

SCHEDULE 13G

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

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

**A.P. Pharma, Inc.**

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(Name of Issuer)

**Common Stock, par value \$0.01 per share**

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(Title of Class of Securities)

**00202J203**

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(CUSIP Number)

**December 31, 2008**

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(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).**

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**1** NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only)

Felix J. Baker

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**2** CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a)

(b)

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**3** SEC USE ONLY

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**4** CITIZENSHIP OR PLACE OF ORGANIZATION

United States

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	<b>5</b>	<b>SOLE VOTING POWER</b>	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>			-0-
	<b>6</b>	<b>SHARED VOTING POWER</b>	
			2,884,546
	<b>7</b>	<b>SOLE DISPOSITIVE POWER</b>	
			-0-
	<b>8</b>	<b>SHARED DISPOSITIVE POWER</b>	
			2,884,546

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**9** AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,884,546

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**10** CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES   
(See Instructions)

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**11** PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

9.3%

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**12** TYPE OF REPORTING PERSON (See Instructions)

IN

**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)

(b)

**3 SEC USE ONLY**

**4 CITIZENSHIP OR PLACE OF ORGANIZATION**

United States

**5 SOLE VOTING POWER**

-0-

**6 SHARED VOTING POWER**

2,884,546

**7 SOLE DISPOSITIVE POWER**

-0-

**8 SHARED DISPOSITIVE POWER**

2,884,546

**9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON**

2,884,546

**10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES**   
(See Instructions)

**11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9**

9.3%

**12 TYPE OF REPORTING PERSON (See Instructions)**

IN

**Item 1(a) Name of Issuer:**

A.P. Pharma, Inc.

**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 Felix J. Baker and Julian C. Baker (the "Reporting Persons").

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

<u>Name</u>	<u>Business Address</u>
Felix J. Baker	667 Madison Avenue New York, NY 10065
Julian C. Baker	667 Madison Avenue New York, NY 10065

**Item 2(c) Citizenship:**

Each of the Reporting Persons is a United States citizen.

**Item 2(d) Title of Class of Securities:**

Common Stock, par value \$0.01 per share

**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: N/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) o An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F).
- (g) o A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G).
- (h) o A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act.
- (i) o 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) o Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

**Item 4. Ownership.**

Set forth below is the aggregate number of shares of Common Stock, held as of the date hereof by each of the following, together with the percentage of the outstanding shares of Common Stock that such number represents based upon 30,941,149 shares outstanding as reported on the company's SEC Form 10Q filed on November 7, 2008.

Name	Number of Shares	Percent of Class Outstanding
Baker Bros. Investments II, L.P.	1,786	0.0%
667, L.P.	704,787	2.3%
Baker Brothers Life Sciences, L.P.	2,104,651	6.8%
14159, L.P.	67,355	0.2%
Baker/Tisch Investments, L.P.	5,967	0.0%
<b>Total</b>	<b>2,884,546</b>	<b>9.3%</b>

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

**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 [ ]. N/A

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

The entities listed in Item 4 above are investment funds the investors in which have the right to receive dividends, interest and the proceeds of sale of securities owned by such funds.

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

N/A

**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 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 hereby certify that the information set forth in this statement is true, complete and correct.

February 17, 2009

/s/ Felix J. Baker

Felix J. Baker

/s/ Julian C. Baker

Julian C. 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 17, 2009

/s/ Felix J. Baker

Felix J. Baker

/s/ Julian C. Baker

Julian C. Baker