BELLICUM PHARMACEUTICALS, INC
Form 424B5
April 18, 2018
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Filed Pursuant to Rule 424(b)(5)
Registration No. 333-219021

PROSPECTUS SUPPLEMENT

(To Prospectus dated July 12, 2017)

8,000,000 Shares

Common Stock

$7.50 per share

We are selling 8,000,000 shares of our common stock in this offering.

We have granted the underwriters an option for a period of 30 days to purchase up to 1,200,000 additional shares.

Our common stock is quoted on The Nasdaq Global Market under the symbol BLCM. The last reported sale price of our common stock on The Nasdaq Global Market on April 17, 2018 was $7.84 per share.

Investing in our common stock involves risks. See Risk Factors beginning on page S-8.

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

	Per Share	Total
Public Offering Price	$ 7.50	$ 60,000,000
Underwriting Discounts and Commissions[(1)]	$ 0.45	$ 3,600,000
Proceeds to Bellicum (before expenses)	$ 7.05	$ 56,400,000

(1) The underwriters will also be reimbursed for certain expenses incurred in this offering. See Underwriting for details.

The underwriters expect to deliver the shares to purchasers on or about April 20, 2018 through the book-entry facilities of The Depository Trust Company.

Joint Book-Running Managers

Citigroup **Jefferies**

Co-Managers

Guggenheim Securities

Ladenburg Thalmann

Raymond James

April 17, 2018

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We are responsible for the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus and in any free writing prospectus we prepare or authorize. We have not authorized anyone to provide you with different information, and we take no responsibility for any other information others may give you. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in or incorporated by reference into this prospectus supplement or the accompanying prospectus is accurate as of any date other than its date.

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Prospectus Supplement

Prospectus

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated July 12, 2017, including the documents incorporated by reference therein, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement.

We have not, and the underwriters have not, authorized anyone to provide you with information different than or inconsistent with the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents, regardless of the time of delivery of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the section of this prospectus supplement entitled Incorporation of Certain Information by Reference.

We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless otherwise stated, all references in this prospectus to we, us, our, Bellicum, Bellicum Pharmaceuticals, the Company and similar designations refer to Bellicum Pharmaceuticals, Inc. and its subsidiaries on a consolidated basis. This prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein contain common law, unregistered trademarks for Bellicum Pharmaceuticals based on use of the trademarks in the United States. Other trademarks referred to in this prospectus supplement or the accompanying prospectus or the information incorporated by reference herein and therein are the property of their respective owners. Solely for convenience, trademarks and trade names referred to in this prospectus supplement, the accompanying prospectus and the information incorporated by

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reference herein and therein, 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 companies.

Notice to Prospective Investor in the European Economic Area

This prospectus supplement and the accompanying prospectus are not prospectuses for the purpose of the Prospectus Directive (as defined below). This prospectus supplement and the accompanying prospectus have been prepared on the basis that any offer of shares in any Member State of the European Economic Area (the EEA) which has implemented the Prospectus Directive (each, a Relevant Member State) will only be made to a legal entity which is a qualified investor under the Prospectus Directive (Qualified Investors). Accordingly any person making or intending to make an offer in that Relevant Member State of shares which are the subject of the offering contemplated in this prospectus supplement and the accompanying prospectus may only do so with respect to Qualified Investors. Neither we nor the underwriters have authorized, nor do we or the underwriters authorize, the making of any offer of shares other than to Qualified Investors. The expression Prospectus Directive means Directive 2003/71/EC (as amended, including by Directive 2010/73/EU), and includes any relevant implementing measure in the Relevant Member State.

MIFID II Product Governance

Any distributor subject to Directive 2014/65/EU, as amended (MiFID II) that is offering, selling or recommending the shares of common stock is responsible for undertaking its own target market assessment in respect of the shares of common stock and determining its own distribution channels for the purposes of the MiFID II product governance rules under Commission Delegated Directive (EU) 2017/593 (Delegated Directive). Neither the Company nor the underwriters make any representations or warranties as to a distributor s compliance with the Delegated Directive.

Notice to Prospective Investors in the United Kingdom

The communication of this prospectus supplement, the accompanying prospectus and any other document or materials relating to the issue of the shares offered hereby is not being made, and such documents and/or materials have not been approved, by an authorized person for the purposes of section 21 of the United Kingdom s Financial Services and Markets Act 2000, as amended. Accordingly, such documents and/or materials are not being distributed to, and must not be passed on to, the general public in the United Kingdom. The communication of such documents and/or materials as a financial promotion is only being made to those persons in the United Kingdom falling within the definition of investment professionals (as defined in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Financial Promotion Order)), or within Article 49(2)(a) to (d) of the Financial Promotion Order, or to any other persons to whom it may otherwise lawfully be made under the Financial Promotion Order (all such persons together being referred to as relevant persons). In the United Kingdom, the shares offered hereby are only available to, and any investment or investment activity to which this prospectus supplement and the accompanying prospectus relate will be engaged in only with, relevant persons. Any person in the United Kingdom that is not a relevant person should not act or rely on this prospectus supplement or the accompanying prospectus or any of their contents.

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FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, the documents incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering contain forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are subject to the safe harbor created by those sections. We may, in some cases, use words such as anticipate, believe, could, estimate, expect, intend, may, plan, potential, project, should, will, would or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes to identify these forward-looking statements. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. Forward-looking statements may include, but are not limited to, statements about:

- the success, cost and timing of our product development activities and clinical trials;
- our ability to advance Chemical Induction of Dimerization, or CID, CID-based technologies, including CaspaCIDe and GoCAR-T;
- our ability to obtain and maintain regulatory approval of BPX-501 and any other product candidates, and any related restrictions, limitations and/or warnings in the label of an approved product candidate;
- our ability to obtain funding for our operations, including funding necessary to complete further development and commercialization of our product candidates;
- the commercialization of our product candidates, if approved;
- our plans to research, develop and commercialize our product candidates;
- our ability to attract collaborators with development, regulatory and commercialization expertise and the success of any such collaborations;
- future agreements with third parties in connection with the commercialization of our product candidates and any other approved product;
- the size and growth potential of the markets for our product candidates, and our ability to serve those markets;
- the rate and degree of market acceptance of our product candidates;
- regulatory developments in the United States, or U.S., and foreign countries;
- our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately;

the success of competing therapies that are or may become available;

our ability to attract and retain key scientific or management personnel;

our ability to grow our organization and increase the size of our facilities to meet our anticipated growth;

the accuracy of our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;

our expectations regarding the period during which we qualify as an emerging growth company under the Jumpstart Our Business Startups Act of 2012, or the JOBS Act;

our use of cash and other resources, including the use of proceeds from this offering; and

our expectations regarding our ability to obtain and maintain intellectual property protection for our product candidates.

These forward-looking statements reflect our management s beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this prospectus supplement and are subject to risks and uncertainties. We discuss many of these risks in greater detail under Risk Factors. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for

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our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

You should read this prospectus supplement and the accompanying prospectus together with the documents that we have filed with the SEC that are incorporated by reference and any free writing prospectus we have authorized for use in connection with a specific offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus supplement by these cautionary statements. Except as required by law, we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, you should read and consider carefully the more detailed information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, including the risks described under the heading Risk Factors, as well as the information included in any free writing prospectus that we have authorized for use in connection with this offering.

Overview

We are a clinical stage biopharmaceutical company focused on discovering and developing novel cellular immunotherapies for various forms of cancer, including both hematological cancers and solid tumors, as well as orphan inherited blood disorders. We are using our proprietary Chemical Induction of Dimerization, or CID, technology platform to engineer our product candidates with switch technologies that are designed to control components of the immune system in real time. By incorporating our CID platform, our product candidates may offer better safety and efficacy outcomes than are seen with current cellular immunotherapies.

We are developing next-generation product candidates in some of the most important areas of cellular immunotherapy, including chimeric antigen receptor T cell therapy, or CAR T, T cell receptors, or TCRs and hematopoietic stem cell transplantation, or HSCT. CAR T and TCR cell therapies are an innovative approach in which a patient s T cells are genetically modified to carry chimeric antigen receptors, or CARs, or TCRs which redirect the T cells against cancer cells. While high objective response rates have been reported in some hematological malignancies, serious and sometimes fatal toxicities have arisen in patients treated with CAR T cell therapies. These toxicities include instances in which the CAR T cells have caused high levels of cytokines due to over-activation, referred to as cytokine release syndrome, or CRS, neurologic toxicities and cases in which they have attacked healthy organs. In each case, these toxicities have sometimes resulted in death. In solid tumors, where the behavior of CAR T cells is particularly unpredictable and results have been inconsistent, researchers are developing enhanced CAR T cell approaches that raise even greater safety concerns. HSCT, also known as bone marrow transplantation, has for decades been curative for many patients with hematological cancers or orphan inherited blood disorders. However, adoption of HSCT to date has been limited by the risks of transplant-related morbidity and mortality from graft-versus-host-disease, or GvHD, and the potential for serious infections due to the lack of an effective immune system following a transplant.

Our proprietary CID platform is designed to address these challenges. Events inside a cell are controlled by cascades of specialized signaling proteins. CID consists of molecular switches, modified forms of these signaling proteins, which are triggered inside the patient by infusion of a small molecule, rimiducid, instead of by natural upstream signals. We include these molecular switches in the appropriate immune cells and deliver the cells to the patient in the manner of conventional cellular immunotherapy. We have developed two such switches: a safety switch, designed to initiate programmed cell death, or apoptosis, of the immunotherapy cells, and an activation switch, designed to stimulate activation and in some cases proliferation and/or persistence of the immunotherapy cells. Each of our product candidates incorporates one of these switches, for enhanced, real time control of safety and efficacy:

- CaspaCIDe (also known as inducible Caspase-9, or iC9) is our safety switch, incorporated into our HSCT and TCR product candidates, and into academic CAR T collaborations, where it is inactive unless the patient experiences a serious side effect. In that event, rimiducid is administered to induce Caspase-9 and eliminate a majority of the cells, with the goal of attenuating the therapy and resolving the serious side effect.

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Our activation switch incorporated into our GoCAR-T product candidates (also known as inducible MyD88/CD40, or iMC), is designed to enable control of the activation and proliferation of the T cells through the scheduled administration of a course of rimiducid infusions that may continue until the desired patient outcome is achieved. In the event of emergence of side effects, the level of activation of the GoCAR-T cells is designed to be attenuated by extending the interval between rimiducid doses, reducing the dosage per infusion, or suspending further rimiducid administration.

In addition, we have an active research effort to develop other advanced molecular switch approaches, including a dual-switch that is designed to provide a user-controlled system for managing proliferation and/or persistence and safety of tumor antigen-specific CAR T cells.

By incorporating our novel switch technologies, we are developing product candidates with the potential to elicit positive clinical outcomes and ultimately change the treatment paradigm in various areas of cellular immunotherapy. Our clinical product candidates are described below.

BPX-501 is a CaspaCIDe product candidate designed as an adjunct T cell therapy administered after allogeneic HSCT. BPX-501 is designed to improve transplant outcomes by enhancing the recovery of the immune system following an HSCT procedure. BPX-501 addresses the risk of infusing donor T cells by enabling the elimination of donor T cells through the activation of the CaspaCIDe safety switch if there is an emergence of uncontrolled GvHD.

The European Commission has granted orphan drug designations to BPX-501 for treatment in HSCT, and for activator agent rimiducid for the treatment of GvHD. Additionally, BPX-501 and rimiducid have received orphan drug status from the U.S. Food and Drug Administration, or the FDA, as a combination replacement T-cell therapy for the treatment of immunodeficiency and GvHD after allogeneic HSCT.

Based on interactions with European Medicines Agency, or the EMA, we believe that data from the European arm of our BP-004 trial could form the basis of MAAs for BPX-501 and rimiducid for pediatric patients with certain orphan inherited blood disorders or treatment-refractory hematological cancers. In addition, the EMA s Committee for Medicinal Products for Human Use, or the CHMP, has agreed that review and approval under exceptional circumstances may be suitable, recognizing that a randomized trial may not be feasible in the pediatric haploidentical hematopoietic stem cell transplant setting. In place of a randomized trial, we are collecting data from a concurrent observational study in the pediatric matched unrelated donor hematopoietic stem cell transplant setting, which will include both retrospective patients and prospective patients. We expect to report updated results from the European BP-004 clinical trial in the fourth quarter of 2018 and to file MAAs for European marketing approvals in 2019.

We are currently planning additional clinical trials for BPX-50l. In the adult malignant patient setting, we are designing a randomized, controlled trial in adults with acute myeloid leukemia, and potentially other hematological cancers, to compare outcomes in patients receiving a haplo-transplant with and without BPX-501. For the U.S. pediatric patient setting, we are designing a clinical trial, that we believe could be registrational, to evaluate BPX-501 in a distinct orphan disease population. We expect to initiate both of these clinical trials in the second half of 2018.

BPX-601 is a GoCAR-T product candidate containing our proprietary inducible MyD88/CD40, or iMC, activation switch, designed to treat solid tumors expressing prostate stem cell antigen, or PSCA. Preclinical data shows enhanced T cell proliferation, persistence and in vivo anti-tumor activity compared to traditional CAR T therapies. A Phase 1 clinical trial in patients with non-resectable pancreatic cancer is ongoing and we expect to report initial data from this clinical trial in the second half of 2018. In addition to pancreatic cancer, PSCA is expressed in several other solid tumor indications, including: gastric, esophageal, prostate and bladder cancers. In 2018 we are planning to expand the clinical development of BPX-601 to include additional PSCA expressing cancer types.

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BPX-701 is a CaspaCIDe-enabled natural high affinity TCR product candidate designed to target malignant cells expressing the preferentially-expressed antigen in melanoma, or PRAME. The ongoing Phase 1 clinical trial for BPX-701 is in adult patients with refractory or relapsed acute myeloid leukemia, or AML, and myelodysplastic syndromes, or MDS. We expect to report initial data from this clinical trial in the second half of 2018.

CD19 CAR T Program We are working with academic collaborators to establish clinical proof of concept for CaspaCIDe® in the CD19-expressing B cell malignancies setting. We believe that this strategy allows a cost-effective approach for clinical evaluation of CaspaCIDe in attenuating the acute toxicities of CD19-targeted therapies. As part of this strategy, in November 2016 we announced an expanded collaboration with Ospedale Pediatrico Bambino Gesù, or OPBG, a leading European pediatric research center and hospital. Clinical development of a CaspaCIDe-enabled CD19 CAR T cell therapy is ongoing at OPBG.

We have developed efficient and scalable processes to manufacture genetically modified T cells of high quality, which are currently being used to produce BPX-501, BPX-601 and BPX-701 for our clinical trials. We are leveraging this know how in combination with our proprietary cellular control technologies, resources, capabilities and expertise for the manufacture of CAR T and TCR product candidates to create and develop first and best-in-class product candidates.

We have established in-house cell manufacturing and vector production capabilities at our headquarters facility in Houston, Texas. In the first quarter of 2017, the initial phase of the build-out was completed and we began manufacturing clinical trial material from this site. We completed the facility build-out in early 2018, and we expect that our facilities will meet our U.S. clinical trial and early commercialization requirements. For the European market, we plan to continue working with established contract manufacturers, with our U.S. manufacturing facility as a potential backup supply source.

Pipeline

The following table summarizes our product candidate pipeline:

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Recent Developments

On April 11, 2018, the FDA lifted the clinical hold on studies of our BPX-501 product candidate in the U.S. The FDA s decision followed consultation between us and the FDA and agreement on amendments to the study protocols, including guidance on monitoring and management of neurologic adverse events. We plan on working with U.S. clinical sites to resume patient recruitment based on the amended protocols. The FDA clinical hold did not affect the BP-004 registrational trial in Europe, which is fully enrolled and closed to recruitment.

Financial Update

While we have not finalized our full financial results for the quarter ended March 31, 2018, we expect to report that we had $88.0 million of cash, cash equivalents and short-term investments as of March 31, 2018. This amount is preliminary, has not been audited and is subject to change in connection with the completion of our financial statements for the quarter ended March 31, 2018. In addition, our independent registered public accounting firm does not express an opinion or any other form of assurance with respect thereto. Accordingly, you should not place undue reliance on this information. Additional information and disclosures would be required for a more complete understanding of our financial position and results of operations as of March 31, 2018.

Corporate Information

We were incorporated in Delaware in July 2004. Our principal executive offices are located at 2130 W. Holcombe Blvd., Ste. 800, Houston, Texas and our telephone number is (832) 384-1100. Our corporate website address is www.bellicum.com. The contents of our website are not a part of, and are not incorporated into, this prospectus supplement or the accompanying prospectus, and you should not consider it part of this prospectus supplement or the accompanying prospectus and you should not rely on any such information in making any decisions of whether to purchase our securities. For further information regarding us and our financial information, you should refer to our recent filings with the SEC. See Incorporation of Certain Information by Reference.

We use various trademarks, service marks and trade names in our business, including without limitation Bellicum Pharmaceuticals and Bellicum. This prospectus supplement also contains trademarks, service marks and trade names of other businesses that are the property of their respective holders.

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THE OFFERING

Issuer	Bellicum Pharmaceuticals, Inc.
Common stock offered by us	8,000,000 shares
Common stock to be outstanding after this offering	41,285,177 shares
Underwriters option to purchase additional shares	1,200,000 shares
Use of proceeds	We intend to use the net proceeds from this offering, together with our existing capital resources, to fund ongoing and planned BPX-501 clinical trials in both the European Union and U.S., Phase 1 clinical trials of controllable CAR T (BPX-601) and TCR (BPX-701) product candidates, IND/IMPD enabling studies and Phase 1 clinical trials for dual-switch CAR-T product candidates, research and development activities, preparation activities for potential future commercialization of BPX-501, and to fund working capital, including general corporate purposes. See Use of Proceeds.
Risk factors	Investing in our common stock involves a high degree of risk. See Risk Factors for a discussion of factors that you should consider before buying shares of our common stock.
Symbol on The Nasdaq Global Market	BLCM

The number of shares of common stock to be outstanding after this offering is based on 33,285,177 shares outstanding on December 31, 2017, and excludes as of that date:

- 5,286,472 shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2017, at a weighted-average exercise price of $12.35 per share of common stock;
- 111,250 shares of common stock issuable upon the vesting of outstanding restricted stock units as of December 31, 2017;
- 29,413 shares of common stock subject to repurchase by us as of December 31, 2017;
- 3,095,351 shares of common stock reserved for future issuance under our 2014 Equity Incentive Plan, as of December 31, 2017; and
- 460,027 shares of common stock reserved for future issuance under our 2014 Employee Stock Purchase Plan, as of December 31, 2017.

Except as otherwise noted, all information in this prospectus supplement assumes no exercise of the underwriters option to purchase additional shares and no exercise of the outstanding stock options described above.

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RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, those contained in the section entitled Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2017, which is incorporated herein by reference in its entirety, as well as any amendment or update to our risk factors reflected in subsequent filings with the SEC, all other information in this prospectus supplement, the accompanying prospectus, and the other documents incorporated by reference, and in any free writing prospectus that we have authorized for use in connection with this offering. The occurrence of any of these risks could harm our business, financial condition, results of operations and growth prospects. In such an event, the market price of our common stock could decline and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations.

Risks Relating to this Offering

If you purchase shares of common stock in this offering, you will experience immediate and substantial dilution in your investment. You will experience further dilution if we issue additional equity or equity-linked securities in the future.

Since the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer immediate and substantial dilution with respect to the net tangible book value of the common stock you purchase in this offering. Based on the public offering price of $7.50 per share and our net tangible book value as of December 31, 2017, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of $4.09 per share with respect to the net tangible book value of the common stock. See the section entitled Dilution for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

If we issue additional shares of common stock, or securities convertible into or exchangeable or exercisable for shares of common stock, our stockholders, including investors who purchase shares of common stock in this offering, will experience additional dilution, and any such issuances may result in downward pressure on the price of our common stock. We also cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders.

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

We will have broad discretion in the use of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, impair or delay our ability to develop our product candidates and cause the price of our common stock to decline. See the section entitled Use of Proceeds.

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USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of shares of our common stock that we are offering will be approximately $56.0 million, or approximately $64.4 million if the underwriters exercise their option to purchase additional shares in full, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering, together with our existing capital resources, to fund ongoing and planned BPX-501 clinical trials in both the European Union and U.S., Phase 1 clinical trials of controllable CAR T (BPX-601) and TCR (BPX-701) product candidates, IND/IMPD enabling studies and Phase 1 clinical trials for dual-switch CAR-T product candidates, research and development activities, preparation activities for potential future commercialization of BPX-501, and to fund working capital, including general corporate purposes.

We may also use a portion of the net proceeds from this offering to acquire or license new product candidates or technology that could result in other product candidates, although we do not have current plans to do so.

Our expected use of the net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus supplement, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering, or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including our ability to access additional financing, the relative success and cost of our research, preclinical and clinical development programs and whether we are able to enter into future licensing arrangements. As a result, our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds of this offering. In addition, we might decide to postpone or not pursue clinical trials or preclinical activities if the net proceeds from this offering and any other sources of cash are less than expected.

Pending their use as described above, we plan to invest the net proceeds from this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DIVIDEND POLICY

We do not anticipate declaring or paying, in the foreseeable future, any cash dividends on our capital stock. In addition, the terms of our loan and security agreement with Oxford Finance LLC restrict our ability to declare or pay any cash dividend or make a cash distribution on any class of stock or other equity interest. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business. Any future determination related to our dividend policy will be made at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors our board of directors may deem relevant.

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DILUTION

Our net tangible book value as of December 31, 2017 was approximately $84.6 million, or $2.54 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, 2017. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock 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 8,000,000 shares of our common stock in this offering at the public offering price of $7.50 per share and after deducting the underwriting discounts and commissions and our estimated offering expenses, our as adjusted net tangible book value as of December 31, 2017 would have been approximately $140.6 million, or $3.41 per share. This represents an immediate increase in net tangible book value of $0.87 per share to existing stockholders and immediate dilution in net tangible book value of $4.09 per share to new investors purchasing our common stock in this offering. The following table illustrates this dilution on a per share basis:

Assumed public offering price per share		$ 7.50
Net tangible book value per share as of December 31, 2017	$ 2.54	
Increase in net tangible book value per share attributable to investors purchasing our common stock in this offering	$ 0.87	
As adjusted net tangible book value per share as of December 31, 2017 after this offering		$ 3.41
Dilution per share to investors purchasing our common stock in this offering		$ 4.09

If the underwriters exercise their option in full to purchase up to 1,200,000 additional shares of common stock, the as adjusted net tangible book value after this offering would be $3.51 per share, representing an increase in net tangible book value of $0.97 per share to existing stockholders and immediate dilution in net tangible book value of $3.99 per share to new investors purchasing our common stock in this offering.

The number of shares of common stock to be outstanding after this offering is based on 33,285,177 shares outstanding on December 31, 2017, and excludes as of that date:

- 5,286,472 shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2017, at a weighted-average exercise price of $12.35 per share of common stock;
- 111,250 shares of common stock issuable upon the vesting of outstanding restricted stock units as of December 31, 2017;
- 29,413 shares of common stock subject to repurchase by us as of December 31, 2017;
- 3,095,351 shares of common stock reserved for future issuance under our 2014 Equity Incentive Plan, as of December 31, 2017; and
- 460,027 shares of common stock reserved for future issuance under our 2014 Employee Stock Purchase Plan, as of December 31, 2017.

To the extent that outstanding options are exercised, investors purchasing our common stock in this offering will 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.

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EXECUTIVE OFFICERS AND DIRECTORS

The following table sets forth certain information regarding our current executive officers and directors as of April 6, 2018:

NAME	AGE	POSITION(S)
Richard A. Fair	49	President and Chief Executive Officer and Director
Alan A. Musso, C.P.A., C.M.A.	56	Chief Financial Officer and Treasurer
William Grossman, M.D., Ph.D.	48	Chief Medical Officer
Gregory Naeve, Ph.D.	53	Chief Business Officer
David M. Spencer, Ph.D.	55	Chief Technology Officer
Alan K. Smith, Ph.D.	62	Executive Vice President of Technical Operations
James F. Brown	53	Director
James M. Daly	56	Director
Stephen R. Davis	57	Director
Edmund P. Harrigan, Ph.D., M.D.	65	Director
Reid M. Huber, Ph.D.	46	Director
Frank B. McGuyer	66	Director
Jon P. Stonehouse	57	Director

Executive Officers

Richard A. Fair, 49, has served as our President and Chief Executive Officer and a member of our Board of Directors since January 2017. Prior to joining Bellicum, Mr. Fair served as Senior Vice President, Therapeutic Head Oncology Global Product Strategy at Genentech, Inc., a subsidiary of Roche Holding AG. From April 2006 to January 2014, Mr. Fair held other positions at Genentech, including Vice President, Global Product Strategy Hematology & Signaling, from November 2012 through December 2013, and Vice President, Sales & Marketing, Oral Oncolytics, from May 2010 to November 2012. Prior to Genentech, Mr. Fair held positions at Johnson & Johnson, a public pharmaceutical and medical device company. Mr. Fair received his B.S. in computer science from the University of Michigan and his MBA, with a dual concentration in finance and management, from Columbia University.

Alan A. Musso, C.P.A., C.M.A., 56, has served as our Chief Financial Officer and Treasurer since November 2014. From February 2002 to November 2014, Mr. Musso served in various positions at Targacept, Inc., a public biopharmaceutical company, including as Senior Vice President of Finance and Administration from March 2010 to November 2014, Chief Financial Officer and Treasurer from February 2002 to November 2014, and Assistant Secretary from June 2007 to November 2014. Mr. Musso has over 25 years of biotechnology and pharmaceutical industry experience in both large and emerging growth companies. Mr. Musso received his B.S. degree from Saint Mary s College of California and his graduate degree from the American Graduate School of International Management in Glendale, Arizona.

William Grossman, M.D., Ph.D., 48, has served as our Chief Medical Officer since February 2018. Prior to joining Bellicum, Dr. Grossman served as the Group Medical Director in Cancer Immunotherapy at Genentech from September 2015 to February 2018, where he led the global clinical development of cancer immunotherapies in gastrointestinal cancers and of cancer immunotherapy combinations across all solid tumor types. Dr. Grossman served AbbVie as its U.S. and Global Medical Affairs Therapeutic Area Head in Oncology from April 2013 until September 2015, where he was involved in the development and clinical study of cancer vaccines, immunomodulatory agents, and small molecules/biologics in oncology. From 2011 to 2013, Dr. Grossman served as Senior Vice President, Research & Clinical Development at Biothera, where he oversaw all discovery and clinical development efforts in oncology and immunology. Additionally, from 2004 until 2008, Dr. Grossman held various positions with the Medical College of Wisconsin and the Children s Hospital of

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Wisconsin, including Founder and Medical Director of the Clinical Immunodiagnostic and Research Laboratory, Professor for Microbiology and Genetics, and Director of the Hematology/Oncology/Bone Marrow Transplant Division for the Immunodeficiency Transplant Program. Dr. Grossman earned his M.D. and Ph.D. degrees from Washington University School of Medicine and completed his medical training in the Division of Pediatrics Hematology/Oncology at the Washington University School of Medicine.

Gregory Naeve, Ph.D., 53, has served as our Chief Business Officer since August 2017. From August 2012 to August 2017, Dr. Naeve served as the ImmunoOncology & Cell Therapy Lead for Pfizer s External Research and Development Unit, where he was responsible for identifying and implementing strategic partnerships in Pfizer s ImmunoOncology portfolio. Prior to that he served as Head of Strategic Research Groups at Pfizer from 2011 until 2012. From 2007 to 2010, Dr. Naeve served as Principal of The Column Group, a venture capital firm focused on investing in and creating innovative biotechnology companies. He also served as President and Chief Scientific Officer at Parallax Biosystems from 2002 to 2007, a company he co-founded that developed novel technologies with applications in preclinical drug discovery and diagnostics. Dr. Naeve received his B.S. in Biochemistry and Biological Sciences from Colorado State University and his Ph.D. in Biochemistry from the University of Southern California.

David M. Spencer, Ph.D., 55, has served as our Chief Technology Officer since February 2018. Dr. Spencer also served as our Chief Scientific Officer from November 2011 to February 2018, a position that he also held part-time as a consultant since September 2004. Dr. Spencer co-founded Bellicum in July 2004 and served as a member of our Board until September 2004. He has served as a scientific advisor to the Company since our inception. From January 1996 to November 2011, Dr. Spencer served as professor in the department of Pathology and Immunology at Baylor College of Medicine and as Vice Chairman of the department from January 2010 to November 2011. He graduated *magna cum laude* with a B.A. in Chemistry from the University of California, San Diego and received his Ph.D. in Biology at Massachusetts Institute of Technology and was a postdoctoral fellow at Stanford University.

Alan K. Smith, Ph.D., 62, has served as our Executive Vice President of Technical Operations since May 2017 and previously served as our Senior Vice President of Manufacturing from October 2015. From July 2013 to October 2015, Dr. Smith served as Vice President of Research & Development and Cellular Therapeutics for LifeNet Health, a private biotechnology company. Prior to LifeNet, Dr. Smith served as President and Chief Executive Officer for Cognate BioServices. In addition Dr. Smith held positions as an Adjunct Professor at Eastern Virginia Medical School, California State University Long Beach and Utah State University. Dr. Smith received his B.S. in Chemistry from Southern Utah University and his Ph.D. in Biochemistry from Utah State University.

Non-Employee Directors

James F. Brown, 53, has served as a member of our Board of Directors since November 2011 and as Chairman of our Board of Directors since December 2014. From July 2009 to May 2017 he served as Managing Director of AVG Ventures, a private investment firm. From 2003 to 2009, Mr. Brown was an independent investor and served on a number of private company boards of directors. From 1999 to 2002, he served as Executive Vice President and General Manager of OpenTV, Inc., a technology and media company, where he co-founded and managed the company s applications business unit, prior to its sale to Liberty Media in 2002. Earlier in his career, Mr. Brown was a partner in the law firms of McDermott, Will & Emery and Pillsbury Madison & Sutro. Mr. Brown is currently a director of Landmark Infrastructure Partners, LP, a specialty public real estate management company. He also served as a director of Perk.com, Inc., a public company traded on the Toronto Stock Exchange, from July 2015 to January 2017. Mr. Brown received his B.S. in accounting from Weber State University and his J.D. from Brigham Young University School of Law. Our Board of Directors believes that Mr. Brown s business experience and his success as an investor and entrepreneur qualify him to serve on our Board of Directors.

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James M. Daly, 56, has served as a member of our Board of Directors since May 2016. Mr. Daly currently serves on the board of directors of three other biopharmaceutical companies, including ACADIA Pharmaceuticals, Inc., Halozyme Therapeutics, Inc. and Chimerix, Inc. From October 2012 to June 2015, Mr. Daly served as Executive Vice President and Chief Commercial Officer of Incyte Corporation, a public biotechnology company. From January 2002 to December 2011, Mr. Daly held various positions at Amgen, Inc., a public biopharmaceutical company, where he most recently served as Senior Vice President of North America Commercial Operations and Global Marketing/Commercial Development. Prior to his employment with Amgen, Mr. Daly served as Senior Vice President and General Manager of the Respiratory/Anti-infective business unit of GlaxoSmithKline, a public pharmaceutical company, where he was employed from June 1985 to December 2001. Mr. Daly received his B.S. in Pharmacy and an M.B.A. from the University at Buffalo, The State University of New York. Our Board of Directors believes that Mr. Daly s extensive background in the pharmaceutical industry and experience as an executive and director at multiple public biopharmaceutical companies qualify him to serve on our Board of Directors.

Stephen R. Davis, 57, has served as a member of our Board of Directors since July 2015. Since March 2015, Mr. Davis has served as President and Chief Executive Officer of ACADIA Pharmaceuticals, Inc., a public biotechnology company. Prior to that, Mr. Davis served as ACADIA s Executive Vice President, Chief Financial Officer and Chief Business Officer from July 2014 through March 2015. From June 2012 to June 2015, Mr. Davis served as a member of the board of directors of Heron Therapeutics, Inc., a public biotechnology company, where he also served as Executive Vice President and Chief Operating Officer from May 2013 to July 2014. From April 2010 to December 2012, Mr. Davis served as Executive Vice President and Chief Operating Officer of Ardea Biosciences, Inc., a public biotechnology company which was acquired by AstraZeneca PLC in June 2012. He also recently served as a director of Synageva BioPharma Corp. Earlier in his career, Mr. Davis practiced as a certified public accountant with a major accounting firm and as a corporate and securities attorney with a Wall Street law firm. Mr. Davis received his B.S. degree in accounting from Southern Nazerene University and his J.D. degree from Vanderbilt University. Our Board of Directors believes that Mr. Davis experience as an executive at various public biotechnology companies, his background in law, finance and accounting and his experience as a director at public biotechnology companies qualify him to serve on our Board of Directors.

Edmund P. Harrigan, M.D., 65, has served as a member of our Board of Directors since February 2018. Dr. Harrigan currently sits on the board of directors of ACADIA Pharmaceuticals, Inc. From 2012 to 2015, Dr. Harrigan served as Vice President of Worldwide Safety and Regulatory for Pfizer Inc., where he led a 3,500-person team in 80 countries that was responsible for collecting, interpreting and reporting clinical safety data for more than 600 marketed products, and managing regulatory interactions with global health agencies. Dr. Harrigan s previous executive leadership roles at Pfizer included serving as Senior Vice President, Head of Worldwide Business Development, Senior Vice President, Head of Worldwide Regulatory Affairs and Quality Assurance, and Vice President, Head of Neuroscience and Ophthalmology. Earlier in his career at Pfizer, Dr. Harrigan served as Vice President of Clinical Development, Therapeutic Area Head, CNS and Pain. Before entering the pharmaceutical industry in 1990, Dr. Harrigan was a practicing neurologist for seven years. He currently serves on the Board of Directors of two privately-held companies, Karuna Pharmaceuticals Inc. and Lyndra, Inc. Dr. Harrigan received his B.A. in Chemistry from St. Anselm College and his M.D. from the University of Massachusetts at Worcester. Our Board of Directors believes that Dr. Harrigan s background in clinical and related development and regulatory matters at large pharmaceutical organizations and extensive commercial and senior management experience qualify him to serve on our Board of Directors.

Reid M. Huber, Ph.D., 46, has served as a member of our Board of Directors since October 2014. Dr. Huber currently serves as the Executive Vice President and Chief Scientific Officer of Incyte Corporation, a public biotechnology company, where he has held various management positions since January 2002. From 1998 to 2002, Dr. Huber held scientific research positions at DuPont Pharmaceuticals Company, a private chemicals and healthcare company. Prior to DuPont Pharmaceuticals Company, from 1997 to 1998, Dr. Huber held intramural pre-doctoral and post-doctoral fellowships at the National Institutes of Health. Dr. Huber received his B.S. in

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biochemistry/molecular genetics from Murray State University and his Ph.D. in molecular genetics from Washington University. Our Board of Directors believes that Dr. Huber s extensive background in the pharmaceutical industry and current management experience at a public biotechnology company qualify him to serve on our Board of Directors.

Frank B. McGuyer, 66, has served as a member of our Board of Directors since March 2009. He is the founder of, and since December 1988 has served as the chairman of the Board of Directors and Chief Executive Officer of, McGuyer Homebuilders Inc., a private homebuilding company. He received his B.B.A. with honors at Southern Methodist University. Our Board of Directors believes that Mr. McGuyer s operational, business and investment experience qualifies him to serve on our Board of Directors.

Jon P. Stonehouse, 57, has served as a member of our Board of Directors since December 2014. Since January 2007, Mr. Stonehouse has served as the Chief Executive Officer and a member of the Board of Directors of BioCryst Pharmaceuticals, Inc., a public biopharmaceutical company. Since July 2007, he has also served as President of BioCryst. From March 2002 to December 2006, Mr. Stonehouse served in various positions at Merck KGaA, a pharmaceutical company, including as Senior Vice President of Corporate Development from July 2002 to December 2006, and Vice President of Global Licensing and Business Development and Integration from March 2002 to December 2006. Since November 2008, Mr. Stonehouse has also served as a member of the Advisory Board of Precision Biosciences, Inc., a private biotechnology company. Mr. Stonehouse received his B.S. in Chemistry from the University of Minnesota. Our Board of Directors believes that Mr. Stonehouse s management background, experience as a director at a public pharmaceutical company and extensive history as an advisory board member in the pharmaceutical industry qualify him to serve on our Board of Directors.

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TRANSACTIONS WITH RELATED PERSONS

The following includes a summary of transactions with related persons since January 1, 2017 to which we have been a party, in which the amount involved in the transaction exceeded $120,000. Since January 1, 2017, the Company has engaged in the following transactions with related persons:

Agreements with Current and Former Officers and Directors

Effective January 30, 2017, Thomas J. Farrell resigned from his position as a member of our Board of Directors and our President and Chief Executive Officer. In connection with Mr. Farrell s resignation, we entered into a letter agreement with Mr. Farrell that provides for certain separation benefits in the form of continued payment of base salary for 12 months, a lump sum amount equal to Mr. Farrell s pro-rated target performance bonus for 2017, and reimbursement of COBRA premiums for up to 12 months. In addition, we agreed to retain Mr. Farrell as a consultant at a rate of $5,000 per month, for a term of up to 18 months measured from January 30, 2017. In exchange for Mr. Farrell s consulting services, we also agreed to extend the separation benefits specified above for an additional six months following the initial 12 month period, subject to Mr. Farrell s continuous service and other terms and conditions specified in the agreement.

Effective March 14, 2017, Peter L. Hoang was terminated from his position as Senior Vice President of Business Development and Strategy. In connection with Mr. Hoang s termination, his employment agreement provides for certain separation benefits in the form of continued payment of base salary for 12 months, a lump sum amount equal to Mr. Hoang s pro-rated target performance bonus for 2017, and reimbursement of COBRA premiums for up to 12 months.

Effective July 31, 2017, Dr. Annemarie Moseley resigned from her position as our Chief Operations Officer and Executive Vice President of Clinical Development. In connection with Dr. Moseley s resignation, we entered into a separation and consulting agreement with Dr. Moseley that provides for certain separation benefits in the form of continued payment of base salary for 12 months, a lump sum amount equal to Dr. Moseley s pro-rated target performance bonus for 2017, and reimbursement of COBRA premiums for up to 12 months. In addition, we agreed to retain Dr. Moseley as a consultant to provide up to 10 hours of consulting services per month, or more if needed, at a rate of $425 per hour, for a term of up to 18 months measured from July 31, 2017. In exchange for Dr. Moseley s consulting services, we also agreed to extend the separation benefits specified above for an additional six months following the initial 12 month period, subject to Dr. Moseley s continuous service and other terms and conditions specified in the agreement. Ken Moseley, our former Senior Vice President and General Counsel, who resigned from his position effective as of January 4, 2018, is the spouse of Dr. Moseley. Mr. Moseley s compensation was determined by the Compensation Committee, as with all executive officers. Mr. Moseley received an aggregate of $827,614 in compensation for fiscal year 2017, in the following amounts: $340,700 in salary; $300,038 in option awards; $86,813 in restricted stock units; $69,758 in a performance-based bonus; and $30,305 in all other compensation (including life insurance premiums, reimbursement of commuting expenses and parking subsidies).

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UNDERWRITING

Citigroup Global Markets Inc. and Jefferies LLC are acting as joint book-running managers of the offering and as representatives of the underwriters named below. Subject to the terms and conditions stated in the underwriting agreement, dated April 17, 2018, each underwriter named below has severally agreed to purchase, and we have agreed to sell to that underwriter, the number of shares set forth opposite the underwriter s name.

Underwriter	Number of Shares
Citigroup Global Markets Inc.	3,040,000
Jefferies LLC	3,040,000
Guggenheim Securities, LLC	800,000
Ladenburg Thalmann & Co. Inc.	560,000
Raymond James & Associates, Inc.	560,000
Total	8,000,000

The underwriting agreement provides that the obligations of the underwriters to purchase the shares included in this offering are subject to approval of legal matters by counsel and to other conditions. The underwriters are obligated to purchase all the shares (other than those covered by the underwriters option to purchase additional shares described below) if they purchase any of the shares.

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount from the initial public offering price not to exceed $0.270 per share. If all the shares are not sold at the initial offering price, the underwriters may change the offering price and the other selling terms.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to 1,200,000 additional shares at the public offering price less the underwriting discount. To the extent the option is exercised, each underwriter must purchase a number of additional shares approximately proportionate to that underwriter s initial purchase commitment. Any shares issued or sold under the option will be issued and sold on the same terms and conditions as the other shares that are the subject of this offering.

We and our officers and directors have agreed that, for a period of 60 days from the date of this prospectus supplement, we and they will not, without the prior written consent of Citigroup and Jefferies, dispose of or hedge any shares or any securities convertible into or exchangeable for our common stock. Citigroup and Jefferies in their sole discretion may release any of the securities subject to these lock-up agreements at any time without notice.

The shares are listed on The Nasdaq Global Market under the symbol BLCM.

The following table shows the underwriting discounts and commissions that we are to pay to the underwriters in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the underwriters option to purchase additional shares.

	Paid by Bellicum	
	No Exercise	**Full Exercise**
Per share	$ 0.45	$ 0.45
Total	$ 3,600,000	$ 4,140,000

We estimate that our portion of the total expenses of this offering will be approximately $430,000. We have also agreed to reimburse the underwriters for up to $35,000 for their FINRA counsel fee. In accordance with FINRA Rule 5110, the reimbursed fee is deemed underwriting compensation for this offering.

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In connection with the offering, the underwriters may purchase and sell shares in the open market. Purchases and sales in the open market may include short sales, purchases to cover short positions, which may include purchases pursuant to the underwriters option to purchase additional shares, and stabilizing purchases.

Short sales involve secondary market sales by the underwriters of a greater number of shares than they are required to purchase in the offering.

Covered short sales are sales of shares in an amount up to the number of shares represented by the underwriters option to purchase additional shares.

Naked short sales are sales of shares in an amount in excess of the number of shares represented by the underwriters option to purchase additional shares.

Covering transactions involve purchases of shares either pursuant to the underwriters option to purchase additional shares or in the open market in order to cover short positions.

To close a naked short position, the underwriters must purchase shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

To close a covered short position, the underwriters must purchase shares in the open market or must exercise the underwriters option to purchase additional shares. In determining the source of shares to close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the underwriters option to purchase additional shares.

Stabilizing transactions involve bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum.

Purchases to cover short positions and stabilizing purchases, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the shares. They may also cause the price of the shares to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriters may conduct these transactions on The Nasdaq Global Market, in the over-the-counter market or otherwise. If the underwriters commence any of these transactions, they may discontinue them at any time.

In addition, in connection with this offering, some of the underwriters (and selling group members) may engage in passive market making transactions in the shares on The Nasdaq Global Market, prior to the pricing and completion of the offering. Passive market making consists of displaying bids on The Nasdaq Global Market no higher than the bid prices of independent market makers and making purchases at prices no higher than those independent bids and effected in response to order flow. Net purchases by a passive market maker on each day are limited to a specified percentage of the passive market maker s average daily trading volume in the shares during a specified period and must be discontinued when that limit is reached. Passive market making may cause the price of the shares to be higher than the price that otherwise would exist in the open market in the absence of those transactions. If the underwriters commence passive market making transactions, they may discontinue them at any time.

Other Relationships

The underwriters are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The underwriters and their respective affiliates have in the past performed commercial banking, investment banking and advisory services for us from time to time for which they have received customary fees and reimbursement of expenses and may, from time to time, engage in

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transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make because of any of those liabilities.

Notice to Prospective Investors in Canada

The shares of common stock may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the shares of common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this offering memorandum (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Notice to Prospective Investors in the European Economic Area

In relation to each member state of the European Economic Area (EEA) that has implemented the Prospectus Directive (each, a relevant member state), with effect from and including the date on which the Prospectus Directive is implemented in that relevant member state (the relevant implementation date), an offer of shares described in this prospectus supplement may not be made to the public in that relevant member state other than:

to any legal entity which is a qualified investor as defined in the Prospectus Directive;

to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the relevant Dealer or Dealers nominated by us for any such offer; or

in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of shares shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

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The shares may not be offered, sold or otherwise made available to any retail investor in the EEA. For the purposes of this provision: the expression retail investor means a person who is one (or more) of the following: (i) a retail client as defined in point (11) of Article 4(1) Directive 2014/65/EU, as amended (MiFID II); or (ii) a customer within the meaning of Directive 2002/92/EC, as amended (the Insurance Mediation Directive), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Directive 2003/71/EC (as amended, including by Directive 2010/73/EU (the Prospectus Directive).

For purposes of this provision, the expression an offer of securities to the public in any relevant member state means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe for the shares, as the expression may be varied in that member state by any measure implementing the Prospectus Directive in that member state, and the expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the relevant member state) and includes any relevant implementing measure in the relevant member state. The expression 2010 PD Amending Directive means Directive 2010/73/EU.

The sellers of the shares have not authorized and do not authorize the making of any offer of shares through any financial intermediary on their behalf, other than offers made by the underwriters with a view to the final placement of the shares as contemplated in this prospectus supplement. Accordingly, no purchaser of the shares, other than the underwriters, is authorized to make any further offer of the shares on behalf of the sellers or the underwriters.

Notice to Prospective Investors in the United Kingdom

This prospectus supplement and the accompanying prospectus are only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (FSMA) (Financial Promotion) Order 2005 (the Order) or (ii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (each such person being referred to as a relevant person). This prospectus supplement and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

Any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA in connection with the issue or sale of the shares may only be communicated or caused to be communicated in circumstances in which Section 21(1) of the FSMA does not apply to us.

All applicable provisions of the FSMA must be complied with in respect to anything done by any person in relation to the notes in, from or otherwise involving the United Kingdom.

Notice to Prospective Investors in France

Neither this prospectus supplement nor any other offering material relating to the shares described in this prospectus supplement has been submitted to the clearance procedures of the *Autorité des Marchés Financiers* or of the competent authority of another member state of the European Economic Area and notified to the *Autorité des Marchés Financiers.* The shares have not been offered or sold and will not be offered

or sold, directly or indirectly, to the public in France. Neither this prospectus supplement nor any other offering material relating to the shares has been or will be:

released, issued, distributed or caused to be released, issued or distributed to the public in France; or

used in connection with any offer for subscription or sale of the shares to the public in France.

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Such offers, sales and distributions will be made in France only:

- to qualified investors (*investisseurs qualifiés*) and/or to a restricted circle of investors (*cercle restreint d investisseurs*), in each case investing for their own account, all as defined in, and in accordance with articles L.411-2, D.411-1, D.411-2, D.734-1, D.744-1, D.754-1 and D.764-1 of the French Code monétaire et financier;

- to investment services providers authorized to engage in portfolio management on behalf of third parties; or

- in a transaction that, in accordance with article L.411-2-II-1°-or-2° -or 3° of the French Code monétaire et financier and article 211-2 of the General Regulations (*Règlement Général*) of the Autorité des Marchés Financiers, does not constitute a public offer (*appel public à l épargne*).

The shares may be resold directly or indirectly, only in compliance with articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French *Code monétaire et financier*.

Notice to Prospective Investors in Hong Kong

The shares may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), or (ii) to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a prospectus within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong) and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Notice to Prospective Investors in Japan

The shares offered in this prospectus supplement have not been and will not be registered under the Financial Instruments and Exchange Law of Japan. The shares have not been offered or sold and will not be offered or sold, directly or indirectly, in Japan or to or for the account of any resident of Japan (including any corporation or other entity organized under the laws of Japan), except (i) pursuant to an exemption from the registration requirements of the Financial Instruments and Exchange Law and (ii) in compliance with any other applicable requirements of Japanese law.

Notice to Prospective Investors in Singapore

This prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the SFA), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to compliance with conditions set forth in the SFA.

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Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

shares, debentures and units of shares and debentures of that corporation or the beneficiaries rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

to an institutional investor (for corporations, under Section 274 of the SFA) or to a relevant person defined in Section 275(2) of the SFA, or to any person pursuant to an offer that is made on terms that such shares, debentures and units of shares and debentures of that corporation or such rights and interest in that trust are acquired at a consideration of not less than $200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets, and further for corporations, in accordance with the conditions specified in Section 275 of the SFA;

where no consideration is or will be given for the transfer; or

where the transfer is by operation of law.

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LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Cooley LLP, San Diego, California. Covington & Burling LLP, New York, New York is counsel to the underwriters in connection with this offering.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2017, as set forth in their report, which is incorporated by reference in this prospectus supplement and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP s report, given on their authority as experts in accounting and auditing.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus. Information in this prospectus supplement supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus supplement, while information that we file later with the SEC will automatically update and supersede the information in this prospectus supplement and the accompanying prospectus. 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 between the date of this prospectus supplement and the termination of the offering (other than, unless otherwise specifically indicated, current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items):

1. our Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on March 13, 2018;

2. the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2016 from our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 26, 2017;

3. our Current Reports on Form 8-K filed with the SEC on February 23, 2018, March 13, 2018 (except with respect to Item 2.02 included therein) and April 16, 2018 (except with respect to Items 2.02 and 7.01 included therein);

4. the description of our common stock contained in our registration statement on Form 8-A filed with the SEC on December 10, 2014, under Section 12 of the Exchange Act, including any amendments or reports filed for the purpose of updating such description.

We will provide to each person, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus supplement, including exhibits which are specifically incorporated by reference into such documents. You should direct any requests for documents by writing us at 2130 W. Holcombe Blvd., Ste. 800, Houston, Texas 77030, Attn: Corporate Secretary or telephoning us at (832) 384-1100.

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PROSPECTUS

$ 150,000,000

Common Stock

Preferred Stock

Debt Securities

Warrants

From time to time, we may offer up to $150,000,000 of any combination of the securities described in this prospectus in one or more offerings. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable antidilution provisions.

This prospectus provides a general description of the securities we may offer. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement.

Our common stock is traded on the Nasdaq Global Market under the symbol BLCM. On June 23, 2017, the last reported sales price of our common stock was $13.39 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on the Nasdaq Global Market or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.

We will sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled Plan of Distribution in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such

sale will also be set forth in a prospectus supplement.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading Risk Factors contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is July 12, 2017.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a shelf registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total aggregate offering price of $150,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading Incorporation of Certain Information by Reference, before investing in any of the securities offered.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

Neither we, nor any agent, underwriter or dealer has authorized any person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus prepared by or on behalf of us or to which we have referred you. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered, or securities are sold, on a later date.

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

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SUMMARY

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

Unless the context requires otherwise, references in this prospectus to Bellicum, we, us and our refer to Bellicum Pharmaceuticals, Inc. and its wholly owned subsidiary, Bellicum Pharma Limited.

Company Overview

We are a clinical stage biopharmaceutical company focused on discovering and developing novel cellular immunotherapies for various forms of cancer, including both hematological cancers and solid tumors, as well as orphan inherited blood disorders. We are using our proprietary Chemical Induction of Dimerization, or CID, technology platform to engineer our product candidates with switch technologies that are designed to control components of the immune system in real time. By incorporating our CID platform, our product candidates may offer better safety and efficacy outcomes than are seen with current cellular immunotherapies.

We are developing next-generation product candidates in some of the most important areas of cellular immunotherapy, including hematopoietic stem cell transplantation, or HSCT, chimeric antigen receptor T cell therapy, or CAR T, and T cell receptors, or TCRs. HSCT, also known as bone marrow transplantation, has for decades been curative for many patients with hematological cancers or orphan inherited blood disorders. However, adoption of HSCT to date has been limited by the risks of transplant-related morbidity and mortality from graft-versus-host-disease, or GvHD, and the potential for serious infections due to the lack of an effective immune system following a transplant. CAR T and TCR cell therapies are an innovative approach in which a patient s T cells are genetically modified to carry chimeric antigen receptors, or CARs, or TCRs which redirect the T cells against cancer cells. While high objective response rates have been reported in some hematological malignancies, serious and sometimes fatal toxicities have arisen in patients treated with CAR T cell therapies. These toxicities include instances in which the CAR T cells have caused high levels of cytokines due to over-activation, referred to as cytokine release syndrome, or CRS, neurologic toxicities and cases in which they have attacked healthy organs. In each case, these toxicities have sometimes resulted in death. In solid tumors, where the behavior of CAR T cells is particularly unpredictable and results have been inconsistent, researchers are developing enhanced CAR T cell approaches that raise even greater safety concerns.

Our proprietary CID platform is designed to address these challenges. Events inside a cell are controlled by cascades of specialized signaling proteins. CID consists of molecular switches, modified forms of these signaling proteins, which are triggered inside the patient by infusion of a small molecule, rimiducid, instead of by natural upstream signals. We include these molecular switches in the appropriate immune cells and deliver the cells to the patient in the manner of conventional cellular immunotherapy. We have developed two such switches: a safety switch, designed to initiate programmed cell death, or apoptosis, of the immunotherapy cells, and an activation switch, designed to stimulate activation and in some cases proliferation and/or persistence of the immunotherapy cells. Each of our product candidates incorporates one of these switches, for enhanced, real time control of safety and efficacy:

CaspaCIDe is our safety switch, incorporated into our HSCT and TCR product candidates, where it is inactive unless the patient experiences a serious side effect. In that event, rimiducid is administered to

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induce Caspase-9, or iCaspase, switch activation to fully or partially eliminate the cells, with the goal of terminating or attenuating the therapy and resolving the serious side effect.

Our Go switch incorporated into our GoCAR-T product candidates, is an activation switch designed to allow control of the activation and proliferation of the T cells through the scheduled administration of a course of rimiducid infusions that may continue until the desired patient outcome is achieved. In the event of emergence of side effects, the level of activation of the GoCAR-T cells is designed to be attenuated by extending the interval between rimiducid doses, reducing the dosage per infusion, or suspending further rimiducid administration.

In addition, we have an active research effort to develop other advanced molecular switch approaches, including a dual-switch that is designed to provide a user-controlled system for managing persistence and safety of tumor antigen-specific CAR T cells.

By incorporating our novel switch technologies, we are developing product candidates with the potential to elicit positive clinical outcomes and ultimately change the treatment paradigm in various areas of cellular immunotherapy. Our lead clinical product candidate is described below.

BPX-501 is a CaspaCIDe product candidate designed as an adjunct T cell therapy administered after allogeneic HSCT. BPX-501 is designed to improve transplant outcomes by enhancing the recovery of the immune system following an HSCT procedure. BPX-501 addresses the risk of infusing donor T cells by enabling the elimination of donor T cells through the activation of the CaspaCIDe safety switch if there is an emergence of uncontrolled GvHD.

The European Commission has granted orphan drug designations to BPX-501 for treatment in HSCT, and for activator agent rimiducid for the treatment of GvHD. Additionally, BPX-501 and rimiducid have received orphan drug status from the U.S. Food and Drug Administration, or the FDA, as a combination replacement T-cell therapy for the treatment of immunodeficiency and GvHD after allogeneic HSCT.

During 2016, we discussed with the European Medicines Agency, or the EMA, clinical and regulatory plans to support the filing of Marketing Authorization Applications, or MAAs, for BPX-501 and rimiducid in Europe, initially for pediatric patients with certain orphan inherited blood disorders or treatment-refractory hematological cancers. Based on the regulatory discussions, we believe that data from the European arm of our BP-004 trial, expanded to enroll additional patients, with a primary endpoint of event-free survival, with events defined as transplant-related or non-relapse mortality, (severe GvHD and serious infection) at six months, could form the basis of MAAs for BPX-501 and rimiducid. In addition, the EMA s Committee for Medicinal Products for Human Use, or the CHMP, has agreed that review and approval under exceptional circumstances may be suitable, recognizing that a randomized trial may not be feasible in the pediatric haploidentical hematopoietic stem cell transplant setting. Exceptional circumstances may be granted for medicines that treat very rare diseases, or where controlled studies are impractical or not consistent with accepted principles of medical ethics. In place of a randomized trial, we intend to collect data from a concurrent observational study in the pediatric matched unrelated donor hematopoietic stem cell transplant setting, which will include both retrospective patients and prospective patients.

We have discussions ongoing with the FDA regarding the regulatory path to approval in the U.S. and we expect to provide updates in the third quarter of 2017.

In addition to BPX-501, our clinical stage product candidates which are designed to overcome limitations of CAR T and TCR therapies, include the following:

BPX-701 is a CaspaCIDe-enabled natural high affinity TCR product candidate designed to target malignant cells expressing the preferentially-expressed antigen in melanoma, or PRAME. Initial planned indications

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for BPX-701 development are refractory or relapsed acute myeloid leukemia, or AML, and myelodysplastic syndromes, or MDS, with an additional study planned for metastatic uveal melanoma. Each of these is an orphan indication where PRAME is highly expressed and for which current treatment options are limited. A Phase 1 dose finding clinical trial in patients with relapsed or refractory myeloid neoplasms is being conducted at the Oregon Health & Science University Hospital in Portland, Oregon.

BPX-601 is a GoCAR-T product candidate containing our proprietary inducible MyD88/CD40, or iMC, activation switch, designed to treat solid tumors expressing prostate stem cell antigen, or PSCA. Preclinical data shows enhanced T cell proliferation, persistence and in vivo anti-tumor activity compared to traditional CAR T therapies. A Phase 1 clinical trial in patients with non-resectable pancreatic cancer is being conducted at the Baylor Sammons Cancer Center in Dallas, Texas.

We have developed an efficient and scalable process to manufacture genetically modified T cells of high quality, which is currently being used by our third-party contract manufacturers to produce BPX-501 for our clinical trials. We are leveraging this process, as well as our resources, capabilities and expertise for the manufacture of our CAR T and TCR product candidates.

Corporate Information

We were incorporated in Delaware in July 2004. Our principal executive offices are located at 2130 W. Holcombe Blvd., Ste. 800, Houston, Texas and our telephone number is (832) 384-1100. Our corporate website address is www.bellicum.com. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

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 their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. 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 companies.

The Securities We May Offer

We may offer shares of our common stock and preferred stock, various series of debt securities and warrants to purchase any of such securities, up to a total aggregate offering price of $150,000,000 from time to time in one or more offerings under this prospectus, together with any applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of the relevant offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

designation or classification;

aggregate principal amount or aggregate offering price;

maturity, if applicable;

original issue discount, if any;

rates and times of payment of interest or dividends, if any;

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redemption, conversion, exchange or sinking fund terms, if any;

conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange;

ranking, if applicable;

restrictive covenants, if any;

voting or other rights, if any; and

important U.S. federal income tax considerations.

The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

We may sell the securities directly to investors or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

the names of those underwriters or agents;

applicable fees, discounts and commissions to be paid to them;

details regarding over-allotment options, if any; and

the estimated net proceeds to us.

Common Stock. We may issue shares of our common stock from time to time. Holders of our common stock are entitled to one vote per share for the election of directors and on all other matters that require stockholder approval. Subject to any preferential rights of any then outstanding preferred stock, in the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in the assets remaining after payment of liabilities and the liquidation preferences of any then outstanding preferred stock. Our common stock does not carry

any preemptive rights enabling a holder to subscribe for, or receive shares of, any class of our common stock or any other securities convertible into shares of any class of our common stock, or any redemption rights.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Under our certificate of incorporation, our board of directors has the authority, without further action by stockholders, to designate up to 10,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges, qualifications and restrictions granted to or imposed upon the preferred stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preference and sinking fund terms, any or all of which may be greater than the rights of the common stock. To date, none of the 10,000,000 authorized shares of preferred stock have been designated by our board of directors. Convertible preferred stock will be convertible into our common stock or exchangeable for our other securities. Conversion may be mandatory or at the option of the holders of our preferred stock and would be at prescribed conversion rates.

We will fix the rights, preferences, privileges, qualifications and restrictions of the preferred stock of each se