

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-A/A

Amendment No. 1

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES
PURSUANT TO SECTION 12 (b) OR (g) OF THE
SECURITIES EXCHANGE ACT OF 1934

A.P. PHARMA, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State of Incorporation or Organization)

94-2875566

(IRS Employer
Identification No.)

123 Saginaw Drive, Redwood City, CA

(Address of Principal Executive Offices)

94063

(Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class
to be so registered

Series A Participating Preferred Stock

Name of each exchange on which
each class is to be registered

The Nasdaq Stock Market, LLC

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box.

Securities Act Registration Statement file made to which this form relates (if applicable): N/A

Securities to be registered pursuant to Section 12(g) of the Act: None

Item 1. Description of Registrant's Securities to be Registered.

Effective as of October 1, 2008, A.P. Pharma, Inc. (the "Company") and Computershare Computershare Trust Company, N.A., as Rights Agent (the "Rights Agent") entered into the First Amendment to Preferred Shares Rights Agreement dated as of December 18, 2006 (the "Amendment"). The Amendment increases the percentage of shares of the Company which must be beneficially owned by Tang Capital Partners LP, or its affiliates, to trigger the exercise of Rights from 20% to 30%.

Item 2. Exhibits.

1. First Amendment to Preferred Shares Rights Agreement dated as of October 1, 2008, filed as Exhibit 4.1 to A.P. Pharma, Inc.'s Current Report on Form 8-K filed on October 7, 2008 and incorporated by reference herein.

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

A.P. PHARMA, INC.

Date: October 7, 2008

By /s/ Gregory Turnbull
Gregory Turnbull
Chief Financial Officer