



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

December 30, 2014

Via E-mail

Eric J. Rey
President and Chief Executive Officer
Arcadia Biosciences, Inc.
202 Cousteau Place, Suite 200
Davis, CA 95618

**Re: Arcadia Biosciences, Inc.
Amendment No. 1 to
Draft Registration Statement on Form S-1
Submitted December 22, 2014
CIK No. 0001469443**

Dear Mr. Rey:

We have reviewed your amended draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Prospectus Summary, page 1

Overview, page 1

1. We note your response to prior comment four from our letter dated December 5, 2014. Please provide disclosure in your filing regarding the basis for your statement that you are "leading." With respect to our comment regarding the size of your company, we note the added disclosure on page 95 that you are "positioned at the nexus of basic research and commercial product development." Please provide this disclosure or similar disclosure the first time you mention that you are "leading."

Industry Overview, page 67

Innovation and Commercialization Process in Biotech Seed Traits, page 67

2. We note your response to prior comment 14. Please provide this information in the filing.

Notes to Consolidated Financial Statements, page F-7

Note 9. Common Stock and Redeemable and Convertible Preferred Stock, page F-24

Redeemable and Convertible Preferred Stock, page F-24

3. You disclose that:
 - (a) the redemption amount of the Series D preferred stock shall be the greater of (i) two times the original issue price of the Series D redeemable convertible preferred stock plus accrued and unpaid dividends through the redemption date, or (ii) the fair market value of the Series D redeemable convertible preferred stock,
 - (b) the holders of record of shares of Series D redeemable convertible preferred stock are initially entitled to a 15% dividend that accrues annually until the five-year anniversary of the issuance date, and
 - (c) you recorded a discount of \$2.5 million on the issuance of the Series D preferred stock.

Please tell us and disclose how you computed the amount of “accretion of redeemable convertible preferred stock to redemption value” of \$2.088 million presented on the statement of operations for the nine months ended September 30, 2014. In so doing, tell us and disclose:

- (i) the amount of dividends that has been accrued on Series D preferred stock,
- (ii) how the amount of dividends accrued has been computed,
- (iii) where such dividends are reflected in the financial statements,
- (iv) the effect given to such dividends in the loss per share computation,
- (v) the amount of discount recognized on the issuance of Series D that has been accreted and where it is reported in the financial statements, including the effect of such on the loss per share computation, and
- (vi) how the redemption value for Series D indicated in the first sentence of this comment was reflected in your computation.

Refer to ASC 260-10-50-1.b, ASC 505-10-50-5.b and Rule 5-02.27(b) of Regulation S-X for further guidance in regard to disclosure requirements.

Eric J. Rey
Arcadia Biosciences, Inc.
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You may contact Stephen Kim at (202) 551-3291 or Doug Jones at (202) 551-3309 if you have questions regarding comments on the financial statements and related matters. Please contact Julie Griffith at (202) 551-3267 or me at (202) 551-3611 with any other questions.

Sincerely,

/s/ A.N. Parker

Anne Nguyen Parker
Assistant Director

Cc: Karen Dempsey
Orrick, Herrington & Sutcliffe LLP