

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 13D
(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT
TO RULE 13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT
TO RULE 13d-2(a)

(Amendment No. 1)*

A.P. Pharma, Inc.
(Name of Issuer)

Common Stock, par value \$0.01 per share
(Title of Class of Securities)

00202J203
(CUSIP number)

Leo Kirby
667 Madison Avenue, 21st Floor
New York, NY 10065
(212) 339-5633

(Name, address and telephone number of person authorized to receive notices and communications)

May 2, 2011
(Date of event which requires filing of this statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box .

(Continued on the following pages)

(Page 1 of 10 Pages)

*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 or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act.

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*	(a) <input type="checkbox"/> (b) <input type="checkbox"/>
3.	SEC USE ONLY	
4.	SOURCE OF FUNDS* WC	
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)	<input type="radio"/>
6.	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7.	SOLE VOTING POWER: 0
	8.	SHARED VOTING POWER: 6,861,818 (1)
	9.	SOLE DISPOSITIVE POWER: 0
	10.	SHARED DISPOSITIVE POWER: 6,861,818 (1)
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 6,861,818 (1)	
12.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES*	<input type="radio"/>
13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 17.13%	
14.	TYPE OF REPORTING PERSON* IN	

(1) See Item 5(a) of this Amendment for a detailed explanation of the shares of beneficial ownership and percentage ownership of the Reporting Persons.

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* (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS* WC		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) o		
6.	CITIZENSHIP OR PLACE OF ORGANIZATION United States		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7.	SOLE VOTING POWER: 0	
	8.	SHARED VOTING POWER: 6,861,818 (1)	
	9.	SOLE DISPOSITIVE POWER: 0	
	10.	SHARED DISPOSITIVE POWER: 6,861,818 (1)	
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 6,861,818 (1)		
12.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES* o		
13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 17.13%		
14.	TYPE OF REPORTING PERSON* IN		

(1) See Item 5(a) of this Amendment for a detailed explanation of the shares of beneficial ownership and percentage ownership of the Reporting Persons.

Explanatory Note: This Amendment No. 1 relates to and amends the Statement of Beneficial Ownership on Schedule 13D (“Schedule 13D”) of Felix J. Baker, a United State citizen, and Julian C. Baker, a United States citizen (each, a “Reporting Person” and collectively, the “Reporting Persons”), initially filed jointly by the Reporting Persons with the Securities and Exchange Commission on October 29, 2009 (the “Statement”), with respect to the Common Stock, \$0.01 par value (the “Common Stock”), of A.P. Pharma, Inc., a Delaware corporation (the “Issuer”).

Items 3, 4, 5, 6 and 7 of the Statement are hereby amended to the extent hereinafter expressly set forth. All capitalized terms used and not expressly defined herein have the respective meanings ascribed to such terms in the Statement.

ITEM 3. Source and Amount of Funds or Other Consideration.

Item 3 of the Statement is hereby amended by the addition of the following:

Since the date of the Schedule 13D, Baker Bros. Investments II, L.P. purchased the Issuer’s Senior Secured Convertible Notes due 2021 (the “Notes”) in the principal amount of \$300 in exchange for \$300 of cash on May 2, 2011 (the “Initial Closing Date”), Baker Brothers Life Sciences, L.P. purchased Notes in the principal amount of \$294,300 in exchange for \$294,300 of cash on the Initial Closing Date, and 14159, L.P. purchased Notes in the principal amount of \$5,400 in exchange for \$5,400 of cash on the Initial Closing Date, in each case pursuant to a Securities Purchaser Agreement, dated as of April 24, 2011 (the “Purchase Agreement”), between the Issuer and Tang Capital Partners, LP, Baker Bros. Investments II, L.P., Baker Brothers Life Sciences, L.P., and 14159, L.P. (collectively, the “Purchasers”). The source of funds for the purchase of the Notes by Baker Bros. Investments II, L.P., Baker Brothers Life Sciences, L.P., and 14159, L.P. was available cash resources.

The descriptions of the Purchase Agreement is qualified in its entirety by reference to Exhibit 2 hereof, which is incorporated by reference herein.

ITEM 4. Purpose of Transactions.

The Notes are convertible into shares of the Common Stock (the “Conversion Shares”). The Notes are secured by substantially all of the assets of the Issuer, pursuant to the Security Agreement, dated as of April 24, 2011 (the “Security Agreement”), by and between the Issuer and Tang Capital Partners, LP, as agent for the Purchasers. The Notes bear interest at 20% per annum, payable quarterly in cash or in additional principal amount of Notes at the election of the Purchasers. The Notes are convertible into shares of Common Stock at a conversion rate of 25,000 shares per \$1,000 principal amount of Notes. The conversion rate will be adjusted for certain customary events. There is no right to convert the Notes to the extent that after giving effect to such conversion the holder (together with such holder’s affiliates) would beneficially own in excess the “Maximum Percentage”, which is currently of 9.99%, of the number of shares of common stock of the Issuer outstanding immediately after giving effect to such conversion. Each holder of the Notes can increase or decrease the Maximum Percentage for such holder’s Notes by written notice to the Issuer, provided that such increase or decrease will not be effective until 61 days after delivery of the notice.

Pursuant to the Purchase Agreement, Baker Bros. Investments II, L.P. has the right, but not the obligation, to purchase an additional \$600 principal amount of the Notes (for a total \$900 principal amount of the Notes), Baker Brothers Life Sciences, L.P. has the right, but not the obligation, to purchase an additional \$588,600 principal amount of the Notes (for a total \$882,900 principal amount of the Notes), and 14159, L.P. has the right, but not the obligation, to purchase an additional \$10,800 principal amount of the Notes (for a total \$16,200 principal amount of the Notes), all of which rights expire on the second anniversary of the Initial Closing Date.

Pursuant to the Purchase Agreement and until \$15,000,000 in aggregate of new securities have been offered and sold to any persons, including the Purchasers, (i) Baker Bros. Investments II, L.P. has the right to purchase up to 0.01% of any new securities, subject to certain exceptions, offered and sold by the Issuer, (ii) Baker Brothers Life Sciences, L.P. has the right to purchase up to 9.81% of any new securities, subject to certain exceptions, offered and sold by the Issuer, and (iii) 14159, L.P. has the right to purchase up to 0.18% of any new securities, subject to certain exceptions, offered and sold by the Issuer.

Pursuant to the Purchase Agreement, the Issuer has agreed to file within 30 days of the Initial Closing Date (i) a registration statement on Form S-1 with the Securities and Exchange Commission (the "Commission") to register the offer and sale of up to \$20.0 million of equity securities to be offered and sold by the Issuer on a primary basis (the "Follow-on Registration Statement") and (ii) a registration statement on Form S-1 or Form S-3 with the Commission covering the resale of the full amount of the Conversion Shares (the "Resale Registration Statement" and together with the Follow-on Registration Statement, the "Registration Statements"). The Issuer agreed to use its commercially reasonable efforts to cause the Follow-on Registration Statement to be declared effective by the Commission as promptly as practicable and the Resale Registration Statement to be declared effective by the Commission within 90 days after the Initial Closing Date (or 120 days in the event the Resale Registration Statement is reviewed by the Commission). If the Issuer fails to meet certain filing or effectiveness deadlines with respect to the Registration Statements or fails to keep any Registration Statement continuously effective (with limited exceptions), the Issuer may be obligated to pay to the holders of the Conversion Shares liquidated damages in the amount of 2% per month of such holder's pro rata interest in the total purchase price of the Notes. In the event the Issuer fails to pay such liquidated damages in a timely manner, the damages will bear interest at the rate of 2% per month (prorated for partial months) until paid in full.

The descriptions of the Purchase Agreement, the Notes and the Security Agreement as set forth in this Amendment No. 1 to Schedule 13D is qualified in its entirety by reference to Exhibits 2, 3 and 4, respectively, which are incorporated by reference herein.

ITEM 5. Interest in Securities of the Issuer.

Item 5 of the Statement is hereby amended and restated in its entirety as follows:

(a) and (b) Set forth below is the aggregate number of shares of the Common Stock held by Baker/Tisch Investments, L.P., Baker Bros. Investments II, L.P., 667, L.P., Baker Brothers Life Sciences, L.P. and 14159, L.P., and beneficially owned by the Reporting Persons, as of the date hereof by each of the following, together with the percentage of outstanding shares of the Common Stock that such number represents based upon 40,064,194 shares of Common Stock outstanding as of February 28, 2011, as reported by the Issuer on their Annual Report on Form 10-K, as filed with the Securities and Exchange Commission on March 28, 2011. Such percentage figures are calculated on the basis that outstanding derivative securities for the Common Stock are not deemed converted or exercised in shares of the Common Stock.

Holder	Shares of Common Stock	Percentage of Class Outstanding
Baker/ Tisch Investments, L.P.	5,967	0.01%
Baker Bros. Investments II, L.P.	1,786	0.00%
667, L.P.	1,432,692	3.58%
Baker Brothers Life Sciences, L.P.	5,264,782	13.15%
14159, L.P.	156,591	0.39%
	<u>6,861,818</u>	<u>17.13%</u>

The Reporting Persons may be deemed beneficial owners of a combined total of 6,861,818 shares of Common Stock, representing 17.13% of total outstanding Common Stock.

The Reporting Persons may also be deemed beneficial owners of \$300 principal amount of Notes held by Baker Bros. Investments II, L.P., which Notes may be converted into Common Stock at a conversion rate of 25,000 shares per \$1,000 principal amount of Notes, for an aggregate of 7,500 shares of Common Stock, subject to certain limitations discussed below. Baker Bros. Investments II, L.P. also has the right, but not the obligation, to purchase an additional \$600 principal amount of the Notes on the same terms, which would ultimately be convertible into an additional 15,000 shares of Common Stock, which right expires on May 2, 2013. Pursuant to the Purchase Agreement, Baker Bros. Investments II, L.P. also has the right to purchase up to 0.01% of any new securities, subject to certain exceptions, offered and sold by the Issuer until \$15,000,000 in aggregate new securities have been offered and sold to any persons, including the Purchasers.

Baker Bros. Investments II, L.P. has no right to convert the Notes to the extent that after giving effect to such conversion Baker Bros. Investments II, L.P. (together with its affiliates) would beneficially own in excess of the Maximum Percentage, which is currently 9.99%, of the number of shares of common stock of the Issuer outstanding immediately after giving effect to such conversion. Baker Bros. Investments II, L.P. can increase or decrease the Maximum Percentage for its Notes by written notice to the Issuer, provided that such increase or decrease will not be effective until 61 days after delivery of the notice.

The Reporting Persons may also be deemed beneficial owners of \$294,300 principal amount of Notes held by Baker Brothers Life Sciences, L.P., which may be converted into Common Stock at a conversion rate of 25,000 shares per \$1,000 principal amount of Notes, for an aggregate of 7,357,500 shares of Common Stock, subject to certain limitations discussed below. Baker Brothers Life Sciences, L.P. also has the right, but not the obligation, to purchase an additional \$588,600 principal amount of the Notes on the same terms, which would ultimately be convertible into an additional 14,715,000 shares of Common Stock, which right shall expire May 2, 2013. Pursuant to the Purchase Agreement, Baker Brothers Life Sciences, L.P. also has the right to purchase up to 9.81% of any new securities, subject to certain exceptions, offered and sold by the Issuer until \$15,000,000 in aggregate new securities have been offered and sold to any persons, including the Purchasers.

Baker Brothers Life Sciences, L.P. has no right to convert the Notes to the extent that after giving effect to such conversion Baker Brothers Life Sciences, L.P. (together with its affiliates) would beneficially own in excess of the Maximum Percentage, which is currently 9.99%, of the number of shares of common stock of the Issuer outstanding immediately after giving effect to such conversion. Baker Brothers Life Sciences, L.P. can increase or decrease the Maximum Percentage for its Notes by written notice to the Issuer, provided that such increase or decrease will not be effective until 61 days after delivery of the notice.

The Reporting Persons may also be deemed beneficial owners of \$5,400 principal amount of Notes held by 14159, L.P., which may be converted into Common Stock at a conversion rate of 25,000 shares per \$1,000 principal amount of Notes, for an aggregate of 135,000 shares of Common Stock, subject to certain limitations discussed below. 14159, L.P. also has the right, but not the obligation, to purchase an additional \$10,800 principal amount of the Notes on the same terms, which would ultimately be convertible into an additional 270,000 shares of Common Stock, which right shall expire May 2, 2013. Pursuant to the Purchase Agreement, Baker 14159, L.P. also has the right to purchase up to 0.18% of any new securities, subject to certain exceptions, offered and sold by the Issuer until \$15,000,000 in aggregate new securities have been offered and sold to any persons, including the Purchasers.

14159, L.P. has no right to convert the Notes to the extent that after giving effect to such conversion 14159, L.P. (together with its affiliates) would beneficially own in excess of the Maximum Percentage, which is currently 9.99%, of the number of shares of common stock of the Issuer outstanding immediately after giving effect to such conversion. 14159, L.P. can increase or decrease the Maximum Percentage for its Notes by written notice to the Issuer, provided that such increase or decrease will not be effective until 61 days after delivery of the notice.

The Reporting Persons may also be deemed beneficial owners of warrants to acquire Common Stock of the Issuer (the "Warrants") in the amounts listed as follows:

Holder	Warrants
667, L.P.	363,952
Baker Brothers Life Sciences, L.P.	1,580,066
14159, L.P.	44,618

The number of shares of Common Stock that may be acquired by 667, L.P., Baker Brothers Life Sciences, L.P. or 14159, L.P. upon any exercise of the Warrants is limited to the extent necessary to ensure that, following such exercise, the total number of shares of Common Stock then beneficially owned by the Reporting Persons does not exceed 9.999% of the total number of then issued and outstanding shares of Common Stock (including for such purpose the shares of Common Stock issuable upon such exercise) (the "Limitation on Exercise"). The Limitation on Exercise remains in effect with respect to the Warrants held by 667, L.P., Baker Brothers Life Sciences, L.P. and 14159, L.P., and no shares are currently issuable upon exercise of the Warrants held by 667, L.P., Baker Brothers Life Sciences, L.P. and 14159, L.P.

Since the date of the Schedule 13D, the rights to purchase an aggregate of 2,582,644 shares of the Issuer's Common Stock at an exercise price of \$0.968 per share, acquired on October 19, 2009 by 667, L.P., Baker Brothers Life Sciences, L.P. and 14159, L.P., in a private placement, expired without having been exercised on May 14, 2010.

By virtue of their ownership of entities that have the power to control the investment decisions of the limited partnerships listed in the tables above, Julian C. Baker and Felix J. Baker may each be deemed to be beneficial owners of shares owned by the entities listed above and may be deemed to have shared power to vote or direct the vote of and shared power to dispose or direct the disposition of such securities.

(c) Except as described in this Schedule, including Item 3 hereof, none of the Reporting Persons has effected any transaction in the securities of the Issuer in the past 60 days.

(d) No person other than the Reporting Persons has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of the securities to which this Schedule relates.

(e) Not applicable.

ITEM 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

The information contained in Items 3, 4 and 5 of this Amendment No. 1 is incorporated herein by reference.

ITEM 7. Materials to be Filed as Exhibits.

- Exhibit 1: Joint Filing Agreement as required by Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, dated May 3, 2011, by and between Julian C. Baker and Felix J. Baker
- Exhibit 2: Securities Purchase Agreement dated April 24, 2011 by and among A.P. Pharma, Inc. and the purchasers listed on Schedule I thereto. (Incorporated by reference to Exhibit 10.1 of the Issuer's Current Report on Form 8-K (File No. 001-33221), filed with the Commission on April 28, 2011.)
- Exhibit 3: Form of Senior Secured Convertible Notes due 2021 issued by A.P. Pharma, Inc. (Incorporated by reference to Exhibit 10.2 of the Issuer's Current Report on Form 8-K (File No. 001-33221), filed with the Commission on April 28, 2011.)
- Exhibit 4: Security Agreement made and entered into as of April 24, 2011 by and among A.P. Pharma, Inc. and Tang Capital Partners, LP in its capacity as Agent. (Incorporated by reference to Exhibit 10.3 of the Issuer's Current Report on Form 8-K (File No. 001-33221), filed with the Commission on April 28, 2011.)
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SIGNATURES

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

EXECUTED as a sealed instrument this 3rd day of May, 2011.

By: /s/ Julian C. Baker
Julian C. Baker

By: /s/ Felix J. Baker
Felix J. Baker

JOINT FILING AGREEMENT

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree that only one statement containing the information required by Schedule 13D need be filed with respect to the ownership by each of the undersigned of the shares of Common Stock of A.P. Pharma, Inc.

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original.

EXECUTED as of this 3rd day of May, 2011.

By: /s/ Julian C. Baker
Julian C. Baker

By: /s/ Felix J. Baker
Felix J. Baker
