

Lowe David George  
 Form 4  
 June 10, 2009

**FORM 4** UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
 Washington, D.C. 20549

OMB APPROVAL

OMB Number: 3235-0287  
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN 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 \*  
 Lowe David George

2. Issuer Name and Ticker or Trading Symbol  
 ARCA biopharma, Inc. [ABIO]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction (Month/Day/Year)  
 06/08/2009

Director  10% Owner  
 Officer (give title below)  Other (specify below)

C/O SKYLINE VENTURES, 525 UNIVERSITY AVENUE, STE 520

(Street)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

PALO ALTO, CA 94301

(City) (State) (Zip)

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				(A) or (D)	Price		
Common Stock	06/08/2009		S	V 65,708 D	\$ 4.2063 469,500	I	See Footnote (1)
Common Stock	06/09/2009		S	V 47,500 D	\$ 3.9872 422,000	I	See Footnote (1)
Common Stock	06/10/2009		S	V 36,000 D	\$ 3.9569 386,000	I	See Footnote (1)

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

