UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

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, Suite 280, Lincolnshire, IL 60069

(Address of Principal Executive Office) (Zip Code)

BioSante Pharmaceuticals, Inc. Amended and Restated 2008 Stock Incentive Plan

(Full Title of the Plan)

Phillip B. Donenberg

Chief Financial Officer, Treasurer and Secretary BioSante Pharmaceuticals, Inc. 111 Barclay Boulevard, Suite 280 Lincolnshire, IL 60069 (847) 478-0500

(Name and Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

Copies requested to:

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

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. (Check one):

Large accelerated filer o Non-accelerated filer (Do not check if a smaller reporting company) o Accelerated filer o Smaller reporting company x

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)		Proposed Maximum rring Price Per Share(2)		Proposed Maximum Aggregate Offering Price(2)	 mount of istration Fee
Common Stock, par value \$0.001						
per share	2,000,000 shares	\$	1.50	\$	3,000,000	\$ 214.00
(1) The number of shares of common stock, par value \$0.001 per share, of BioSante ("Common Stock"), stated above represents an increase in the total						

1) The humber of shares of common stock, par value 50.001 per share, of BioSante ("Common stock"), stated above represents an increase in the total number of shares available for issuance under the BioSante Pharmaceuticals, Inc. Amended and Restated 2008 Stock Incentive Plan (the "Plan"). 2,000,000 shares have been previously registered under a Registration Statement on Form S-8 (File No. 333-151663). In addition, the maximum number of shares of Common Stock that may be issued under the Plan is subject to adjustment in accordance with certain provisions of the Plan. Accordingly, pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), to the extent additional shares of Common Stock may be issued or issuable as a result of a stock split or other distribution declared at any time by the Board of Directors while this Registration Statement is in effect, this Registration Statement is hereby deemed to cover all such additional shares of Common Stock.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) under the Securities Act and calculated based on the average of the high and low sales prices of the Common Stock, as reported on the NASDAQ Global Market on August 11, 2010.

STATEMENT UNDER GENERAL INSTRUCTION E-REGISTRATION OF ADDITIONAL SECURITIES

The registrant, BioSante Pharmaceuticals, Inc. ("BioSante" or "Registrant"), previously filed a Registration Statement on Form S-8 (SEC File No. 333-151663) with the Securities and Exchange Commission (the "Commission") in connection with the registration of 2,000,000 shares of BioSante's common stock to be issued under the BioSante Pharmaceuticals, Inc. Amended and Restated 2008 Stock Incentive Plan and the prior version of such plan prior to subsequent amendments (the "Plan").

Pursuant to General Instruction E of Form S-8, this Registration Statement is filed by BioSante solely to register an additional 2,000,000 shares of BioSante's common stock available for issuance under the Plan. This increase was approved by BioSante's Board of Directors and stockholders. Pursuant to Instruction E, the contents of BioSante's previously filed Registration Statement on Form S-8 (SEC File No. 333-151663), including without limitation periodic reports that BioSante filed, or will file, after this Registration Statement to maintain current information about BioSante, are hereby incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8, with the exception of Items 3 and 8 of Part II of such prior Registration Statement, each of which is amended and restated in its entirety herein.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The documents containing the information specified in Part I of Form S-8 will be sent or given to participants as specified by Rule 428(b)(1) of the Securities Act of 1933, as amended (the "Securities Act"). In accordance with the instructions of Part I of Form S-8, such documents will not be filed with the Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act. These documents and the documents incorporated by reference pursuant to Item 3 of Part II of this Registration Statement, taken together, constitute a prospectus as required by Section 10(a) of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents previously filed by BioSante with the Commission are incorporated by reference into this Registration Statement:

- (a) BioSante's Annual Report on Form 10-K for the year ended December 31, 2009 (including information specifically incorporated by reference into BioSante's Form 10-K from its definitive proxy statement for its 2010 annual meeting of stockholders);
- (b) BioSante's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2010 and June 30, 2010;
- (c) BioSante's Current Reports on Form 8-K filed with the Commission on March 5, 2010, May 3, 2010 (and as amended on June 7, 2010), June 11, 2010 and June 21, 2010; and

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(d) the description of BioSante's common stock contained in its registration statement on Form 8-A and any amendments or reports filed for the purpose of updating such description.

In addition, all documents filed with the Commission by BioSante (other than portions of such documents which are furnished and not filed) pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended, subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all such securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the time of filing of such documents.

Any statement contained in the documents incorporated or deemed to be incorporated by reference into this Registration Statement shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference into this Registration Statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 8. Exhibits

The following exhibits are filed with or incorporated by reference into this Registration Statement:

Exhibit No.	Description
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 with the Securities and Exchange Commission on October 14, 2009 (File
	No. 001-31812))
4.2	Amended and Restated Bylaws of BioSante Pharmaceuticals, Inc. (incorporated by reference to Exhibit 3.1 to BioSante's
	Current Report on Form 8-K as filed with the Securities and Exchange Commission on June 11, 2010 (File No. 001-31812))
4.3	Specimen Stock Certificate Representing Common Stock of BioSante Pharmaceuticals, Inc. (incorporated by reference to
	Exhibit 4.3 to BioSante's Registration Statement on Form S-3, as amended (File No. 333-159606))
4.4	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, Inc.'s Registration Statement on Form S-3 as filed with the

Securities and Exchange Commission on December 29, 2004 (File No. 333-121732))

4.5 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))

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Exhibit No.	Description		
4.6	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, Inc.'s Current Report on Form 8-K as filed with the Securities and Exchange Commission on June 29, 2009 (File No. 000-19986))		
4.7	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))		
5.1	Opinion of Oppenheimer Wolff & Donnelly LLP (Filed herewith)		
10.1	BioSante Pharmaceuticals, Inc. Amended and Restated 2008 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to BioSante's Current Report on Form 8-K as filed with the Securities and Exchange Commission on June 11, 2010 (File No. 001-31812))		
23.1	Consent of Deloitte & Touche LLP (Filed herewith)		
23.2	Consent of Oppenheimer Wolff & Donnelly LLP (included as part of Exhibit 5.1)		
24.1	Power of Attorney (included on the signature page to this Registration Statement)		
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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 for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Lincolnshire, State of Illinois on August 13, 2010.

BIOSANTE PHARMACEUTICALS, INC.

By: /s/ Stephen M. Simes

Stephen M. Simes Vice Chairman, President and Chief Executive Officer (principal executive officer)

By: /s/ Phillip B. Donenberg Phillip B. Donenberg Chief Financial Officer, Treasurer and Secretary (principal financial and accounting officer)

POWER OF ATTORNEY

Each person whose signature appears below hereby authorizes and appoints Stephen M. Simes and Phillip B. Donenberg, or either of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agents or any of them, their, or his or her, substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

Name and Signature	Title	Date
/s/ Stephen M. Simes Stephen M. Simes	Vice Chairman, President and Chief Executive Officer	August 13, 2010
/s/ Phillip B. Donenberg	Chief Financial Officer. Treasurer and Secretary	August 13, 2010

/s/ Louis W. Sullivan, M.D.

Louis W. Sullivan, M.D.

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Name and Signature	Title	Date
/s/ Fred Holubow Fred Holubow	Director	August 13, 2010
/s/ Peter Kjaer Peter Kjaer	Director	August 13, 2010
/s Ross Mangano Ross Mangano	Director	August 13, 2010
John T. Potts, Jr., M.D.	Director	August , 2010
/s/ Edward C. Rosenow, III, M.D. Edward C. Rosenow, III, M.D.	Director	August 13, 2010
/s/ Stephen A. Sherwin, M.D. Stephen A. Sherwin, M.D.	Director	August 13, 2010
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BIOSANTE PHARMACEUTICALS, INC. REGISTRATION STATEMENT ON FORM S-8 EXHIBIT INDEX

Exhibit No.	Description	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 with the Securities and Exchange Commission on October 14, 2009 (File No. 001-31812)
4.2	Amended and Restated Bylaws of BioSante Pharmaceuticals, Inc.	Incorporated by reference to Exhibit 3.1 to BioSante's Current
		Report on Form 8-K as filed with the Securities and Exchange Commission on June 11, 2010 (File No. 001-31812)
4.3	Specimen Stock Certificate Representing Common Stock of BioSante	Incorporated by reference to Exhibit 4.3 to BioSante's
	Pharmaceuticals, Inc.	Registration Statement on Form S-3, as amended (File No. 333-159606)
4.4	Indenture, dated as of October 20, 2004, between Cell Genesys, Inc. and	Incorporated by reference to Exhibit 4.1 to Cell Genesys, Inc.'s
	U.S. Bank National Association, as trustee	Registration Statement on Form S-3 as filed with the Securities and Exchange Commission on December 29, 2004 (File No. 333-121732)
4.5	Supplemental Indenture dated as of October 14, 2009 to Indenture dated as	Incorporated by reference to Exhibit 4.1 to BioSante's Current
	of October 20, 2004, by and between BioSante Pharmaceuticals, Inc. and	Report on Form 8-K as filed with the Securities and Exchange
	U.S. Bank National Association, Relating to Cell Genesys, Inc. 3.125%	Commission on October 14, 2009 (File No. 001-31812)
	Convertible Senior Subordinated Notes due 2011	
4.6	Indenture, dated as of June 24, 2009, between Cell Genesys, Inc. and U.S.	Incorporated by reference to Exhibit 4.1 to Cell Genesys, Inc.'s
	Bank National Association, as trustee	Current Report on Form 8-K as filed with the Securities and
4 7		Exchange Commission on June 29, 2009 (File No. 000-19986)
4.7	Supplemental Indenture dated as of October 14, 2009	Incorporated by reference to

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Exhibit		
No.	Description	Method of Filing
	to Indenture dated as of June 24, 2009, by and between BioSante	Exhibit 4.2 to BioSante's Current Report on Form 8-K as filed
	Pharmaceuticals, Inc. and U.S. Bank National Association, Relating to Cell	with the Securities and Exchange Commission on October 14,
	Genesys, Inc. 3.125% Convertible Senior Subordinated Notes due 2013	2009 (File No. 001-31812)
5.1	Opinion of Oppenheimer Wolff & Donnelly LLP	Filed herewith
10.1	BioSante Pharmaceuticals, Inc. Amended and Restated 2008 Stock	Incorporated by reference to Exhibit 10.1 to BioSante's Current
	Incentive Plan	Report on Form 8-K as filed with the Securities and Exchange
		Commission on June 11, 2010 (File No. 001-31812)
23.1	Consent of Deloitte & Touche LLP	Filed herewith
23.2	Consent of Oppenheimer Wolff & Donnelly LLP	Included as part of Exhibit 5.1

August 13, 2010

BioSante Pharmaceuticals, Inc. 111 Barclay Boulevard, Suite 280 Lincolnshire, IL 60069

Re: BioSante Pharmaceuticals, Inc. Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to BioSante Pharmaceuticals, Inc., a Delaware corporation (the "Company"), in connection with the registration by the Company of 2,000,000 shares of common stock, par value \$0.001 per share (the "Common Stock") of the Company issuable under the BioSante Pharmaceuticals, Inc. Amended and Restated 2008 Stock Incentive Plan (the "Plan"), pursuant to a registration statement on Form S-8 filed with the Securities and Exchange Commission on the date hereof (the "Registration Statement"). The 2,000,000 shares of Common Stock of the Plan are collectively referred to herein as the "Shares."

In acting as counsel for the Company and arriving at the opinions expressed below, we have examined and relied upon originals or copies, certified or otherwise identified to our satisfaction, of such records of the Company, agreements and other instruments, certificates of officers and representatives of the Company, certificates of public officials and other documents as we have deemed necessary or appropriate as a basis for the opinions expressed herein. In connection with our examination, we have assumed the genuineness of all signatures, the authenticity of all documents tendered to us as originals, the legal capacity of all natural persons and the conformity to original documents of all documents submitted to us as certified or photostatic copies.

Based on the foregoing, and subject to the qualifications and limitations stated herein, it is our opinion that:

- 1. The Company has the corporate authority to issue the Shares in the manner and under the terms set forth in the Plan.
- 2. The Shares have been duly authorized and, when issued, delivered and paid for in accordance with the Plan, will be validly issued, fully paid and nonassessable.

We express no opinion with respect to laws other than those of the Delaware General Corporation Law (including the statutory provisions, all applicable provisions of the Delaware Constitution and reported judicial decisions interpreting the foregoing) and the federal laws of the United States of America, and we assume no responsibility as to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to its use as part of the Registration Statement. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended, the rules and regulations of the Securities and Exchange Commission promulgated thereunder, or Item 509 of Regulation S-K.

Very truly yours,

/s/ Oppenheimer Wolff & Donnelly LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 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.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois

August 12, 2010