UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 2 TO

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

BIOSANTE PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

58-2301143 (I.R.S. Employer Identification Number)

111 Barclay Boulevard Lincolnshire, Illinois 60069 (847) 478-0500

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

Phillip B. Donenberg Chief Financial Officer, Treasurer and Secretary BioSante Pharmaceuticals, Inc. 111 Barclay Boulevard Lincolnshire, Illinois 60069 (847) 478-0500

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

Copy to: Amy E. Culbert, Esq. Oppenheimer Wolff & Donnelly LLP 45 South Seventh Street, Suite 3300 Minneapolis, Minnesota 55402-1509 (612) 607-7287

Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or reinvestment plans, check the following box: x

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

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

Large accelerated filer £

Accelerated filer £

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

Smaller reporting company S

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to Section 8(a), may determine.

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

Subject to Completion, dated May 21, 2010

PRELIMINARY PROSPECTUS



5,705,840 Shares

Common Stock

This prospectus relates to the resale of up to 5,705,840 shares of our common stock by the selling stockholder named herein. On December 15, 2008, we entered into a common stock purchase agreement with Kingsbridge Capital Limited, or Kingsbridge, pursuant to which we may, in our sole discretion, issue to Kingsbridge up to 5,405,840 shares of our common stock. On the same date, we also issued Kingsbridge a warrant to purchase up to 300,000 shares of our common stock. To the extent that we elect to sell any shares of our common stock to Kingsbridge or Kingsbridge elects to exercise the warrant to acquire shares, this prospectus may be used by the selling stockholder named under the section titled "Selling Stockholder" to resell such shares. We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares by the selling stockholder.

The selling stockholder may sell the shares of common stock described in this prospectus in a number of different ways and at varying prices. We provide more information about how the selling stockholder may resell its shares of our common stock in the section titled "Plan of Distribution" beginning on page 33. Kingsbridge is an "underwriter" within the meaning of the Securities Act of 1933 with respect to any shares it resells under this prospectus. Although we will pay the expenses incurred in registering the shares, we will not be paying any underwriting discounts or commissions in this offering.

Our common stock is listed on the Nasdaq Global Market under the symbol "BPAX." On May 19, 2010, the reported closing price of our common stock was \$1.95 per share.

Investing in our common stock involves a high degree of risk. We refer you to "Risk Factors," beginning on page 11.

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

, 2010

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In this prospectus, references to "BioSante," the "company," "we," "our" or "us," unless the context otherwise requires, refer to BioSante Pharmaceuticals, Inc.

We own or have the rights to use various trademarks, trade names or service marks that are used in this prospectus, including BioSante®, Elestrin[™], LibiGel®, Bio-T-Gel[™], The Pill Plus[™], BioLook[™], CAP-Oral[™], BioAir[™] and GVAX[™].

You should rely only on the information contained in this prospectus. We have not authorized any other person to provide you with different information. This prospectus may only be used where it is legal to sell these securities. The information in this prospectus is accurate as of the date on the front cover. You should not assume that the information contained in this prospectus is accurate as of any other date.

This prospectus does not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus or the solicitation of a proxy, in any jurisdiction to or from any person to whom or from whom it is unlawful to make an offer, solicitation of an offer or proxy solicitation in that jurisdiction.

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PROSPECTUS SUMMARY

The following summary highlights information contained in this prospectus or incorporated by reference. While we have included what we believe to be the most important information about BioSante and this offering, the following summary may not contain all the information that may be important to you. You should read this entire prospectus carefully, including the risks of investing discussed under "Risk Factors" beginning on page 11, and the information to which we refer you and the information incorporated into this prospectus by reference, for a complete understanding of our business and this offering.

Our Company

BioSante Pharmaceuticals, Inc. is a specialty pharmaceutical company focused on developing products for female sexual health, menopause, contraception, male hypogonadism and oncology. We also are developing our calcium phosphate technology (CaP) for aesthetic medicine (BioLook), as a vaccine adjuvant, including for an H1N1 (swine flu) vaccine, and drug delivery as well as seeking opportunities for our 2A/Furin and other technologies.

Our products, either approved or in development, include:

- LibiGel once daily transdermal testosterone gel in Phase III clinical development under a Special Protocol Assessment (SPA) for the treatment of female sexual dysfunction (FSD).
- Elestrin once daily transdermal estradiol (estrogen) gel approved by the U.S. Food and Drug Administration (FDA) indicated for the treatment of moderate-to-severe vasomotor symptoms (hot flashes) associated with menopause and marketed in the U.S.
- The Pill-Plus (triple component contraceptive) once daily use of various combinations of estrogens, progestogens and androgens in development for the treatment of FSD in women using oral or transdermal contraceptives.
- · Bio-T-Gel once daily transdermal testosterone gel in development for the treatment of hypogonadism, or testosterone deficiency, in men.
- · GVAX cancer vaccines a portfolio of cancer vaccines in clinical development for the treatment of various cancer types.

We believe LibiGel remains the lead pharmaceutical product in the U.S. in active development for the treatment of hypoactive sexual desire disorder (HSDD) in menopausal women, and that it has the potential to be the first product approved by the FDA for this common and unmet medical need. We believe based

on agreements with the FDA, including an SPA, that two Phase III safety and efficacy trials and one year of LibiGel exposure in a Phase III cardiovascular and breast cancer safety study with a four-year follow-up post-NDA filing and potentially post-FDA approval are the essential requirements for submission and, if successful, approval by the FDA of a new drug application (NDA) for LibiGel for the treatment of FSD, specifically, HSDD in menopausal women. Currently, three LibiGel Phase III studies are underway and enrolling women: two LibiGel Phase III safety and efficacy clinical trials and one Phase III cardiovascular and breast cancer safety study. We have three SPAs in place concerning LibiGel. The first SPA agreement covers the pivotal Phase III safety and efficacy trials of LibiGel in the treatment of FSD for "surgically" menopausal women. The second SPA covers our LibiGel program in the treatment of FSD, specifically HSDD, in "naturally" menopausal women. The third SPA agreement covers the LibiGel stability, or shelf life, studies for the intended commercialization of LibiGel product.

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Elestrin is our first FDA approved product. Azur Pharma International II Limited is marketing Elestrin in the U.S. using its women's health sales force that targets estrogen prescribing physicians in the U.S. comprised mostly of gynecologists. In December 2009, we entered into an amendment to our original licensing agreement with Azur which permanently reduced the royalty percentage due to us related to Azur's sales of Elestrin. We received approximately \$3.16 million in non-refundable payments in exchange for the elimination of all remaining future royalty payments due us under the terms of the original license. We maintain the right to receive up to \$140 million in sales-based milestone payments from Azur if Elestrin reaches certain predefined sales per calendar year.

GVAX cancer vaccines are designed to stimulate the patient's immune system to effectively fight cancer. Multiple Phase II trials of these vaccines are ongoing at minimal cost to us at the Johns Hopkins Sidney Kimmel Comprehensive Cancer Center in various cancer types, including prostate cancer, pancreatic cancer, leukemia and breast cancer. Two of these vaccines have been granted orphan drug designation

Our CaP technology is based on the use of extremely small, solid, uniform particles, which we call "nanoparticles." We are pursuing the development of various potential initial applications for our CaP technology. First, CaP technology is being tested in the area of aesthetic medicine. Second, our CaP technology is being tested for its "adjuvant" activity that enhances the ability of a vaccine to stimulate an immune response. The same nanoparticles allow for delivery of the vaccine via alternative routes of administration including non-injectable routes of administration. Third, we are pursuing the creation of oral, buccal, intranasal, inhaled and longer acting delivery of drugs that currently must be given by injection (e.g., insulin).

The following is a list of our CaP products in development:

- · BioLook facial line filler in development using proprietary CaP technology in the area of aesthetic medicine, e.g., a facial line filler.
- BioVant proprietary CaP adjuvant and delivery technology in development for improved vaccines against viral and bacterial infections and autoimmune diseases, among others. BioVant also serves as a delivery system for non-injected delivery of vaccines.
- BioOral a delivery system using CaP technology for oral/buccal/intranasal administration of proteins and other therapies that currently must be injected.
- BioAir a delivery system using CaP technology for inhalable versions of proteins and other therapies that currently must be injected.

Risks Affecting Us

You should carefully consider the matters discussed in the section "Risk Factors" beginning on page 11, including the following, before you invest in our common stock. For example:

- · We have a history of operating losses, expect continuing losses and may never become profitable.
- We may need to raise substantial additional capital to fund our operations and we may be unable to raise such funds when needed and on acceptable terms.
- Although we believe LibiGel has the potential to be a successful product, its Phase III clinical study program requires significant resources and there are significant risks involved in

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conducting the clinical studies, obtaining regulatory approval and commercializing the product, if approved.

Company Information

Our company, which was initially formed as a corporation organized under the laws of the Province of Ontario on August 29, 1996, was continued as a corporation under the laws of the State of Wyoming on December 19, 1996 and was reincorporated under the laws of the State of Delaware on June 26, 2001. In October 2009, we acquired Cell Genesys, Inc. through a direct merger.

Our principal executive offices are located at 111 Barclay Boulevard, Lincolnshire, Illinois 60069. Our telephone number is (847) 478-0500 and our Internet web site address is www.biosantepharma.com. We make available on our website free of charge a link to our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports as soon as practicable after we electronically file such material with the Securities and Exchange Commission, or SEC. Except for the documents specifically incorporated by reference into this prospectus, information contained on our website or that can be accessed through our website does not constitute a part of this prospectus. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website.

Committed Equity Financing Facility with Kingsbridge

On December 15, 2008, we entered into a committed equity financing facility, or CEFF, with Kingsbridge Capital Limited, pursuant to which Kingsbridge committed to purchase, subject to certain conditions, up to the lesser of \$25 million or 5,405,840 shares of our common stock. In connection with the CEFF, we entered into a common stock purchase agreement and registration rights agreement with Kingsbridge, both dated December 15, 2008. In addition, on that date, as consideration for the execution and delivery of the common stock purchase agreement, we also issued a warrant to Kingsbridge to purchase up to 300,000 shares of our common stock at an exercise price of \$4.00 per share. This warrant is exercisable beginning on June 15, 2009 and for a period of five years thereafter. Although the common stock purchase agreement and registration rights agreement were since amended subsequent to December 15, 2008, such amendments were not material and are incorporated into the descriptions of such agreements in this prospectus.

The shares of common stock that may be issued to Kingsbridge under the common stock purchase agreement and upon exercise of the warrant will be issued pursuant to an exemption from registration under the Securities Act of 1933, as amended, or the Securities Act. As of the date of this prospectus, no shares of our common stock have been issued to Kingsbridge under the common stock purchase agreement or upon exercise of the warrant. Pursuant to the registration rights agreement, we have filed a registration statement of which this prospectus is a part, covering the possible resale by Kingsbridge of any shares that we may issue to Kingsbridge under the common stock purchase agreement or upon exercise of the warrant. Kingsbridge may offer to the public for resale shares of our common stock that we may issue to Kingsbridge pursuant to the common stock purchase agreement or that Kingsbridge may offer to the public for resale shares of our common stock that we may issue to Kingsbridge under the common stock purchase agreement to purchase agreement or upon exercise of the warrant. The obligations of Kingsbridge under the common stock purchase agreement to purchase shares of our common stock may not be transferred and the registration statement does not cover sales of such shares by transferees of Kingsbridge. The rights of Kingsbridge to purchase shares of our common stock under the warrant may not be assigned or transferred except, under certain conditions, to an affiliate of Kingsbridge. If the warrant is transferred to an affiliate of Kingsbridge, the registration statement will cover sales of any shares of our common stock that we issue to such affiliate of Kingsbridge under the warrant, but will not cover resale of shares of our common stock by transferees of such affiliate of Kingsbridge.

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The common stock purchase agreement entitles us to sell and obligates Kingsbridge to purchase, from time to time through December 30, 2010 shares of our common stock for cash consideration up to an aggregate of the lesser of \$25 million or 5,405,840 shares of our common stock, subject to certain conditions and restrictions. We are not obligated to sell any shares to Kingsbridge under the common stock purchase agreement.

Through December 30, 2010 we may, from time to time, at our sole discretion, and subject to certain conditions that we must satisfy, "draw down" funds under the CEFF by selling shares of our common stock to Kingsbridge. The purchase price of these shares will be at a discount ranging from eight to 14 percent of the volume weighted average of the price of our common stock for each of the eight consecutive trading days following our election to sell shares or "draw down" under the CEFF. The discount on each of these consecutive eight trading days will be determined as follows:

VWAP*	Percent of VWAP	Applicable Discount
Greater than \$11.00 per share	92%	(8)%
Less than or equal to \$11.00 per share but greater than \$6.75 per share	90%	(10)%
Less than or equal to \$6.75 per share but greater than \$2.75 per share	88%	(12)%
Less than or equal to \$2.75 per share but greater than or equal to \$1.15 per share	86%	(14)%

^{*} As set forth in the common stock purchase agreement, "VWAP" means the volume weighted average price (the aggregate sales price of all trades of our common stock during each trading day divided by the total number of shares of common stock traded during that trading day) of our common stock during any trading day as reported by Bloomberg L.P. using the AQR function. The VWAP and corresponding discount will be determined for each of the eight trading days during a draw down pricing period.

In connection with a settlement of a draw down, we are not obligated to pay or reimburse Kingsbridge for any transaction fees or commissions.

The maximum number of shares of common stock that we can issue pursuant to the CEFF is 5,405,840 shares. An additional 300,000 shares of common stock are issuable if Kingsbridge exercises the warrant that we issued to it in connection with the CEFF. We intend to exercise our right to draw down amounts under the CEFF, if and to the extent available, at such times as we have a need for additional capital and when we believe that sales of stock under the CEFF provide an appropriate means of raising capital.

Our ability to require Kingsbridge to purchase our common stock is subject to various limitations. We can make individual draw downs of a maximum amount of, at our discretion, 1.5% of our market capitalization as of the date the applicable drawn down notice is given. Unless we and Kingsbridge agree

During the eight trading day pricing period for a draw down, if the VWAP for any trading day is less than the greater of (i) \$1.15 or (ii) 90% of the closing price of our common stock for the trading day immediately preceding the beginning of the draw down pricing period, the VWAP for that trading day will not be used in calculating the number of shares to be issued in connection with that draw down, and the draw down amount for that pricing period will be reduced by one-eighth (1/8) of the draw down amount we had initially specified. In addition, if trading in our common stock is suspended for any reason for more than three consecutive or non-consecutive hours during trading hours on any trading day during a draw down pricing period, that trading day will not be used in calculating the number of shares to be issued in connection with that draw down, and the draw down amount for that pricing period will be reduced by one-eighth (1/8) of the any down amount we had initially specified. In addition, if trading in our common stock is suspended for any reason for more than three consecutive or non-consecutive hours during trading hours on any trading day during a draw down pricing period, that trading day will not be used in calculating the number of shares to be issued in connection with that draw down, and the draw down amount for that pricing period will be reduced by one-eighth (1/8) of the draw down amount we had initially specified.

otherwise, a minimum of 15 trading days must elapse between the expiration of any draw down pricing period and the beginning of the next succeeding draw down pricing period. Kingsbridge is not obligated to purchase shares of our common stock when the volume weighted average of the price of our common stock is below \$1.15 per share. Accordingly, there is no assurance that we will be able to access the CEFF, if ever, at such times and in amounts that are necessary to fund our activities.

During the term of the CEFF, without Kingsbridge's prior written consent, we may not issue securities that are, or may become, convertible or exchangeable into shares of our common stock where the purchase, conversion or exchange price for our common stock is determined using any floating discount or other post-issuance adjustable discount to the market price of our common stock, including pursuant to an equity line or other financing that is substantially similar to the arrangement provided for in the CEFF, with certain exceptions.

The issuance of our common stock under the CEFF or upon exercise of the Kingsbridge warrant will have no effect on the rights or privileges of existing holders of common stock except that the economic and voting interests of each stockholder will be diluted as a result of any issuance. Although the number of shares of common stock that stockholders presently own will not decrease, these shares will represent a smaller percentage of our total shares that will be outstanding after any issuances of shares of common stock to Kingsbridge. If we draw down amounts under the CEFF when our share price is decreasing, we will need to issue more shares to raise the same amount than if we were to issue shares when our stock price is higher. Such issuances will have a dilutive effect and may further decrease our stock price.

Kingsbridge agreed in the common stock purchase agreement that during the term of the CEFF, neither Kingsbridge nor any of its affiliates, nor any entity managed or controlled by it, will enter into, execute, or cause or assist any other person to enter into or execute, any short sale of any of our securities, including our common stock, or engage, through related parties or otherwise, in derivative transactions directly related to shares of our common stock, except during the term of a draw down pricing period with respect to the shares that Kingsbridge purchased pursuant to the CEFF during that draw down pricing period. Subject to the foregoing restrictions, Kingsbridge has the right during any draw down pricing period to sell shares of our common stock equal in number to the aggregate number of shares of common stock purchased pursuant to the applicable draw down.

Before Kingsbridge is obligated to buy any shares of our common stock pursuant to a draw down, the following conditions, none of which is in the control of Kingsbridge, must be met as of the date we notify Kingsbridge of our election to sell shares pursuant to the CEFF, each trading day during the draw down pricing period and the date upon which each settlement of the purchase and sale of our common stock occurs with respect to such draw down:

- Each of our representations and warranties in the common stock purchase agreement must be true and correct in all material respects as of the date when made as though made at that time, except for representations and warranties that are expressly made as of a particular date.
- We must have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the common stock purchase agreement, the registration rights agreement and the warrant to be performed, satisfied or complied with by us.
- We must have complied in all respects with all applicable federal, state and local governmental laws, rules, regulations and ordinances in connection with the execution, delivery and performance of the common stock purchase agreement and the consummation of the transactions contemplated by it, except for such failures to comply as would not have a

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material adverse effect on the business, operations, properties or financial condition of us and our subsidiaries as a whole or prohibit or otherwise interfere with our ability to perform any of our obligations under the common stock purchase agreement, the registration rights agreement or the warrant in any material respect.

- The registration statement, of which this prospectus is a part, must have previously become effective and must remain effective and neither us
 nor Kingsbridge shall have received notice that the SEC has issued or intends to issue a stop order with respect to the registration statement or
 that the SEC, either temporarily or permanently, intends or has threatened to do so and no other suspension of the use or withdrawal of the
 effectiveness of the registration statement or this prospectus shall exist.
- We must not have knowledge of any event that could reasonably be expected to have the effect of causing the registration statement, of which this prospectus is a part, to be suspended or otherwise ineffective.
- Trading in our common stock must not have been suspended by the SEC, the Nasdaq Global Market or the Financial Industry Regulatory Authority and trading in securities generally on the Nasdaq Global Market must not have been suspended or limited.
- There must not be any statute, rule, regulation, order, decree, writ, ruling or injunction enacted, entered, promulgated, endorsed or, to our knowledge, threatened by any court or governmental authority which prohibits the consummation of or would materially modify or delay any of the transactions contemplated by the common stock purchase agreement.
- There must not be any action, suit or proceeding before any arbitrator or any governmental authority that is pending, and, to our knowledge, there must not be any investigation by any governmental authority threatened, against us or any of our officers, directors or affiliates seeking to enjoin, prevent or change the transactions contemplated by the common stock purchase agreement or seeking material damages in connection with such transactions.
- We must have sufficient shares of common stock, calculated using the closing sale price of our common stock as of the trading day immediately preceding the date we notify Kingsbridge of our election to sell shares to Kingsbridge pursuant to the CEFF, registered under the registration statement of which this prospectus is a part to issue and sell such shares in accordance with such draw down.
- We must not be in default in any material respect under the warrant.
- · Kingsbridge must have received an opinion of counsel as to certain legal matters regarding the transaction from our outside legal counsel.

There is no guarantee that we will be able to meet the foregoing conditions or that we will be able to draw down any portion of the amounts available under the CEFF.

We also entered into a registration rights agreement with Kingsbridge, dated December 15, 2008, which agreement was later amended. Pursuant to the amended registration rights agreement, we have filed the registration statement, of which this prospectus is a part, with the SEC relating to the resale by Kingsbridge of any shares of common stock purchased by it under the common stock purchase agreement or issued to it upon the exercise of its warrant. The effectiveness of this registration statement is a condition precedent to our ability to sell common stock to Kingsbridge under the common stock purchase

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agreement. We are entitled in certain circumstances, including the existence of certain kinds of material nonpublic information, to deliver a "blackout" notice to Kingsbridge to suspend the use of this prospectus and prohibit Kingsbridge from selling shares under this prospectus for a period of not more than 30 days. If we deliver a blackout notice in the 15 trading days following the settlement of a draw down or if the registration statement, of which this prospectus is a part, is not effective in circumstances not permitted by the registration rights agreement, then we must pay amounts to Kingsbridge or issue Kingsbridge additional shares in lieu of payment. The payment or issuance would be calculated by means of a varying percentage of an amount based on the number of shares held by Kingsbridge that were purchased pursuant to such draw down and the change in the market price of our common stock between the date the blackout notice is delivered (or the registration statement is not effective) and the date the prospectus again becomes available.

We may terminate the CEFF upon one trading day's notice to Kingsbridge, except that we may not terminate the CEFF during any draw down pricing period. Kingsbridge may, upon one trading day's notice to us, terminate the CEFF if we enter into a transaction prohibited by the common stock purchase agreement without Kingsbridge's prior written consent or if Kingsbridge provides notice to us of a material adverse event relating to our business and the event continues for 10 trading days after the notice. Kingsbridge may also terminate the CEFF upon one trading day's notice to us at any time in the event that a registration statement is not initially declared effective in accordance with the registration rights agreement. In addition, either we or Kingsbridge may terminate the CEFF upon one trading day's notice if the other party has breached a material representation, warranty or covenant to the common stock purchase agreement and such breach is not remedied within 10 trading days after notice of such breach is delivered to the breaching party. In the event of a termination of the CEFF by Kingsbridge or us pursuant to the terms of the CEFF, Kingsbridge would retain the warrant to purchase 300,000 shares of our common stock.

The foregoing summary of the CEFF does not purport to be complete and is qualified by reference to the common stock purchase agreement, the registration rights agreement and the warrant, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

As of May 13, 2010, we had not issued any shares of our common stock to Kingsbridge under the CEFF.

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RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risk factors described in Part I, Item 1A, "Risk Factors" in our 2009 Annual Report on Form 10-K and our other reports filed from time to time with the SEC, which are incorporated by reference into this prospectus, as the same may be amended, supplemented or superseded from time to time by our filings under the Exchange Act, as well as any prospectus supplement. Before making any investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus or in any applicable prospectus supplement. The risks and uncertainties described in the prospectus supplement and the documents we incorporate by reference into this prospectus are not the only ones we face. Additional risks and uncertainties that we are unaware of or that we believe are not material at the time could also materially adversely affect our business, financial condition or results of operations. In any case, the value of our common stock could decline, and you could lose all or part of your investment. See also the information contained under the heading "Cautionary Statement Regarding Forward-Looking Statements" immediately below.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and are subject to the safe harbor created by those sections. All statements other than statements of historical facts included in or incorporated by reference into this prospectus that address activities, events or developments that we expect, believe or anticipate will or may occur in the future are forward-looking statements including, in particular, the statements about our plans, objectives, strategies and prospects regarding, among other things, our financial condition, results of operations and business. We have identified some of these forward-looking statements with words like "believe," "may," "could," "might," "possible," "potential," "project," "will," "should," "expect," "intend," "plan," "predict," "anticipate," "estimate," "approximate," "contemplate" or "continue" and other words and terms of similar meaning. Our forward-looking statements generally relate to:

- the timing of the commencement, enrollment and successful completion of our clinical studies, the submission of new drug applications and other regulatory status of our products in development;
- · approval by the FDA of our products that are currently in clinical development;
- our spending capital on research and development programs, pre-clinical studies and clinical studies, regulatory processes and licensure or acquisition of new products;
- · our efforts to continue to evaluate various strategic alternatives with respect to our products and our company;
- the future market size and market acceptance of our products;

- the effect of new accounting pronouncements and future health care, tax and other legislation;
- whether and how long our existing cash will be sufficient to fund our operations;

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- · our need, ability and expected timing of any actions to raise additional capital through future equity and other financings; and
- · our substantial and continuing losses.

Forward-looking statements involve risks and uncertainties. These uncertainties include factors that affect all businesses as well as matters specific to us. Some of the factors known to us that could cause our actual results to differ materially from what we have anticipated in our forward-looking statements are described under the heading "Risk Factors" included elsewhere in this prospectus, and include, among others: our ability to obtain additional capital when needed or on acceptable terms; subject recruitment and enrollment in our current and future clinical studies, including in particular our Phase III clinical study program for LibiGel; our failure to obtain and maintain required regulatory approvals on a timely basis or at all; the failure of certain of our products to be commercially introduced for several years or at all; the level of market acceptance of our products if and when they are commercialized; uncertainties associated with the impact of published studies regarding the adverse health effects of certain forms of hormone therapy; our dependence upon the maintenance of certain of our licenses; our dependence upon our licensees for the development, marketing and sale of certain of our products; our ability to compete in a competitive industry; our ability to protect our proprietary technology and to operate our business without infringing the proprietary rights of third parties; our dependence upon key employees; adverse changes in applicable laws or regulations and our failure to comply with applicable laws and regulations; changes in generally accepted accounting principles; or conditions and changes in the biopharmaceutical industry or in general economic or business conditions.

We wish to caution readers not to place undue reliance on any forward-looking statement that speaks only as of the date made and to recognize that forward-looking statements are predictions of future results, which may not occur as anticipated. Actual results could differ materially from those anticipated in the forward-looking statements and from historical results, due to the risks and uncertainties described under the heading "Risk Factors" included elsewhere in this prospectus, as well as others that we may consider immaterial or do not anticipate at this time. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we do not know whether our expectations will prove correct. Our expectations reflected in our forward-looking statements can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties, including those described below under the heading "Risk Factors" included elsewhere in this prospectus. The risks and uncertainties described under the heading "Risk Factors" included elsewhere in this prospectus are not exclusive and further information concerning us and our business, including factors that potentially could materially affect our financial results or condition, may emerge from time to time. We assume no obligation to update forward-looking statements to reflect actual results or changes in factors or assumptions affecting such forward-looking statements, except if we otherwise are required by law. We advise you, however, to consult any further disclosures we make on related subjects in our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K we file with or furnish to the SEC.

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USE OF PROCEEDS

We will not receive any of the proceeds from the sale of shares of our common stock by the selling stockholder pursuant to this prospectus. Any issuance of shares by us to Kingsbridge under the common stock purchase agreement (which would result in proceeds to us) or in connection with the exercise of the Kingsbridge warrant will be made pursuant to an exemption from the registration requirements of the Securities Act. To the extent the warrant held by the selling stockholder is exercised at its current exercise price, we would receive approximately \$1.2 million in cash proceeds, unless such warrant is exercised on a cashless basis pursuant to its terms.

Unless otherwise provided in the applicable prospectus supplement, we intend to use the proceeds from our sales, if any, to Kingsbridge for general corporate purposes, including working capital, to finance our Phase III clinical studies for LibiGel, capital expenditures and the repayment, repurchase or redemption of outstanding indebtedness. We also may use a portion of the proceeds to acquire or invest in complementary businesses or products or to obtain rights to additional product candidates and other technologies. We have no commitments with respect to any such acquisitions or investments. The amounts and timing of our actual expenditures will depend on numerous factors, including the progress in, and costs of, our Phase III clinical studies for LibiGel, the timing of revenues, if any, from any future collaborations or similar transactions and the amount of cash used by our operations. We therefore cannot estimate the amount of proceeds to be used for all of the purposes described above. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the proceeds. Pending the uses described above, we intend to deposit the proceeds temporarily in our non-interest bearing checking account or to invest them temporarily in short-term or marketable securities until we use them for their stated purpose.

SELLING STOCKHOLDER

As of the date of this prospectus, no shares of our common stock have been issued to Kingsbridge under the common stock purchase agreement or upon exercise of the warrant. To the extent any shares are issued to Kingsbridge, this prospectus relates to the possible resale by the selling stockholder, Kingsbridge, of shares of common stock that we may issue pursuant to the common stock purchase agreement we entered into with Kingsbridge in December 2008 or upon exercise of the warrant that we issued to Kingsbridge in December 2008. We are filing the registration statement, of which this prospectus is a part, pursuant to the provisions of the registration rights agreement we entered into with Kingsbridge. The selling stockholder may from time to time offer and sell pursuant to this prospectus any or all of the shares that it acquires under the common stock purchase agreement or upon exercise of the warrant.

The following table presents information regarding Kingsbridge, as the selling stockholder, and the shares that it may offer and sell from time to time under this prospectus. This table is prepared based on information supplied to us by the selling stockholder, and reflects holdings as of May 13, 2010. As used in this prospectus, the term "selling stockholder" includes Kingsbridge and any donees, pledges, transferees or other successors in interest selling shares

received after the date of this prospectus from the selling stockholder as a gift, pledge, or other non-sale related transfer. The number of shares in the column "Number of Shares Being Offered" represents all of the shares that the selling stockholder may offer under this prospectus. The selling stockholder may sell some, all or none of its shares. We do not know how long the selling stockholder will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholder regarding the sale of any of the shares.

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Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the SEC under the Securities Exchange Act of 1934, as amended. The percentage of shares of common stock beneficially owned prior to the offering shown in the table below is based both on an aggregate of 63,667,194 shares of our common stock outstanding on May 13, 2010, and on the assumption that all shares of common stock issuable under the common stock purchase agreement with Kingsbridge and all shares of common stock issuable upon exercise of the warrant are outstanding as of that date.

	Ow	Shares Beneficially med Prior to the Offering			Shares Ber Owned Comple the Off	After tion of
	Shares Subject to Options, Warrants, and Class C	Total Shares Beneficially		Number of Shares Being		
Selling Stockholder	Special Stock	Owned	Percent	Offered	Number	Percent
Kingsbridge Capital Limited (1)	300,000	5,705,840(2)	9.0%	5,705,840	0	

Less than one percent (1%)

(1) The business address of Kingsbridge Capital Limited is P.O. Box 1075, Elizabeth House, 9 Castle Street, St. Helier, Jersey, JE42QP, Channel Islands.

(2) Consists of 5,405,840 shares of common stock, the maximum number of shares of common stock issuable under the common stock purchase agreement we entered into with Kingsbridge on December 15, 2008. For the purposes hereof, we assume the issuance of all 5,405,840 shares. Adam Gurney, Tony Gardner-Hillman and Maria O'Donoghue have shared voting and investment control of the securities held by Kingsbridge. Kingsbridge does not accept any third party investments.

PLAN OF DISTRIBUTION

To the extent that we issue shares to Kingsbridge under the committed equity financing facility or Kingsbridge acquires shares upon exercise of its warrant, the selling stockholder may offer such shares for resale under this prospectus. Except as described below, to our knowledge, the selling stockholder has not entered into any agreement, arrangement or understanding with any particular broker or market maker with respect to the shares of common stock offered hereby, nor, except as described below, do we know the identity of the brokers or market makers that will participate in the resale of the shares.

The selling stockholder may decide not to sell any shares. The selling stockholder may from time to time offer some or all of the shares of common stock through brokers, dealers or agents who may receive compensation in the form of discounts, concessions or commissions from the selling stockholder and/or the purchasers of the shares of common stock for whom they may act as agent. In effecting sales, broker-dealers that are engaged by the selling stockholder may arrange for other broker-dealers to participate. Kingsbridge is an "underwriter" within the meaning of the Securities Act. Any brokers, dealers or agents who participate in the distribution of the shares of common stock by the selling stockholder may also be deemed to be "underwriters," and any profits on the sale of the shares of common stock by them and any discounts, commissions or concessions received by any such brokers, dealers or agents may be deemed to be underwriting discounts and commissions under the Securities Act. To the extent the selling stockholder may be deemed to be an underwriter, the selling stockholder will be subject to the prospectus delivery requirements of the Securities Act and may be subject to certain statutory liabilities of, including but not limited to, Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Securities Exchange Act of 1934, as amended, or the Exchange Act.

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The selling stockholder will act independently of us in making decisions with respect to the timing, manner and size of each sale by it. Such sales may be made on the Nasdaq Global Market, on the over-the-counter market, otherwise, or in a combination of such methods of sale, at then prevailing market prices, at prices related to prevailing market prices or at negotiated prices. The shares of common stock may be sold by the selling stockholder according to one or more of the following methods:

- a block trade in which the broker or dealer so engaged will attempt to sell the shares of common stock as agent but may position and resell a
 portion of the block as principal to facilitate the transaction;
- · purchases by a broker or dealer as principal and resale by such broker or dealer for its account pursuant to this prospectus;
- · an over-the-counter distribution in accordance with the rules of the Nasdaq Stock Market;
- · ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- · privately negotiated transactions;
- a combination of such methods of sale; and
- any other method permitted pursuant to applicable law.

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Any shares covered by this prospectus which qualify for sale pursuant to Rule 144 of the Securities Act may be sold under Rule 144 rather than pursuant to this prospectus. In addition, the selling stockholder may transfer the shares by other means not described in this prospectus.

Any broker-dealer participating in such transactions as agent may receive commissions from Kingsbridge (and, if they act as agent for the purchaser of such shares, from such purchaser). Broker-dealers may agree with Kingsbridge to sell a specified number of shares at a stipulated price per share, and, to the extent such a broker-dealer is unable to do so acting as agent for Kingsbridge, to purchase as principal any unsold shares at the price required to fulfill the broker-dealer commitment to Kingsbridge. Broker-dealers who acquire shares as principal may thereafter resell such shares from time to time in transactions (which may involve crosses and block transactions and which may involve sales to and through other broker-dealers, including transactions of the nature described above) on the Nasdaq Global Market, on the over-the-counter market, in privately-negotiated transactions or otherwise at market prices prevailing at the time of sale or at negotiated prices, and in connection with such resales may pay to or receive from the purchasers of such shares commissions computed as described above. To the extent required under the Securities Act, an amendment to this prospectus or a supplemental prospectus will be filed, disclosing:

- the name of any such broker-dealers;
- the number of shares involved;
- the price at which such shares are to be sold;
- the commission paid or discounts or concessions allowed to such broker-dealers, where applicable;
- that such broker-dealers did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, as supplemented; and

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other facts material to the transaction.

Underwriters and purchasers that are deemed underwriters under the Securities Act may engage in transactions that stabilize, maintain or otherwise affect the price of the securities, including the entry of stabilizing bids or syndicate covering transactions or the imposition of penalty bids. Kingsbridge and any other persons participating in the sale or distribution of the shares will be subject to the applicable provisions of the Exchange Act and the rules and regulations thereunder including, without limitation, Regulation M. These provisions may restrict certain activities of, and limit the timing of, purchases by the selling stockholder or other persons or entities. Under Regulation M, persons engaged in a distribution of securities are prohibited from simultaneously engaging in market making and certain other activities with respect to such securities for a specified period of time prior to the commencement of such distributions, subject to special exceptions or exemptions. Regulation M may restrict the ability of any person engaged in the distribution of the securities to engage in market-making and certain other activities with respect to those securities. The anti-manipulation rules under the Exchange Act may apply to sales of the securities in the market. All of these limitations may affect the marketability of the shares and the ability of any person to engage in market-making activities with respect to the securities.

We have agreed to pay the expenses of registering the shares of common stock under the Securities Act, including registration and filing fees, printing expenses, administrative expenses and certain legal and accounting fees, as well as certain fees of counsel for the selling stockholder incurred in the preparation and negotiation of the committed equity financing facility agreements and the registration statement of which this prospectus forms a part. The selling stockholder will bear all discounts, commissions or other amounts payable to underwriters, dealers or agents, as well as transfer taxes and certain other expenses associated with its sale of securities.

Under the terms of the Kingsbridge common stock purchase agreement and the registration rights agreement, we have agreed to indemnify the selling stockholder and certain other persons against certain liabilities in connection with the offering of the shares of common stock offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute toward amounts required to be paid in respect of such liabilities.

At any time a particular offer of the shares of common stock is made by the selling stockholder, a revised prospectus or prospectus supplement, if required, will be distributed. Such prospectus supplement or post-effective amendment will be filed with the SEC, to reflect the disclosure of required additional information with respect to the distribution of the shares of common stock. We may suspend the sale of shares by the selling stockholder pursuant to this prospectus for certain periods of time for certain reasons, including if the prospectus is required to be supplemented or amended to include additional information.

LEGAL MATTERS

The validity of the shares of common stock offered hereby have been passed upon for BioSante by Oppenheimer Wolff & Donnelly LLP, Minneapolis, Minnesota.

EXPERTS

The financial statements incorporated in this Prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2009, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

We are a public company and file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. Our SEC filings are also available to the public at the SEC's web site at http://www.sec.gov.

Our common stock is listed on the Nasdaq Global Market. Reports and other information concerning BioSante may also be inspected at the offices of the Nasdaq OMX Group, Inc., 9600 Blackwell Road, Rockville, MD 20850 or on the Nasdaq OMX Group, Inc. website at http://www.nasdaq.com.

We also file annual audited and interim unaudited financial statements, proxy statements and other information with the Ontario, Alberta and British Columbia Securities Commissions. Copies of these documents that are filed through the System for Electronic Document Analysis and Retrieval "SEDAR" of the Canadian Securities Administrators are available at its web site http://www.sedar.com.

In addition, we maintain a web site that contains information regarding our company, including copies of reports, proxy statements and other information we file with the SEC. The address of our web site is www.biosantepharma.com. Our web site, and the information contained on that site, or connected to that site, are not intended to be part of this prospectus.

We have filed a registration statement on Form S-3 with the SEC for the common stock offered by the selling stockholder under this prospectus. This prospectus does not include all of the information contained in the registration statement. You should refer to the registration statement and its exhibits for additional information that is not contained in this prospectus. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document. You may:

- · inspect a copy of this prospectus, including the exhibits and schedules, without charge at the public reference room;
- · obtain a copy from the SEC upon payment of the fees prescribed by the SEC; or
- obtain a copy from the SEC website.

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INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information contained in the documents we file with the SEC, 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, and later information that we file with the SEC will update and supersede this information. We are incorporating by reference the following documents into this prospectus:

- our annual report on Form 10-K for the year ended December 31, 2009 (including information specifically incorporated by reference into our Form 10-K from our definitive proxy statement for our 2010 annual meeting of stockholders);
- our quarterly report on Form 10-Q for the quarter ended March 31, 2010;
- our current reports on Form 8-K as filed with the SEC on March 5, 2010 and May 3, 2010; and
- the description of our common stock contained in our registration statement on Form 8-A and any amendments or reports filed for the purpose of updating such description.

We also are incorporating by reference any future filings we make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 after the date of this prospectus and prior to the termination of the offering of the securities to which this prospectus relates. In addition, we also are incorporating by reference any future filings we make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 after the date of the initial registration statement of which this prospectus is a part and prior to effectiveness of such registration statement. In no event, however, will any of the information that we "furnish" to the SEC in any current report on Form 8-K or any other report or filing be incorporated by reference into, or otherwise included in, this prospectus.

You may access our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statement, and amendments, if any, to those documents filed or furnished pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act with the SEC free of charge at the SEC's website or our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not part of this prospectus.

You may request of copy of these filings, at no cost, by writing to Phillip B. Donenberg, Chief Financial Officer, Treasurer and Secretary, BioSante Pharmaceuticals, Inc., 111 Barclay Boulevard, Lincolnshire, Illinois 60069, by telephone at (847) 478-0500 ext. 101 or by email at pdonenberg@biosantepharma.com.

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses payable by BioSante in connection with the issuance and distribution of the shares of common stock being registered. The selling stockholder will not bear any portion of such expenses. All such expenses are estimated except for the SEC registration fee.

SEC registration fee	\$ 314
Fees and expenses of legal counsel for BioSante	20,000
Fees and expenses of accountants for BioSante	10,000
Printing expenses	1,000
Transfer agent fees	500
Miscellaneous	10,000
*Total	\$ 41,814

* None of the expenses listed above will be borne by the selling stockholder.

Item 15. Indemnification of Directors and Officers.

BioSante's Certificate of Incorporation limits the liability of its directors to the fullest extent permitted by the Delaware General Corporation Law. Specifically, Article VII of BioSante's Certificate of Incorporation provides that no director of BioSante shall be personally liable to BioSante or its stockholders for monetary damages for any breach of fiduciary duty by such a director as a director, except to the extent provided by applicable law (i) for any breach of the director's duty of loyalty to BioSante or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) pursuant to Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which such director derived an improper personal benefit. If the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of BioSante shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law as so amended. No amendment to or repeal of Article VII shall apply to or have any effect on the liability or alleged liability of any director of BioSante for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal.

BioSante's Certificate of Incorporation provides for indemnification of BioSante's directors and officers. Specifically, Article VI provides that BioSante shall indemnify, to the fullest extent authorized or permitted by law, as the same exists or may thereafter be amended, any person who was or is made or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of BioSante), by reason of the fact that such person is or was a director or officer of BioSante, or is or was serving at the request of BioSante as a director, officer, employee or agent of any other company, partnership, limited liability company, joint venture, trust, employee benefit plan or other enterprise; provided, however, that BioSante shall not indemnify any director or officer in connection with any action by such director or officer against BioSante unless BioSante shall have consented to such action. BioSante may, to the extent authorized from time to time by BioSante's Board of Directors, provide rights to indemnification to employees and agents of BioSante similar to those conferred in Article VI to directors and officers of BioSante. No amendment or repeal of Article VI shall apply to or have any effect on any right to

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indemnification provided thereunder with respect to any acts or omission occurring prior to such amendment or repeal.

BioSante has entered into agreements with its directors and officers regarding indemnification, in addition to indemnification provided for in BioSante's Certificate of Incorporation, Bylaws and the Delaware General Corporation Law and intends to enter into indemnification agreements with any new directors and officers in the future. Under these agreements, BioSante is required to indemnify its current and former directors and officers against expenses, judgments, penalties, fines, settlements and other amounts actually and reasonably incurred, including expenses of a derivative action, in connection with an actual or threatened proceeding if any of them may be made a party because he or she is or was one of BioSante's directors or officers. BioSante will be obligated to pay these amounts only if the director or officer acted in good faith and in a manner that he or she reasonably believed to be in or not opposed to BioSante's best interests. With respect to any criminal proceeding, BioSante will be obligated to pay these amounts only if the director or officer had no reasonable cause to believe his or her conduct was unlawful. The indemnification agreements also set forth procedures that will apply in the event of a claim for indemnification.

BioSante maintains an insurance policy for its directors and officers pursuant to which its directors and officers are insured against liability for certain actions in their capacity as directors and officers of BioSante.

BioSante has also agreed to indemnify the selling stockholder against certain losses, claims, damages, liabilities, costs and expenses under the securities laws, or to contribute to any losses associated with these liabilities. The selling stockholder has also agreed to indemnify BioSante against certain civil liabilities under the securities laws deriving from information provided by it, or to contribute to any losses associated with these liabilities.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to BioSante's directors, officers or persons controlling BioSante pursuant to the foregoing provisions, BioSante is aware that in the opinion of the Securities and Exchange Commission that this indemnification is against public policy as expressed in the Securities Act of 1933 and is therefore unenforceable.

Item 16. Exhibits.

See the Exhibit Index attached to this registration statement that is incorporated herein by reference.

Item 17. Undertakings.

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

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent posteffective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar

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value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the registration statement or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

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

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

- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser
 - (i) If the registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement to such effective date; or

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(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

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

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

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appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

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

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements of filing on Form S-3 and has duly caused this amendment to this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Lincolnshire, State of Illinois on May 21, 2010.

BIOSANTE PHARMACEUTICALS, INC.

- By /s/ Stephen M. Simes Stephen M. Simes Vice Chairman, President and Chief Executive Officer
- By /s/ Phillip B. Donenberg Phillip B. Donenberg Chief Financial Officer, Treasurer and Secretary

Pursuant to the requirements of the Securities Act of 1933, this amendment has been signed by the following persons in the capacities indicated, on the dates indicated.

Name and Signature	Title	Date
/s/ Stephen M. Simes Stephen M. Simes	Vice Chairman, President and Chief Executive Officer (Principal Executive Officer)	May 21, 2010
/s/ Phillip B. Donenberg Phillip B. Donenberg	Chief Financial Officer, Treasurer and Secretary (Principal Financial and Accounting Officer)	May 21, 2010
* Louis W. Sullivan, M.D.	Chairman of the Board	May 21, 2010
* Fred Holubow	Director	May 21, 2010

* Peter Kjaer	Director	May 21, 2010
* Ross Mangano	Director	May 21, 2010
* John T. Potts, Jr., M.D.	Director	May 21, 2010
* Edward C. Rosenow, III, M.D.	Director	May 21, 2010
* Stephen A. Sherwin, M.D.	Director	May 21, 2010
* By: /s/ Stephen M. Simes Stephen M. Simes	Attorney-in-Fact	May 21, 2010
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BIOSANTE PHARMACEUTICALS, INC. POST-EFFECTIVE AMENDMENT TO REGISTRATION STATEMENT ON FORM S-3 EXHIBIT INDEX

Exhibit No.	Exhibit	Method of Filing
4.1	Restated Certificate of Incorporation of BioSante Pharmaceuticals, Inc.	Incorporated by reference to Exhibit 3.1 to BioSante's Current Report on Form 8- K as filed on October 14, 2009 (File No. 001-31812)
4.2	Bylaws of BioSante Pharmaceuticals, Inc.	Incorporated by reference to Exhibit 3.2 to BioSante's Registration Statement on Form SB-2, as amended (Reg. No. 333- 64218)
4.3	Indenture, dated as of October 20, 2004, between Cell Genesys, Inc. and U.S. Bank National Association, as trustee	Incorporated by reference to Exhibit 4.1 to Cell Genesys's Registration Statement on Form S-3 as filed with the Securities and Exchange Commission on December 29, 2004 (File No. 333- 121732)
4.4	Supplemental Indenture dated as of October 14, 2009 to Indenture dated as of October 20, 2004, by and between BioSante Pharmaceuticals, Inc. and U.S. Bank National Association, Relating to Cell Genesys, Inc. 3.125% Convertible Senior Subordinated Notes due 2011	Incorporated by reference to Exhibit 4.1 to BioSante's Current Report on Form 8- K as filed with the Securities and Exchange Commission on October 14, 2009 (File No. 001-31812)
4.5	Indenture, dated as of June 24, 2009, between Cell Genesys, Inc. and U.S. Bank National Association, as trustee	Incorporated by reference to Exhibit 4.1 to Cell Genesys's Current Report on Form 8-K as filed with the Securities and Exchange Commission on June 29, 2009 (File No. 000-19986)
4.6	Supplemental Indenture dated as of October 14, 2009 to Indenture dated as of June 24, 2009, by and between BioSante Pharmaceuticals, Inc. and U.S. Bank National Association, Relating to Cell Genesys, Inc. 3.125% Convertible Senior Subordinated Notes due 2013	Incorporated by reference to Exhibit 4.2 to BioSante's Current Report on Form 8- K as filed with the Securities and Exchange Commission on October 14, 2009 (File No. 001-31812)
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		No. 001-31812)
4.8	Form of Warrant issued in connection with the June 2007 Private Placement	Incorporated by reference to Exhibit 10.2 to BioSante's Current Report on Form 8- K as filed on June 14, 2007 (File No. 001-31812)
4.9	Warrant to Purchase Common Stock issued to Kingsbridge Capital Limited on December 15, 2008	Incorporated by reference to Exhibit 4.1 to BioSante's Current Report on Form 8- K as filed on December 18, 2008 (File No. 001-31812)
4.10	Form of Common Stock Purchase Warrant issued by BioSante Pharmaceuticals, Inc. to the Investors and Placements Agent in BioSante's August 2009 Registered Direct Offering	Incorporated by reference to Exhibit 4.1 to BioSante's Current Report on Form 8- K as filed with the Securities and Exchange Commission on August 14, 2009 (File No. 001-31812)
4.11	Form of Replacement Warrant issued by BioSante Pharmaceuticals, Inc. to Investors in Cell Genesys, Inc.'s April 2007 Registered Direct Offering.	Incorporated by reference to Exhibit 10.30 to BioSante's 10-K for the fiscal year ended December 31, 2009 (File No. 001-31812)
4.12	Form of Common Stock Purchase Warrant issued by BioSante Pharmaceuticals, Inc. to the Investors and Placements Agent in BioSante's August 2009 Registered Direct Offering	Incorporated by reference to Exhibit 4.1 to BioSante's Current Report on Form 8- K as filed with the Securities and Exchange Commission on August 14, 2009 (File No. 001-31812)
5.1	Opinion of Oppenheimer Wolff & Donnelly LLP	Previously filed
10.1	Common Stock Purchase Agreement dated as of December 15, 2008 between BioSante Pharmaceuticals, Inc. and Kingsbridge Capital Limited	Incorporated by reference to Exhibit 10.1 to BioSante's Current Report on Form 8- K as filed on December 18, 2008 (File No. 001-31812)

K as filed on July 24, 2006 (File

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Exhibit No.	Exhibit	Method of Filing
10.2	Amendment dated as of March 24, 2010 to Common Stock Purchase Agreement dated as of December 15, 2008 between BioSante Pharmaceuticals, Inc. and Kingsbridge Capital Limited	Incorporated by reference to Exhibit 10.39 to BioSante's Annual Report on Form 10-K for the fiscal year ended December 31, 2009 (File No. 001- 31812)
10.3	Registration Rights Agreement dated as of December 15, 2008 between BioSante Pharmaceuticals, Inc. and Kingsbridge Capital Limited	Incorporated by reference to Exhibit 10.2 to BioSante's Current Report on Form 8- K as filed on December 18, 2008 (File No. 001-31812)
10.4	Amendment dated as of June 26, 2009 Registration Rights Agreement dated as of December 15, 2008 between BioSante Pharmaceuticals, Inc. and Kingsbridge Capital Limited	Incorporated by reference to Exhibit 10.3 to BioSante's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2009 (File No. 001-31812)
23.1	Consent of Independent Registered Public Accounting Firm	Filed herewith
23.2	Consent of Oppenheimer Wolff & Donnelly LLP (included in Exhibit 5.1)	Included in Exhibit 5.1
24.1	Power of Attorney for Louis W. Sullivan, M.D., Fred Holubow, Peter Kjaer, Ross Mangano, Edward C. Rosenow, III, M.D.	Previously filed
24.2	Power of Attorney for John T. Potts, Jr., M.D. and Stephen A. Sherwin, M.D.	Previously filed
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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Post-Effective Amendment No. 2 to Registration Statement No. 333-156276 on Form S-3 of our report dated March 29, 2010, relating to the financial statements of BioSante Pharmaceuticals, Inc., appearing in the Annual Report on Form 10-K of BioSante Pharmaceuticals, Inc. for the year ended December 31, 2009, and to the reference to us under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

/s/ Deloitte & Touche LLP

Chicago, Illinois May 21, 2010