

Lowe David George  
Form 4  
June 10, 2009

# FORM 4

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

OMB APPROVAL

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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

(Last) (First) (Middle)

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

(Street)

PALO ALTO, CA 94301

(City) (State) (Zip)

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

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

06/08/2009

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

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

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

6. Individual or Joint/Group Filing(Check Applicable Line)

Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

### 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.

