

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM S-8  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**ARCADIA BIOSCIENCES, INC.**

(Exact Name of Registrant as Specified in Its Charter)

**Delaware**  
(State or Other Jurisdiction  
of Incorporation or Organization)

**81-0571538**  
(I.R.S. Employer  
Identification No.)

**202 Cousteau Place, Suite 105  
Davis, CA 95618**  
(Address of Principal Executive Offices, Including Zip Code)

**2015 Omnibus Equity Incentive Plan  
2015 Employee Stock Purchase Plan  
2006 Stock Plan**  
(Full Title of the Plans)

**Eric J. Rey  
Chief Executive Officer  
202 Cousteau Place, Suite 105  
Davis, CA 95618  
(530) 756-7077**  
(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

**Copies to:**

**Wendy S. Neal, Esq.**  
Vice President & Chief Legal Officer  
4222 East Thomas Road, Suite 245  
Phoenix, AZ 85018

**Karen A. Dempsey, Esq.  
Michael J. Hopp, Esq.**  
Orrick, Herrington & Sutcliffe LLP  
The Orrick Building  
405 Howard Street  
San Francisco, CA 94105

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company   
(do not check if a smaller reporting company)

**CALCULATION OF REGISTRATION FEE**

Title of Securities To Be Registered	Amount To Be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee(7)
Common Stock, \$0.001 par value per share:				
-To be issued under the 2015 Stock Incentive Plan	3,087,729(2)	\$8.00(4)	\$24,701,832.00	\$2,870.35
-To be issued under the 2015 Employee Stock Purchase Plan	625,000	\$6.80(5)	\$4,250,000.00	\$493.85
-Subject to outstanding options under the 2006 Stock Plan	4,050,699(3)	\$3.29(6)	\$13,326,799.71	\$1,548.57
<b>TOTAL</b>	7,763,428		\$42,278,631.71	\$4,912.78

- Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), this registration statement on Form S-8 (this "Registration Statement") also covers any additional securities that may be offered or issuable under the 2015 Stock Incentive Plan ("2015 Stock Plan"), 2015 Employee Stock Purchase Plan (the "ESPP") and 2006 Stock Plan (the "2006 Stock Plan") in connection with any stock split, stock dividend, recapitalization or any other similar transaction effected without receipt of consideration that results in an increase in the number of outstanding shares of the Registrant's Common Stock.
- Consists of 2,875,000 shares of Common Stock that were reserved for issuance under the 2015 Stock Plan and 212,729 shares of Common Stock previously reserved but unissued under the 2006 Stock Plan that are now available for issuance under the 2015 Stock Plan. To the extent that awards outstanding under the 2006 Stock Plan as of the date of this Registration Statement are forfeited, cancelled, surrendered or terminated without issuance of shares, the shares subject to such awards will be available for future issuance under the 2015 Stock Plan. See footnote 3 below.
- Represents shares of Common Stock reserved for issuance pursuant to stock awards outstanding under the 2006 Stock Plan as of the date of this Registration Statement. Any shares of Common Stock that are subject to outstanding awards under the 2006 Stock Plan that expire, are forfeited, or lapse unexercised and would otherwise have been returned to the share reserve under the 2006 Stock Plan will be available for issuance under the 2015 Stock Plan. See footnote 2 above.
- Estimated pursuant to Rule 457(h) under the Securities Act solely for the purposes of calculating the registration fee on the basis of the initial public offering price per share of the Registrant's Common Stock as set forth in the Registrant's prospectus filed with the Securities and Exchange Commission on or around May 15, 2015 pursuant to Rule 424(b) under the Securities Act.
- Estimated pursuant to Rule 457(h) under the Securities Act solely for the purpose of calculating the registration fee on the basis of 85% of the initial public offering price per share of the Registrant's Common Stock. Pursuant to the ESPP, the purchase price of Common Stock will be at least 85% of the lower of the fair market value of the common stock on the first trading day of the offering period or on the exercise date.
- Estimated pursuant to Rule 457(h) under the Securities Act solely for the purpose of calculating the registration fee on the basis of the weighted-average exercise price of awards outstanding under the 2006 Stock Plan as of the date of this Registration Statement.
- In connection with the Registrant's registration statement on Form S-1 (File No. 333-202124), the Registrant has a filing fee credit of \$5,565.00 and has applied this credit to this Registration Statement in connection with Rule 457(p).

**This Registration Statement shall become effective upon filing in accordance with Rule 462 under the Securities Act.**

[PART I](#)

[Information Required in the Section 10\(a\) Prospectus](#)

[II-1](#)

[PART II](#)

[Item 3. Incorporation of Documents by Reference](#)

[II-1](#)

[Item 4. Description of Securities](#)

[II-1](#)

[Item 5. Interests of Named Experts and Counsel](#)

[II-1](#)

[Item 6. Indemnification of Directors and Officers](#)

[II-1](#)

[Item 7. Exemption from Registration Claimed](#)

[II-2](#)

[Item 8. Exhibits](#)

[II-2](#)

[Item 9. Undertakings](#)

[II-3](#)

[SIGNATURES](#)

[II-4](#)

[EXHIBIT INDEX](#)

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[Table of Contents](#)

**PART I**

**Information Required in the Section 10(a) Prospectus**

The information specified in Item 1 and Item 2 of Part I of Form S-8 is omitted from this Registration Statement on Form S-8 (the "Registration Statement") in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the "Securities Act"), and the introductory note to Part I of Form S-8.

**PART II**

**Information Required in the Registration Statement**

**Item 3. Incorporation of Documents by Reference.**

Arcadia Biosciences, Inc. (the "Registrant") hereby incorporates by reference into this Registration Statement the following documents previously filed with the Securities and Exchange Commission (the "Commission"):

- (a) The Registrant's Prospectus dated May 14, 2015 and filed with the Commission on May 15, 2015, pursuant to Rule 424(b) under the Securities Act, relating to the Registration Statement on Form S-1, as amended (File No. 333-202124), which contains audited consolidated financial statements for the Registrant's latest fiscal year for which such statements have been filed.
- (b) The description of Registrant's Common Stock contained in Registrant's Registration Statement on Form 8-A/A, filed with the commission on May 14, 2015 pursuant to Section 12(b) of the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), including any amendment or report filed for the purpose of updating such description.

In addition, all documents subsequently filed by Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (excluding any portions thereof furnished by the Registrant, including but not limited to information furnished under Item 2.02 and Item 7.01 and any exhibits relating to Item 2.02 or Item 7.01 furnished under Item 9.01 of Form 8-K and any certification required by 18 U.S.C. § 1350), on or after the date of this Registration Statement, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents.

Unless expressly incorporated into this Registration Statement, reports furnished on Form 8-K subsequent to the date hereof shall not be incorporated by reference into this Registration Statement, except as to specific sections of such reports that are filed or deemed filed as set forth therein. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement.

**Item 4. Description of Securities.**

Not applicable.

**Item 5. Interests of Named Experts and Counsel.**

Not applicable.

**Item 6. Indemnification of Directors and Officers.**

The Registrant's amended and restated certificate of incorporation contains provisions that eliminate, to the maximum extent permitted by the General Corporation Law of the State of Delaware, the personal liability of the Registrant's directors and executive officers for monetary damages for breach of their fiduciary duties as directors or officers. The Registrant's amended and restated certificate of incorporation and bylaws provide that the Registrant must indemnify its directors and executive officers and may indemnify its employees and other agents to the fullest extent permitted by the General Corporation Law of the State of Delaware.

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[Table of Contents](#)

Sections 145 and 102(b)(7) of the General Corporation Law of the State of Delaware provide that a corporation may indemnify any person made a party to an action by reason of the fact that he or she was a director, executive officer, employee or agent of the corporation or is or was serving at the request of a corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of an action by or in right of the corporation, no indemnification may generally be made in respect of any claim as to which such person is adjudged to be liable to the corporation.

The Registrant has entered into or will enter into indemnification agreements with its current directors and executive officers, in addition to the indemnification provided for in its amended and restated certificate of incorporation and bylaws, and intends to enter into indemnification agreements with any new directors and executive officers in the future.

The Registrant has purchased and intends to maintain insurance on behalf of each and any person who is or was a director or officer of the Registrant against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

The Underwriting Agreement filed as Exhibit 1.1 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-202124), as declared effective by the Commission on May 14, 2015 (the "Registrant's Form S-1"), provides for indemnification by the underwriters of the Registrant and its executive officers and directors, and by the Registrant of the underwriters, for certain liabilities, including liabilities arising under the Securities Act.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

<u>Exhibit No.</u>	<u>Description</u>
4.1	Specimen common stock certificate of Registrant (incorporated herein by reference to Exhibit 4.1 to the Registrant's Form S-1).
5.1	Opinion of Orrick, Herrington & Sutcliffe LLP.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2	Consent of Orrick, Herrington & Sutcliffe LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on the signature page to this Form S-8).
99.1	2006 Stock Plan, as amended and restated, and form of agreement thereunder (incorporated herein by reference to Exhibit 10.8 to the Registrant's Form S-1).
99.2	2015 Omnibus Equity Incentive Plan and forms of agreement thereunder (incorporated herein by reference to Exhibit 10.9 to the Registrant's Form S-1).
99.3	2015 Employee Stock Purchase Plan and form of agreement thereunder (incorporated herein by reference to Exhibit 10.10 to the Registrant's Form S-1).

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[Table of Contents](#)

**Item 9. Undertakings.**

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement — notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent not more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

*provided, however,* that clauses (1)(i) and (1)(ii) do not apply if the information required to be included in a post-effective amendment by those clauses is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement;

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference into this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

II-3

[Table of Contents](#)

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Davis, State of California, on May 15, 2015.

**ARCADIA BIOSCIENCES, INC.**

By:   /s/ Eric J. Rey    
Eric J. Rey  
President, Chief Executive Officer and Director

## POWER OF ATTORNEY

**KNOW ALL PERSONS BY THESE PRESENTS,** that each person whose signature appears below hereby constitutes and appoints, jointly and severally, Eric J. Rey, Thomas P. O'Neil and Wendy S. Neal, each of them acting individually, his or her true and lawful attorney-in-fact and agent, with full power of substitution and revocation, in his or her name and on his or her behalf, to sign any or all amendments to this report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Eric J. Rey</u> Eric J. Rey	President, Chief Executive Officer and Director (Principal Executive Officer)	May 15, 2015
<u>/s/ Thomas P. O'Neil</u> Thomas P. O'Neil	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	May 15, 2015
<u>/s/ Darby E. Shupp</u> Darby E. Shupp	Director	May 15, 2015
<u>/s/ Uday Garg</u> Uday Garg	Director	May 15, 2015
<u>/s/ James R. Reis</u> James R. Reis	Director	May 15, 2015

[Table of Contents](#)

**INDEX TO EXHIBITS**

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**ORRICK, HERRINGTON & SUTCLIFFE LLP**  
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**WWW.ORRICK.COM**

May 15, 2015

Arcadia Biosciences, Inc.  
 202 Cousteau Place, Suite 105  
 Davis, CA 95618

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We are acting as counsel for Arcadia Biosciences, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of the Company's Registration Statement on Form S-8 (the "Registration Statement"), under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of 3,087,729 shares of the Company's common stock, par value \$0.001 per share (the "Common Stock"), reserved for issuance pursuant to the Company's 2015 Omnibus Equity Incentive Plan, 625,000 shares of Common Stock reserved for issuance pursuant to the Company's 2015 Employee Stock Purchase Plan, and 4,050,699 shares of Common Stock reserved for issuance pursuant to outstanding awards under the Company's 2006 Stock Plan (which plans are referred to herein as the "Plans" and which shares of Common Stock are referred to herein as the "Shares"). As your legal counsel, we have reviewed the actions proposed to be taken by you in connection with the issuance and sale of the Shares to be issued under the Plans.

In connection with rendering the opinion set forth below, we have examined and relied upon originals or copies, certified or otherwise identified to our satisfaction, of instruments, documents, and records which we deemed relevant and necessary for the purpose of rendering our opinion set forth below. In such examination, we have assumed the following: (a) the authenticity of original documents and the genuineness of all signatures, (b) the conformity to the originals of all documents submitted to us as copies, and (c) the representations of officers and employees are correct as to questions of fact.

Our opinion herein is limited to the General Corporation Law of the State of Delaware and the federal laws of the United States of America, and we express no opinion as to the effect on the matters covered by this letter of the laws of any other jurisdictions.

Based on the foregoing, and subject to the qualifications stated herein, we are of the opinion that the Shares to be issued pursuant to the terms of the Plans have been duly authorized and, when issued, delivered and paid for in accordance with the terms of the Plans, will be validly issued, fully paid and non-assessable.

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We consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not hereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Orrick, Herrington & Sutcliffe LLP

ORRICK, HERRINGTON & SUTCLIFFE LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report relating to the consolidated financial statements of Arcadia Biosciences, Inc. and subsidiary dated April 3, 2015 (April 29, 2015 as to the subsequent events described in Note 16 and May 10, 2015 as to the effects of the one-for-four reverse stock split described in Note 16), appearing in the Registration Statement No. 333-202124 on Form S-1 of Arcadia Biosciences, Inc.

/s/ Deloitte & Touche LLP

Phoenix, Arizona  
May 15, 2015

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