

ARCA biopharma, Inc.  
Form SC 13G  
April 28, 2011

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
SCHEDULE 13G  
Under the Securities Exchange Act of 1934  
(Amendment No. )\*  
ARCA biopharma, Inc.**

(Name of Issuer)  
Common Stock, par value \$0.001 per share

(Title of Class of Securities)  
00211Y100

(CUSIP Number)  
April 18, 2011

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- a.  Rule 13d-1(b)
- b.  Rule 13d-1(c)
- 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).

CUSIP No. 00211Y100

NAMES OF REPORTING PERSONS.

- 1** I.R.S. Identification Nos. of above persons (entities only)  
Iroquois Capital Management L.L.C.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

- 2** (a)   
(b)

SEC USE ONLY

**3**

CITIZENSHIP OR PLACE OF ORGANIZATION

**4**

Delaware

SOLE VOTING POWER

**5**

NUMBER OF 0

SHARED VOTING POWER

**6**

SHARES BENEFICIALLY OWNED BY 840,336 (see Item 4)

SOLE DISPOSITIVE POWER

**7**

EACH REPORTING PERSON 0

SHARED DISPOSITIVE POWER

**8**

WITH: 840,336 (see Item 4)

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

**9**

840,336 (see Item 4)

**10** CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

o

**11** PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

8.0 % (see Item 4)

**12** TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

OO

CUSIP No. 00211Y100

NAMES OF REPORTING PERSONS.

**1** I.R.S. Identification Nos. of above persons (entities only)  
Joshua Silverman

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

**2** (a)   
(b)

**3** SEC USE ONLY

**4** CITIZENSHIP OR PLACE OF ORGANIZATION  
United States of America

**5** SOLE VOTING POWER  
NUMBER OF 0

**6** SHARED VOTING POWER  
SHARES BENEFICIALLY OWNED BY 840,336 (see Item 4)

**7** SOLE DISPOSITIVE POWER  
EACH REPORTING PERSON 0

**8** SHARED DISPOSITIVE POWER  
WITH: 840,336 (see Item 4)

**9** AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
840,336 (see Item 4)

**10** CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

o

**11** PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

8.0% (see Item 4)

**12** TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

IN; HC

CUSIP No. 00211Y100

**NAMES OF REPORTING PERSONS.**

**1** I.R.S. Identification Nos. of above persons (entities only)  
Richard Abbe

**CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)**

**2** (a)   
(b)

**3** SEC USE ONLY

**4** CITIZENSHIP OR PLACE OF ORGANIZATION  
United States of America

**5** SOLE VOTING POWER  
NUMBER OF 0

**6** SHARED VOTING POWER  
SHARES BENEFICIALLY OWNED BY 840,336 (see Item 4)

**7** SOLE DISPOSITIVE POWER  
EACH REPORTING PERSON 0

**8** SHARED DISPOSITIVE POWER  
WITH: 840,336 (see Item 4)

**9** AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
840,336 (see Item 4)

**10** CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

o

**11** PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

8.0% (see Item 4)

**12** TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

IN; HC

Item 1.

(a) Name of Issuer

ARCA biopharma, Inc. (the Issuer )

(b) Address of Issuer's Principal Executive Offices

8001 Arista Place, Suite 200

Broomfield, Colorado 80021

**Item 2.**

(a) Name of Person Filing

(b) Address of Principal Business Office or, if none, Residence

(c) Citizenship

This Schedule 13G is being filed on behalf of (i) Iroquois Capital Management L.L.C., a Delaware limited liability company (Iroquois ), (ii) Joshua Silverman, an individual who is a citizen of the United States of America (Mr. Silverman ) and (iii) Richard Abbe, an individual who is a citizen of the United States of America (Mr. Abbe, together with Iroquois and Mr. Silverman, the Reporting Persons ).

The Reporting Persons have entered into a Joint Filing Agreement, a copy of which is filed with this Schedule 13G as Exhibit 1, pursuant to which the Reporting Persons have agreed to file this Schedule 13G jointly in accordance with the provisions of Rule 13d-1(k) of the Securities Exchange Act of 1934, as amended.

The principal business office of all of the Reporting Persons is 641 Lexington Avenue, 26<sup>th</sup> Floor, New York, New York 10022.

(d) Title of Class of Securities

Common stock, par value \$0.001 per share, of the Issuer (the Common Stock ).

(e) CUSIP Number

00211Y100

**Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:**

Not applicable.

**Item 4. Ownership.**

(a) and (b):

As of the close of business on April 27, 2011, each of the Reporting Persons may be deemed to have beneficial ownership of 840,336 shares of Common Stock, and all such shares of Common Stock represent beneficial ownership of approximately 8.0% of the Common Stock, based on (1) 8,834,535 shares of Common Stock issued and outstanding on April 15, 2011 as disclosed in the Form 424B5 Prospectus Supplement filed by the Issuer on April 18, 2011, plus (2) 1,680,672 shares of Common Stock in the aggregate issued on April 21, 2011 at the closing of the transaction described in the Form 8-K filed by the Issuer on April 18, 2011. The foregoing excludes 588,235 shares of Common Stock issuable upon exercise of a warrant issued to Iroquois Master Fund Ltd. at the closing of the transaction described above (the Warrant ) because the Warrant is not exercisable until the six (6) month anniversary of the date of issuance (and the Warrant also contains a blocker provision under which the holder thereof does not have the right to exercise the Warrant to the extent (but only to the extent) that such exercise would result in beneficial ownership by the holder thereof or any of its affiliates, of more than 4.9% of the Common Stock). Without such blocker provision (and assuming the Warrant is currently exercisable), each of the Reporting Persons may be deemed to have beneficial ownership of 1,428,571 shares of Common Stock.

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

- (i) Sole power to vote or to direct the vote: 0 .
- (ii) Shared power to vote or to direct the vote 840,336 .
- (iii) Sole power to dispose or to direct the disposition of 0 .
- (iv) Shared power to dispose or to direct the disposition of 840,336 .

**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.**

Not applicable.

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

Not applicable.

**Item 8. Identification and Classification of Members of the Group**

Not applicable.

**Item 9. Notice of Dissolution of Group**

Not applicable.

**Item 10. Certification**

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 of 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.

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**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.

Date: April 27, 2011

IROQUOIS CAPITAL MANAGEMENT  
L.L.C.

By: /s/ Joshua Silverman  
Joshua Silverman, Authorized Signatory

/s/ Joshua Silverman  
Joshua Silverman

/s/ Richard Abbe  
Richard Abbe

**JOINT FILING AGREEMENT**

The undersigned acknowledge and agree that the foregoing statement on Schedule 13G is filed on behalf of each of the undersigned and that all subsequent amendments to this statement on Schedule 13G may be filed on behalf of each of the undersigned without the necessity of filing additional joint filing agreements. The undersigned acknowledge that each shall be responsible for the timely filing of such amendments, and for the completeness and accuracy of the information concerning him or it contained herein and therein, but shall not be responsible for the completeness and accuracy of the information concerning the others, except to the extent that he or it knows or has reason to believe that such information is inaccurate.

Dated: April 27, 2011

IROQUOIS CAPITAL MANAGEMENT  
L.L.C.

By: /s/ Joshua Silverman  
Joshua Silverman, Authorized Signatory

/s/ Joshua Silverman  
Joshua Silverman

/s/ Richard Abbe  
Richard Abbe