

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 Registrant [x]

Filed by a Party other than the Registrant []

Check the appropriate box:

- [] Preliminary Proxy Statement
 [x] Definitive Proxy Statement
 [] Definitive Additional Materials
 [] Soliciting Material Pursuant to §240.14a-12
- [] **Confidential, for Use of the Commission Only (as permitted by Rule 14a-6 (e) (2))**

A. P. PHARMA, INC.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- [x] No fee required.
- [] Fee computed on table below per Exchange Act Rules 14a-6 (i)(4) and 0-11.
- 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:

 - 5) Total fee paid:

- [] Fee paid previously with preliminary materials.
- [] Check 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 paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
- 1) 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 29, 2012

To our Stockholders:

The Annual Meeting of Stockholders of A.P. Pharma, Inc. ("Company," "we," "us" and "our") will be held on May 29, 2012 at 8:30 a.m. local time at our 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 four nominees for director, named herein, to serve until the 2013 Annual Meeting of Stockholders and until their successors are duly elected and qualified;
2. To ratify the appointment of OUM & Co. LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2012; and
3. 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, 2012 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 our offices 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

/s/ Ryan A. Murr

Ryan A. Murr, Secretary

Redwood City, California
April 23, 2012

YOUR VOTE IS IMPORTANT

You are cordially invited to attend the Annual Meeting. Whether or not you expect to attend the meeting, you are urged to mark, sign, date and return the enclosed proxy card as promptly as possible in the postage-prepaid envelope enclosed for that purpose or follow the instructions on the enclosed proxy card to vote by telephone or via the Internet. Submitting a proxy or voting instructions will not prevent you from attending the Annual Meeting and voting in person, if you so desire. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain from the record holder a proxy issued in your name.

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 29, 2012
THE PROXY STATEMENT AND THE ANNUAL REPORT ARE AVAILABLE AT:
<http://www.edocumentview.com/APPA>**

2012 ANNUAL MEETING OF STOCKHOLDERS

The enclosed proxy is being solicited on behalf of our Board of Directors (the "Board") for use at the Annual Meeting of Stockholders to be held on May 29, 2012 at 8:30 a.m. local time at our headquarters located at 123 Saginaw Drive, Redwood City, California 94063, or at any adjournments or postponements thereof (the "Annual Meeting"). The proxy materials and the Annual Report are being mailed to stockholders on or about April 30, 2012.

Only holders of our common stock as of the close of business on April 13, 2012 (the "Record Date") are entitled to vote at the Annual Meeting. Stockholders who hold our shares 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 200,046,292 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 us that are properly voted, whether by signed proxy card, telephonic or internet voting, which have not been revoked, will be voted in accordance with the instructions contained in the proxy cards. 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. This could result in a "broker non-vote" on such a proposal.

Directors will be elected by a favorable vote of a plurality of the aggregate votes cast, in person or by proxy, at the Annual Meeting. Abstentions will not affect the outcome of the election of candidates for director. Absent instructions from the beneficial owner of such shares, a broker is not entitled to vote shares held for a beneficial owner on certain non-routine items, such as the election of directors. Thus, if the beneficial owner does not give a broker specific instructions, the beneficially owned shares may not be voted on the election of directors and will not be counted in determining the number of shares necessary for approval, although they will count for purposes of determining whether a quorum exists.

The proposal to ratify the appointment of OUM & Co. LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2012 requires the affirmative vote of a majority of the votes cast, provided a quorum is established. Abstentions will not affect the outcome of this proposal. Ratification of the selection of OUM & Co. LLP is considered a routine matter on which a broker or other nominee is empowered to vote. Accordingly, no broker non-votes are expected on this proposal.

We are 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.

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 our Secretary 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 our Board. We will pay all of the costs of soliciting proxies. In addition to solicitation by mail, our officers, directors and employees may solicit proxies personally, or by telephone, without receiving additional compensation. We, if requested, will also pay brokers, banks and other fiduciaries that 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

The number of directors currently authorized to serve on our Board, in accordance with our bylaws, is four.

Certain information regarding each of our directors, including his age, experience, qualifications, attributes and skills that led the Board to conclude that the individual should serve on the Board and his principal occupation and directorships during the past five years, is set forth below:

Name	Age	Position	Director Since
Paul Goddard, Ph.D.	62	Chairman	2000
John B. Whelan	50	President, Chief Executive Officer and Chief Financial Officer, Director	2011
Kevin C. Tang	45	Director	2009
Gregory Turnbull	73	Director	1986

Paul Goddard, Ph.D. has served as Chairman of our Board since November 2000. Dr. Goddard served as Chief Executive Officer for ARYx Therapeutics, Inc., a biopharmaceutical company, from 2005 to November 2011, and Chairman of its Board of Directors since 2003. He has also been a Director of Adolor Corporation, a biopharmaceutical company focused on the discovery, development and commercialization of prescription pain management products, since 2000 until the company was acquired in November 2011, and of Onyx Pharmaceuticals, Inc., a biopharmaceutical company, which develops therapies that target the molecular mechanisms that cause cancer, since 1997. From 1998 to 2000, Dr. Goddard was President and Chief Executive Officer of Elan Corporation, plc's pharmaceutical division. From 2000 to 2005, Dr. Goddard served as Chairman and a Director of Xenoport, Inc., a biopharmaceutical company focused on developing and commercializing product candidates that improve the therapeutic benefits of existing drugs, and, from 1998 to 2006, Dr. Goddard served as a Director of Molecular Devices Corporation, a developer of high-performance bioanalytical measurement systems. From 1991 to 1998, Dr. Goddard served as Chairman and Chief Executive Officer of Neurex Corporation, a biopharmaceutical company developing products for pain management. In 1998, Neurex was acquired by Elan. Prior to Neurex, Dr. Goddard held various senior management positions at SmithKline Beecham plc. Dr. Goddard's qualifications to serve on our Board include his experience as Chief Executive Officer, Director and Chairman of publicly-traded companies, including biopharmaceutical companies, and his oversight of corporate finance functions.

John B. Whelan was appointed President, Chief Executive Officer and Director in April 2011. Mr. Whelan served as our Acting Chief Executive Officer since May 2010 and 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. Mr. Whelan's qualifications to serve on the Board include his management experience with the Company, which gives him valuable insight into the operations of the Company, and his former executive management positions with other biotechnology companies.

Kevin C. Tang has served as a member of our Board since February 2009. Mr. Tang is the Managing Director of Tang Capital Management, LLC, a life sciences-focused investment company he founded in 2002. Entities managed by Tang Capital Management, LLC hold 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 has been a Director of Ardea Biosciences, Inc., a biotechnology company focused on the development of small-molecule therapeutics, since 2003. From June 2009 to September 2010, he was a Director of Penwest Pharmaceuticals Co. and, from July 2010 to September 2010, was the Chairman of its Board of Directors until its acquisition by Endo Pharmaceuticals. From 2001 to 2008, he was a Director of Trimeris, Inc. Mr. Tang's qualifications to serve on our Board include his experience as a Director of numerous biotechnology companies and his experience as a Managing Director of funds specializing in the area of life sciences.

Gregory Turnbull has served as a member of our Board since February 1986. Mr. Turnbull served as our President and Chief Executive Officer from October 2006 to July 2008 and as our 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 has served as Chairman of the Board for Planar Systems, Inc., a company specializing in designing and marketing specialty display products and systems, since 2005 and as a Director since 1986. Mr. Turnbull was also a Director of a private company from 2001 until 2010. Mr. Turnbull's qualifications to serve on our Board include his experience as our former President and Chief Executive Officer and Chief Financial Officer, a current Chairman, Director and member of the governance and compensation committees of a publicly-traded company, a former member of the governance, compensation, audit and finance committees of two publicly-traded companies and a former Director of multiple private companies.

Our other executive officers and their ages and positions as of April 20, 2012 are as follows:

Name	Age	Executive Position	Since
Michael A. Adam, Ph.D.	54	Senior Vice President and Chief Operating Officer	2011

Michael A. Adam, Ph.D. was appointed Senior Vice President and Chief Operating Officer in April 2011. Dr. Adam was a consultant with the Company since July 2010. From October 2008 to June 2010, he was Senior Vice President of Pharmaceutical Operations at Spectrum Pharmaceuticals, Inc., a biotechnology company with fully integrated commercial and drug development operations with a primary focus in oncology. From March 2006 to February 2007, Dr. Adam served as Vice President, Drug Development Operations at Anadys Pharmaceuticals, Inc., a biopharmaceutical company dedicated to improving patient care by developing novel medicines for the treatment of hepatitis C. Prior to that, Dr. Adam held various senior positions with Pfizer Inc., Agouron Pharmaceuticals, Inc. and Bristol-Myers Squibb Company. Dr. Adam received his Ph.D. in organic chemistry at the Massachusetts Institute of Technology.

There are no family relationships among any of our directors or executive officers.

There are no current legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business to which we, our executive officers or our directors are a party. There are no current, nor in the past ten years have there been any, legal proceedings involving our directors or executive officers related to, among others: (i) federal bankruptcy; (ii) criminal proceedings; (iii) federal or state securities laws; (iv) any judgment, decree or order enjoining a director or officer from acting as an investment advisor, broker or dealer of securities or engaging in any type of business practice; (v) proceedings resulting from involvement in mail or wire fraud or fraud in connection with any business activity; and (vi) any disciplinary sanctions or orders imposed by stock, commodities or derivatives exchange or other self-regulatory organization.

CORPORATE GOVERNANCE

Our Board met fifteen times and took action by unanimous written consent five times during fiscal year 2011. Prior to its dissolution in April 2011, the Audit and Finance Committee met one time. There were no meetings for the Compensation and Stock Option Committee and the Nominating and Governance Committee during fiscal year 2011, as those committees were also dissolved in April 2011. (See Board Committees) Each member of the Board attended 75% or more of the aggregate number of Board and applicable committee meetings held during the period for which he was a director or committee member during 2011.

Board Independence

Our Board has determined that the following directors are "independent directors" as defined by the rules of The NASDAQ Stock Market ("NASDAQ"): Dr. Goddard and Messrs. Turnbull and Tang. Although the Company's common stock is not listed on NASDAQ, the Board uses the definition of independence from the NASDAQ listing standards to assess independence of our directors. Under applicable SEC and NASDAQ rules, the existence of certain "related-party" transactions above certain thresholds between a director and us are required to be disclosed and preclude a finding by the Board that the director is independent.

Board Committees

Due to the number of directors authorized to serve on the Board and the inapplicability of the NASDAQ listing standards following our move to the OTC market, the Board determined that as of April 2011, there was no longer a need for a standing audit and finance committee, a compensation and stock option committee and a nominating and governance committee. The Board assumed the responsibilities of the respective committee roles.

Our Board oversees the corporate accounting and financial reporting process. The Board appoints our independent auditor and oversees and evaluates its 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, approves all related-party transactions, provides oversight of risk management and approves professional services provided to us by the independent public accountants. The Board 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. The Board has determined that Dr. Goddard qualifies as our financial expert under applicable SEC rules.

Our Board, acting through our non-employee directors, administers our benefit and equity incentive 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. The non-employee directors review and approve goals for our executive officers, and evaluate their performance in light of these goals.

The Board 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.

Board Leadership Structure

The role of our Chairman of the Board is separate from the Chief Executive Officer. The Board has determined that its structure is appropriate to fulfill its duties effectively and efficiently, so that our business receives the undivided attention of the Chief Executive Officer.

Director Nomination

Criteria for Board Membership

The Board is responsible for assessing the appropriate balance of experience, skills and characteristics required of our directors. Nominees for director are selected based on their experience, knowledge, integrity, understanding of our business environment and the willingness to devote adequate time to Board duties. The Board uses the same selection criteria regardless of whether the candidate has been recommended by a stockholder or identified by the Board. In selecting candidates for appointment or re-election to the Board, the Board considers the appropriate balance of experience, skills and characteristics required of our Board, as well as potential independence under the rules of the NASDAQ, and with the objective that at least one director qualifies as "financial expert" under the rules of the SEC. When evaluating a candidate for our Board, the Board does not assign specific weight to any of these factors nor does it believe that all of the criteria necessarily apply to every candidate. At minimum, a director's qualifications, in light of the above-mentioned criteria, are considered each time the director is nominated or re-nominated for Board membership.

While our Board does not have a written policy regarding diversity in identifying director candidates, the Board considers diversity in its search for the best candidates to serve on our Board. The Board looks to incorporate diversity into the Board through a number of demographics, skills, experiences, including operational experience, and viewpoints, all with a view to identify candidates that can assist the Board with its decision making. The Board believes that our current Board reflects a diverse mix of directors on a number of these factors.

Stockholder Nominees

The Board will consider written proposals from stockholders for nominees for director. Any such nominations should be submitted to the Board c/o the Secretary and should include the following information: (i) 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); (ii) the names and addresses of the stockholders making the nomination and the number of shares of our common stock which are owned beneficially and of record by such stockholders; and (iii) appropriate biographical information and a statement as to the qualification of the nominee. Stockholders seeking to recommend a prospective nominee should follow the instructions under the heading "Communications with Directors" below, and do so within the timeliness requirements described under "Stockholder Proposals for 2013 Annual Meeting" below. The Board did not receive any stockholder nominations during fiscal 2011.

Process for Identifying and Evaluating Nominees

The Board believes we are well-served by our current directors. In the ordinary course, absent special circumstances or a material change in the criteria for Board membership, the Board will re-nominate incumbent directors who continue to be quali-

fied for Board service and are willing to continue as directors. The Board determined that the four incumbent directors who are standing for re-election are sufficient to serve our needs, given our company's current size and activities. If a vacancy on our Board occurs between annual stockholder meetings, the Board may seek out potential candidates who meet the criteria for selection as a nominee and have the specific qualities or skills being sought for Board appointment. Director candidates will be identified based on input from members of our Board, our senior management and a third-party executive search firm, if engaged. The Board will consider persons recommended by our stockholders in the same manner as a nominee recommended by our Board members, management, or a third-party executive search firm. The Board will evaluate each candidate's qualifications and check relevant references; in addition, such candidates will be interviewed by at least one member of the Board. Candidates meriting serious consideration will meet with other members of our Board, as deemed appropriate. Based on this input, the Board will evaluate which of the prospective candidates is qualified to serve as a director and whether this candidate should be appointed to fill a current vacancy on our Board, or presented for the approval of the stockholders, as appropriate. The Board then will make a recommendation as to the person(s) who should be nominated to the Board.

Board Nominees for the 2012 Annual Meeting

Each of the nominees listed in this Proxy Statement is a current director standing for re-election.

Oversight of Risk Management

Our Board is responsible for oversight of our risk management policies and procedures. We are exposed to a number of risks, including financial risks, strategic and operational risks and risks relating to regulatory and legal compliance. The Board will regularly discuss with management our major risk exposures and the steps management has taken to monitor and control such exposures, including the guidelines and policies to govern the process by which risk assessment and risk management are undertaken, and highlighting any new risks that may have arisen since they last met.

The Board manages exposure risks within various areas including: (i) risks relating to our employment policies, executive compensation plans and arrangements; (ii) financial risks and taking appropriate actions to help ensure quality financial reporting; and (iii) risks associated with the independence of the Board and potential conflicts of interest. The Board's administration of its risk oversight function has not affected the Board's leadership structure, which separates the roles of our Chairman of the Board and our Chief Executive Officer.

COMMUNICATIONS WITH DIRECTORS

Stockholders and other interested parties who wish to communicate with any director or committee of our Board may do so using the procedures detailed on our website at www.appharma.com on the Corporate Governance link of the Investor Relations section.

We have a policy of encouraging all directors to attend the annual stockholder meetings; all of the Directors attended the 2011 annual stockholder meeting in person.

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 a director or our principal executive officer, principal financial officer or principal accounting officer, we will disclose the nature of such amendment or waiver in the manner set forth in the Code of Ethics.

SECURITY OWNERSHIP BY CERTAIN BENEFICIAL HOLDERS

The following table sets forth information regarding beneficial ownership of our common stock by: (i) each person known to us to own more than 5% of the outstanding shares of our common stock; (ii) each of our directors; (iii) our Chief Executive Officer and each other executive officer named in the compensation tables; and (iii) all directors and executive officers as a group. The number of shares reported in the table below is as of March 16, 2012, or the most recent date of available information, based on filings with the SEC or other information that we are aware of. 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. The percentage of ownership is based on 200,046,292 shares of common stock outstanding as of March 16, 2012. Beneficial ownership of shares is determined in accordance with the rules of the SEC and includes voting and investment power with respect to the shares. Shares of common stock subject to outstanding options and warrants and shares of common stock underlying convertible promissory notes that are exercisable or convertible, as the case may be, within 60 days of March 16, 2012 are deemed outstanding for computing the percentage of ownership of the person holding such options or warrants, but are not deemed outstanding for computing the percentage of any other person. 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⁾
Tang Capital Partners, LP ⁽²⁾ 4747 Executive Drive, Suite 510 San Diego, California 92121	60,436,506	30.2%
Perceptive Advisers LLC ⁽³⁾ 499 Park Avenue, 25 th Floor New York, NY 10022	26,666,667	13.3%
Franklin Advisers, Inc. ⁽⁴⁾ One Franklin Parkway San Mateo, CA 94403	22,286,201	10.7%
Baker Bros. Advisors, LLC and its affiliates ⁽⁵⁾ 667 Madison Avenue New York, NY 10065	20,526,568	9.9%
BVF Partners LP ⁽⁶⁾ 900 North Michigan Avenue, Suite 1100 Chicago, IL 60611	19,950,001	9.7%
H&Q Capital Management LLC (HQCM) ⁽⁷⁾ 2 Liberty Square, 9 th Floor Boston, MA 02109	20,000,001	9.7%

Name		Number of Shares ⁽¹⁾	Percent of Class ⁽¹⁾
IsZo Capital LP ⁽⁸⁾ 415 Madison Avenue, 15 th Floor New York, NY 10017		18,500,001	9.0%
Kevin C. Tang ⁽²⁾	Director	61,558,186	30.7%
Gregory Turnbull ⁽⁹⁾	Director	771,850	*
Paul Goddard, Ph.D. ⁽¹⁰⁾	Chairman of the Board	616,266	*
John B. Whelan ⁽¹¹⁾	President, Chief Executive Officer and Chief Financial Officer; Director	5,749,999	2.8%
Michael Adam, Ph.D. ⁽¹²⁾	Senior Vice President and Chief Operating Officer	2,427,084	1.2%
John Barr, Ph.D. ⁽¹³⁾	Senior Vice President, Research and Development	2,019,489	1.0%
Officers and Directors as a group (6 persons)		73,142,874	34.6%

* Less than 1%.

(1) Based on shares of common stock issued and outstanding as of March 16, 2012. Assumes the exercise of all outstanding options, warrants and rights to purchase common stock and conversion of all outstanding convertible promissory notes held by such person or group to the extent exercisable or convertible, as the case may be, within 60 days of March 16, 2012, and that no other person has exercised or converted any outstanding security that is exercisable for or convertible into common stock. Certain holders of more than 5% of our outstanding common stock also hold securities that are exercisable or convertible into our common stock. Such derivative securities have limits on the ability of these holders to exercise or convert these securities into our common stock if, after such exercise or conversion, the holder would beneficially own more than a stated percentage of our outstanding common stock (e.g., 9.99%). Where these limits are applicable as of March 16, 2012, the shares underlying these convertible securities that are not currently issuable have been excluded from the beneficial ownership calculations.

(2) Based on information set forth in a Schedule 13D/A filed with the SEC on July 7, 2011 by Tang Capital Partners, LP and its affiliates ("Tang Capital") reporting beneficial ownership of Kevin C. Tang of 61,224,853. In the case of Mr. Tang, the total shares reported on this table include 333,333 shares underlying stock options exercisable within 60 days of March 16, 2012. Tang Capital retains 139,000 shares of common stock in a securities margin brokerage account. Beneficial ownership for Tang Capital excludes shares of common stock that may be acquired upon the exercise of warrants and shares that are potentially issuable upon conversion of the principal amount of the Company's Senior Secured Convertible Notes due 2021 (the "Notes"). Tang Capital has the right to purchase up to an additional \$2,400,000 of principal amount of Notes at any time through May 2, 2013. The warrants and the Notes have a limit on the ability of the holder to exercise or convert, to the extent that the holder would beneficially own greater than 9.99% of the Company's common stock following such exercise or conversion, provided that the holder has the ability to increase or decrease this limitation on exercise or conversion upon providing the Company with 61 days of prior written notice.

(3) Based on information set forth in a Schedule 13G filed with the SEC on July 7, 2011 by Perceptive Advisers LLC reporting beneficial ownership of 26,666,667 shares. Excludes shares of common stock underlying warrants which are currently not exercisable. The warrants have a limit on the ability of the holder to exercise to the extent that the holder would beneficially own greater than 9.99% of the Company's common stock following the exercise, provided that the holder has the ability to increase or decrease this limitation on conversion upon providing the Company with 61 days of prior written notice.

- (4) Based on information set forth in a Schedule 13G filed with the SEC on September 12, 2011 by Franklin Advisers, Inc. and its affiliates reporting beneficial ownership of 22,286,201 shares. Includes 7,333,334 shares of common stock currently issuable upon the exercise of warrants.
- (5) Based on information set forth in a Schedule 13D/A filed with the SEC on July 7, 2011 by Felix J. Baker and Julian C. Baker, reporting beneficial ownership of 20,526,568 shares. Shares deemed beneficially owned by Messrs. Baker are held of record by Baker/Tisch Investments, L.P., 667, L.P., Baker Bros. Life Sciences, L.P., and 14159, L.P. (collectively, "Baker Bros"). Beneficial ownership for Baker Bros and Messrs. Baker includes a portion of the shares of common stock that may be acquired upon the exercise of warrants and the conversion of Notes. Baker Bros has the right to purchase up to an additional \$600,000 of principal amount of Notes at any time through May 2, 2013. The warrants and Notes have a limit on the ability of the holder to exercise or convert, to the extent that the holder would beneficially own greater than 9.99% of the Company's common stock following the exercise or conversion, provided that the holder has the ability to increase or decrease this limitation on exercise or conversion upon providing the Company with 61 days of prior written notice.
- (6) Based on information set forth in a Schedule 13G/A filed with the SEC on February 10, 2012 by BVF Partners LP and its affiliates reporting beneficial ownership of 26,666,667 shares. Includes 6,666,667 shares of common stock currently issuable upon the exercise of warrants.
- (7) Based on information set forth in a Schedule 13G filed with the SEC on February 14, 2012 by H&Q Capital Management LLC (HQCM) reporting beneficial ownership of 20,000,001 shares. Based on information set forth in the S-1 filed on July 27, 2011, H&Q Healthcare Investors beneficially owns 9,200,000 shares of common stock and warrants to purchase 4,600,000 shares of common stock. H&Q Life Science Investors beneficially owns 4,133,334 shares of common stock and warrants to purchase 2,066,667 shares of common stock. Each of HQCM and Daniel R. Omstead, through his control of HQCM, makes investment and voting decisions with respect to the shares beneficially owned by the H&Q Funds,
- (8) Based on information set forth in a Schedule 13G filed with the SEC on July 11, 2011 by IsZo Capital LP reporting beneficial ownership of 18,500,001 shares. Includes 6,166,667 shares of common stock currently issuable upon the exercise of warrants.
- (9) Includes 175 shares owned by Mr. Turnbull's spouse, 5,350 shares held in a benefit or retirement plan, 526,583 shares underlying stock options exercisable within 60 days of March 16, 2012.
- (10) Includes 11,250 shares held in a family trust, 390,333 shares underlying stock options exercisable within 60 days of March 16, 2012.
- (11) Includes 5,749,999 shares underlying stock options exercisable within 60 days of March 16, 2012.
- (12) Includes 2,427,084 shares underlying stock options exercisable within 60 days of March 16, 2012.
- (13) Includes 1,931,084 shares underlying stock options exercisable within 60 days of March 16, 2012. Dr. Barr resigned from the Company effective March 31, 2012 and will provide services as a consultant for a period up to one year. Vesting terms of this option have been revised for the consultancy period.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Indemnification

Our restated certificate of incorporation and bylaws provide for indemnification of our directors, officers and other agents. Each of our current directors and officers have entered into separate indemnification agreements with us. Such agreements require

us, among other things, to indemnify our directors and officers, other than for liabilities arising from willful misconduct of a culpable nature, and to advance their expenses incurred as a result of any proceedings against them as to which they could be indemnified.

Related Party Transactions

Pursuant to our Code of Ethics, our executive officers, directors and employees must disclose transactions involving actual or apparent conflicts of interest, such as related-party transactions, to the Chairman of the Board. All related-party transactions between the Company and any of our officers, directors or principal stockholders, must be: (i) approved by a majority of the independent and disinterested members of our Board; (ii) on terms no less favorable to us than could be obtained from unaffiliated third parties; and (iii) in connection with bona fide business purposes.

On April 24, 2011, we entered into a Securities Purchase Agreement (the "Purchase Agreement") with Tang Capital Partners, LP and Baker Bros. Advisors, LLC and certain affiliated entities (collectively, "Baker Bros"). Mr. Tang, one of our directors, is the Managing Director of Tang Capital Management, LLC, the general partner of Tang Capital Partners, LP. Pursuant to the Purchase Agreement, we are obligated to issue up to \$4.5 million aggregate principal amount of senior secured convertible notes due 2021 that are convertible into shares of our common stock, par value \$0.01 (the "Notes"). We received \$1.5 million, before expenses, at an initial closing, including \$1.2 million from Tang Capital Partners, LP and \$0.3 million from Baker Bros. The purchasers, at each such purchaser's option, may also purchase their pro rata interest of up to an additional \$3.0 million aggregate principal amount of the Notes from time to time, with such right expiring upon the second anniversary of the initial closing date.

In June 2011, we entered into a Securities Purchase Agreement with certain purchasers (the "Securities Purchase Agreement"), which included Tang Capital Partners, LP and Baker Bros, pursuant to which we agreed to sell, for an aggregate price of \$24.0 million, 160,000,006 shares of our common stock (the "Shares") and warrants to purchase 80,000,005 shares of our common stock (the "Warrants") at an exercise price of \$0.18 per share (the "2011 Private Placement"). For each Share purchased, the purchasers received one Warrant to purchase 0.5 shares of common stock (together, a "Unit"), at a purchase price of \$0.15 per Unit. The Warrants became exercisable on July 1, 2011, the date of issuance, and expire on the fifth anniversary of such date. There is no right to exercise the Warrants to the extent that, after giving effect to such exercise, the holder would beneficially own in excess of 9.99% of the outstanding shares of common stock (or such other limit as may be designated by any particular purchaser). Each holder of the Warrants can amend or waive the foregoing limitation by written notice to us, with such waiver taking effect only upon the expiration of a 61-day notice period.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Under Section 16(a) of the Securities Exchange Act of 1934 and SEC rules, our directors, executive officers and beneficial owners of more than 10% of any class of equity security (the "Reporting Persons") are required to file periodic reports of their ownership, and changes in that ownership, with the SEC. Based solely on our review of copies of these reports and representations of such reporting persons, we believe that during fiscal year 2011, all Reporting Persons satisfied such applicable SEC filing requirements.

EXECUTIVE COMPENSATION

Our goal is to provide a competitive total compensation package with significant emphasis on pay for performance. Accordingly, we favor equity and discretionary rewards over guaranteed cash compensation in order to drive accomplishments that enhance stockholder value and align the interests of our executives and our stockholders. This means that our executives will not realize the total potential value of their compensation package unless performance goals, the significant majority of which are directly tied to Company performance, are achieved. The Board believes that our executive compensation program is appropriately designed and reasonable in light of the executive compensation programs of our peer group companies and responsible in that it is designed to incent our management team to achieve our short-term and long-term corporate objectives while effectively managing business risks and challenges.

The following tables and descriptive materials set forth information concerning compensation earned for services rendered to us by each person who served as the Chief Executive Officer during fiscal year 2011 and our next two most highly compensated executive officers, who were serving as executive officers at the end of fiscal year 2011 and whose compensation for fiscal year 2011 exceeded \$100,000 (collectively the "Named Executive Officers"). No one served us as an executive officer during 2011 other than our Named Executive Officers.

Summary Compensation Table

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

Name and Principal Position(s)	Year	Salary	Option Awards ⁽¹⁾	Non-Equity Incentive Plan Compensation ⁽²⁾	All Other Compensation ⁽³⁾	Total
John B. Whelan ⁽⁴⁾ President, Chief Executive Officer and Chief Financial Officer	2011	\$354,231	\$5,357,835	\$ 197,500	\$ 7,350	\$5,916,916
	2010	300,000	363,765	—	7,350	671,115
Michael Adam, Ph.D. ⁽⁵⁾ Sr. Vice President and Chief Operating Officer	2011	216,000	2,443,005	109,200	5,040	2,773,245
	2010	—	—	—	—	—
John Barr, Ph.D. ⁽⁶⁾ Sr. Vice President, Research and Development	2011	290,385	1,467,900	63,240	8,687	362,491
	2010	302,000	363,765	—	17,082	682,847

⁽¹⁾ This column represents the aggregate grant date fair value, computed in accordance with Financial Accounting Standards Board ("FASB") Accounting Standard Codification ("ASC") Topic 718, for stock options and awards granted to the Named Executive Officers in 2011 and 2010. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. The assumptions used in calculating the fair value of the stock options and awards can be found under Note 8 to the Consolidated Financial Statements in our Annual Report on

Form 10-K for the year ended December 31, 2011. For additional information on stock options awarded to the Named Executive Officers in 2011 and in prior years, see below under "Outstanding Equity Awards at Fiscal Year-End". These amounts reflect the grant date fair value for these stock options and awards, and do not necessarily correspond to the actual value that will be realized by the Named Executive Officers.

- (2) The amounts listed were earned in 2011, paid in February 2012 and reflect cash awards to the named individuals under the bonus program. No cash incentive or bonus amounts were paid for 2010 performance.
- (3) The stated amounts include a travel allowance for Dr. Barr of \$600 and \$7,800 in 2011 and 2010, respectively, and 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: (i) 3% of each participant's annual compensation; or (ii) \$7,350, in both 2011 and 2010.
- (4) Mr. Whelan was appointed President and Chief Executive Officer in April 2011. He had been our Acting Chief Executive Officer since May 2010 and Chief Financial Officer since February 2009.
- (5) Dr. Adam was appointed Senior Vice President and Chief Operating Officer in April 2011.
- (6) Dr. Barr resigned from the Company effective March 31, 2012. He will provide services as a consultant up to a period of one year.

Historically, we have maintained a bonus plan under which employees, including Named Executive Officers, have been eligible for bonus payments. An officer's targeted bonus is a pre-determined percentage of the officer's base pay; however, the actual bonus earned is determined by the Board based on the attainment of corporate goals. During fiscal year 2010, there were no bonuses earned under the bonus plan.

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: (i) 3% of each participant's annual compensation; or (ii) \$7,350.

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, 2011:

Name	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Not Exercisable ⁽¹⁾	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested	Market Value of Shares or Units of Stock That Have Not Vested (\$)
John B. Whelan	2,661,458	22,888,542	\$ 0.26	07/08/21	—	\$ —
	68,750	96,875	0.60	07/08/20	—	—
	31,250	81,250	1.93	02/17/20	—	—
	247,917	102,083 ⁽²⁾	0.61	02/23/19	—	—
Michael Adam, Ph.D.	1,213,543	10,436,458	0.26	07/08/21	—	—
John Barr, Ph.D.	729,167	6,270,833 ⁽⁴⁾	0.26	07/08/21	—	—
	53,125	96,875	0.60	07/08/20	—	—
	68,750	81,250	1.93	02/17/20	—	—
	93,333	66,667 ⁽³⁾	0.71	01/16/19	—	—
	186,221	3,779	1.37	01/15/18	—	—
	8,750	8,750	5.12	01/16/17	—	—
	8,750	—	6.40	01/10/16	—	—
	6,250	—	9.80	01/14/14	—	—
1,875	—	4.28	01/23/13	—	—	
3,125	—	5.76	08/22/12	—	—	

⁽¹⁾ All unvested options vest ratably monthly over the first four years of the ten-year option term, except where noted.

⁽²⁾ 25% of such options vested on February 23, 2010, and the remainder vest in equal monthly installments over the following 36 months.

⁽³⁾ Option vests in equal monthly installments over the first five years of the 10-year option term.

⁽⁴⁾ Dr. Barr resigned from the Company effective March 31, 2012 and will provide services as a consultant for a period up to one year. Vesting terms of this option have been revised to allow for continued vesting over the consultancy period.

Non-qualified Defined Contribution and Other Non-qualified Deferred Compensation Plans

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

Payments Upon Termination or Change In Control

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 and restated on November 8, 2007 as a management retention agreement. The agreement was again amended on December 23, 2008, without affecting any of its economic provisions, to conform with Treasury Regulations under Section 409A of the Internal Revenue Code. The agreement, as amended, provided that if Dr. Barr's employment was terminated by us without good cause or by him for good reason, as such terms are defined in his agreement, he would have received 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 would have been paid in twelve equal monthly installments. We also agreed, in the event of such termination, to pay health care benefits for up to 12 months. In addition, upon a change of control, if he was involuntarily terminated, all of his unvested stock options would have immediately vested.

In connection with Mr. Whelan's appointment as President and Chief Executive Officer, we entered into a management retention agreement with Mr. Whelan on April 25, 2011 (the "Whelan Management Agreement"). The Whelan Management Agreement provides that if Mr. Whelan's employment is terminated by us not in connection with a change of control, without cause, as such term is defined in the Whelan Management Agreement, or by Mr. Whelan as a result of certain events set forth in the Whelan Management Agreement, then, in such case, during the 12 months after the date of termination (the "Severance Period"), he shall receive: (i) monthly, an amount equal to the monthly base salary he was receiving immediately prior to the termination; and (ii) the immediate vesting of unvested stock options, restricted stock and other equity awards that otherwise would have vested during the Severance Period. Additionally, upon such termination, Mr. Whelan shall receive the average bonus paid during each of the three 12-month periods (or such shorter period of time during which he was eligible for a bonus) prior to termination. We also agreed to reimburse him for, or continue to pay for, health care benefits during the Severance Period, or such date when he is no longer eligible for such benefits under applicable law. In the event Mr. Whelan's employment is terminated without good cause or he resigns for good reason within 12 months following a change of control, then in lieu of the above benefits, during the 18-month period after the date of termination (the "Change of Control Severance Period"), he shall receive: (i) monthly, an amount equal to the greater of: (A) the monthly base salary he was receiving immediately prior to the termination; or (B) the monthly base salary he was receiving immediately prior to the change of control; and (ii) the immediate vesting of unvested stock options, restricted stock and other equity awards. Additionally, upon such termination following a change of control, Mr. Whelan shall receive 150% of the average bonus paid during each of the three 12-month periods (or such shorter period of time during which he was eligible for a bonus) prior to termination. We also agreed to reimburse him for, or continue to pay for, health care benefits during the Change of Control Severance Period, or such date when he is no longer eligible for such benefits under applicable law.

In connection with Dr. Adam's appointment, we entered into a management retention agreement with Dr. Adam on April 25, 2011 (the "Adam Management Agreement"). The Adam Management Agreement provides that if Dr. Adam's employment is terminated by us not in connection with a change of control, without cause, as such term is defined in the Adam Management Agreement, or by Dr. Adam as a result of certain events set forth in the Adam Management Agreement, then, in such case, during the six months after the date of termination (the "Adam Severance Period"), he shall receive: (i) monthly, an amount

equal to the monthly base salary he was receiving immediately prior to the termination: and (ii) the immediate vesting of unvested stock options, restricted stock and other equity awards that otherwise would have vested during the Adam Severance Period. Additionally, upon such termination, Dr. Adam shall receive one-half the average bonus paid during each of the three 12-month periods (or such shorter period of time during which he was eligible for a bonus) prior to termination. We also agreed to reimburse him for, or continue to pay for, health care benefits during the Adam Severance Period, or such date when he is no longer eligible for such benefits under applicable law. In the event Dr. Adam's employment is terminated by us without good cause or he resigns for good reason within 12 months following a change of control, then in lieu of the above benefits, during the twelve months after the date of termination (the "Adam Change of Control Severance Period"), he shall receive: (i) monthly, an amount equal to the greater of: (A) the monthly base salary he was receiving immediately prior to the termination; or (B) the monthly base salary he was receiving immediately prior to the change of control; and (ii) the immediate vesting of unvested stock options, restricted stock and other equity awards. Additionally, upon such termination following a change of control, Dr. Adam shall receive the average bonus paid during each of the three 12-month periods (or such shorter period of time during which he was eligible for a bonus) prior to termination. We also agreed to reimburse him for, or continue to pay for, health care benefits during the Adam Change of Control Severance Period, or such date when he is no longer eligible for such benefits under applicable law.

The following table sets forth information regarding potential payments to be made, or would have been made in the case of Dr. Barr, to Mr. Whelan, Dr. Adam or Dr. Barr if a change of control had occurred and their termination payments were triggered on December 31, 2011, assuming maximum payouts.

Name	Salary (\$)	Bonus (\$)	Value of Options Previously Unvested (\$) ⁽¹⁾	Total
John B. Whelan	\$592,500	\$118,750	\$ —	\$711,250
Michael Adam, Ph.D.	312,000	109,200	—	421,200
John Barr, Ph.D.	302,000	36,890	—	338,890

⁽¹⁾ The dollar value of unvested stock options is calculated based on the excess of the closing market price of our common stock on December 31, 2011 over the exercise price of these options. Options would be exercisable for a 90-day period beyond potential termination date. There is no value reported as the option exercise price was higher than the closing market price as of December 31, 2011.

Director Compensation

Non-Chair, Non-Employee Director Compensation

Our non-employee directors did not receive cash compensation for their service as members of our Board or any of its committees until April 2011, when the Board enacted prospective cash payments to Mr. Turnbull of \$30,000 annually.

Messrs. Turnbull and Tang each received a stock option grant to purchase up to 400,000 shares of our common stock on July 8, 2011. The options vest: (i) in equal monthly installments over a twelve-month period from the date of grant; and (ii) if such options are not 100% vested on the day before our next annual meeting of stockholders, the remaining unvested options shall vest, such that the grant is 100% vested.

Chairman Compensation

Dr. Goddard's annual cash retainer for his services as Chairman of our Board is \$30,000, plus participation in the same equity compensation structure and in the prospective cash compensation as the other non-employee directors. Dr. Goddard received a stock option grant in 2011 to purchase up to 400,000 shares of our common stock. The options vest: (i) in equal monthly installments over a twelve-month period from the date of grant; and (ii) if such options are not 100% vested on the day before our next annual meeting of stockholders, the remaining unvested options shall vest, such that the grant is 100% vested.

The following table shows 2011 compensation for all of our non-employee directors and our Chairman.

Name ⁽¹⁾	Fees Earned or Paid in Cash	Option Awards ⁽²⁾	Stock Awards ⁽²⁾	All Other Compensation	Total
Paul Goddard, Ph.D. ⁽³⁾	\$ 37,500	\$ 83,880	\$ —	\$ —	\$121,380
Kevin Tang ⁽⁴⁾	—	83,880	—	—	83,880
Gregory Turnbull ⁽⁵⁾	15,000	83,880	—	—	98,880

⁽¹⁾ Mr. Whelan is not included in this table as he received no compensation for his service as a director. The compensation received by Mr. Whelan as an employee is shown in the Summary Compensation Table.

⁽²⁾ Amount represents the aggregate grant date fair value of options and awards computed in accordance with "FASB" "ASC" Topic 718. The assumptions used in calculating the fair value of the stock options and awards can be found under Note 8 to the Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2011.

⁽³⁾ At December 31, 2011, Dr. Goddard had outstanding options to purchase 457,000 shares of our common stock.

⁽⁴⁾ At December 31, 2011, Mr. Tang had outstanding options to purchase 400,000 shares of our common stock.

⁽⁵⁾ At December 31, 2011, Mr. Turnbull had outstanding options to purchase 593,250 shares of our common stock.

Equity Compensation Plan Information

The table below discloses information as of December 31, 2011, with respect to our equity compensation plans that have been approved by stockholders and equity compensation plans that have not been approved by stockholders.

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options	Weighted-Average Exercise Price of Outstanding Options	Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Equity compensation plans approved by security holders:			
Stock option and award plans	50,104,412	\$ 0.31	44,261,608
Employee stock purchase plan	—	—	531,176
Equity compensation plans not approved by security holders ⁽¹⁾	1,875	6.20	—
Total	50,106,287	\$ 0.31	44,261,608

⁽¹⁾ See description of the Non-Qualified Stock Plan in Note 8 to the Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2011.

REPORT OF THE AUDIT AND FINANCE COMMITTEE¹

The Board has assumed the responsibilities of the Audit Committee, including overseeing our accounting and financial reporting processes and the audit of our financial statements. The Board is responsible for appointing and providing for the compensation of our independent registered public accounting firm.

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 the standards of the Public Company Accounting Oversight Board (United States).

In this context and in connection with the audited financial statements contained in our Form 10-K, the Board attests that it has:

- received, reviewed and discussed the audited financial statements as of and for the fiscal year ended December 31, 2011 with our management and OUM & Co. LLP, our independent registered public accounting firm;
- discussed with OUM & Co. LLP, the matters required to be discussed under auditing standards generally accepted in the United States, including those matters set forth in Statement on Auditing Standards No. 61, as amended (AICPA, *Professional Standards*, Vol.1, AU Section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T regarding “*Communications with Audit Committees*”;
- reviewed the written disclosures and the letter from OUM & Co. LLP required by the Securities Acts administered by the Securities and Exchange Commission and in compliance with Rule 3520 of the Public Accounting Oversight Board, discussed with OUM & Co. LLP their independence, and concluded that the non-audit services performed by OUM & Co. LLP are compatible with maintaining their independence;
- based on the foregoing reviews and discussions, recommended to the Board that the audited financial statements be included in our Form 10-K as filed with the SEC; and
- instructed OUM & Co. LLP that the Board expects to be advised if there are any subjects that require special attention.

Board of Directors
Paul Goddard, Chairman
John B. Whelan
Kevin C. Tang
Gregory Turnbull

¹ “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 following table shows the fees paid or accrued by us for the audit and other services provided by OUM & Co. LLP for fiscal 2011 and 2010.

	2011	2010
Audit fees ⁽¹⁾	\$160,000	\$149,500
Audit-related fees ⁽²⁾	—	—
Tax fees ⁽³⁾	25,000	29,275
All other fees ⁽⁴⁾	—	—
Total	\$185,000	\$178,775

(1) Audit fees represent fees for professional services provided in connection with the audit of our financial statements, review of our quarterly financial statements and routine regulatory filings.

(2) Audit-related fees consist primarily of accounting consultations, employee benefit plan audits and services related to business acquisitions and divestitures.

(3) Tax fees principally include fees for tax compliance.

(4) All other fees are fees for any services not included in the first three categories.

PROPOSAL 1—ELECTION OF DIRECTORS

At the Annual Meeting, the stockholders will vote on the election of four directors to serve for a one-year term or until the next annual meeting of stockholders and until their successors are elected and qualified. Our Board has unanimously nominated Messrs. Tang, Turnbull and Whelan and Dr. Goddard for election to our Board. 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 our Board. The proxies being solicited will be voted for no more than four 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” all Nominees.

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. Tang, Turnbull and Whelan and Dr. Goddard.

PROPOSAL 2—RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Subject to stockholder ratification, our Board has selected OUM & Co. LLP as independent registered public accountants to audit our financial statements for the fiscal year ending December 31, 2012.

At the Annual Meeting, the stockholders will be asked to ratify the appointment of OUM & Co. LLP as our independent registered public accountants for the fiscal year ending December 31, 2012. OUM & Co. LLP has audited our financial statements since 2006. Representatives of OUM & 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 OUM & Co. LLP as our independent registered public accounting firm is not required by law or our bylaws. However, our Board is submitting the selection of OUM & Co. LLP to the stockholders for ratification as a matter of good corporate practice. In the event our stockholders fail to ratify the appointment, our Board will reconsider its selection. Even if the selection is ratified, our 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 our best interest and that of our stockholders.

Vote Required and Board Recommendation

The affirmative vote of the votes cast for this proposal will be required to ratify the appointment of OUM & Co. LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2012. As a result, abstentions and broker non-votes, if any, will not affect the outcome of this proposal, assuming a quorum is established.

The Board of Directors recommends a vote “FOR” the ratification of the appointment of OUM & Co. LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2012.

OTHER MATTERS

As of the time of preparation of this Proxy Statement, neither our Board 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 our 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 us by telephone at (650) 366-2626. The voting instruction sent to a street-name stockholder should provide information on how to request: (i) householding our future materials; or (ii) 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 us as indicated above.

FORM 10-K

Our annual report to stockholders on Form 10-K for the year ended December 31, 2011, containing audited balance sheets as of December 31, 2011 and 2010 and audited statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2011, 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 2013 ANNUAL MEETING

Under the rules of the SEC, stockholders who wish to submit proposals for inclusion in the Proxy Statement for the 2013 Annual Meeting of Stockholders must submit such proposals so as to be received by us at 123 Saginaw Drive, Redwood City, California 94063, on or before December 31, 2012. In addition, if we are not notified by March 17, 2013 of a proposal to be brought before the 2013 Annual Meeting by a stockholder, then the enclosed proxy card gives discretionary authority to the persons named as proxies to vote the shares represented by the proxy card against such proposal even though it is not discussed in the Proxy Statement for such meeting.

BY ORDER OF THE BOARD OF DIRECTORS

/s/ Ryan A. Murr

Ryan A. Murr, Secretary

Redwood City, California

April 23, 2012

Important notice regarding the Internet availability of proxy materials for the Annual Meeting of Stockholders, The Proxy Statement and 10-K are available at: www.edocumentview.com/APPA

▼ 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 29, 2012

The undersigned hereby appoints John B. Whelan and Michael Adam, 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. will be held on May 29, 2012 at 8:30 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.