

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

AMENDMENT NO.1  
TO  
FORM S-3  
REGISTRATION STATEMENT  
UNDER THE SECURITIES ACT OF 1933

A.P. Pharma, Inc.

-----  
(Exact name of registrant as specified in its charter)

Delaware 94-2875566

-----  
(State or other jurisdiction of incorporation or organization) (I.R.S. employer identification no.)

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

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

Michael P.J. O'Connell  
President and Chief Executive Officer  
A.P. Pharma, Inc.  
123 Saginaw Drive  
Redwood City, California 94063  
(650) 366-2626

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

Copies to:  
Richard A. Peers, Esq.  
Heller Ehrman White & McAuliffe LLP  
2775 Sand Hill Road  
Menlo Park, California 94025  
(650) 324-7000 (phone)  
(650) 324-0638 (fax)

Approximate date of commencement of proposed sale to the public:  
From time to time or at one time after the effective date of the Registration Statement as the Registrant shall determine.

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

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

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. [ ]

Part II

Item 16. Exhibits.

The following documents are filed herewith (unless otherwise indicated) and made a part of this registration statement.

Exhibit Number -----	Description of Exhibit -----
1.1(1)	Form of Underwriting Agreement
5.1	Opinion of Heller Ehrman White & McAuliffe LLP
23.1	Consent of Heller Ehrman White & McAuliffe LLP (filed as part of Exhibit 5.1)
23.2*	Consent of Ernst & Young LLP, Independent Auditors
24.1*	Power of Attorney

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\* Previously filed as an exhibit to this registration statement.

(1) To be filed by amendment or as an exhibit to a current report on Form 8-K and incorporated herein by reference.

#### SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Amendment No. 1 to Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in Redwood City, State of California, on May 25, 2004.

A.P. PHARMA, INC.

By: /S/ Michael P.J. O'Connell  
-----  
Michael P.J. O'Connell  
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 1 to Registration Statement on Form S-3 has been signed by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

SIGNATURE -----	TITLE	DATE
/S/ Michael O'Connell ----- Michael P.J. O'Connell	President and Chief Executive Officer (Principal Executive Officer)	May 25, 2004 -----
/S/ Gordon Sangster ----- Gordon Sangster	Chief Financial Officer (Principal Accounting Officer)	May 25, 2004 -----
/S/ Paul Goddard* ----- Paul Goddard	Chairman of the Board of Directors	May 25, 2004 -----
/S/ Stephen Drury* ----- Stephen Drury	Director	May 25, 2004 -----
/S/ Peter Riepenhausen* ----- Peter Riepenhausen	Director	May 25, 2004 -----
/S/ Toby Rosenblatt* ----- Toby Rosenblatt	Director	May 25, 2004 -----
/S/ Gregory H. Turnbull* ----- Gregory H. Turnbull	Director	May 25, 2004 -----

/S/ Dennis Winger\*            Director                            May 25, 2004  
-----  
Dennis Winger

/S/ Robert Zerbe\*            Director                            May 25, 2004  
-----  
Robert Zerbe

/S/ Michael P.J. O'Connell  
-----  
Michael P.J. O'Connell  
\*(Attorney-in-fact)

EXHIBIT INDEX  
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(1) To be filed by amendment or as an exhibit to a current report on  
Form 8-K and incorporated herein by reference.

(Footnote continued)

[Letterhead of Heller Ehrman White & McAuliffe LLP]

May 25, 2004

Main (650) 324-7000  
Fax (650) 324-0638

10008-0006

A.P. Pharma, Inc.  
123 Saginaw Drive  
Redwood City, California 94063

Registration Statement on Form S-3  
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Ladies and Gentlemen:

We have acted as counsel to A.P. Pharma, Inc., a Delaware corporation (the "Company"), in connection with the Amendment No. 1 to the Registration Statement on Form S-3 (the "Registration Statement") which the Company proposes to file with the Securities and Exchange Commission on or about May 25, 2004 for the purpose of registering under the Securities Act of 1933, as amended, shares of its Common Stock, par value \$.01, (the "Shares"), with an aggregate offering price of up to \$15,000,000. The Shares are to be sold from time to time as set forth in the Registration Statement, the prospectus contained therein (the "Prospectus") and the supplements to the Prospectus (the "Prospectus Supplements"). The Shares may be sold pursuant to a definitive underwriting, purchase or similar agreement (the "Underwriting Agreement") to be filed under a Current Report on Form 8-K or an amendment to the Registration Statement.

We have assumed the authenticity of all records, documents and instruments submitted to us as originals, the genuineness of all signatures, the legal capacity of natural persons and the conformity to the originals of all records, documents and instruments submitted to us as copies.

In rendering our opinion, we have examined the following records, documents and instruments:

- (a) The Certificate of Incorporation of the Company, certified by the Delaware Secretary of State as of April 30, 2004, and certified to us by an officer of the Company as being complete and in full force as of the date of this opinion;
- (b) The Bylaws of the Company certified to us by an officer of the Company as being complete and in full force and effect as of the date of this opinion;
- (c) A Certificate of an officer of the Company (i) attaching records certified to us as constituting all records of proceedings and actions of the Board of Directors, including any committee thereof, and stockholders of the Company relating to the Shares, and the Registration Statement, and (ii) certifying as to certain factual matters;
- (d) The Registration Statement;
- (e) A Certificate of Status - Foreign Corporation relating to the Company issued by the Secretary of State of the State of California dated April 30, 2004;
- (f) A letter from the Franchise Tax Board of the State of California dated April 30, 2004 stating that the Company is in good standing with that agency;
- (g) A Certificate of Good Standing relating to the Company issues by the Secretary of State of the State of Delaware, dated April 30, 2004; and
- (h) A letter from the Company's transfer agent, dated May 25, 2004, as to the number of shares of the Company's Common Stock that were outstanding on May 25, 2004.

This opinion is limited to the federal law of the United States of America and the General Corporation Law of the State of Delaware, and we disclaim any opinion as to the laws of any other jurisdiction. We further disclaim any opinion as to any other statute, rule, regulation, ordinance, order or other promulgation of any other jurisdiction or any regional or local governmental body or as to any related judicial or administrative opinion.

Based upon the foregoing and our examination of such questions of law as we have deemed necessary or appropriate for the purpose of this opinion, and assuming that (i) the Registration Statement, as finally amended (including

all post-effective amendments), has become effective and remains effective during the period when the Shares are offered and sold; (ii) an appropriate Prospectus Supplement with respect to the Shares has been prepared, filed and delivered in compliance with the Securities Act and the applicable rules and regulations thereunder; (iii) if the Shares are to be sold pursuant to an Underwriting Agreement, such Underwriting Agreement with respect to the Shares has been duly authorized, executed and delivered by the Company and the other parties thereto; (iv) the Board, including any appropriate committee appointed thereby, and appropriate officers of the Company have taken all necessary corporate action to approve the issuance of the Shares and all matters related thereto; (v) the Shares have been offered, issued and sold in accordance with the terms of the Registration Statement, or any post-effective amendment thereto, and any Prospectus and Prospectus Supplement relating thereto; (vi) there are a sufficient number of authorized but unissued shares of Common Stock reserved for issuance when the Shares are offered and sold; (vii) appropriate certificates evidencing the Shares have been executed and delivered by the Company; (viii) the full consideration stated in the Underwriting Agreement, or as otherwise contemplated by the Registration Statement, or any post-effective amendment thereto, and any Prospectus and Prospectus Supplement relating thereto, has been paid for the Shares; and (ix) all applicable securities laws have been complied with, it is our opinion that, when issued and sold by the Company, the Shares will be validly issued, fully paid and nonassessable.

This opinion is rendered to you in connection with the Registration Statement and is solely for your benefit. This opinion may not be relied upon by you for any other purpose, or relied upon by any other person, firm, corporation or other entity for any purpose, without our prior written consent. We disclaim any obligation to advise you of any change of law that occurs, or any facts of which we may become aware, after the date of this opinion. We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to this firm under the caption "Legal Matters" in the Registration Statement, the Prospectus, any Prospectus Supplement, and in any amendment or supplement thereto.

Very truly yours,

/s/ Heller Ehrman White & McAuliffe LLP  
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Heller Ehrman White & McAuliffe LLP