2019).
- 10.17[†] U.S. Security Agreement, dated August 31, 2019, by and between Brickell Biotech, Inc. and NovaQuest Co-Investment Fund X, L.P. (incorporated by reference to Exhibit 10.18 to the Company's Current Report on Form 8-K filed with the SEC on September 3, 2019).
- 23.1 Consent of Ernst & Young LLP.
- 23.2 Consent of Mayer Brown LLP (included as part of Exhibit 5.1).
- <u>24.1</u> Power of Attorney (included in the signature page to this registration statement).
 - † Certain confidential information contained in this agreement has been omitted because it (i) is not material and (ii) would be competitively harmful if publicly disclosed.



April 3, 2020

Mayer Brown LLP 1221 Avenue of the Americas New York, NY 10020-1001 United States of America

> T: +1 212 506 2500 F: +1 212 262 1910

> > mayerbrown.com

Brickell Biotech, Inc. 5777 Central Avenue Suite 102 Boulder, Colorado 80301

Re: Brickell Biotech, Inc. - Registration Statement on Form S-1

Ladies and Gentlemen:

We have acted as counsel to Brickell Biotech, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), of a registration statement on Form S-1 (the "Registration Statement") relating to the offer and sale by Lincoln Park Capital Fund, LLC (the 'Selling Stockholder") of up to of 2,598,829 shares (the 'Shares') of the Company's common stock, par value \$0.01 per share, (the "Common Stock") which may be issued to the Selling Stockholder pursuant to the Purchase Agreement (defined below). The Securities being registered under the Registration Statement will be offered by the Selling Stockholder from time to time as permitted under the provisions of Rule 415 under the Securities Act.

The Company is registering the resale of the Shares pursuant to its obligations under the registration rights agreement, dated as of February 17, 2020 (the "Registration Rights Agreement"), between the Company and the Selling Stockholder. The Shares may be issued to the Selling Stockholder in one or more private placements pursuant to the purchase agreement, dated February 17, 2020 (the "Purchase Agreement" and together with the Registration Rights Agreement, the "Transaction Documents").

In connection with this opinion, we have examined such corporate records, documents, instruments, certificates of public officials and of the Company and such questions of law as we have deemed necessary for the purpose of rendering the opinions set forth herein. We also have examined the Registration Statement and the Transaction Documents.

In such examination, we have assumed the genuineness of all signatures and the authenticity of all items submitted to us as originals and the conformity with originals of all items submitted to us as copies. As to all parties other than the Company, we have assumed the due authorization, execution and delivery of all documents and the validity and enforceability thereof against all parties thereto in accordance with their respective terms.

Based on the foregoing, and subject to the further assumptions and qualifications set forth below, it is our opinion that the Shares will be duly authorized for issuance and, when issued, delivered and paid for in accordance with the terms of the Purchase Agreement, will be validly issued, fully paid and non-assessable.

This opinion letter has been prepared for use in connection with the Registration Statement. We are opining only as to the matters expressly set forth herein and that no opinion should be inferred as to any other matter. Our opinion herein is expressed solely with respect to the General Corporation Law of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set

Mayer Brown is a global services provider comprising an association of legal practices that are separate entities including Mayer Brown LLP (Illinois, USA), Mayer Brown International LLP (England), Mayer Brown (a Hong Kong partnership) and Tauil & Chequer Advogados (a Brazilian partnership).

Brickell Biotech, Inc. April 3, 2020 Page 2

forth herein. 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.

We hereby consent to the filing of this opinion with the Commission as Exhibit 5.1 to the Registration Statement and to the reference to us under the caption "Legal Matters" in the prospectus included in the Registration Statement. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Securities Act or the rules or regulations of the Commission thereunder.

Very truly yours,

/s/ Mayer Brown LLP

Mayer Brown LLP

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-1) and related Prospectus of Brickell Biotech, Inc. for the registration of up to 2,598,829 shares of its common stock and to the incorporation by reference therein of our report dated March 18, 2020, with respect to the consolidated financial statements of Brickell Biotech, Inc., included in Brickell Biotech Inc.'s Annual Report on Form 10-K for the year ended December 31, 2019, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Denver, Colorado April 3, 2020