

ARCA biopharma, Inc.
 Form 3
 February 05, 2009

FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,
 Section 17(a) of the Public Utility Holding Company Act of 1935 or Section
 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *		2. Date of Event Requiring Statement	3. Issuer Name and Ticker or Trading Symbol	
Â Atlas Venture Fund VII L P		(Month/Day/Year)	ARCA biopharma, Inc. [ABIO]	
(Last)	(First)	(Middle)	01/27/2009	
,Â 890 WINTER STREET,		4. Relationship of Reporting Person(s) to Issuer		5. If Amendment, Date Original Filed(Month/Day/Year)
SUITE 320		(Check all applicable)		
(Street)		<input type="checkbox"/> Director	<input checked="" type="checkbox"/> 10% Owner	6. Individual or Joint/Group Filing(Check Applicable Line)
WALTHAM,Â MAÂ 02451		<input type="checkbox"/> Officer	<input type="checkbox"/> Other	<input type="checkbox"/> Form filed by One Reporting Person
(City)	(State)	(Zip)	(give title below)	(specify below)
		<input checked="" type="checkbox"/> Form filed by More than One Reporting Person		

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	1,402,163 ⁽¹⁾	D	Â

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1473 (7-02)

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)	3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form of Derivative Security: Direct (D)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
		Title			

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	Date Exercisable	Expiration Date	Amount or Number of Shares	or Indirect (I) (Instr. 5)
Warrant to Purchase Common Stock	Â (2)	10/10/2013	Common Stock 75,449 (3) \$ 9.7406	D Â

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Atlas Venture Fund VII L P 890 WINTER STREET, SUITE 320 WALTHAM, MA 02451	Â	Â X	Â	Â
Atlas Venture Associates VII, L.P. 890 WINTER STREET, SUITE 320 WALTHAM, MA 02451	Â	Â X	Â	Â

Signatures

Atlas Venture Fund VII, L.P. By: Atlas Venture Associates VII, L.P. Its General Partner By: Atlas Venture Associates VII, Inc. Its General Partner By: /s/ Kristen Laguerre Name: Kristen Laguerre Title: Vice President 02/05/2009

__Signature of Reporting Person Date

Atlas Venture Fund VII, L.P. By: Atlas Venture Associates VII, Inc. Its General Partner By: /s/ Kristen Laguerre Name: Kristen Laguerre Title: Vice President 02/05/2009

__Signature of Reporting Person Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 5(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) These shares are held directly by Atlas Venture Fund VII, L.P. Atlas Venture Associates VII, L.P. is the general partner of Atlas Venture Fund VII, L.P. Each of the Filing Persons disclaims beneficial ownership of the shares except to the extent of his or its pecuniary interest therein.
- (2) This warrant is immediately exercisable.
- (3) These warrants are held directly by Atlas Venture Fund VII, L.P. Atlas Venture Associates VII, L.P. is the general partner of Atlas Venture Fund VII, L.P. Each of the Filing Persons disclaims beneficial ownership of the warrants except to the extent of his or its pecuniary interest therein.

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Remarks:

This statement on Form 3 is filed by Atlas Venture Fund VII, L.P. and Atlas Venture Associates VII, L.P.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, See Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.