ARCA biopharma, Inc. Form SC 13G/A February 14, 2012

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 1)*

ARCA biopharma, Inc.

(Name of Issuer)

Common Stock, par value \$0.001 per share

(Title of Class of Securities)

00211Y100

(CUSIP Number)

December 31, 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. x 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

(1)	Names of reporting persons.				
	I.R.S. Id	dentif	ication Nos. of above persons (entities only)		
	Iroquois Capital Management L.L.C. Check the appropriate box if a member of a group (see instructions)				
	(a) "				
	(b) " SEC use only				
(4)	Citizenship or place of organization				
	Delawa	re (5)	Sole voting power		
Num	ber of				
sh	ares	(6)	0 Shared voting power		
benet	ficially				
	ed by	(7)	605,643 (see Item 4) Sole dispositive power		
reporting					
	rson ith:	(8)	0 Shared dispositive power		
(9)	Aggreg	ate an	605,643 (see Item 4) nount beneficially owned by each reporting person		
605,643 (see Item 4) 10) Check if the aggregate amount in Row (9) excludes certain shares (see instructions)					

(11) Percent of class represented by amount in Row (9)
4.9% (see Item 4)

OO

(12) Type of reporting person (see instructions)

Page 2 of 6

CUSIP No. 00211Y100

(1)	Names	Names of reporting persons.			
	I.R.S. I	dentif	cication Nos. of above persons (entities only)		
(2)	rman propriate box if a member of a group (see instructions)				
	(a) "				
(3)	(b) " (3) SEC use only				
(4)	Citizenship or place of organization				
	United		s of America Sole voting power		
Num	nber of				
sh	ares	(6)	0 Shared voting power		
bene	ficially				
	ned by	(7)	605,643 (see Item 4) Sole dispositive power		
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	rson	(8)	0 Shared dispositive power		
	rith: Aggreg	ate ar	605,643 (see Item 4) nount beneficially owned by each reporting person		
(10)	605,643 Check i		Item 4) aggregate amount in Row (9) excludes certain shares (see instructions)		

Page 3 of 6

(11)	Percent of class represented by amount in Row (9)
(12)	4.9% (see Item 4) Type of reporting person (see instructions)
	IN; HC

CUSIP No. 00211Y100

(1)	Names	of rep	porting persons.
	I.R.S. I	dentif	ication Nos. of above persons (entities only)
(2)	Richard Check		e propriate box if a member of a group (see instructions)
	(a) "		
(3)	(b) " SEC us	e only	
(4)	Citizen	ship o	or place of organization
	United		s of America Sole voting power
Num	nber of		
sh	ares	(6)	0 Shared voting power
bene	ficially		
	ned by	(7)	605,643 (see Item 4) Sole dispositive power
repo	orting		
pe	rson	(8)	0 Shared dispositive power
w	ith:		
(9)	Aggreg	ate an	605,643 (see Item 4) nount beneficially owned by each reporting person
[10)			Item 4) aggregate amount in Row (9) excludes certain shares (see instructions)

(11)	Percent of class represented by amount in Row (9)
	4.9% (see Item 4)
(12)	Type of reporting person (see instructions)
	IN; HC
	Page 4 of 6

This Amendment No. 1 is being filed jointly by the Reporting Persons and amends the Schedule 13G initially filed by the Reporting Persons with the Securities and Exchange Commission (the \underline{SEC}) on April 28, 2011 (the $\underline{Schedule}$ 13G).

Except as set forth below, all Items of the Schedule 13G remain unchanged. All capitalized terms not otherwise defined herein shall have the meanings ascribed to such terms in the Schedule 13G.

Item 4. Ownership.

(a) and (b):

As of the close of business on December 31, 2011, each of the Reporting Persons may be deemed to have beneficial ownership of 605,643 shares of Common Stock, which consists of (i) 428,571 shares of Common Stock held for the account of Iroquois Master Fund Ltd. (<u>Iroquois Master Fund</u>) and (ii) 177,072 shares of Common Stock issuable upon exercise of a warrant held by Iroquois Master Fund (the <u>Warrant</u>), and all such shares of Common Stock represent beneficial ownership of approximately 4.9% of the Common Stock, based on based on (1) 12,182,999 shares of Common Stock issued and outstanding on December 22, 2011 as disclosed in the Form S-3 Registration Statement filed by the Issuer on January 12, 2012, plus (2) 177,072 shares of Common Stock issuable upon exercise of the Warrant.

The foregoing excludes (I) 411,163 shares of Common Stock issuable upon exercise of the Warrant because the Warrant 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, and (II) 321,482 shares of Common Stock issuable upon exercise of a second warrant held by Iroquois Master Fund (the <u>Second Warrant</u>) because the Second Warrant is not exercisable until the six (6) month anniversary of the date of issuance (and the Second Warrant also contains a blocker provision under which the holder thereof does not have the right to exercise the Second 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 Second Warrant is currently exercisable), each of the Reporting Persons may be deemed to have beneficial ownership of 1,338,288 shares of Common Stock.

- (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 605,643.
- (iii) Sole power to dispose or to direct the disposition of 0.
- (iv) Shared power to dispose or to direct the disposition of 605,643.

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than 5 percent of the class of securities, check the following b.

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.

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: February 13, 2012

IROQUOIS CAPITAL MANAGEMENT L.L.C.

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

/s/ Joshua Silverman Joshua Silverman

/s/ Richard Abbe Richard Abbe

Page 6 of 6