

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

SCHEDULE 13G  
Under the Securities Exchange Act of 1934  
(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT  
TO RULES 13d-1(b), (c), AND (d) AND AMENDMENTS THERETO FILED  
PURSUANT TO RULE 13d-2(b)

ARCA biopharma, Inc.

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(Name of Issuer)

Common Stock

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(Title of Class of Securities)

00211Y100

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(CUSIP Number)

September 27, 2013

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(Date of Event which Requires Filing of this Statement)

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

Rule 13d-1(b)

Rule 13d-1(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. Identification Nos. of above persons (entities only)

RILEY McCORMACK

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)   
(b)

3. SEC Use Only

4. Citizenship or Place of Organization  
USA

5. Sole Voting Power  
2,000,000(1)

Number of Shares  
Beneficially Owned  
By Each

6. Shared Voting Power  
0

Reporting Person With

7. Sole Dispositive Power  
2,000,000(1)

8. Shared Dispositive Power  
0

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,000,000(1)

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)  
18.26%(2)

12. Type of Reporting Person (See Instructions)  
IN

- (1) Consists of shares held by the Riley McCormack Revocable Trust, of which the reporting person is trustee  
(2) Based on 10,950,762 shares of Common Stock issued and outstanding per ARCA biopharma, Inc. Form 10-Q dated August 13, 2013.

- Item 1(a). Name of Issuer:  
ARCA biopharma, Inc.
- Item 1(b). Address of Issuer's principal executive offices:  
8001 Arista Place, Suite 430  
Broomfield, Colorado
- Item 2(a). Name of persons filing:  
RILEY McCORMACK
- Item 2(b). Address or principal business office or, if none, residence:  
2515 Alhambra Circle  
Coral Gables, Florida 33134
- Item 2(c). Citizenship or Place of Organization:  
USA
- Item 2(d). Title of class of securities:  
Common Stock
- Item 2(e). CUSIP No. 00211Y100
- Item 3. If this statement is filed pursuant to Rules 13d-1(b), or 13d-2(b) or (c), check whether the person is filing is a:
- (a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
  - (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
  - (c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S. C. 78c).
  - (d)  Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8)
  - (e)  An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
  - (f)  An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);
  - (g)  A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
  - (h)  A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
  - (i)  A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 915 U.S.C. 80a-3);
  - (j)  Group, in accordance with § 240.13d-1(b)(1)(ii)(J).

NOT APPLICABLE

Item 4. Ownership

- (a) Amount beneficially owned: 2,000,000
- (b) Percent of class: 18.26%
- (c) Number of shares as to which the person has:
  - (i) Sole power to vote or to direct the vote: 2,000,000
  - (ii) Shared power to vote or to direct the vote: 0
  - (iii) Sole power to dispose or to direct the disposition of: 2,000,000
  - (iv) Shared power to dispose or to direct the disposition of: 0

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 the 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 effective 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.

EXHIBITS

None

SIGNATURES

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.

Dated: October 7, 2013

By: /s/ Riley McCormack  
Name/Title: Riley McCormack, Trustee