UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 14A

PROXY STATEMENT PURSUANT TO SECTION 14 (a) OF THE SECURITIES EXCHANGE ACT OF 1934 (AMENDMENT NO.)

Filed	by the	e Registrant [x]						
Filed	by a F	Party other than the Registrant []						
Checl	k the a	appropriate box:						
[] [x] []	Defi Def	liminary Proxy Statement [] Confidential, for Use of the Commission Only (as initive Proxy Statement permitted by Rule 14a-6 (e) (2) initive Additional Materials iciting Material Pursuant to §240.14a-12						
		A. P. PHARMA, INC.						
		(Name of Registrant as Specified In Its Charter)						
		(Name of Person(s) Filing Proxy Statement, if other than the Registrant)						
Paym	ent of	Filing Fee (Check the appropriate box):						
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	1)	Title of each class of securities to which transaction applies:						
	2)	Aggregate number of securities to which transaction applies:						
	3)	Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):						
	4)	Proposed maximum aggregate value of transaction:						
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[]	Fee	paid previously with preliminary materials.						
[]		eck box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was d previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.						
	1)	L) Amount Previously Paid:						
	2)	Form, Schedule or Registration Statement No.						
	3)	Filing Party:						
	4)	Date Filed:						

A.P. PHARMA, INC.

Notice Of Annual Meeting Of Stockholders To Be Held May 27, 2009

The Annual Meeting of Stockholders of A.P. Pharma, Inc. (the "Company") will be held on May 27, 2009 at 9:00 a.m. local time at the Company's headquarters located at 123 Saginaw Drive, Redwood City, California 94063, for the following purposes, as more fully described in the accompanying Proxy Statement:

- 1. To elect six nominees for director, named herein to serve until the 2010 Annual Meeting of Stockholders and until their successors are duly elected and qualified.
- 2. To approve an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the total number of authorized shares of the Company's common stock from 50,000,000 to 100,000,000.
- 3. To approve an amendment to the Company's 1997 Employee Stock Purchase Plan ("ESPP") to increase by 200,000 the number of shares of common stock reserved for issuance under the Company's ESPP.
- 4. To ratify the appointment of Odenberg, Ullakko, Muranishi & Co. LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2009.
- 5. To transact such other business as may properly come before the meeting or any adjournments or postponements thereof.

Only stockholders of record at the close of business on April 13, 2009 will be entitled to notice of, and to vote at, such meeting or any adjournments or postponements thereof. A list of stockholders entitled to vote at the meeting will be available for inspection at the offices of the Company located at 123 Saginaw Drive, Redwood City, California 94063 for at least 10 days prior to the meeting and will also be available for inspection at the meeting.

BY ORDER OF THE BOARD OF DIRECTORS

Julian N. Stern, Secretary

Redwood City, California April 23, 2009

YOUR VOTE IS IMPORTANT!

You are cordially invited to attend the Annual Meeting. However, to ensure that your shares are represented at the meeting, please submit your proxy or voting instructions (1) over the Internet, (2) by telephone or (3) by mail using the return envelope provided. Please see the instructions on the proxy and voting instruction card. Submitting a proxy or voting instructions will not prevent you from attending the Annual Meeting and voting in person, if you so desire, but will help the Company secure a quorum and reduce the expense of additional proxy solicitation.

A.P. PHARMA, INC.

123 Saginaw Drive Redwood City, California 94063 (650) 366-2626

PROXY STATEMENT

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE STOCKHOLDERS MEETING TO BE HELD ON MAY 27, 2009
THE PROXY STATEMENT AND THE ANNUAL REPORT ARE AVAILABLE AT:

https://www.sendd.com/EZProxy/?project_id=224

2009 ANNUAL MEETING OF STOCKHOLDERS

A.P. Pharma, Inc. (the "Company") is furnishing this Proxy Statement and the enclosed proxy in connection with the solicitation of proxies by the Board of Directors of the Company for use at the Annual Meeting of Stockholders to be held on May 27, 2009 at 9:00 a.m. local time at the Company's headquarters located at 123 Saginaw Drive, Redwood City, California 94063, and at any adjournments thereof (the "Annual Meeting"). These materials and the Company's Annual Report are being mailed to stockholders on or about April 23, 2009.

Only holders of the Company's common stock as of the close of business on April 13, 2009 (the "Record Date") are entitled to vote at the Annual Meeting. Stockholders who hold shares of the Company in "street name" may vote at the Annual Meeting only if they hold a valid proxy from their broker. As of the Record Date, there were 30,936,287 shares of common stock outstanding.

A majority of the outstanding shares of common stock entitled to vote at the Annual Meeting must be present in person or by proxy in order for there to be a quorum at the meeting. Stockholders of record who are present at the meeting in person or by proxy and who abstain from voting, including brokers holding customers' shares of record who cause abstentions to be recorded at the meeting, will be included in the number of stockholders present at the meeting for purposes of determining whether a quorum is present.

Each stockholder of record is entitled to one vote at the Annual Meeting for each share of common stock held by such stockholder on the Record Date. Stockholders do not have cumulative voting rights. Stockholders may vote their shares by using the proxy card enclosed with this Proxy Statement. All proxy cards received by the Company which are properly signed and have not been revoked will be voted in accordance with the instructions contained in the proxy cards. If a signed proxy card is received which does not specify a vote or an abstention, the shares represented by that proxy card will be voted for the nominees to the Board of Directors listed on the proxy card, to increase the authorized shares of the Company's common stock to

100,000,000 shares, to increase by 200,000 the number of shares reserved for issuance under the Company's ESPP and for the ratification of the appointment of Odenberg, Ullakko, Muranishi & Co. LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2009. The Company is not aware, as of the date hereof, of any matters to be voted upon at the Annual Meeting other than those stated in this Proxy Statement and the accompanying Notice of Annual Meeting of Stockholders. If any other matters are properly brought before the Annual Meeting, the enclosed proxy card gives discretionary authority to the persons named as proxies to vote the shares represented by the proxy card in their discretion.

Under Delaware law and the Company's Amended and Restated Certificate of Incorporation and Bylaws, if a quorum exists at the meeting, the affirmative vote of a plurality of the votes cast at the meeting is required for the election of directors. A properly executed proxy marked "Withhold authority" with respect to the election of one or more directors will not be voted with respect to the director or directors indicated, although it will be counted for purposes of determining whether there is a quorum. To amend the Company's Amended and restated Certificate of Incorporation to increase the authorized number of shares, the affirmative vote of the holders of a majority of the outstanding shares will be required for approval. As a result, abstentions and broker non-votes will have the same effect as negative votes. For each other item, the affirmative vote of the holders of a majority of the shares represented in person or by proxy and entitled to vote on the item will be required for approval. A properly executed proxy marked "Abstain" with respect to any such matter will not be voted, although it will be counted for purposes of determining whether there is a quorum. Accordingly, an abstention will have the effect of a negative vote.

For shares held in "street name" through a broker or other nominee, the broker or nominee may not be permitted to exercise voting discretion with respect to some of the matters to be acted upon. Thus, if stockholders do not give their broker or nominee specific instructions, their shares may not be voted on those matters and will not be counted in determining the number of shares necessary for approval. Shares represented by such "broker non-votes" will, however, be counted in determining whether there is a quorum.

A stockholder of record may revoke a proxy at any time before it is voted at the Annual Meeting by (a) delivering a proxy revocation or another duly executed proxy bearing a later date to the Secretary of the Company at 123 Saginaw Drive, Redwood City, California 94063 or (b) attending the Annual Meeting and voting in person. Attendance at the Annual Meeting will not revoke a proxy unless the stockholder actually votes in person at the meeting.

The proxy card accompanying this Proxy Statement is solicited by the Board of Directors of the Company. The Company will pay all of the costs of soliciting proxies. In addition to solicitation by mail, officers, directors and employees of the Company may solicit proxies personally, or by telephone, without receiving additional compensation. The Company, if requested, will also pay brokers, banks and other fiduciaries who hold shares of Common Stock for beneficial owners for their reasonable out-of-pocket expenses of forwarding these materials to stockholders.

INFORMATION CONCERNING THE BOARD OF DIRECTORS AND EXECUTIVE OFFICERS

Currently, the number of directors authorized in accordance with our bylaws and subsequent board resolution is eight. Pursuant to the bylaws of the Company, the Board of Directors has adopted a further resolution to reduce the number of authorized directors to six, effective immediately prior to the opening of the polls for the election of directors at the Annual Meeting. Mr. Riepenhausen and Mr. Taylor are not standing for reelection.

Six directors are to be elected at the Annual Meeting. Each director elected at the Annual Meeting will hold office until the earlier of the next annual meeting of stockholders and his or her successor has been duly elected and qualified or until his or her resignation or removal.

The nominees for the Board of Directors of the Company and their ages and position with the Company are as follows:

			Director
Name	Age	Position with Company	Since
Paul Goddard, Ph.D.	59	Chairman	2000
Ronald Prentki	51	President, Chief Executive Officer and Director	2008
Toby Rosenblatt ⁽¹⁾⁽²⁾⁽³⁾	70	Director	1983
Kevin C. Tang	42	Director	2009
Gregory Turnbull	70	Director	1986
Robert Zerbe, M.D.	58	Director	2002

- (1) Member of the Audit and Finance Committee of the Board.
- (2) Member of the Compensation and Stock Option Committee of the Board.
- (3) Member of the Nominating and Governance Committee of the Board.

Paul Goddard, Ph.D. has served as Chairman of our board of directors since November 2000. Dr. Goddard has served as Chief Executive Officer for ARYx Therapeutics, Inc., a public biopharmaceutical company, since 2005 and Chairman of its board of directors since 2003. He has also been a director of Adolor Corporation Inc, since 2000 and of Onyx Pharmaceuticals, Inc. since 1997. From 1998 to 2000, Dr. Goddard was President and Chief Executive Officer of Elan Corporation, plc's pharmaceutical division. From 1991 to 1998, Dr. Goddard served as Chairman and Chief Executive Officer of Neurex Corporation. In 1998, Neurex was acquired by Elan. Prior to Neurex, Dr. Goddard held various senior management positions at SmithKline Beecham.

Ronald Prentki has served as our President, Chief Executive Officer and Director since July 2008. Previously he was President of Easton Healthcare Ventures, LLC, a business development and consulting company he founded in 2005. Mr. Prentki served as President and Director from 1998 to 2005 for Progenics Pharmaceuticals, Inc., a biopharmaceutical company focusing on the development of products for HIV, cancer and supportive care. Prior to joining Progenics, Mr. Prentki served as Vice-President of Business Development for Sanofi Pharma and Sterling Drug, and Director of Cardiovascular Products and Manager of Anti-Cancer Products for Bristol-Myers Squibb.

Kevin C. Tang has served as a member of our board of directors since February 2009. Mr. Tang is the Managing Director of Tang Capital Management, LLC, a life sciences-focused investment company he founded in 2002. Tang Capital Management holds a significant ownership position in our common stock. From 1993 to 2001, Mr. Tang held various positions at Deutsche Banc Alex. Brown, Inc., an investment banking firm, most recently serving as Managing Director and head of the firm's Life Sciences research group. He currently serves as a director of Ardea Biosciences, Inc., a publicly traded life sciences company, and two private companies, RadPharm, Inc., and Prospect Therapeutics, Inc.

Toby Rosenblatt has served as a member of our board of directors since September 1983. Mr. Rosenblatt has served as President of Founders Investments, Ltd., a private investment limited partnership since 1999. Mr. Rosenblatt also serves as a director of the BlackRock Equity Liquidity Mutual Funds, Forward Management, LLC and is a trustee of numerous civic and educational institutions.

Gregory Turnbull has served as a member of our board of directors since February 1986. Mr. Turnbull served as our President and Chief Executive Officer from October 2006 to July 2008 and as interim Chief Financial Officer from January 2008 to February 2009. Mr. Turnbull has been a private investor and business consultant for over five years. Previously, he was a general partner of Cable & Howse Ventures, a venture capital firm, and also served as an investment banker with Morgan Stanley & Co. and White, Weld & Co. Mr. Turnbull also serves as Chairman of the Board for Planar Systems, Inc. and as a director of certain privately-held companies.

Robert Zerbe, M.D. has served as a member of our board of directors since December 2002. Dr. Zerbe has served as the Chief Executive Officer and founder of QuatRx Pharmaceuticals Company, a private biopharmaceutical company, since 2000. Until 2000, Dr. Zerbe was employed by Pfizer as the Senior Vice President of Global Research and Development and Director of Development Operations. From 1993 to 2000, Dr. Zerbe served at the Parke-Davis Pharmaceutical Research Division of Warner-Lambert as Senior Vice President worldwide, clinical research and development. Dr. Zerbe serves as a director of Metabolex Pharmaceuticals, Inc. and Aastrom Biosciences, Inc.

The two directors not standing for re-election are:

Peter Riepenhausen has served as a member of our board of directors since April 1991. Mr. Riepenhausen is a business consultant. He served as Chairman, Europe for Align Technology, Inc. from 2000 until 2002 and President and Chief Executive Officer of ReSound Corporation from 1994 to 1998. He served as a director of Caradon (Europe) plc from April 1994 until September 1998. He currently serves as Chairman of the Board of Ocumenta Holdings and as a director of The Resource Group and Sonitus Medical.

Arthur Taylor has served as a member of our board of directors since August 2006. Mr. Taylor most recently served as Vice-President, General Manager of Kyphon Products and Interspinous Decompression Devices, Spinal & Biologics Business, Medtronic Inc. through May 2008. Prior to that, he was Chief Operating Officer of Kyphon Inc. from 2006 until the company's acquisition by Medtronic in November 2007, having served as Chief Financial Officer of Kyphon from 2004 to 2006. Prior to joining Kypon, he was Senior Vice President, Chief Financial Officer of Terayon Communication Systems, Inc., a broadband access company, from February 2003 through August 2004. Mr. Taylor gained experience in the medical device industry while serving as Chief Financial Officer for ReSound Corporation, a hearing healthcare company, and in several executive financial positions over fourteen years with Allergan, Inc., an eye care medical device and pharmaceutical company, and American Hospital Supply Corporation, which was acquired by Baxter International. In addition, Mr. Taylor previously served as Vice President, Corporate Treasurer for 3Com Corporation.

The other executive officers of the Company and their ages and position with the Company are as follows:

Name	Age	Executive Position with Company	Since
John Barr, Ph.D.	49	Sr. Vice President of Research and Development	1997
John Whelan	47	Vice President, Finance and Chief Financial Officer	2009

John Barr, Ph.D. has served as our Senior Vice President, Research and Development since September 2007, having previously served as Vice President, Research and Development since August 2000. He joined us in 1997 as Director of Pharmaceutical Sciences. Dr. Barr has played a key role in evaluating and developing the potential of our novel delivery systems. Prior to joining us, he served as the Director of Biopharmaceutics for Cortech, Inc. a Denver-based biotech firm focused on the development of novel anti-inflammatory agents. In that capacity, he was involved with both the research and development aspects of the company's intravenous and oral programs. Dr. Barr received his Ph.D. in pharmacology from the University of Glasgow in Scotland, after which he pursued post-doctoral studies at the University of Arizona.

John Whelan has served as our Vice President, Finance and Chief Financial Officer since February 2009. He was Chief Operating Officer and Chief Financial Officer at Raven biotechnologies, inc., a private company developing antibody-based cancer therapeutics, from April 2002 until the company's acquisition in July 2008. From January 2000 to March 2002 he was Vice President and Chief Financial Officer at Eos Biotechnology, Inc., a private therapeutic antibodies company. Prior to that, Mr. Whelan held a number of ascending management positions at Hewlett Packard Company, culminating in his tenure as Director of Corporate Development.

There are no family relationships among any of the Company's directors or executive officers.

CORPORATE GOVERNANCE

The Company's Board of Directors, the Audit and Finance Committee and the Compensation and Stock Option Committee each met five times and the Nominating and Governance Committee met once during fiscal 2008. Each member of the Board attended 75% or more of the aggregate number of Board and applicable committee meetings.

Board Independence

Our board of directors has determined that the following directors are "independent directors" as defined by the rules of The NASDAQ Stock Market: Messrs. Goddard, Rosenblatt, Tang, and Zerbe. Under applicable SEC and NASDAQ rules, the existence of certain "related party" transactions above certain thresholds between a director and the company are required to be disclosed and preclude a finding by the Board that the director is independent. None of these independent directors is a party to any transaction, relationship or arrangement not disclosed pursuant to Item 404(a) of Regulation S-K.

Board Committees

Our board of directors has standing audit and finance, compensation and stock option and nominating and governance committees. The composition and primary responsibilities of each committee are described below.

Audit and Finance Committee

Our audit and finance committee currently consists of Messrs. Taylor (chair), Riepenhausen and Rosenblatt. Our audit and finance committee oversees our corporate accounting and financial reporting process. Our audit and finance committee appoints our independent auditor and oversees and evaluates their work, ensures written disclosures and communicates with the independent auditor, meets with management and the independent auditor to discuss our financial statements, meets with the independent auditor to discuss matters that may affect our financial statements and approves all related party transactions. The committee is also responsible for reviewing our plans for providing appropriate financial resources to sustain our operations, including review of our strategic plan and annual operating budget. Mr. Taylor is our audit and finance committee financial expert under applicable SEC rules. We believe that the composition of our audit and finance committee meets the requirements for independence under the current requirements of The NASDAQ Stock Market and applicable SEC rules and regulations.

Compensation and Stock Option Committee

Our compensation and stock option committee currently consists of Messrs. Rosenblatt (chair) and Riepenhausen. Our compensation and stock option committee administers our benefit plans, reviews and administers all compensation arrangements for executive officers, and establishes and reviews general policies relating to the compensation and benefits of our officers and employees. Our compensation and stock option committee reviews and recommends goals for our executive officers and evaluates their performance in light of these goals. We believe that the composition of our compensation and stock option committee meets the requirements for independence under the current requirements of The NASDAQ Stock Market and applicable SEC rules and regulations.

Nominating and Governance Committee

Our nominating and governance committee currently consists of Messrs. Rosenblatt (chair) and Riepenhausen. The committee recommends nominees to the board of directors and provides oversight with respect to corporate governance. Procedures for the consideration of director nominees recommended by stockholders are set forth in our amended and restated bylaws and are described below. We believe that the composition of our nominating and governance committee meets the requirements for independence under the current requirements of The NASDAQ Stock Market.

Charters for our audit, compensation and stock option, and nominating and governance committees are posted on our website at www.appharma.com.

Director Nomination

Criteria for Board Membership

In selecting candidates for appointment or re-election to the Board, the nominating and governance committee (the "nominating committee") considers the appropriate balance of experience, skills and characteristics required of the Board of Directors, and seeks to insure that at least a majority of the directors are independent under the rules of the NASDAQ Stock Market, and that members of the Company's audit and finance committee meet the financial literacy and sophistication requirements under the rules of the NASDAQ Stock Market and at least one of them qualifies as an "audit committee financial expert" under the rules of the Securities and Exchange Commission. Nominees for director are selected on the basis of their depth and breadth of experience, integrity, ability to make independent analytical inquiries, understanding of the Company's business environment, and willingness to devote adequate time to Board duties.

Stockholder Nominees

The nominating committee will consider written proposals from stockholders for nominees for director. Any such nominations should be submitted to the nominating committee c/o the Secretary of the Company and should include the following information: (a) all information relating to such nominee that is required to be disclosed pursuant to Regulation 14A under the Securities Exchange Act of 1934 (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (b) the names and addresses of the stockholders making the nomination and the number of shares of the Company's common stock which are owned beneficially and of record by such stockholders; and (c) appropriate biographical information and a statement as to the qualification of the nominee, and should be submitted in the time frame described under the caption, "Stockholder Proposals for 2010 Annual Meeting" below.

Process for Identifying and Evaluating Nominees

The nominating committee believes the company is well-served by its current directors., In the ordinary course, absent special circumstances or a material change in the criteria for Board membership, the nominating committee will re-nominate incumbent directors who continue to be qualified for Board service and are willing to continue as directors. The Board determined that the six incumbent directors who are standing for re-election are sufficient to serve the needs of the company, given its current size and activities. If a vacancy on the Board occurs between annual stockholder meetings, the nominating committee will seek out

potential candidates for Board appointment who meet the criteria for selection as a nominee and have the specific qualities or skills being sought. Director candidates will be selected based on input from members of the Board, senior management of the company and, if the nominating committee deems appropriate, a third-party search firm. The nominating committee will evaluate each candidate's qualifications and check relevant references; in addition, such candidates will be interviewed by at least one member of the nominating committee. Candidates meriting serious consideration will meet with members of the Board, as deemed appropriate. Based on this input, the nominating committee will evaluate which of the prospective candidates is qualified to serve as a director and whether the committee should recommend to the Board that this candidate be appointed to fill a current vacancy on the Board, or presented for the approval of the stockholders, as appropriate.

Although the nominating committee has not adopted a formal policy with respect to stockholder nominees, the committee expects that the evaluation process for a stockholder nominee would be similar to the process outlined above.

Board Nominees for the 2009 Annual Meeting

Each of the nominees listed in this Proxy Statement is a current director standing for re-election, except for two new directors who were elected to our Board since our last annual election: Mr. Prentki and Mr. Tang. Mr. Prentki was elected in July, 2008 in conjunction with his appointment as President and Chief Executive Officer of the Company. Mr. Tang expressed an interest in being on our Board. Mr. Tang was elected to the Board in February 2009, in recognition by our nominating committee and Board of his significant ownership position in the Company and his background with similar companies.

COMMUNICATIONS WITH DIRECTORS

Stockholders who wish to communicate with our Directors may do so using the procedures detailed on our website at www.appharma.com on the Corporate Governance page of the Corporate Overview section.

The Company has a policy of encouraging all directors to attend the annual stockholder meetings; all of the directors, except one, attended the 2008 annual meeting.

CODE OF ETHICS

We have adopted a Code of Ethics that applies to all of our directors, officers and employees. The Code of Ethics is posted on our website at http://www.appharma.com under the caption "Investor Relations." If we make any substantive amendments to the code of ethics or grant any waiver, including implicit waiver, from a provision of the code of ethics to our principal executive officer, principal financial officer or principal accounting officer, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K that will be publicly filed.

SECURITY OWNERSHIP BY CERTAIN BENEFICIAL HOLDERS

The following table sets forth information regarding ownership of the Common Stock as of March 31, 2009 or earlier date for information based on filings with the Securities and Exchange Commission by (a) each person known to the Company to own more than 5% of the outstanding shares of the Common Stock, (b) each director and nominee for director of the Company, (c) the Company's Chief Executive Officer and each other executive officer named in the compensation tables appearing later in this Proxy Statement and (d) all directors and executive officers as a group. The information in this table is based solely on statements in filings with the SEC or other reliable information. Unless otherwise indicated, the address of each of the named individuals is c/o A.P. Pharma, Inc., 123 Saginaw Drive, Redwood City, CA 94063. Beneficial ownership of shares is determined in accordance with the rules of the SEC and generally includes any shares over which a person exercises sole or shared voting or investment power, or of which a person has the right to acquire ownership within 60 days after March 31, 2009. Except as otherwise noted, each person or entity has sole voting and investment power with respect to the shares shown. Unless otherwise noted, none of the shares shown as beneficially owned are subject to pledge.

Name		Number of Shares ⁽¹⁾	Percent of Class ⁽¹⁾
Kevin C. Tang, Tang Capita 4401 Eastgate Mall San Diego, California 92	l Management, LLC and its affiliates ⁽²⁾ 121	8,781,787	28.4%
Baker Bros. Advisors, LLC [©] 667 Madison Avenue New York, NY 10065	3)	2,884,546	9.3%
OrbiMed Advisors, LLC and 767 Third Avenue, 30th I New York, New York 100	Floor	2,193,400	7.1%
Deerfield Management Con 780 Third Avenue, 37 th F New York, New York 100		2,006,147	6.5%
Kevin C. Tang, (2)	Director	8,781,787	28.4%
Gregory Turnbull ⁽⁶⁾	Director, Former President and Chief Executive Officer and Interim Chief Financial Officer	266,084	*
Paul Goddard ⁽⁸⁾	Chairman of the Board	144,250	*
John Barr ⁽⁷⁾	Senior Vice President, Research and Development	152,087	
Peter Riepenhausen ⁽⁹⁾	Director	89,900	*
Toby Rosenblatt ⁽¹⁰⁾	Director	64,801	*
Robert Zerbe(11)	Director	50,389	*
Arthur Taylor ⁽¹²⁾	Director	29,626	*
Ronald Prentki ⁽¹³⁾	President, Chief Executive Officer and Director	6,860	*
John Whelan	Vice President and Chief Financial Officer	0	*
Anastassios Retzios	Former Vice President, Clinical Research	0	*
Officers and Directors as a	group (11 persons)	9,585,784	30.5%

- * Less than 1%.
- (1) Assumes the exercise of all outstanding options to purchase Common Stock held by such person or group to the extent exercisable on or before May 30, 2009, and that no other person has exercised any outstanding stock options. Based on shares of Common Stock, issued and outstanding, as of March 31, 2009.
- 2) Based on information set forth in a Schedule 13D/A filed with the Securities and Exchange Commission on February 18, 2009 by Tang Capital Management, LLC and its affiliates reporting beneficial ownership of Kevin C. Tang of 8,781,787 shares.
- (3) Based on information set forth in a Schedule 13G filed with the Securities and Exchange Commission on February 17, 2009 by Felix J. and Julian C. Baker and their affiliates reporting beneficial ownership of 2,884,546 shares.
- (4) Based on information set forth in a Schedule 13G/A filed with the Securities and Exchange Commission on February 10, 2009 by OrbiMed Advisors, LLC and its affiliates reporting beneficial ownership of 2,193,400 shares.
- (5) Based on information set forth in a Schedule 13G filed with the Securities and Exchange Commission on February 13, 2009 by Deerfield Management Company, L.P. and its affiliates reporting beneficial ownership of 2,006,147 shares.
- (6) Includes 200,750 shares underlying stock options exercisable on or before May 30, 2009 and 9,000 shares of restricted stock, subject to right of repurchase which lapses on May 27, 2009.
- (7) Includes 118,897 shares underlying stock options exercisable on or before May 30, 2009.
- (8) Includes 11,250 shares held in family trust, 98,250 shares underlying stock options exercisable on or before May 30, 2008 and 9,000 shares of restricted stock, subject to right of repurchase which lapses on May 27, 2009.
- (9) Includes 44,833 shares held in family trust, 27,000 shares underlying stock options exercisable on or before May 30, 2009 and 9,000 shares of restricted stock, subject to right of repurchase which lapses on May 27, 2009.
- (10) Includes 34,500 shares underlying stock options exercisable on or before May 30, 2009 and 9,000 shares of restricted stock subject to right of repurchase, which lapses on May 27, 2009.
- (11) Includes 28,250 shares underlying stock options exercisable on or before May 30, 2009 and 9,000 of restricted stock, subject to right of repurchase which lapses on May 27, 2009.
- (12) Includes 17,626 shares underlying stock options exercisable on or before May 30, 2009 and 9,000 shares of restricted stock, subject to right of repurchase which lapses on May 27, 2009.
- (13) Includes 6,860 shares owned by Mr. Prentki's spouse and/or mother-in-law.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Indemnification

The Company's restated certificate of incorporation and bylaws provide for indemnification of directors, officers and other agents of the Company. Each of the current directors and officers of the Company have entered into separate indemnification agreements with the Company.

Related Party Transactions

We are not a party to any related party transactions. Pursuant to our Code of Ethics and the Audit Committee Charter, our executive officers, directors and employees must disclose transactions involving actual or apparent conflicts of interests, such as related party to transactions, to the chairman of the audit and finance committee. The audit and finance committee is charged with reviewing and approving all related party transactions.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Under Section 16(a) of the Securities Exchange Act of 1934 (the "Exchange Act") and SEC rules, the Company's directors, executive officers and beneficial owners of more than 10% of any class of equity security are required to file periodic reports of their ownership, and changes in that ownership, with the SEC. Based solely on its review of copies of these reports and representations of such reporting persons, the Company believes that during fiscal year 2008, such SEC filing requirements were satisfied, except one filing for Mr. Ronald Prentki which was inadvertently filed late.

EXECUTIVE COMPENSATION

The following tables and descriptive materials set forth information concerning compensation earned for services rendered to the Company by each person who served as the Chief Executive Officer ("CEO") during fiscal 2008, and the Company's next most highly compensated executive officer, who was serving as an executive officer at the end of fiscal year 2008, whose salary and bonus for fiscal year 2008 exceeded \$100,000, and one former executive officer who departed from the Company during fiscal 2008. Collectively, together with the CEO, these are the "Named Executive Officers."

Summary Compensation Table

The following table sets forth information concerning compensation earned for services rendered to the Company by the Named Executive Officers.

Name and Principal Position(s)	Year	Salary	Stock Awards ⁽¹⁾	Option Awards ⁽¹⁾	Non-Equity Incentive Plan Compen- sation ⁽²⁾	All Other Compen- sation ⁽³⁾	Total
Gregory Turnbull ⁽⁴⁾ Former President and Chief Executive Officer and Interim Chief Financial Officer	2008 2007	\$347,154 418,000	\$ 12,518 9,035	\$ 245,279 52,285	\$ <u> </u>	\$ 31,513 31,000	\$636,464 510,320
Ronald Prentki ⁽⁵⁾ President and Chief Executive Officer	2008	196,154	_	199,495	_	2,942	398,591
John Barr Sr. Vice President, Research and Development	2008 2007	290,231 262,154	10,631 10,602	87,882 32,902	30,474 55,052	16,223 17,021	435,441 377,731
Anastassios Retzios ⁽⁶⁾ Former Vice President, Clinical Research	2008 2007	217,081 208,077	_	48,293 20,562	31,212	5,665 6,242	271,039 266,093

⁽¹⁾ The value of the stock and option awards has been computed in accordance with Statement of Financial Standards (SFAS) No. 123R, Share-Based Payment, which requires that we recognize as compensation expense the value of all stock-based awards, including stock options, attributable to awards granted in and prior to 2008. Assumptions used in the calculation of these amounts are disclosed in Note 7 to the Company's Financial Statements for the year ended December 31, 2008, included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission in March 2009. However, as required, amounts exclude the impact of estimated forfeitures related to service-based vesting conditions.

The amounts listed were earned in 2008 and 2007 and paid in February 2009 and January 2008, respectively, and reflect cash awards to the named individuals under the bonus program.

- (3) The stated amounts include a travel allowance and our matching contributions to our 401(k) Plan. We made matching cash contributions equal to 50% of each participant's contribution during the plan year up to a maximum amount equal to the lesser of 3% of each participant's annual compensation or \$6,900. Mr. Turnbull did not participate in our MBO program or our 401(k) Plan, did not receive a travel allowance and did not participate in any other employee benefit plans; amounts listed are payments for his service as a director.
- (4) Mr. Turnbull served as our President and Chief Executive Officer from October 2006 until July 2008 and as our Interim Chief Financial Officer from January 2008 until February 2009. Prior to serving as President and Chief Executive Officer and Interim Chief Financial Officer, Mr. Turnbull served on our Board of Directors as an independent director. Compensation earned by Mr. Turnbull for his services as a director and included in the summary compensation table include: a) for 2008, restricted stock awards valued at \$12,518, options valued at \$14,864 and director fees reflected above in all other compensation of \$31,513 paid in cash b) for 2007, restricted stock awards valued at \$9,035, option awards valued at \$11,720, and director fees reflected above in all other compensation of \$31,000 paid in cash.
- (5) Mr. Prentki was appointed our Chief Executive Officer in July 2008.
- (6) Mr. Retzios' employment terminated November 3, 2008.

We have a bonus plan under which employees, including named executive officers, are eligible for bonus payments. Bonus payments for officers are based on the attainment of corporate and/or individual goals. Each corporate and/or individual goal represents a predetermined percentage of the officer's targeted bonus, which is a pre-determined percentage of the officer's base pay. Mr. Barr was the only named executive officer paid a bonus in February 2009 based on the attainment of fiscal 2008 goals. Mr. Turnbull was not eligible for bonus, based on his arrangement with us. Mr. Prentki is eligible for bonus based on attainment of his personal goals, however evaluation of his performance with regard to his initial goals and related compensation, if any, has not yet taken place, due to his appointment as our CEO in mid 2008. Mr. Retzios was not eligible for bonus based on 2008 goals, as he was terminated prior to December 31, 2008.

Retirement Plans

We have established and maintain a retirement savings plan under section 401(k) of the Internal Revenue Code to cover our eligible employees. The Internal Revenue Code allows eligible employees to defer a portion of their compensation, within prescribed limits, on a tax deferred basis through contributions to a 401(k) plan. Our 401(k) plan is qualified under Section 401(a) of the Internal Revenue Code and its associated trust is exempt from federal income taxation under Section 501(a) of the Internal Revenue Code. Our 401(k) plan permits us to make matching contributions on behalf of eligible employees, and we currently make these matching contributions up to a maximum amount equal to the lesser of 3% of each participant's annual compensation or \$6,900 for 2008.

We do not maintain a defined benefit plan or a nonqualified deferred compensation plan.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding outstanding equity awards held by our Named Executive Officers at December 31, 2008:

		Option Awar	ds		Stock	Awards
Name Ronald Prentki	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Not Exercisable ⁽¹⁾ 1,400,000(4)	Option Exercise Price (\$) \$ 1.190	Option Expiration Date 07/07/18	Number of Shares or Units of Stock That Have Not Vested	Market Value of Shares or Units of Stock That Have Not Vested (\$)
	<u> </u>				_	
Gregory Turnbull	50,000(8) 100,000(9) 2,500(3) 16,250(6) 2,500(3) 2,500(3) 2,500(3) 2,500(3) 2,500(3) 2,500(3) 2,500(3) 2,500(3) 2,500(3)	12,000(5) — — — — — — — — — — — — — — — — — — —	1.680 1.540 1.540 3.000 4.600 6.960 6.400 11.756 4.840 9.360 11.800 14.000 23.500	05/28/18 01/18/18 01/18/18 05/23/17 10/09/16 05/31/16 05/25/15 05/25/14 05/28/13 05/22/12 05/09/11 07/31/10 06/16/09	9,000(5) — — — — — — — — — — — — — — — — — — —	3,780 ————————————————————————————————————
John Barr	26,814 16,727 4,193 6,380 6,250 1,875 3,125 8,750 5,000 7,500	33,334(6) 33,333(6) 33,333(7) 90,194 56,265 4,557 2,370 — — — — — — — — —	1.240 1.240 1.240 1.370 1.370 5.120 6.400 9.800 4.280 5.760 8.000 11.500 13.376	09/25/18 09/25/18 09/25/18 01/15/18 01/15/18 01/16/17 01/10/16 01/14/14 01/23/13 08/22/12 08/21/11 10/27/10 08/01/10	6,250 ₍₂₎	2,625
Anastassios Retzios	7,820 ⁽¹⁰⁾ 13,686 ⁽¹⁰⁾ 8,985 ⁽¹⁰⁾	0 0 0	1.370 1.370 4.400	1/15/18 1/15/18 11/20/16	_ _ _	_ _ _

- (1) All unvested options vest monthly over the first four years of the ten-year option term, except where noted.
- Stock award that fully vests March 23, 2009.
- 3) Options granted for director compensation that fully vested one year after the date of grant.
- (4) Option granted upon appointment as President, Chief Executive Officer and Director that vests 25% on July 7, 2009 and the remainder over the following 36 months.
- Option and stock award received as director compensation that fully vests May 27, 2009.
- (6) Grants vest on or before March 31, 2009, if a certain performance milestone is met.
- (7) Grant vests on or before September 30, 2010, if a certain performance milestone is met.
- (8) Grant vested on or before September 30, 2008, based on achievement of a certain performance milestone.
- (9) Vested in full on grant date.
- (10) Options cancelled unexercised 90 days following termination.

Payments Upon Termination or Change In Control

Payments Upon Termination

Payments of approximately \$558,000 were made in 2008, and payments will be made in 2009 and 2010 of approximately \$191,000 and \$15,000, respectively, in accordance a retention arrangement with Mr. O'Connell. Additionally, in conjunction with the agreement, Mr. O'Connell's options are exercisable until mid-April 2010.

Potential Payments Upon Termination

On March 23, 2005, we entered into a change of control agreement with Dr. Barr. Dr. Barr's agreement was amended on November 8, 2007, to become a management retention agreement. The agreement was again amended on December 23, 2008 without affecting any of its economic provisions to conform with the newly promulgated technical provisions of the Treasury Regulations under Section 409A of the Internal Revenue Code. The agreement, as amended, provides that if Dr. Barr's employment is terminated by us without good cause or by him for good reason, as such terms are defined in his agreement, he shall receive his annual base salary in effect on the date of termination, the average of any bonus paid during each of the three 12-month periods prior to termination, and the continued vesting of his unvested stock options, all for a 12 month period following such termination, and the lapse of all remaining forfeiture and transfer restrictions on restricted stock previously granted to him. Such salary and bonus payments shall be paid in twelve equal monthly installments. We also agreed to pay health care benefits for up to 12 months. In addition, upon a change of control, if he is involuntarily terminated, all of his unvested stock options shall immediately vest.

In conjunction with the appointment of Mr. Prentki as our President and Chief Executive Officer, we entered into a retention and change of control agreement with Mr. Prentki on July 3, 2008. The agreement was amended on December 30, 2008 without affecting any of its economic provisions to conform with the newly- promulgated technical provisions of the Treasury Regulations under Section 409A of the Internal Revenue Code. The agreement, as amended, provides that if Mr. Prentki's employment is terminated by us without good cause or by him for good reason, as such terms are defined in his agreement, he shall receive twice his annual base salary in effect on the date of termination and the continued vesting of his unvested stock options and lapse of forfeiture and transfer restrictions on restricted stock previously granted to him, both for a 12 month period following such termination. Cash severance payments shall be paid within 30 days. We also agreed to pay health care benefits for up

to 12 months. In addition, upon a change of control, if he is involuntarily terminated, all of his unvested stock options shall immediately vest.

The following table sets forth information regarding potential payments to be made to Mr. Prentki or Dr. Barr if their termination payments were triggered on December 31, 2008, assuming maximum payouts which would occur if a change of control had occurred.

	Base Salary	Bonus	Value of Options Previously Unvested	Value of Restricted Stock Previously Subject to Repurchase
Name	(\$)	(\$)	(\$) ⁽¹⁾	· (\$) ⁽²⁾
Ronald Prentki ⁽³⁾	\$ 850,000	\$ —	\$ —	\$ —
John Barr ⁽⁴⁾	302.000	44,579	_	2,625

- The dollar value of unvested stock options was calculated using the closing market price of our common stock on December 31, 2008, which was lower than the exercise price of these options. Options would be exercisable for a 90 day period beyond potential termination date.
- The dollar value of restricted stock, net of consideration paid by the named executive officer, was calculated using the closing market price of our common stock on December 31, 2008.
- Based on 1,400,000 shares of unvested stock options as of December 31, 2008.
- 4) Based on 253,386 shares of unvested stock options and 6,250 shares of restricted stock as of December 31, 2008.

Additionally, in conjunction with the appointment of John Whelan as our Chief Financial Officer, on February 9, 2009 we entered into a retention and change of control agreement. The agreement provides that if Mr. Whelan's employment is terminated by us without good cause or by him for good reason, as such terms are defined in his agreement, he shall receive his annual base salary in effect on the date of termination, the average of any bonus paid during each of the three 12-month periods prior to termination, and the continued vesting of his unvested stock options and lapse of forfeiture and transfer restrictions on restricted stock previously granted to him, all for a 12 month period following such termination. Such salary and bonus payments shall be paid in twelve equal monthly installments. We also agreed to pay health care benefits for up to 12 months. In addition, upon a change of control, if he is involuntarily terminated, all of his unvested stock options shall immediately vest.

Director Compensation

Each director who is not an employee is eligible to receive compensation for his services as a member of our board of directors or any of its committees, except that Mr. Turnbull, our Former President and Chief Executive Officer and Interim Chief Financial Officer, received non-employee directors' compensation as part of the overall compensation package awarded to him while he served in an executive role from October 2006 to February 2009.

Non-Chair Director Compensation

Prior to June 2008, each non-employee director other than the chairman of the board received an annual cash retainer of \$15,000. In addition, each non-employee director received a cash payment of \$2,000 for each board of directors meeting attended in person or \$1,000 for each board of directors meeting attended via teleconference. Each member of the audit committee, finance committee, nominating and governance committee and compensation and stock option committee received \$1,000 for attending each meeting of the committee in person and \$500 for attending each meeting of the committee via teleconference; provided, however, that per meeting fees were not paid for meetings held on the same day as another committee or board meeting for which a fee is paid. In addition, the committee chairs received the following annual cash retainers:

- audit committee chair: \$5,000;
- · finance committee chair: \$2,000;
- · compensation and stock option committee chair: \$2,000; and
- nominating and governance committee chair: \$1,000.

Effective June 2008, each non-employee director other than the chairman of the board (a "non-employee director") receives an annual cash retainer of \$35,000. There no longer are per meeting fees and our audit committee and finance committee were merged into one committee. Additionally, the committee chairs and members receive the following annual cash retainers:

- · audit and finance committee chair: \$10,000;
- audit and finance committee members: \$4,000;
- · compensation and stock option committee chair: \$5,000;
- · compensation and stock option committee members: \$2,500;
- · nominating and governance committee chair: \$5,000; and
- · nominating and governance committee members: \$2,500

Each non-employee director received an option in 2008 to acquire 12,000 shares of our common stock upon re-election at the annual stockholder meeting with the exercise price equal to the fair market value of our stock, as reflected by the closing price of our stock on the grant date. The options fully vest on the earlier of the one year anniversary date or the next year's annual stockholders meeting date.

In 2008, each non-employee director received a restricted stock award of 9,000 shares, upon re-election at the annual stockholder meeting. The restrictions lapse on the earlier of the one year anniversary date or the next year's annual stockholder meeting date.

Chairman Compensation

In 2000, the Company approved an agreement with Dr. Goddard, the chairman of our board, under which he received a stock option grant to acquire 18,750 shares of the Company's Common Stock. Twenty-five percent of the options vested at the end of twelve months and the balance vested in equal monthly installments for the next 36 months. The agreement provided that Dr. Goddard would receive additional option grants each year to acquire 5,000 shares while he serves as chairman.

In September 2004, Dr. Goddard entered into an additional agreement with the Company to increase his involvement as Chairman. As compensation for his increased services as Chairman, he received a stock option grant in September 2004 to acquire 30,000 shares of the Company's Common Stock. The option vested 25% after the first year and then monthly over a period of three years and fully vested on September 15, 2008. Under this new agreement, he was not entitled to receive the additional option grants of 5,000 shares annually. Additionally, effective March 6, 2005, Dr. Goddard's cash compensation was reduced to \$150,000. On August 23, 2005, Dr. Goddard's existing agreement was modified to reflect his reduced schedule. From September 2005 until June 2008 he did not receive an annual retainer and instead was compensated on a per diem basis for services performed. Effective April 1, 2008 Mr. Goddard's annual cash retainer for his services as chairman of our board was set at \$75,000 annually plus participation in the same equity compensation as the other non-employee directors.

The following table shows for 2008 certain information with respect to the compensation of all of our non-employee directors and our chairman.

	Fees	Earned or		Stock	(Option	
Name ⁽¹⁾	Pa	id in Cash	Aw	vards ⁽²⁾	Aw	ards ⁽²⁾	Total
Paul Goddard ⁽³⁾	\$	63,850	\$	8,989	\$ 2	27,862	\$100,701
Peter Riepenhausen ⁽⁴⁾		38,429		12,518		14,864	65,811
Toby Rosenblatt ⁽⁵⁾		44,597		12,518	-	14,864	71,979
Arthur Taylor ⁽⁶⁾		39,596		12,518	2	20,425	72,539
Robert Zerbe ⁽⁷⁾		30 680		12 518	•	14 864	58 062

- Mr. Prentki is not included in this table as he receives no compensation for his services as a director. The compensation received by Mr. Prentki as an employee is shown in the Summary Compensation Table. Mr. Turnbull is not included in this table. The compensation received by Mr. Turnbull as an employee and director is shown in the Summary Compensation Table. Mr. Tang is not included in this table as he has not received and will not receive any compensation for his services as a director.
- The value of the stock and option awards has been computed in accordance with Statement of Financial Standards (SFAS) No. 123R, Share-Based Payment, which requires that we recognize as compensation expense the value of all stock-based awards, including stock options, attributable to awards granted in and prior to 2006. Assumptions used in the calculation of these amounts are disclosed in Note 7 to the Company's Financial Statements for the year ended December 31, 2008, included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission in March 2009. However, as required, amounts exclude the impact of estimated forfeitures related to service-based vesting conditions.
- (3) Dr. Goddard has one stock award and eight option awards outstanding as of December 31, 2008.

- (4) Mr. Riepenhausen has one stock award and seven option awards outstanding as of December 31, 2008.
- Mr. Rosenblatt has one stock award and ten option awards outstanding as of December 31, 2008.
- 6) Mr. Taylor has one stock award and three option awards outstanding as of December 31, 2008.
- Dr. Zerbe has one stock award and six option awards outstanding as of December 31, 2008.

Equity Compensation Plan Information

The table below discloses information as of December 31, 2008 with respect to the Company's equity compensation plans that have been approved by stockholders and plans that have not been approved by stockholders.

	(a)	(b)	(c) Number of Securities
	Number of Securities to	eighted-	Remaining Available for Future Issuance under
	be Issued	Average Exercise	Equity Compensation
	upon Exercise	Price of	Plans (Excluding
Plan Category	of Outstanding Options	standing Options	Securities Reflected in Column (a))
Equity compensation plans approved by security holders:	•		· ·
Stock option and award plans	1,227,948	\$ 3.58	2,203,286
Employee stock purchase plan		_	57,373
Equity compensation plans not approved by security			
holders	1,473,125	1.38	586,510
Total	2.701.073	\$ 2.38	2.847.169

In October 2000, the Company adopted the Non-Qualified Stock Plan covering 62,500 shares. In September 2007, the Board, subject to approval by the Compensation and Stock Option Committee, authorized the reservation for issuance of an additional 1,000,000 shares under the plan and authorized amendments to the plan to limit participation awards to new hires, to provide for stock appreciation rights and to require the exercise price of any NQO to be at 100% or more of fair market value. In July, 2008 the Board added another 1,000,000 shares to the Non-Qualified Stock Plan. The availability of the recently added shares for awards will expire in 2017. Under the Non-Qualified Plan, awards may be granted only as a material inducement to any new hire accepting employment or consultancy with the Company. The plan provides for the discretionary award of options, restricted stock and stock appreciation rights or any combination of these awards to an eligible person, provided however, that only NQOs may be granted under the plan. Under the plan, the term of any NQO granted may not exceed 10 years, and the exercise price of any such NQO must be at least 100% of the fair market value of the Common Stock at the date of grant. Options generally vest over a period of four years.

REPORT OF THE AUDIT and FINANCE COMMITTEE 1

Under the guidance of a written charter adopted by the Board of Directors, the purpose of the Audit and Finance Committee is to oversee the accounting and financial reporting processes of the Company and audits of its financial statements. The responsibilities of the Audit and Finance Committee include appointing and providing for the compensation of the independent registered public accounting firm. Each of the members of the Audit and Finance Committee meets the independence requirements of NASDAO.

Management has primary responsibility for the system of internal controls and the financial reporting process. The independent registered public accounting firm has the responsibility to express an opinion on the financial statements based on an audit conducted in accordance with U.S. generally accepted auditing standards.

In this context and in connection with the audited financial statements contained in the Company's Annual Report on Form 10-K, the Audit and Finance Committee:

- reviewed and discussed the audited financial statements as of and for the fiscal year ended December 31, 2008 with the Company's management and Odenberg, Ullakko, Muranishi & Co. LLP, the Company's independent registered public accounting firm;
- discussed with Odenberg, Ullakko, Muranishi & Co. LLP, the matters required to be discussed by Statement of Auditing Standards No. 114, *The Auditor's Communication with Those Charged with Governance*, which superseded Statement of Auditing Standards No. 61, *Audit Committee Communications*:
- reviewed the written disclosures and the letter from Odenberg, Ullakko, Muranishi & Co. LLP required by the Independence Standards Board Standard No. 1, *Independence Discussions with Audit Committees*, as adopted by the Public Company Accounting Oversight Board in Rule 3600T, discussed with Odenberg, Ullakko, Muranishi & Co. LLP their independence, and concluded that the non-audit services performed by Odenberg, Ullakko, Muranishi & Co. LLP are compatible with maintaining their independence;
- based on the foregoing reviews and discussions, recommended to the Board of Directors that the audited financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008 filed with the SEC; and
- instructed Odenberg, Ullakko, Muranishi & Co. LLP that the Audit and Finance Committee expects to be advised if there are any subjects that require special attention.

AUDIT and FINANCE COMMITTEE

Peter Riepenhausen Toby Rosenblatt Arthur Taylor

[&]quot;The material in this report is not "soliciting material," is not deemed "filed" with the Commission and is not to be incorporated by reference in any filing of the Company under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing."

Principal Accountant Fees and Services

The Audit and Finance Committee has appointed Odenberg, Ullakko, Muranishi & Co. LLP as the Company's independent registered public accounting firm for the year ending December 31, 2009.

The following table shows the fees paid or accrued by the Company for the audit and other services provided by Odenberg, Ullakko, Muranishi & Co. LLP for fiscal 2008 and 2007.

	2008	2007
Audit Fees ⁽¹⁾	\$177,500	\$190,500
Audit-Related Fees ⁽²⁾	_	-
Tax Fees ⁽³⁾	28,015	68,000
All other Fees ⁽⁴⁾		74,170
Total	\$205,515	\$332,670

The Board has delegated to the Audit and Finance Committee the authority to pre-approve audit-related and non-audit services not prohibited by law to be performed by the Company's independent auditors and associated fees, provided that the Audit and Finance Committee shall report any decision to pre-approve such audit-related or non-audit services and fees to the full Board at its next regular meeting. All fees described above were approved by the Audit and Finance Committee.

The Audit and Finance Committee has delegated to the Chair of the Audit and Finance Committee the authority to pre-approve audit-related and non-audit services not prohibited by law to be performed by the Company's independent auditors and associated fees up to a maximum of \$25,000 during 2009, provided that the Chair shall report any decision to pre-approve such audit-related or non-audit services and fees to the full Audit and Finance Committee at its next regular meeting.

- Audit fees represent fees for professional services provided in connection with the audit of the Company's financial statements, review of the Company's quarterly financial statements, and routine regulatory filings.
 Audit-related fees consist primarily of accounting consultations, employee benefit plan audits, and services related to business acquisitions
- (2) Audit-related fees consist primarily of accounting consultations, employee benefit plan audits, and services related to business acquisitions and divestitures.
- Tax fees principally include fees for tax compliance and for Section 382 and FIN 48 consulting services. Tax compliance fees totaled \$17,250 and \$18,501 for 2008 and 2007, respectively. Section 382 fees and FIN 48 fees totaled \$10,765 and \$40,000, respectively for 2008 and 2007.
- (4) All other fees principally include the fees for professional services provided in connection with the Company's May 2007 financing.

PROPOSAL 1—ELECTION OF DIRECTORS

At the Annual Meeting, the stockholders will vote on the election of six directors to serve for a one-year term or until the next annual meeting of stockholders and until their successors are elected and qualified. The Board of Directors has unanimously nominated Messrs. Goddard, Prentki, Rosenblatt, Tang, Turnbull and Zerbe for election to the Board of Directors. The nominees have indicated that they are willing and able to serve as directors. If any of these individuals becomes unable or unwilling to serve, the accompanying proxy may be voted for the election of such other person as shall be designated by the Board of Directors. The proxies being solicited will be voted for no more than six nominees at the Annual Meeting. The Directors will be elected by a plurality of the votes cast, in person or by proxy, at the Annual Meeting, assuming a quorum is present. Stockholders do not have cumulative voting rights in the election of directors.

The Board of Directors recommends a vote "FOR" the election of Messrs. Goddard, Prentki, Rosenblatt, Tang, Turnbull and Zerbe as directors.

Unless otherwise instructed, it is the intention of the persons named in the accompanying proxy card to vote shares represented by properly executed proxy cards for the election of Messrs. Goddard, Prentki, Rosenblatt, Tang, Turnbull and Zerbe.

PROPOSAL 2—APPROVAL OF INCREASE IN NUMBER OF AUTHORIZED SHARES OF COMMON STOCK

Proposed Amendment

The Board of Directors is requesting stockholder approval of an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the Company's authorized number of shares of Common Stock from fifty million (50,000,000) shares to one hundred million (100,000,000) shares.

General Effect of the Amendment

The additional Common Stock to be authorized by adoption of the amendment would have rights identical to the currently outstanding Common Stock of the Company. Adoption of the proposed amendment and issuance of the Common Stock would not affect the rights of the holders of currently outstanding Common Stock of the Company, except for effects incidental to increasing the number of shares of the Company's Common Stock outstanding, such as dilution of the earnings per share and voting rights of current holders of Common Stock. If the amendment is adopted, it will become effective upon filing of a Certificate of Amendment of the Company's Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware.

Reasons for the Amendment

In addition to the 30,936,287 shares of Common Stock outstanding on March 31, 2009, the Board of Directors has reserved 5,548,242 shares for issuance upon the exercise of options granted or to be granted or issuance of stock in conjunction with stock awards or the Employee Stock Purchase Plan.

The Board of Directors has evaluated the Company's financial needs and has determined that to have the flexibility necessary to use the Company's capital stock for future attractive business and financial purposes, the number of authorized shares of

Common Stock should be increased to 100,000,000 shares. Upon stockholder approval of this proposed amendment, the additional shares might be used, without any further stockholder approval, for various purposes, including, without limitation, raising capital, establishing strategic relationships with other companies and expanding the Company's business through the acquisition of other businesses or products, providing equity incentives to employees, officers or directors, and stock dividends. The Company periodically enters into negotiations regarding potential strategic relationships and/or acquisitions of business or products. The Company currently has no specific plans with respect to the issuance of the additional authorized shares of common stock.

Potential Anti-Takeover Effect

The additional shares of Common Stock that would become available for issuance if the proposal were adopted could also be used by the Company to oppose a hostile takeover attempt or delay or prevent changes in control or management of the Company. For example, without further stockholder approval, the Board could strategically sell shares of Common Stock in a private transaction to purchasers who would oppose a takeover or favor the current Board. Although this proposal to increase the authorized Common Stock has been prompted by business and financial considerations and not by the threat of any hostile takeover attempt (nor is the Board currently aware of any such attempt directed at the Company), nevertheless, stockholders should be aware that approval of the Proposal two could facilitate future efforts by the Company to deter or prevent changes in control of the Company, including transactions in which the stockholders might otherwise receive a premium for their shares over the then current market prices.

Vote Required and Board Recommendation

The affirmative vote of the holders of a majority of the shares of Common Stock outstanding on the Record Date will be required to approve this amendment to the Company's Amended and Restated Certificate of Incorporation. As a result, abstentions and broker non-votes will have the same effect as negative votes.

The Board of Directors recommends a vote "FOR" the amendment to the Company's Amended and Restated Certificate of Incorporation to increase the total number of authorized shares of the Company's common stock from 50,000,000 to 100,000,000.

PROPOSAL 3—AMENDMENT OF THE COMPANY'S 1997 EMPLOYEE STOCK PURCHASE PLAN ("ESPP")

The Board of Directors has approved an amendment, subject to stockholder approval, to the 1997 Employee Stock Purchase Plan ("ESPP"). The following description of the ESPP is a summary and so qualified by reference to the complete text of the ESPP, attached to this proxy statement as Appendix A. The ESPP permits the Company's employees to purchase the Company's Common Stock at a discounted price. This plan is designed to encourage and assist employees of the Company to acquire an equity interest in the Company through the purchase of shares of Company Common Stock. Approximately 32 employees of the Company are eligible to participate in the Purchase Plan. You can request a copy of the 1997 Employee Stock Purchase Plan by writing to the Company to the attention of the Stock Administrator.

Subject to stockholder approval, the Board of Directors has approved an increase of 200,000 shares from 300,000 to 500,000 shares, under the ESPP. As of March 31, 2009 242,627 shares have been issued under the Purchase Plan.

Description of the ESPP

All employees, including executive officers, customarily employed more than 20 hours per week and more than five months per year by the Company are eligible to participate in the ESPP as of the first semi-annual enrollment date following employment. Participants may elect to make contributions up to a maximum of 10% of base earnings. On the last trading date of April and October, the Company applies the funds then in each participant's account to the purchase of shares. The cost of each share purchased is 85% of the lower of the closing prices for Common Stock on: (i) the first trading day in the enrollment period in which the purchase is made; and (ii) the purchase date. The length of the enrollment period per plan may not exceed a maximum of 24 months. Enrollment dates are the first business day of May and November. The Board may limit the maximum number of shares that may be purchased by a participant during any enrollment period, may limit the length of the enrollment periods and no participant's right to acquire shares may accrue at a rate exceeding \$25,000 of fair market value of Common Stock (determined as the lower of the fair market value on the first trading day in an enrollment period or the fair market value on the purchase date) in any calendar year. Currently, the Board has set the enrollment periods at six months.

The Board of Directors may administer the ESPP or the Board may delegate its authority to a committee of the Board. The Board of Directors may amend or terminate the Purchase Plan at any time and may provide for an adjustment in the purchase price and the number and kind of securities available under the plan in the event of a reorganization, recapitalization, stock split, or other similar event. However, amendments that would increase the number of shares reserved for purchase, or would otherwise require stockholder approval in order to comply with certain federal tax laws, require stockholder approval. Shares available under the plan may be either outstanding shares repurchased by the Company or newly issued shares.

The following table shows the "Dollar Value" and number of shares applicable to the named individuals and groups under the ESPP during the year ended December 31, 2008, purchased on the April and October 2008 purchase dates under the ESPP at a purchase price of \$1.0285 and \$0.4845, respectively, which represent 85% of the closing price on the purchase date. The "Dollar Value" is the difference between the fair market value of the Common Stock on the purchase date of April 30, 2008 or October 31, 2008 and the participant's purchase price of \$1.0285 or \$0.4845 per share.

Since purchase rights are subject to discretion, including an employee's decision not to participate in the Purchase Plan, awards under the Purchase Plan for the current fiscal year are not determinable. No purchase rights have been granted with respect to the additional 200,000 shares for which approval is requested.

PLAN BENEFITS—1997 EMPLOYEE STOCK PURCHASE PLAN

	Dollar	Number
Name and Position	Value (\$)	of Shares
John Barr, Ph.D. Senior Vice President, Research and Development	1,523	13,144
Non-Executive Officer Employee Group	7,463	62,643

Federal Income Tax Consequences

The following general description of federal income tax consequences is based upon current statutes, regulations and interpretations thereof. Because the applicable rules are complex and because income tax consequences may vary depending upon the individual circumstances of each participant, participants should consult their personal tax advisors concerning federal, state, local and foreign income tax consequences associated with their participation in the Purchase Plan.

In general, participants will not have taxable income or loss under the ESPP until they sell or otherwise dispose of shares acquired under the plan (or die holding such shares). If the shares are held, as of the date of sale or disposition, for longer than both: (i) two years after the beginning of the enrollment period during which the shares were purchased; and (ii) one year following purchase, a participant will have taxable ordinary income equal to 15% of the fair market value of the shares on the first day of the enrollment period (but not in excess of the fair market value of the shares at the time of sale over the purchase price). Any additional gain (or loss) from the sale will be long-term capital gain (or loss). The Company is not entitled to an income tax deduction if the holding periods are satisfied.

If the shares are sold or disposed of before the expiration of either of the foregoing holding periods (a "disqualifying disposition"), a participant will have taxable ordinary income equal to the excess of the fair market value of the shares on the purchase date over the purchase price. In addition, the participant will have a taxable capital gain (or loss) measured by the difference between the sale price and the participant's purchase price which gain (or loss) will be long-term if the shares have been held as of the date of sale for more than one year. The Company is entitled to an income tax deduction equal to the amount of ordinary income recognized by a participant in a disqualifying disposition.

Vote Required and Board Recommendation

The affirmative vote of the holders of a majority of the shares present and voting at the annual meeting will be required to approve this amendment to the Company's 1997 Employee Stock Purchase Plan.

The Board of Directors recommends a vote "FOR" the amendment to the Company's 1997 Employee Stock Purchase Plan.

PROPOSAL 4—RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Subject to stockholder ratification, the Audit and Finance Committee has selected Odenberg, Ullakko, Muranishi & Co. LLP as independent registered public accountants to audit the financial statements of the Company for the fiscal year ending December 31, 2009.

At the Annual Meeting, the stockholders will be asked to ratify the appointment of Odenberg, Ullakko, Muranishi & Co. LLP as the Company's independent registered public accountants for the fiscal year ending December 31, 2009. Odenberg, Ullakko, Muranishi & Co. has audited the Company's financial statements since 2006. Representatives of Odenberg, Ullakko, Muranishi & Co. LLP are expected to be present at the Annual Meeting and will have the opportunity to make statements if they desire to do so. Such representatives are also expected to be available to respond to appropriate questions.

Stockholder ratification of the selection of Odenberg, Ullakko, Muranishi & Co. as the Company's independent registered public accounting firm is not required by law or the Company's bylaws or otherwise. However, the Board is submitting the selection of Odenberg, Ullakko, Muranishi & Co. to the stockholders for ratification as a matter of good corporate practice. In the event the stockholders fail to ratify the appointment, the Audit and Finance Committee of the Board will reconsider its selection. Even if the selection is ratified, the Audit and Finance Committee and the Board in their discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if they determine that such a change would be in the best interest of the Company and its stockholders.

The Board of Directors recommends a vote "FOR" the ratification of the appointment of Odenberg, Ullakko, Muranishi & Co. LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2009.

OTHER MATTERS

As of the time of preparation of this Proxy Statement, neither the Board of Directors nor management intends to bring before the meeting any business other than the matters referred to in the Notice of Annual Meeting and this Proxy Statement. If any other business should properly come before the meeting, or any adjournment thereof, the persons named in the proxy will vote on such matters according to their best judgment.

STOCKHOLDERS SHARING THE SAME ADDRESS

In accordance with notices previously sent to many stockholders who hold their shares through a bank, broker or other holder of record (a "street-name stockholder") and share a single address, only one annual report and proxy statement is being delivered to that address unless contrary instructions from any stockholder at that address were received. This practice, known as "householding," is intended to reduce the Company's printing and postage costs. However, any such street-name stockholder residing at the same address who wishes to receive a separate copy of this Proxy Statement and accompanying Annual Report to Stockholders may request a copy by contacting the bank, broker or other holder of record, or the Company by telephone at (650) 366-2626. The voting instruction sent to a street-name stockholder should provide information on how to request (1) householding of future Company materials or (2) separate materials if only one set of documents is being sent to a household. If it does not, a stockholder who would like to make one of these requests should contact the Company as indicated above.

FORM 10-K

The Company's annual report to stockholders on Form 10-K for the year ended December 31, 2008, containing audited balance sheets as of December 31, 2008 and 2007 and audited statements of operations, stockholders' equity and cash flows for each of the last three years in the period ended December 31, 2008, is being mailed with this Proxy Statement to Stockholders entitled to notice of the annual meeting. The Form 10-K is not incorporated into this Proxy Statement and is not considered proxy-soliciting material.

STOCKHOLDER PROPOSALS FOR 2010 ANNUAL MEETING

Under the rules of the Securities and Exchange Commission, stockholders who wish to submit proposals for inclusion in the Proxy Statement of the Board of Directors for the 2010 Annual Meeting of Stockholders must submit such proposals so as to be received by the Company at 123 Saginaw Drive, Redwood City, California 94063, on or before December 24, 2009. In addition, if the Company is not notified by March 8, 2010 of a proposal to be brought before the 2010 Annual Meeting by a stockholder, then proxies held by management may provide the discretion to vote against such proposal even though it is not discussed in the proxy statement for such meeting.

By Order of the Board of Directors

Julian N. Stern, Secretary

Redwood City, California April 23, 2009

EXHIBIT A

A.P. PHARMA, INC.

1997 EMPLOYEE STOCK PURCHASE PLAN (as amended through March 25, 2009)

- 1. PURPOSE. This A.P. Pharma, Inc. 1997 Employee Stock Purchase Plan is designed to encourage and assist employees of A.P. Pharma, Inc. and participating subsidiaries to acquire an equity interest in the Company through the purchase of shares of Company common stock.
- 2. DEFINITIONS. As used herein, the following definitions shall apply:
 - (a) "Administrator" shall mean the entity, either the Board or the committee of the Board, responsible for administering this Plan, as provided in Section 3.
 - (b) "Board" shall mean the Board of Directors of the Company, as constituted from time to time.
 - (c) "Code" shall mean the Internal Revenue Code of 1986, as amended from time to time, and any successor statute.
 - (d) "Company" shall mean A.P. Pharma, Inc., a Delaware corporation, and Participating Subsidiaries.
 - (e) "Common Stock" shall mean the Common Stock, \$.01 par value, of the Company.
 - (f) "Employee" shall mean any individual who is an employee of the Company or a Participating Subsidiary within the meaning of Section 3401(c) of the Code and the Treasury Regulations thereunder.
 - (g) "Enrollment Date" shall have the meaning set forth in Section 6.
 - (h) "Fair market value" means as of any given date: (i) the closing price of the Common Stock on the NASDAQ Global Market as reported in the Wall Street Journal; or (ii) if the Common Stock is no longer quoted on the NASDAQ Global Market, but is listed on an established stock exchange or quoted on any other established interdealer quotation system, the closing price for the Common Stock on such exchange or system, as reported in the Wall Street Journal; or (iii) in the absence of an established market for the Common Stock, the fair market value of the Common Stock as determined by the Administrator in good faith.
 - (i) "Lower Price Enrollment Date" shall have the meaning set forth in Section 6.
 - (j) "Option Period" shall have the meaning set forth in Section 7(b).
 - (k) "Participating Subsidiary" shall mean a Subsidiary which has been designated by the Administrator as covered by the Plan.

- (I) "Plan" shall mean this A.P. Pharma, Inc. 1997 Employee Stock Purchase Plan, as it may be amended from time to time.
- (m) "Purchase Date" shall have the meaning set forth in Section 9(a).
- (n) "Section" unless the context clearly indicates otherwise, shall refer to a Section of this Plan.
- (o) "Subsidiary" shall mean a "subsidiary corporation" of the Company, whether now or hereafter existing, within the meaning of Section 424(f) of the Code, but only for so long as it is a "subsidiary corporation."
- (p) "Trading Day" means any day on which regular trading occurs on any established stock exchange or market system on which the Common Stock is traded.

3. ADMINISTRATION.

- (a) Administrator. The Plan shall be administered by the Board or, upon delegation by the Board, by a committee of the Board (in either case, the "Administrator"). In connection with the administration of the Plan, the Administrator shall have the powers possessed by the Board. The Administrator may act only by a majority of its members. The Administrator may delegate administrative duties to such employees of the Company as it deems proper, so long as such delegation is not otherwise prohibited by Rule 16b-3 under the Securities Exchange Act of 1934, as amended, or other applicable law. The Board at any time may terminate the authority delegated to any committee of the Board pursuant to this Section 3(a) and revest in the Board the administration of the Plan.
- (b) Administrator Determinations Binding. The Administrator may adopt, alter and repeal administrative rules, guidelines and practices governing the Plan and the options granted under it as it shall deem advisable from time to time, may interpret the terms and provisions of the Plan and the Options granted under it, may correct any defect, omission or inconsistency in the Plan or in any Option; and may otherwise supervise the administration of the Plan and the Options granted under it. The Administrator may establish, under guidelines from the Board, limits on the number of shares which may be purchased by each participant on an annual or other periodic basis or on the number of shares which may be purchased on any Purchase Date. All decisions made by the Administrator under the Plan shall be binding on all persons, including the Company and all participants in the Plan. No member of the Administrator shall be liable for any action that he or she has in good faith taken or failed to take with respect to this Plan.

4. NUMBER OF SHARES.

(a) The Company has reserved for sale under the Plan 500,000 shares of Common Stock. Shares sold under the Plan may be newly issued shares or shares reacquired in private transactions or open market purchases, but all shares sold under the Plan, regardless of source, shall be counted against the 500,000 share limitation. If at any Purchase Date, the shares available under the Plan are less than the number all participants would otherwise be entitled to purchase on such date, purchases shall be reduced proportionately to eliminate the deficit. If, at any Purchase Date, the shares which may be purchased by a participant are restricted on account of a limit on the aggregate shares which may be purchased

per employee, purchases under each option shall be reduced proportionately. Any funds that cannot be applied to the purchase of shares due to such reductions shall be refunded to participants as soon as administratively feasible.

(b) In the event of any reorganization, recapitalization, stock split, reverse stock split, stock dividend, combination of shares, merger, consolidation, offering of rights, or other similar change in the capital structure of the Company, the Board may make such adjustment, if any, as it deems appropriate in the number, kind, and purchase price of the shares available for purchase under the Plan and in the maximum number of shares subject to any option under the Plan.

5. ELIGIBILITY REQUIREMENTS.

- (a) Each Employee of the Company, except those described in the next paragraph, shall become eligible to participate in the Plan in accordance with Section 6 on the first Enrollment Date on or following commencement of his or her employment by the Company or following such period of employment as is designated by the Administrator from time to time. Participation in the Plan is entirely voluntary.
- (b) The following Employees are not eligible to participate in the Plan:
 - (i) Employees who would, immediately upon enrollment in the Plan, own directly or indirectly, or hold options or rights to acquire stock possessing, five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or any subsidiary of the Company; and
 - (ii) Employees who are customarily employed by the Company fewer than twenty (20) hours per week or fewer than five (5) months in any calendar year.
- 6. ENROLLMENT. Any eligible employee may enroll or re-enroll in the Plan each year as of the close of the first trading day of: (a) May and November of each such year; or (b) such other days as may be established by the Board from time to time (the "Enrollment Dates"); provided, that the first Enrollment Date shall be April 30, 1997. In order to enroll, an eligible employee must complete, sign, and submit to the Company an enrollment form. Any enrollment form received by the Company by the 20th day of the month preceding an Enrollment Date (or by the Enrollment Date in the case of employees hired after such 20th day or in the case of the first Enrollment Date), or such other date established by the Administrator from time to time, will be effective on that Enrollment Date. In addition, the Administrator may re-enroll existing participants in the Plan on any Enrollment Date (the "Lower Price Enrollment Date") on which the fair market value of the Common Stock is lower than the fair market value on such participant's existing Enrollment Date. A participant may elect not to re-enroll on a Lower Price Enrollment Date by filing a written statement with the Company declaring such election prior to the Lower Price Enrollment Date.

7. GRANT OF OPTION ENROLLMENT.

(a) Enrollment or re-enrollment by a participant in the Plan on an Enrollment Date will constitute the grant by the Company to the participant of an option to purchase shares of Common Stock from the Company under the Plan. Any participant whose option expires and who has not withdrawn from the Plan will automatically be re-enrolled in the Plan and granted a new option on the Enrollment Date immediately following the date on which the option expires.

- (b) Except as provided in Section 10, each option granted under the Plan shall have the following terms:
 - (i) the option will have a term of not more than twenty-four (24) months or such shorter option period as may be established by the Board from time to time (the "Option Period"). Notwithstanding the foregoing, however, whether or not all shares have been purchased thereunder, the option will expire on the earlier to occur of: (A) the completion of the purchase of shares on the last Purchase Date occurring within twenty-four (24) months after the Enrollment Date for such option, or such shorter option period as may be established by the Board before an Enrollment Date for all options to be granted on such date; or (B) the date on which the employee's participation in the Plan terminates for any reason;
 - (ii) payment for shares purchased under the option will be made only through payroll withholding in accordance with Section 8;
 - (iii) purchase of shares upon exercise of the option will be effected only on the Purchase Dates established in accordance with Section 9;
 - (iv) the option, if not altered, amended or revoked by the Company prior to the relevant Purchase Date, may be accepted only by (x) there having been withheld from the compensation of the employee in accordance with the terms of the Plan amounts sufficient to purchase the Common Stock intended to be purchased under the option, and (y) the employee being employed by the Company and not having withdrawn from the Plan on the relevant Purchase Date.
 - (v) the price per share under the option will be determined as provided in Section 9;
 - (vi) the maximum number of shares available for purchase under an option for each one percent (1%) of compensation designated by an employee in accordance with Section 8 will, unless otherwise established by the Board before an Enrollment Date for all options to be granted on such date, be determined by dividing \$25,000 by the fair market value of a share of Common Stock on the Enrollment Date, dividing the result by the maximum number of percentage points that an employee may designate under Section 8 at the time such option is granted, and multiplying the result by the number of calendar years included in whole or in part in the period from grant to expiration of the option;
 - (vii) the option (taken together with all other options then outstanding under this and all other similar stock purchase plans of the Company and any subsidiary of the Company, collectively "Options") will in no event give the participant the right to purchase shares at a rate per calendar year which accrues in excess of \$25,000 of fair market value of such shares, less the fair market value of any shares accrued and already purchased during such year under Options which have expired or terminated, determined at the applicable Enrollment Dates; and
 - (viii) the option will in all respects be subject to the terms and conditions of the Plan, as interpreted by the Administrator from time to time.
- 8. PAYROLL AND TAX WITHHOLDING; USE BY COMPANY.
 - (a) Each participant shall elect to have amounts withheld from his or her compensation paid by the Company during the Option Period, at a rate equal to any whole percentage up to a maximum of ten percent (10%), or such lesser

percentage as the Board may establish from time to time before an Enrollment Date. Compensation includes regular salary payments, annual and quarterly bonuses, hire-on bonuses, cash recognition awards, commissions, overtime pay, shift premiums, and elective contributions by the participant to qualified employee benefit plans, but excludes all other payments including, without limitation, long-term disability or workers compensation payments, car allowances, employee referral bonuses, relocation payments, expense reimbursements (including but not limited to travel, entertainment, and moving expenses), salary gross-up payments, and non-cash recognition awards. The participant shall designate a rate of withholding in his or her enrollment form and may elect to increase or decrease the rate of contribution effective as of any Enrollment Date, by delivery to the Company, not later than ten (10) days before such Enrollment Date, of a written notice indicating the revised withholding rate.

- (b) Payroll withholdings shall be credited to an account maintained for purposes of the Plan on behalf of each participant, as soon as administratively feasible after the withholding occurs. The Company shall be entitled to use the withholdings for any corporate purpose, shall have no obligation to pay interest on withholdings to any participant, and shall not be obligated to segregate withholdings.
- (c) Upon disposition of shares acquired by exercise of an option, the participant shall pay, or make provision adequate to the Company for payment of, all federal, state, and other tax (and similar) withholdings that the Company determines, in its discretion, are required due to the disposition, including any such withholding that the Company determines in its discretion is necessary to allow the Company to claim tax deductions or other benefits in connection with the disposition. A participant shall make such similar provisions for payment that the Company determines, in its discretion, are required due to the exercise of an option, including such provisions as are necessary to allow the Company to claim tax deductions or other benefits in connection with the exercise of the option.

9. PURCHASE OF SHARES.

- (a) On the last Trading Day immediately preceding an Enrollment Date (other than the first Enrollment Date), or on such other days as may be established by the Board from time to time prior to an Enrollment Date for all options to be granted on such Enrollment Date (each a "Purchase Date"), the Company shall apply the funds then credited to each participant's payroll withholdings account to the purchase of whole shares of Common Stock. The cost to the participant for the shares purchased under any option shall be not less than eighty-five percent (85%) of the lower of:
 - (i) the fair market value of the Common Stock on the Enrollment Date for such option; or
 - (ii) the fair market value of the Common Stock on the date such option is exercised.
- (b) Any funds in an amount less than the cost of one share of Common Stock left in a participant's payroll withholdings account on a Purchase Date shall be carried forward in such account for application on the next Purchase Date.
- (c) Notwithstanding the terms of Section 9(a), no funds credited to any employee's payroll withholdings account shall be used to purchase Common Stock on any date prior to the date that the Plan has been approved by the stockholders of the Company, as noted in Section 21. If such approval is not forthcoming within one year from the date that the Plan was

approved by the Board of Directors, all amounts withheld shall be distributed to the participants as soon as administratively feasible.

- 10. WITHDRAWAL FROM THE PLAN. A participant may withdraw from the Plan in full (but not in part) at any time, effective after written notice thereof is received by the Company. Unless the Administrator elects to permit a withdrawing participant to invest funds credited to his or her withholding account on the Purchase Date immediately following notice of withdrawal, all funds credited to a participant's payroll withholdings account shall be distributed to him or her without interest within sixty (60) days after notice of withdrawal is received by the Company. Any eligible employee who has withdrawn from the Plan may enroll in the Plan again on any subsequent Enrollment Date in accordance with the provisions of Section 6.
- 11. TERMINATION OF EMPLOYMENT. Participation in the Plan terminates immediately when a participant ceases to be employed by the Company for any reason whatsoever (including death or disability) or otherwise becomes ineligible to participate in the Plan. As soon as administratively feasible after termination, the Company shall pay to the participant or his or her beneficiary or legal representative, all amounts credited to the participant's payroll withholdings account; provided, however, that if a participant ceases to be employed by the Company because of the commencement of employment with a Subsidiary of the Company that is not a Participating Subsidiary, funds then credited to such participant's payroll withholdings account shall be applied to the purchase of whole shares of Common Stock at the next Purchase Date and any funds remaining after such purchase shall be paid to the participant.

12. DESIGNATION OF BENEFICIARY.

- (a) Each participant may designate one or more beneficiaries in the event of death and may, in his or her sole discretion, change such designation at any time. Any such designation shall be effective upon receipt in written form by the Company and shall control over any disposition by will or otherwise.
- (b) As soon as administratively feasible after the death of a participant, amounts credited to his or her account shall be paid in cash to the designated beneficiaries or, in the absence of a designation, to the executor, administrator, or other legal representative of the participant's estate. Such payment shall relieve the Company of further liability with respect to the Plan on account of the deceased participant. If more than one beneficiary is designated, each beneficiary shall receive an equal portion of the account unless the participant has given express contrary written instructions.

13. ASSIGNMENT.

- (a) The rights of a participant under the Plan shall not be assignable by such participant, by operation of law or otherwise. No participant may create a lien on any funds, securities, rights, or other property held by the Company for the account of the participant under the Plan, except to the extent that there has been a designation of beneficiaries in accordance with the Plan, and except to the extent permitted by the laws of descent and distribution if beneficiaries have not been designated.
- (b) A participant's right to purchase shares under the Plan shall be exercisable only during the participant's lifetime and only by him or her, except that a participant may direct the Company in the enrollment form to issue share certificates to the participant and his or her spouse in community property, to the participant jointly with one or more other persons with right of survivorship, or to certain forms of trusts approved by the Administrator.

- 14. ADMINISTRATIVE ASSISTANCE. If the Administrator in its discretion so elects, it may retain a brokerage firm, bank, or other financial institution to assist in the purchase of shares, delivery of reports, or other administrative aspects of the Plan. If the Administrator so elects, each participant shall (unless prohibited by the laws of the nation of his or her employment or residence) be deemed upon enrollment in the Plan to have authorized the establishment of an account on his or her behalf at such institution. Shares purchased by a participant under the Plan shall be held in the account in the name in which the share certificate would otherwise be issued pursuant to Section 13(b).
- 15. COSTS. All costs and expenses incurred in administering the Plan shall be paid by the Company, except that any stamp duties or transfer taxes applicable to participation in the Plan may be charged to the account of such participant by the Company. Any brokerage fees for the purchase of shares by a participant shall be paid by the Company, but brokerage fees for the resale of shares by a participant shall be borne by the participant.
- 16. EQUAL RIGHTS AND PRIVILEGES. All eligible employees shall have equal rights and privileges with respect to the Plan so that the Plan qualifies as an "employee stock purchase plan" within the meaning of Section 423 of the Code and the related Treasury Regulations. Any provision of the Plan which is inconsistent with Section 423 of the Code shall without further act or amendment by the Company or the Board be reformed to comply with the requirements of Section 423. This Section 16 shall take precedence over all other provisions of the Plan.
- 17. APPLICABLE LAW. The Plan shall be governed by the substantive laws (excluding the conflict of laws rules) of the State of California.
- 18. MODIFICATION AND TERMINATION.
 - (a) The Board may amend, alter, or terminate the Plan at any time, including amendments to outstanding options. No amendment shall require stockholder approval, except:
 - (i) for an increase in the number of shares reserved for purchase under the Plan;
 - (ii) to the extent required for the Plan to comply with Section 423 of the Code;
 - (iii) to the extent required by other applicable laws, regulations or rules; or
 - (iv) to the extent the Board otherwise concludes that stockholder approval is advisable.
 - (b) In the event the Plan is terminated, the Board may elect to terminate all outstanding options either immediately or upon completion of the purchase of shares on the next Purchase Date, or may elect to permit options to expire in accordance with their terms (and participation to continue through such expiration dates). If the options are terminated prior to expiration, all funds contributed to the Plan that have not been used to purchase shares shall be returned to the participants as soon as administratively feasible.
 - (c) In the event of the sale of all or substantially all of the assets of the Company, or the merger of the Company with or into another corporation, or the dissolution or liquidation of the Company, each option outstanding under the Plan shall

be assumed by any purchaser of all or substantially all of the assets of the Company or by a successor by merger to the Company (or the parent company of such purchaser or successor) in compliance with Section 424 of the Code, unless otherwise provided by the Board in its sole discretion, in which event, a Purchase Date shall occur immediately before the effective date of such event.

- 19. RIGHTS AS AN EMPLOYEE. Nothing in the Plan shall be construed to give any person the right to remain in the employ of the Company or to affect the Company's right to terminate the employment of any person at any time with or without cause.
- 20. RIGHTS AS A SHAREHOLDER; DELIVERY OF CERTIFICATES. Unless otherwise determined by the Board, certificates evidencing shares purchased on any Purchase Date shall be delivered to a participant only if he or she makes a written request to the Administrator. Participants shall be treated as the owners of their shares effective as of the Purchase Date.
- 21. BOARD AND SHAREHOLDER APPROVAL. The Plan was approved by the Board of Directors on March 5, 1997, and by the holders of a majority of the votes cast at a duly held shareholders' meeting on June 18, 1997, at which a quorum of the voting power of the Company was represented in person or by proxy.



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MR A SAMPLE DESIGNATION (IF ANY) ADD 1 ADD 2 ADD 3 ADD 4 ADD 6

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Electronic Voting Instructions

You can vote by Internet or telephone! Available 24 hours a day, 7 days a week!

Instead of mailing your proxy, you may choose one of the two voting methods outlined below to vote your proxy. VALIDATION DETAILS ARE LOCATED BELOW IN THE TITLE BAR

Proxies submitted by the Internet or telephone must be received by 1:00 a.m., PDT, on May 27, 2009.



Vote by Internet

- · Log on to the Internet and go to www.investorvote.com/APPA
- · Follow the steps outlined on the secured website.



Vote by telephone

- · Call toll free 1-800-652-VOTE (8683) within the United States, Canada & Puerto Rico any time on a touch tone telephone. There is NO CHARGE to you for the call.
- · Follow the instructions provided by the recorded message

Using a black ink pen, mark your votes with an X as shown in

this example. Please do not write outside the designated areas.



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Annual Meeting Proxy Card ▼ IF YOU HAVE NOT VOTED VIA THE INTERNET OR TELEPHONE, FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼ A Proposals — The Board of Directors recommends a vote FOR all the nominees listed and FOR Proposals 2, 3 and 4. 1. To elect six nominees for director, named herein to serve until the 2010 Annual Meeting of Stockholders and until their successors are duly elected and qualified. The nominees are: For Withhold For Withhold For Withhold 01 - Paul Goddard, Ph.D. 02 - Ronald Prentki 03 - Toby Rosenblatt 04 - Kevin C. Tang 05 - Gregory Turnbull 06 - Robert Zerbe, M.D. To approve an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the total number of authorized shares of the Company's common stock from 50,000,000 to 100,000,000. To approve an amendment to the Company's 1997 Employee Stock Purchase Plan ("ESPP") to increase by 200,000 the number of shares of common stock reserved for issuance under the Company's ESPP. To ratify the appointment of Odenberg, Uliakko, Muranishi & Co. LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2009. In their discretion, the proxyholders are authorized to transact such other business as may properly come before the meeting or any adjournments or postponements thereof. B Non-Voting Items nge of Address — Please print new address below Authorized Signatures — This section must be completed for your vote to be counted. — Date and Sign Below Date and sign exactly as name(s) appear(s) on this proxy. If signing for estates, trusts, corporations or other entities, title or capacity should be stated If shares are held jointly, each holder should sign.

Date (mmlddlyyyy) — Please print date below.

Signature 1 — Please keep signature within the box.

Signature 2 — F Signature 2 — Please keep signature within the box.

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MR A SAMPLE (THIS AREA IS SET UP TO ACCOMMODATE



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▼ IF YOU HAVE NOT VOTED VIA THE INTERNET OR TELEPHONE, FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼



Proxy - A.P. PHARMA, INC.

Proxy Solicited by the Board of Directors for the Annual Meeting of Stockholders to be held May 27, 2009

The undersigned hereby appoints Ronald Prentki and John Whelan, or either of them, each with full power of substitution, as the proxyholder(s) of the undersigned to represent the undersigned and vote all the shares of the Common Stock of A.P. Pharma, Inc. (the "Company"), which the undersigned would be entitled to vote if personally present at the Annual Meeting of Stockholders of the Company. The Annual Meeting of Stockholders of A.P. Pharma, Inc. (the "Company") will be held on May 27, 2009 at 9:00 a.m. local time at the Company's headquarters located at 123 Saginaw Drive, Redwood City, California 94063, for the purposes stated herein, as more fully described in the accompanying Proxy Statement.

The Board of Directors recommends that you vote FOR the proposals on the reverse side. This proxy, when properly executed, will be voted in the manner directed. WHEN NO CHOICE IS INDICATED THIS PROXY WILL BE VOTED FOR THE PROPOSALS STATED HEREIN. This proxy may be revoked by the undersigned at any time, prior to the time it is voted, by any of the means described in the accompanying proxy statement.

CONTINUED AND TO BE SIGNED ON REVERSE SIDE.

If you vote by telephone or the Internet, please DO NOT mail back this proxy card.