

SCHEDULE 13G

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

Under the Securities Exchange Act of 1934
(Amendment No.)*

A.P. Pharma, Inc.

(Name of Issuer)

Common Stock, par value \$0.01 per share

(Title of Class of Securities)

00202J203

(CUSIP Number)

December 31, 2012

(Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

Rule 13d-1(b)

Rule 13d-1(c)

Rule 13d-1(d)

***The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.**

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 (the "Act") or otherwise subject to the liabilities of that section of the Act, but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) Baker Bros. Advisors, LLC 13-4093645	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 30,655,851
	6	SHARED VOTING POWER -0-
	7	SOLE DISPOSITIVE POWER 30,655,851
	8	SHARED DISPOSITIVE POWER -0-
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 30,655,851	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN <input type="checkbox"/> SHARES (See Instructions)	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 9.9% (1)	
12	TYPE OF REPORTING PERSON (See Instructions) IA	

(1) Based on 302,205,555 shares of common stock outstanding as reported in the Issuer's Form 10-Q filed with the SEC on November 5, 2012.

1	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) Felix J. Baker	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 30,655,851
	6	SHARED VOTING POWER -0-
	7	SOLE DISPOSITIVE POWER 30,655,851
	8	SHARED DISPOSITIVE POWER -0-
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 30,655,851	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN <input type="checkbox"/> SHARES (See Instructions)	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 9.9% (1)	
12	TYPE OF REPORTING PERSON (See Instructions) IN, HC	

(1) Based on 302,205,555 shares of common stock outstanding as reported in the Issuer's Form 10-Q filed with the SEC on November 5, 2012.

1	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) Julian C. Baker	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 30,655,851
	6	SHARED VOTING POWER -0-
	7	SOLE DISPOSITIVE POWER 30,655,851
	8	SHARED DISPOSITIVE POWER -0-
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 30,655,851	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN <input type="checkbox"/> SHARES (See Instructions)	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 9.9% (1)	
12	TYPE OF REPORTING PERSON (See Instructions) IN, HC	

(1) Based on 302,205,555 shares of common stock outstanding as reported in the Issuer's Form 10-Q filed with the SEC on November 5, 2012.

Item 1(a) Name of Issuer:

A.P. Pharma, Inc. (the "Issuer")

Item 1(b) Address of Issuer's Principal Executive Offices:

**123 Saginaw Drive
Redwood City, California 94063**

Item 2(a) Name of Person Filing:

This Schedule 13G is being filed jointly by Baker Bros. Advisors, LLC, Felix J. Baker and Julian C. Baker (collectively the "Reporting Persons").

Item 2(b) Address of Principal Business Office or, if None, Residence:

The business address of each of the Reporting Persons is:

c/o Baker Bros. Advisors, LLC

667 Madison Avenue, 21st Floor

New York, NY 10065

(212) 339-5633

Item 2(c) Citizenship:

Baker Bros. Advisors, LLC (the "Adviser") is a limited liability company organized under the laws of the state of Delaware. The citizenship of each of Julian C. Baker and Felix J. Baker is the United States of America.

Item 2(d) Title of Class of Securities:

Common Stock, par value \$0.01 per share ("Common Stock")

Item 2(e) CUSIP Number:

00202J203

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or (c), check whether the person filing is a:

- (a) Broker or dealer registered under Section 15 of the Exchange Act.
- (b) Bank as defined in section 3(a)(6) of the Exchange Act.
- (c) Insurance company as defined in section 3(a)(19) of the Exchange Act.

- (d) Investment company registered under section 8 of the Investment Company Act of 1940.
- (e) An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E).
- (f) An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F).
- (g) A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G).
- (h) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act.
- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940.
- (j) Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

Item 4. Ownership.

Items 5 through 9 and 11 of each of the cover pages to this Schedule 13G are incorporated herein reference. Set forth below is the aggregate number of shares of Common Stock of the Issuer directly held by each of the Funds (as defined below), which may be deemed to be indirectly beneficially owned by the Reporting Persons, as well as shares of Common Stock that may be acquired upon exercise of the warrants (“2015 Warrants”) at an exercise price of \$0.88 per share, and other warrants (“2016 Warrants”, and together with the 2015 Warrants, the “Warrants”) at an exercise price of \$0.18 per share, and 6% Senior Secured Convertible Notes due May 2, 2021 (“Convertible Notes”) convertible into 25,000 shares of Common Stock per \$1,000 of par value, by the Funds (as defined below), subject to the limitation on exercise described below. Such securities are directly held by each of Baker Brothers Life Sciences, L.P. (“Life Sciences”), 14159, L.P. (“14159”), and 667, L.P. (“667”, and together with Life Sciences and 14159, the “Funds”). For the avoidance of doubt, due to the limitation on exercise and conversion described below, the Reporting Persons do not beneficially own all of the shares of Common Stock underlying the Warrants and Convertible Notes described in the table below.

Name	Number of Shares of Common Stock	Number of Shares of Common Stock Underlying 2015 Warrant	Number of Shares of Common Stock Underlying 2016 Warrant	Number of Shares of Underlying Convertible Notes
667, L.P.	1,964,951	363,952	-	-
Baker Brothers Life Sciences, L.P.	23,353,705	1,580,066	4,910,000	23,281,675
14159, L.P.	537,195	44,618	90,000	426,750
Total	25,855,851	1,988,636	5,000,000	23,708,425

The Warrants and Convertible Notes, are only exercisable to the extent that the holders thereof together with their affiliates would beneficially own, for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended, no more than 9.99% of the outstanding shares of Common Stock of the Issuer after exercise. As a result of this restriction, the number of shares that may be issued upon exercise of the Warrants or conversion of the Convertible Notes by the above holders may change depending upon changes in the outstanding shares. The number of shares issuable upon exercise of the Warrants held or conversion of the Convertible Notes by any Reporting Person affiliate will also depend upon the extent to which the Warrants or Convertible Notes, as the case may be, held by other affiliates have theretofore been exercised or converted as applicable.

On April 12, 2012, the Adviser, each of the Funds, and the general partners of the Funds entered into an amended and restated management agreement (the "Management Agreement") which gave the Adviser complete and unlimited discretion and authority with respect to the Funds' investments and voting power over investments. The general partners of the Funds relinquished all discretion and authority with respect to the Funds' investments and voting power over investments. In connection with the services provided by the Adviser to the Funds, the Adviser receives a management based fee that does not confer any pecuniary interest.

By virtue of the Management Agreement, the Adviser and Felix J. Baker and Julian C. Baker, as principals of the Adviser, may be deemed to be beneficial owners of securities owned by the Funds, and may be deemed to have the power to vote or direct the vote of and the power to dispose or direct the disposition of such securities.

Felix J. Baker and Julian C. Baker disclaim beneficial ownership of the securities held by each of the Funds, and this Schedule 13G shall not be deemed an admission that Felix J. Baker or Julian C. Baker is the beneficial owner of such securities for purposes of Section 13(d) or for any other purpose.

Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following [].

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

N/A

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

The information in Item 4 is incorporated herein by reference.

Item 8. Identification and Classification of Members of the Group.

N/A

Item 9. Notice of Dissolution of Group.

N/A

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

February 1, 2013

BAKER BROS. ADVISORS, LLC

By: /s/ Scott L. Lessing

Name: Scott L. Lessing
Title: President

/s/ Julian C. Baker

Julian C. Baker

/s/ Felix J. Baker

Felix J. Baker

AGREEMENT

In accordance with Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree that this Statement on Schedule 13G relating to the Common Stock of A.P. Pharma, Inc. is being filed with the Securities and Exchange Commission on behalf of each of them.

February 1, 2013

BAKER BROS. ADVISORS, LLC

By: /s/ Scott L. Lessing
Name: Scott L. Lessing
Title: President

/s/ Julian C. Baker
Julian C. Baker

/s/ Felix J. Baker
Felix J. Baker