Wheeler Patrick M Form 4 May 24, 2011

FORM 4

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

SECURITIES

OMB

OMB APPROVAL

Number:

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if no longer

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

1(b).

(Print or Type Responses)

See Instruction

1. Name and Address of Reporting Person * Wheeler Patrick M

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

5. Relationship of Reporting Person(s) to

(Check all applicable)

Issuer

(Last)

(First) (Middle) 3. Date of Earliest Transaction

Director

10% Owner

ARCA BIOPHARMA, INC., 8001

(Street)

(Month/Day/Year)

05/20/2011

X_ Officer (give title below)

Other (specify below)

ARISTA PLACE, SUITE 200

(Instr. 8)

Chief Financial Officer

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

Applicable Line)

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

6. Individual or Joint/Group Filing(Check

(Instr. 4)

Person

BROOMFIELD, CO 80021

(City) (State) (Zip)

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

1. Title of Security (Instr. 3)

2. Transaction Date 2A. Deemed (Month/Day/Year)

Execution Date, if

(Month/Day/Year)

3. 4. Securities TransactionAcquired (A) or Code Disposed of (D)

5. Amount of Securities Beneficially Owned Following

6. Ownership 7. Nature of Form: Direct Indirect (D) or Indirect Beneficial (I)

Ownership (Instr. 4)

(9-02)

(A) Code V Amount (D) Price

(Instr. 3, 4 and 5)

Transaction(s) (Instr. 3 and 4)

Reported

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

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

1. Title of Derivative Security

Conversion or Exercise

3. Transaction Date 3A. Deemed (Month/Day/Year) Execution Date, if

any

4. 5. Number of **Transaction**Derivative Code Securities

6. Date Exercisable and **Expiration Date** (Month/Day/Year)

7. Title and Amount of **Underlying Securities** (Instr. 3 and 4)

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(Instr. 3)	Price of Derivative Security	e (Month/Day/Year) (Instr. 8) Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)									
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Options to Purchase Common Stock	\$ 2.24	05/20/2011		A			20,000	<u>(1)</u>	05/20/2021	Common Stock	20,000

Reporting Owners

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

Wheeler Patrick M ARCA BIOPHARMA, INC. 8001 ARISTA PLACE, SUITE 200 BROOMFIELD, CO 80021

Chief Financial Officer

Signatures

/s/ Patrick M. 05/24/2011 Wheeler

**Signature of Date
Reporting Person

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(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).

The options vest in equal monthly installments over a three year period from the date of grant. In the event of a change in control of the Company, 50% of the unvested options shall become fully and immediately vested upon the closing date of such change in control, provided, however, that on the earlier of (i) the one-year anniversary of the closing date or (ii) involuntary termination, any options that remain unvested on such earlier date shall become fully and immediately vested.

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.

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