

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

SCHEDULE 13G

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

A.P. PHARMA, INC.

(Name of Issuer)

Common Stock, \$0.01 par value

(Title of Class of Securities)

00202J203

(CUSIP Number)

October 19, 2009

(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 the disclosures provided in a prior cover page.

The information required in 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 ("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 Boxer Capital, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" 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 -0-
	6	SHARED VOTING POWER 2,534,090
	7	SOLE DISPOSITIVE POWER -0-
	8	SHARED DISPOSITIVE POWER 2,534,090
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,534,090	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.4%*	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) CO	

* Based on 39,842,338 shares outstanding, the sum of (i) 31,376,432 Common Shares reported to be outstanding as of July 31, 2009 by the Issuer on its Form 10-Q filed with the Securities and Exchange Commission on August 4, 2009, (ii) 7,954,543 Common Shares issued as a result of the offering reported by the Issuer on its Form 8-K filed with the Securities and Exchange Commission on October 22, 2009, and 511,363 Common Shares issuable upon the exercise of the Warrant.

1	NAMES OF REPORTING PERSONS Boxer Asset Management Inc.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Bahamas	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5	SOLE VOTING POWER -0-
	6	SHARED VOTING POWER 2,534,090
	7	SOLE DISPOSITIVE POWER -0-
	8	SHARED DISPOSITIVE POWER 2,534,090
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,534,090	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.4%*	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) CO	

* Based on 39,842,338 shares outstanding, the sum of (i) 31,376,432 Common Shares reported to be outstanding as of July 31, 2009 by the Issuer on its Form 10-Q filed with the Securities and Exchange Commission on August 4, 2009, (ii) 7,954,543 Common Shares issued as a result of the offering reported by the Issuer on its Form 8-K filed with the Securities and Exchange Commission on October 22, 2009, and 511,363 Common Shares issuable upon the exercise of the Warrant.

1	NAMES OF REPORTING PERSONS Ivan Lieberburg	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" 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 400,000
	6	SHARED VOTING POWER -0-
	7	SOLE DISPOSITIVE POWER 400,000
	8	SHARED DISPOSITIVE POWER -0-
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 400,000	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 1.0%**	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN	

** Based on 39,330,975 shares outstanding, the sum of (i) 31,376,432 Common Shares reported to be outstanding as of July 31, 2009 by the Issuer on its Form 10-Q filed with the Securities and Exchange Commission on August 4, 2009, and (ii) 7,954,543 Common Shares issued as a result of the offering reported by the Issuer on its Form 8-K filed with the Securities and Exchange Commission on October 22, 2009.

1	NAMES OF REPORTING PERSONS Joseph Lewis		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="radio"/> (b) <input checked="" type="checkbox"/>		
3	SEC USE ONLY		
4	CITIZENSHIP OR PLACE OF ORGANIZATION United Kingdom		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5	SOLE VOTING POWER -0-	
	6	SHARED VOTING POWER 2,534,090	
	7	SOLE DISPOSITIVE POWER -0-	
	8	SHARED DISPOSITIVE POWER 2,534,090	
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,534,090		
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="radio"/>		
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.4%*		
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN		

* Based on 39,842,338 shares outstanding, the sum of (i) 31,376,432 Common Shares reported to be outstanding as of July 31, 2009 by the Issuer on its Form 10-Q filed with the Securities and Exchange Commission on August 4, 2009, (ii) 7,954,543 Common Shares issued as a result of the offering reported by the Issuer on its Form 8-K filed with the Securities and Exchange Commission on October 22, 2009, and 511,363 Common Shares issuable upon the exercise of the Warrant.

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, CA
94063

Item 2(a). Name of Person Filing:

This Schedule 13G is jointly filed by Boxer Capital, LLC ("Boxer Capital"), Boxer Asset Management Inc. ("Boxer Management"), Ivan Lieberburg and Joseph Lewis (together with Boxer Capital and Boxer Management, and Ivan Lieberburg the "Reporting Persons"). Boxer Management is the managing member and majority owner of Boxer Capital. Joseph Lewis is the sole indirect owner and controls Boxer Management. Mr. Lieberburg is employed by Tavistock Life Sciences Company, which is a Delaware corporation and an affiliate of Boxer Capital.

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

The principal business address of both Boxer Capital and Ivan Lieberburg is: 445 Marine View Avenue, Suite 100, Del Mar, CA 92014. The principal business address of both Boxer Management and Joseph Lewis is: c/o Cay House P.O. Box N-7776 E.P. Taylor Drive Lyford Cay, New Providence, Bahamas.

Item 2(c). Citizenship:

Boxer Capital is a limited liability company organized under the laws of Delaware. Boxer Management is organized under the laws of the Bahamas. Ivan Lieberburg is a citizen of the United States. Joseph Lewis is a citizen of the United Kingdom.

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

Common Stock, \$0.01 par value, (the "Common Shares").

Item 2(e). CUSIP Number:

00202J203

Item 3. If this statement is filed pursuant to Rule 13d-1(b), or 13d-2(b) or (c), check whether the person filing is a:

Not applicable.

Item 4. Ownership.

(a) Amount beneficially owned:

Boxer Capital, Boxer Management and Joseph Lewis beneficially own 2,534,090* Common Shares, the sum of 2,022,727 Common Shares and 511,363* Common Shares underlying an immediately exercisable warrant to purchase Common Shares issued on October 22, 2009 (the "Warrant"). Pursuant to its terms, the Warrant is only exercisable to the extent that the holders thereof and their affiliates would beneficially own, for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended, no more than 9.999% of the outstanding Common Shares of the Issuer after exercise.

Ivan Lieberburg beneficially owns 400,000* Common Shares.

(b) Percent of class:

The Common Shares beneficially owned by Boxer Capital, Boxer Management and Joseph Lewis represent 6.4%* of the Issuer's outstanding Common Shares. The Common Shares beneficially owned by Ivan Lieberburg represent 1.0%* of the Issuer's outstanding Common Shares.

(c) Number of shares as to which such person has:

(i) Sole power to vote or direct the vote:

Ivan Lieberburg has the sole power to vote the 400,000* Common Shares he beneficially owns. Boxer Capital, Boxer Management and Joseph Lewis do not have the sole power to vote or direct the vote of any Common Shares.

(ii) Shared power to vote or to direct the vote:

Boxer Capital, Boxer Management and Joseph Lewis have shared voting power with respect to the 2,534,090* Common Shares they beneficially own. Ivan Lieberburg does not have shared power to vote or direct the vote of any Common Shares.

(iii) Sole power to dispose or direct the disposition of:

Ivan Lieberburg has the sole power to dispose of the 400,000* Common Shares he beneficially owns. Boxer Capital, Boxer Management and Joseph Lewis do not have the sole power to dispose or direct the disposition of any Common Shares.

(iv) Shared power to dispose or to direct the disposition of:

Boxer Capital, Boxer Management and Joseph Lewis have shared dispositive power with respect to the 2,534,090* Common Shares they beneficially own. Ivan Lieberburg does not have shared power to dispose of or direct the disposition of any Common Shares.

* The Reporting Persons may be deemed to beneficially own 2,934,090 Common Shares which constitute approximately 7.4% of 39,842,338 Common Shares outstanding, a notional amount based on (i) 31,376,432 shares stated to be outstanding by the Issuer as of July 31, 2009 in the Issuer's most recent Form 10-Q filed with the Securities and Exchange Commission on August 4, 2009, (ii) 7,954,543 Common Shares issued as a result of the offering reported on the Issuer's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 22, 2009 (the "Form 8-K"), and (iii) 511,363 Common Shares underlying the Warrant. Boxer Capital has shared voting and dispositive power with regard to the 2,534,090 Common Shares it beneficially owns directly. Boxer Management and Joseph Lewis each have shared voting and dispositive power with regard to the Common Shares owned directly by Boxer Capital. Mr. Lieberburg holds the 400,000 Common Shares he owns directly in his personal account and has sole voting and dispositive power over the Common Shares he owns directly. Neither Boxer Capital, Boxer Management nor Mr. Lewis have any voting or dispositive power with regard to the Common Shares held by Mr. Lieberburg.

Boxer Capital, as part of the offering described in the Form 8-K, purchased an option to acquire, under certain conditions, an additional 664,108 Common Shares on May 14, 2009. Boxer Capital, Boxer Management and Mr. Lewis do not currently have beneficial ownership of the Common Shares issuable in connection with the exercise of such option as this option is not currently exercisable within 60 days.

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

Not applicable.

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

Only Boxer Capital has the right to receive dividends and the proceeds from the sale of the Common Shares held by Boxer Capital. Mr. Lieberburg has the sole right to receive dividends and proceeds from the sale of the Common Shares he owns directly, which he holds in his personal account. See Item 4 above.

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

Not applicable.

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

Not applicable.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certification.

(c) 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 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.

Exhibits

1 Joint Filing Agreement, dated the date hereof, between the Reporting Persons.

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.

BOXER CAPITAL, LLC

Date: October 28, 2009

By: /s/ Christopher Fuglesang
Name: Christopher Fuglesang
Title: Authorized Signatory

BOXER ASSET MANAGEMENT INC.

By: /s/ Jefferson R. Voss
Name: Jefferson R. Voss
Title: Director

IVAN LIEBERBURG

By: /s/ Ivan Lieberburg
Ivan Lieberburg, Individually

JOSEPH LEWIS

By: /s/ Joseph Lewis
Joseph Lewis, Individually

EXHIBIT INDEX

Exhibits

- 1 Joint Filing Agreement, dated the date hereof, between the Reporting Persons.

JOINT FILING AGREEMENT

The undersigned hereby agree that the Statement on Schedule 13G, dated October 28, 2009, with respect to the shares of A.P. Pharma, Inc.'s Common Stock, par value \$0.01 per share, is, and any amendments thereto executed by each of us shall be, filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, and that this Agreement shall be included as an Exhibit to the Schedule 13G and each such amendment. Each of the undersigned agrees to be responsible for the timely filing of the Schedule 13G and any amendments thereto, and for the completeness and accuracy of the information concerning itself contained therein. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the 28th day of October, 2009.

BOXER CAPITAL, LLC

By: /s/ Christopher Fuglesang
Name: Christopher Fuglesang
Title: Authorized Signatory

BOXER ASSET MANAGEMENT INC.

By: /s/ Jefferson R. Voss
Name: Jefferson R. Voss
Title: Director

IVAN LIEBERBURG

By: /s/ Ivan Lieberburg
Ivan Lieberburg, Individually

JOSEPH LEWIS

By: /s/ Joseph Lewis
Joseph Lewis, Individually