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) (Zip Code)

> 2015 Omnibus Equity Incentive Plan 2015 Employee Stock Purchase Plan (Full title of the plan)

> Rajendra Ketkar President and 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:

Matthew Plavan Chief Financial Officer 202 Cousteau Place, Suite 105 Davis, CA 95618 Michael De Angelis, Esq. Jeffrey Pietsch, Esq. Weintraub Chediak Coleman Grodin Law Corporation 475 Sansome Street, Suite 1800 San Francisco, CA 94111

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

Large accelerated filer		Accelerated filer	
Non-accelerated filer	☐ (Do not check if a small reporting company)	Smaller reporting company	X
Emerging growth company			

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

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
Common Stock, \$0.001 Par Value	21,341 (2)	\$33.24 (4)	\$ 709,374.84	\$ 88.32
Common Stock, \$0.001 Par Value	82,500 (3)	\$39.11 (5)	\$3,226,575.00	\$401.71

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of the Registrant's common stock that become issuable under the 2015 Employee Stock Purchase Plan (the "ESPP") or the 2015 Omnibus Equity Incentive Plan (the "2015 Plan") by reason of any stock dividend, stock split, recapitalization or similar transactions.
- (2) Represents 21,341 additional shares of common stock authorized as of January 1, 2018 under the evergreen provision of the ESPP.
- (3) Represents 82,500 additional shares of common stock authorized as of January 1, 2018 under the evergreen provision of the 2015 Plan.
- 4) Estimated in accordance with Rules 457(c) and (h) under the Securities Act, solely for the purpose of computing the amount of the registration fee and is equal to 85% of \$39.11, the average of the high and low sales price of a share of the registrant's common stock as reported on The NASDAQ Capital Market on March 16, 2108. Pursuant to the ESPP, shares are sold at 85% of the lesser of the fair market value of such shares on the first trading day of the offering period and the last trading day of the purchase period.
- (5) Estimated solely for the purpose of calculating the registration fee in accordance with Rules 457(c) and (h) promulgated under the Securities Act, based upon the average of the high and low prices of the registrant's common stock as reported on The NASDAQ Capital Market on March 16, 2018.

REGISTRATION OF ADDITIONAL SECURITIES PURSUANT TO GENERAL INSTRUCTION E

Pursuant to General Instruction E to Form S-8, this Registration Statement is being filed for the purpose of registering an additional (i) 21,341 shares of the Registrant's common stock available to be issued pursuant to the Registrant's 2015 Employee Stock Purchase Plan and (ii) 82,500 shares of the Registrant's common stock available to be issued pursuant to the Registrant's 2015 Omnibus Equity Incentive Plan, which are the same class as those securities previously registered on an effective Form S-8 filed with the Securities and Exchange Commission on (i) May 15, 2015 (File No. 333-204215) (the "2015 Registration Statement"), (ii) March 8, 2016 (File No. 333-210023) (the "2016 Registration Statement"), and (iii) March 8, 2017 (File No. 333-216545) (the "2017 Registration Statement,"), and the contents of the 2015 Registration Statement, 2016 Registration Statement, and 2017 Registration Statement, as amended, or as modified or superseded pursuant to Rule 412 under the Securities Act, is incorporated by reference into this Registration Statement.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Exhibits

Exhibit No.	Description of Exhibit
5.1	Opinion of Weintraub Tobin Chediak Coleman Grodin Law Corporation.
23.1	Consent of Deloitte & Touche LLP, independent registered public accounting firm.
23.2	Consent of Weintraub Tobin Chediak Coleman Grodin Law Corporation (included in Exhibit 5.1).
24.1	Power of attorney (included in the signature page to this Registration Statement).

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 this 20th day of March, 2018.

ARCADIA BIOSCIENCES, INC.

By: /s/ MATTHEW T. PLAVAN

Name: Matthew T. Plavan
Title: Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints Matthew T. Plavan and as attorney-in-fact, with the power of substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file the same, with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that such attorneys-in-fact and agents or any of them, or their substitute or 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 by the following persons in the capacities and on the dates indicated.

Signature	Title	Date	
/s/ RAJENDRA KETKAR Rajendra Ketkar	President and Chief Executive Officer and Director (principal executive officer)	March 20, 2018	
/s/ MATTHEW T. PLAVAN Matthew T. Plavan	Chief Financial Officer (principal financial and accounting officer)	March 20, 2018	
/s/ KEVIN COMCOWICH Kevin Comcowich	Director	March 20, 2018	
/s/ UDAY GARG Uday Garg	Director	March 20, 2018	
/s/ ERIC J. REY Eric J. Rey	Director	March 20, 2018	
/s/ GREGORY D. WALLER Gregory D. Waller	Director	March 20, 2018	
/s/ AMY YODER Amy Yoder	Director	March 20, 2018	

March 20, 2018 Arcadia Biosciences, Inc. 202 Cousteau Place, Suite 105 Davis, CA 95618

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

At your request, we have examined the Registration Statement on Form S-8 (the "Registration Statement") to be filed by Arcadia Biosciences, Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission (the "Commission") on or about March 20, 2018, in connection with the registration under the Securities Act of 1933, as amended, of 82,500 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 and 21,341 shares of Common Stock reserved for issuance pursuant to the Company's 2015 Employee Stock Purchase Plan (which plans are referred to herein as the "Plans" and which shares of Common Stock are referred to herein as the "Shares"). This opinion is being furnished in accordance with the requirements of Item 8 of Form S-8 and Item 601(b)(5)(i) of Regulation S-K.

In rendering this opinion, we have examined such documents, certificates and records as we have deemed appropriate for purposes of this letter.

In our examination of documents for purposes of this opinion, we have assumed, and express no opinion as to, the genuineness of all signatures on original documents, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the legal capacity of all persons or entities executing the same, the lack of any undisclosed termination, modification, waiver or amendment to any document reviewed by us and the due authorization, execution and delivery of all documents where due authorization, execution and delivery are prerequisites to the effectiveness thereof.

As to matters of fact relevant to this opinion, we have relied solely upon the foregoing and upon certificates and other assurances of officers of the Company and others as to factual matters, without having independently verified such factual matters; however, we are not aware of any facts that would cause us to believe that the opinion expressed herein is not accurate.

We are admitted to practice law in the State of California, and we render this opinion only with respect to, and express no opinion herein with concerning the application or effect of the laws of any jurisdiction other than, the existing laws of the United States of America, of the State of California and of the Delaware General Corporation Law, the Delaware constitution and reported judicial decisions relating thereto.

In connection with our opinion expressed below, we have assumed that, at or before the time of the delivery of any Shares, the Registration Statement will have been declared effective under the Securities Act, that the registration will apply to such Shares and will not have been modified or rescinded and that there will not have occurred any change in law affecting the validity of the issuance of such Shares.

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.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to all references to us, if any, in the Registration Statement, the prospectus constituting a part thereof and any amendments thereto. This opinion speaks only as of its date and we assume no obligation to update this opinion should circumstances change after the date hereof. This opinion is intended solely for your use in connection with issuance and sale of Shares subject to the Registration Statement and is not to be relied upon for any other purpose. This opinion is rendered as of the date first written above and based solely on our understanding of facts in existence as of such date after the aforementioned examination. We assume no obligation to advise you of any fact, circumstance, event or change in the law or the facts that may hereafter be brought to our attention whether or not such occurrence would affect or modify the opinions expressed herein.

Very truly yours,

/s/ Weintraub Tobin Chediak Coleman Grodin Law Corporation WEINTRAUB TOBIN CHEDIAK COLEMAN GRODIN LAW CORPORATION

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 its subsidiary (the "Company") (which report expresses an unqualified opinion and includes an explanatory paragraph regarding the Company's ability to continue as a going concern) dated March 20, 2018, appearing in the Annual Report on Form 10-K of Arcadia Biosciences, Inc. for the year ended December 31, 2017.

/s/ Deloitte & Touche LLP

Phoenix, Arizona March 20, 2018