

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

Form S-1

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)

2870
(Primary Standard Industrial
Classification Code Number)

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

202 Cousteau Place, Suite 105
Davis, CA 95618
(530) 756-7077
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Stanley E. Jacot, Jr.
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)

Pam Haley
Chief Financial Officer
202 Cousteau Place, Suite 105
Davis, CA 95618

Michael De Angelis, Esq.
Jeffrey Pletsch, Esq.
Weintraub Chediak Coleman Grodin Law Corporation
400 Capitol Mall, Suite 1100
Sacramento, CA 95814

Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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 Securities Exchange Act of 1934.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Prospectus

ARCADIA BIOSCIENCES, INC.

4,958,631
Common Stock

Pursuant to this prospectus, the selling stockholders identified herein are offering on a resale basis an aggregate of 4,958,631 shares of our common stock that are issuable upon the exercise of outstanding preferred investment options. These preferred investment options were issued in connection with a private placement we completed on August 16, 2022. We will not receive any of the proceeds from the sale by the selling stockholders of the common stock. Upon any exercise of the preferred investment options by payment of cash, however, we will receive the exercise price of the preferred investment options.

The selling stockholders may sell or otherwise dispose of the common stock covered by this prospectus in a number of different ways and at varying prices. We provide more information about how the selling stockholders may sell or otherwise dispose of the common stock covered by this prospectus in the section entitled "Plan of Distribution" on page 9. Discounts, concessions, commissions and similar selling expenses attributable to the sale of common stock covered by this prospectus will be borne by the selling stockholders. We will pay all expenses (other than discounts, concessions, commissions and similar selling expenses) relating to the registration of the common stock with the Securities and Exchange Commission.

Our common stock is listed on the Nasdaq Capital Market under the symbol "RKDA." On September 21, 2022, the last reported sale price of our common stock on the Nasdaq Capital Market was \$0.66 per share.

INVESTING IN OUR SECURITIES INVOLVES RISKS. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES DESCRIBED UNDER THE HEADING "RISK FACTORS" CONTAINED ON PAGE 1 HEREIN AND IN OUR ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2021, AS WELL AS OUR SUBSEQUENTLY FILED PERIODIC AND CURRENT REPORTS, WHICH WE FILE WITH THE SECURITIES AND EXCHANGE COMMISSION AND ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS. YOU SHOULD READ THE ENTIRE PROSPECTUS CAREFULLY BEFORE YOU MAKE YOUR INVESTMENT DECISION.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is _____, 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-1 that we filed with the SEC using a continuous offering process.

You should read this prospectus and the information and documents incorporated by reference carefully. Such documents contain important information you should consider when making your investment decision. See “Where You Can Find Additional Information” and “Incorporation of Information by Reference” in this prospectus.

You should rely only on the information provided in this prospectus or documents incorporated by reference into this prospectus. We have not authorized anyone to provide you with different information. This prospectus covers offers and sales of our common stock only in jurisdictions in which such offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front cover of this prospectus, or that the information contained in any document incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

In this prospectus, we refer to Arcadia Biosciences, Inc. as “we,” “us,” “our,” the “Company” or “RKDA.” You should rely only on the information we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus. We have not authorized anyone to provide you with different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus.

ABOUT ARCADIA BIOSCIENCES, INC.

We are a producer and marketer of innovative, plant-based health and wellness products. Our history as a leader in science-based approaches to developing high value crop improvements, primarily in wheat, designed to enhance farm economics by improving the performance of crops in the field, as well as their value as food ingredients, health and wellness products, and their viability for industrial applications, has laid the foundation for our path forward. We have used non-genetically modified advanced breeding techniques to develop these proprietary innovations which we are now commercializing through the sales of seed and grain, food ingredients and products, hemp extracts, trait licensing and royalty agreements. Our food, beverage and body care products include GoodWheat™, Zola®coconut water, ProVault™ topical pain relief and SoulSpring™ bath and body care.

We were founded in 2002, and our principal executive offices are located at 202 Cousteau Place, Suite 105, Davis, CA 95618. Our telephone number is (530) 756-7077. Our website is located at www.arcadiabio.com. Information contained on, or that can be accessed through, our website is not part of this prospectus.

RISK FACTORS

An investment in our common stock involves risks. Prior to making a decision about investing in our common stock, you should consider carefully the risks together with all of the other information contained or incorporated by reference in this prospectus, including any risks in the section entitled “Risk Factors” contained in any supplements to this prospectus and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, and in our subsequent filings with the SEC. Each of the referenced risks and uncertainties could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities. Additional risks not known to us or that we believe are immaterial may also adversely affect our business, operating results and financial condition and the value of an investment in our securities.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements in this prospectus and in any prospectus supplement we may file constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements relate to future events concerning our business and to our future revenues, operating results and financial condition. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "forecast," "predict," "propose," "potential" or "continue," or the negative of those terms or other comparable terminology.

Any forward-looking statements contained in this prospectus or any prospectus supplement are only estimates or predictions of future events based on information currently available to our management and management's current beliefs about the potential outcome of future events. Whether these future events will occur as management anticipates, whether we will achieve our business objectives, and whether our revenues, operating results or financial condition will improve in future periods are subject to numerous risks. There are a number of important factors that could cause actual results to differ materially from the results anticipated by these forward-looking statements. These important factors include those that we discuss under the heading "Risk Factors" and in other sections of our Annual Report on Form 10-K for the year ended December 31, 2021, as filed with the Securities and Exchange Commission (SEC), as well as in our other reports filed from time to time with the SEC that are incorporated by reference into this prospectus. You should read these factors and the other cautionary statements made in this prospectus and in the documents we incorporate by reference into this prospectus as being applicable to all related forward-looking statements wherever they appear in this prospectus or the documents we incorporate by reference into this prospectus. If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

USE OF PROCEEDS

We are registering shares of our common stock pursuant to registration rights granted to the selling stockholders. We will not receive any of the proceeds from any sale or other disposition of the common stock covered by this prospectus. All proceeds from the sale of the common stock will be paid directly to the selling stockholders. We will receive proceeds upon the cash exercise of the Investment Options for which the underlying Investment Option Shares are being registered hereunder. Assuming full cash exercise of the Investment Options, we would receive proceeds of approximately \$4.72 million. We currently intend to use the cash proceeds from any Warrant exercise for working capital and general corporate purposes.

Registered Offering and Private Placement

On August 12, 2022, we entered into a securities purchase agreement with an institutional investor relating to (i) the registered offering and sale (“RD Offering”) of 2,450,000 shares of our common stock at a purchase price of \$1.05876 per share and pre-funded warrants (“Pre-Funded Warrants”) to purchase 2,272,506 shares of common stock at a purchase price of \$1.05866 per share of common stock underlying each such warrant (“RD Offering”) and (ii) the concurrent private placement (“Private Placement”) of preferred investment options (“Private Placement Investment Options”) exercisable for a total of 4,722,506 shares of our common stock (“Investor Option Shares”) with an exercise price of \$0.93376 per share. Subject to certain ownership limitations, the Private Placement Investment Options are exercisable upon issuance and will expire on the 5-year anniversary of the date of issuance. The RD Offering and the Private Placement closed on August 16, 2022.

H.C. Wainwright & Co., LLC, or Wainwright, served as the sole placement agent for the RD Offering and the Private Placement. Pursuant to an engagement letter, dated August 12, 2022, we issued to designees of Wainwright preferred investment options (“Wainwright Investment Options”, and together with the Private Placement Investment Options, the “Investment Options”), for the purchase of a total of 236,125 shares of our common stock (“Wainwright Investment Option Shares”, and together with the Investor Option Shares, the “Investment Option Shares”) at an exercise price per share of \$1.3235. The Wainwright Investment Options are exercisable for five years from the date of issuance.

Relationship with the Selling Stockholders

Armistice Capital Master Fund, Ltd. (“Armistice”) was an investor in our registered direct offering and concurrent private placement of warrants that closed on September 10, 2019 (the “September 2019 Offering”), pursuant to which we issued and sold in a registered direct offering an aggregate of 1,318,828 shares of our common stock at an offering price of \$7.5825 per share. In a concurrent private placement, we issued to the investors, for each share of common stock purchased in the offering, a warrant to purchase one share of common stock. These warrants have an exercise price of \$7.52 per share and are exercisable to purchase an aggregate of up to 659,414 shares of our common stock.

Armistice was an investor in our registered direct offering and concurrent private placement of warrants that closed on December 18, 2020 (the “December 2020 Offering”), pursuant to which we issued and sold in a registered direct offering an aggregate of 2,618,658 shares of our common stock at an offering price of \$3.055 per share. In a concurrent private placement, we issued to the investors, for each share of common stock purchased in the offering, a warrant to purchase one share of common stock. These warrants have an exercise price of \$3.00 per share and are exercisable to purchase an aggregate of up to 2,618,658 shares of our common stock.

Each of Michael Vasinkevich, Noam Rubinstein, Craig Schwabe and Charles Worthman are affiliated with Wainwright. Wainwright served as our placement agent in several offerings of our securities within the past three years, including the September 2019 Offering, offerings of our securities occurring in May 2020 and July 2020 (“May and July 2020 Offerings”), the December 2020 Offering, the RD Offering and the Private Placement, for which it received customary cash and warrant compensation. In connection with all of the offerings Wainwright served as a placement agent, each of Michael Vasinkevich, Noam Rubinstein, and Charles Worthman, as a designee of Wainwright, has received warrants or preferred investment options to purchase shares of our common stock. In connection with the May and July 2020 Offerings, the December 2020 Offering, the RD Offering and the Private Placement, Craig Schwabe, as a designee of Wainwright, received warrants or preferred investment options to purchase shares of our common stock.

Except with respect to the foregoing, none of the selling stockholders has, or within the past three years has had, any position, office or material relationship with us.

Information About Selling Stockholder Offering

The shares of common stock being offered by the selling stockholders are those issuable to the selling stockholders, upon the exercise of the Investment Options. We are registering the shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time.

The table below lists the selling stockholders and other information regarding the ownership of the shares of common stock by each of the selling stockholders. The second column lists the number of shares of common stock owned by each selling stockholder, based on its ownership of the shares of common stock and securities convertible or exercisable into shares of common

stock, as of September 20, 2022, assuming exercise of the securities exercisable for shares of common stock held by the selling stockholders on that date, without regard to any limitations on exercises.

The third column lists the shares of common stock being offered by this prospectus by the selling stockholders.

This prospectus covers the resale of the maximum number of Investment Option Shares issuable upon exercise of the Investment Options. The table below assumes that the outstanding Investment Options and other warrants to purchase shares of common stock were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination, without regard to any limitations on the exercise of the Investment Options and other warrants. The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus. The fifth column lists the percentages of shares of common stock owned by the selling stockholders after this offering, without regard to any limitations on exercises.

Under the terms of the Investment Options, a selling stockholder may not exercise the Investment Options to the extent such exercise would cause such selling stockholder, together with its affiliates and attribution parties, to beneficially own a number of shares of common stock which would exceed 4.99% of our then outstanding common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon the exercise of the Investment Options, which have not been exercised. The number of shares in the second and fourth columns and the percent ownership in the fifth column do not reflect this limitation. The selling stockholders may sell all, some or none of their shares in this offering. See "Plan of Distribution." The total number of outstanding shares of common stock as of September 20, 2022 was 24,642,960.

Name of Selling Stockholder	Number of shares of Common Stock Owned		Shares Beneficially Owned After Offering	
	Before the Offering	Shares to be Sold in this Offering	Number	Percentage
Armistice Capital Master Fund Ltd. (1)	9,747,997	4,722,506	5,025,491	15.37%
Michael Vasinkevich (2)	650,721	151,415	499,306	1.98%
Noam Rubinstein (3)	342,613	74,380	268,233	1.08%
Craig Schwabe (4)	29,112	7,969	21,143	*
Charles Worthman (5)	10,875	2,361	8,514	*

* Represents beneficial ownership of less than one percent.

- (1) The number of shares owned before the offering include the following: (i) 1,702,672 shares of common stock, (ii) 2,272,506 shares of common stock underlying the Pre-Funded Warrants, which Pre-Funded Warrants are subject to beneficial ownership limitations that prohibit the selling stockholder from exercising any portion of the pre-funded warrants that would result in the selling stockholder owning a percentage of our outstanding common stock exceeding 9.99% after giving effect to the issuance of the common stock in connection with the selling stockholder's exercise, (iii) 4,722,506 shares of common stock underlying the Private Placement Investment Options, and (iv) 654,665 shares of common stock underlying common stock purchase warrants acquired in the December 2020 Offering and 395,648 shares of common stock underlying common stock purchase warrants acquired in the September 2019 Offering, which warrants are subject to beneficial ownership limitations that prohibit the selling stockholder from exercising any portion of the warrants that would result in the selling stockholder owning a percentage of our outstanding common stock exceeding 4.99% after giving effect to the issuance of the common stock in connection with the selling stockholder's exercise. The shares of Common Stock reported herein are held by Armistice Capital Master Fund Ltd., a Cayman Islands exempted company (the "Master Fund") and may be deemed to be indirectly beneficially owned by (i) Armistice Capital, LLC ("Armistice Capital"), as the investment manager of the Master Fund; and (ii) Steven Boyd, as the Managing Member of Armistice Capital. Armistice Capital and Steven Boyd disclaim beneficial ownership of the securities except to the extent of their respective pecuniary interests therein.
- (2) Shares owned before the offering include 650,721 shares of common stock issuable upon exercise of warrants and Investment Options, including 151,415 shares underlying the Investment Options that are being offered pursuant to this prospectus.
- (3) Shares owned before the offering includes 342,613 shares of common stock issuable upon exercise of warrants Investment Options, including 74,380 shares underlying the Investment Options that are being offered pursuant to this prospectus.
- (4) Shares owned before the offering includes 29,112 shares of common stock issuable upon exercise of warrants and Investment Options, including 7,969 shares underlying the Investment Options that are being offered pursuant to this prospectus.
- (5) Shares owned before the offering includes 10,875 shares of common stock issuable upon exercise of warrants and Investment Options, including 2,361 shares underlying the Investment Options that are being offered pursuant to this prospectus.

DESCRIPTION OF OUR CAPITAL STOCK

The selling stockholders may, from time to time, sell, transfer, or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market, or trading facility on which the shares are traded or in private transactions at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. This prospectus provides you with a general description of the common stock the selling stockholders may offer.

The description below of our capital stock and provisions of our articles of incorporation and bylaws are summaries and are qualified by reference to the articles of incorporation and the bylaws. These documents are filed as exhibits to the registration statement of which this prospectus is a part.

Our authorized capital stock consists of 150,000,000 shares of common stock, \$0.001 par value, and 20,000,000 shares of preferred stock, \$0.001 par value. As of September 20, 2022, there were no outstanding shares of preferred stock and 24,642,960 outstanding shares of common stock.

Common Stock

Holders of our common stock are entitled to one vote per share for each share held of record on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Our certificate of incorporation does not provide for cumulative voting. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared by our board of directors out of legally available funds. Upon liquidation, dissolution or winding-up, the holders of our common stock are entitled to share ratably in all of our assets which are legally available for distribution, after payment of or provision for all liabilities and the liquidation preference of any outstanding preferred stock. The holders of our common stock have no preemptive, subscription, redemption or conversion rights. Our common stock is currently listed on the Nasdaq Capital Market under the symbol "RKDA."

Preferred Stock

The board of directors has the authority, without further action by the stockholders, to issue up to 20,000,000 shares of preferred stock, \$0.001 par value per share, in one or more series. The board of directors will also have the authority to designate the rights, preferences, privileges and restrictions of each such series, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences, and the number of shares constituting any series.

The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of the company without further action by the stockholders. The issuance of preferred stock with voting and conversion rights may also adversely affect the voting power of the holders of common stock. In certain circumstances, an issuance of preferred stock could have the effect of decreasing the market price of the common stock.

Anti-Takeover Effects of Provisions of our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Our amended and restated certificate of incorporation and our amended and restated bylaws contain certain provisions that could have the effect of delaying, deterring or preventing another party from acquiring control of us. These provisions and certain provisions of Delaware law, which are summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate more favorable terms with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us.

Undesignated Preferred Stock

As discussed above, our board of directors will have the ability to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of us. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of our company.

Limits on Ability of Stockholders to Act by Written Consent or Call a Special Meeting

Our amended and restated certificate of incorporation provides that our stockholders may not act by written consent, which may lengthen the amount of time required to take stockholder actions. As a result, a holder controlling a majority of our capital stock

would not be able to amend our bylaws or remove directors without holding a meeting of our stockholders called in accordance with our bylaws.

In addition, our amended and restated bylaws provides that special meetings of the stockholders may be called only by the majority of our board of directors. Stockholders may not call a special meeting, which may delay the ability of our stockholders to force consideration of a proposal or for holders controlling a majority of our capital stock to take any action, including the removal of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our amended and restated bylaws require advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors or a committee of our board of directors. These provisions may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

Board Classification

Our board of directors is divided into three classes, one class of which is elected each year by our stockholders. The directors in each class will serve three-year terms. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board.

No Cumulative Voting

Our amended and restated certificate of incorporation and amended and restated bylaws does not permit cumulative voting in the election of directors. Cumulative voting allows a stockholder to vote a portion or all of its shares for one or more candidates for seats on the board of directors. Without cumulative voting, a minority stockholder may not be able to gain as many seats on our board of directors as the stockholder would be able to gain if cumulative voting were permitted. The absence of cumulative voting makes it more difficult for a minority stockholder to gain a seat on our board of directors to influence our board's decision regarding a takeover.

Amendment of Charter and Bylaws Provisions

The amendment of the above provisions of our amended and restated certificate of incorporation requires approval by holders of at least two-thirds of our outstanding capital stock entitled to vote generally in the election of directors. The amendment of our bylaws requires approval by the holders of at least two-thirds of our outstanding capital stock entitled to vote generally in the election of directors.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, calculated as provided under Section 203; or
- at or subsequent to the date of the transaction, the business combination is approved by our board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not

approve in advance. We anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

The provisions of Delaware law and the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, as amended upon the completion of this offering, could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions might also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests.

Forum Selection

Our amended and restated certificate of incorporation provides that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the sole and exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders;
- any action asserting a claim against us arising pursuant to any provisions of the DGCL, our amended and restated certificate of incorporation or our amended and restated bylaws; or
- any action asserting a claim against us that is governed by the internal affairs doctrine.

These exclusive-forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. Furthermore, the enforceability of similar choice of forum provisions in other companies' charter documents has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could harm our business.

These exclusive-forum provisions are not intended to apply to any causes of action arising under the Securities Act of 1933, as amended ("Securities Act") or the Securities Exchange Act of 1934, as amended ("Exchange Act") or any other claim for which the federal courts have exclusive jurisdiction.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol "RKDA".

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company.

PLAN OF DISTRIBUTION

The selling stockholders and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of the shares of common stock covered hereby on the Nasdaq Capital Market or any other stock exchange, market or trading facility on which the common stock is traded or in private transactions. These sales may be at fixed or negotiated prices. A selling stockholder may use any one or more of the following methods when selling shares of common stock:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 or any other exemption from registration under the Securities Act if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

In connection with the sale of the shares or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares in the course of hedging the positions they assume. The selling stockholders may also sell shares short and deliver these shares to close out their short positions, or loan or pledge the shares to broker-dealers that in turn may sell these shares. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the shares.

The Company has agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to use commercially reasonable efforts to keep this prospectus effective until the selling stockholders no longer hold any preferred investment options or shares of common stock underlying them that are offered hereunder. The shares of common stock offered hereunder will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the common stock covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the shares may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the selling stockholders or any other person. We will make copies of this prospectus available to the selling stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

Weintraub Tobin Chediak Coleman Grodin Law Corporation will pass upon legal matters in connection with the validity of the common stock offered hereby.

EXPERTS

The financial statements of Arcadia Biosciences, Inc. as of December 31, 2021 and 2020, and for each of the two years in the period ended December 31, 2021, incorporated by reference in this Prospectus, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

The consolidated financial statements of Rever Holdings, LLC for the year ended December 31, 2020, and the related notes for such financial statements have been audited by Armanino LLP, independent certified public accountants, as stated in their report, and are incorporated in this Prospectus by reference to the Company's Current Report on Form 8-K/A filed with the SEC on August 2, 2021. Such financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

The financial statements for the Coconut Water Line of LiveZola, LLC for the year ended December 31, 2020, and the related notes for such financial statements have been audited by CohnReznick LLP, independent auditors, as stated in their report, and are incorporated in this Prospectus by reference to the Company's Current Report on Form 8-K/A filed with the SEC on August 2, 2021. Such financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

INTERESTS OF NAMED EXPERTS AND COUNSEL

Except as noted below, no expert or counsel named in this prospectus as having prepared or certified any part of this prospectus or having given an opinion upon the validity of the securities being registered or upon other legal matters in connection with the registration or offering of the securities was employed on a contingency basis, or had, or is to receive, in connection with the offering, a substantial interest, direct or indirect, in the registrant or any of its parents or subsidiaries. Nor was any such person connected with the registrant or any of its parents or subsidiaries as a promoter, managing or principal underwriter, voting trustee, director, officer, or employee.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We are required to file annual, quarterly and special reports, proxy statements and other information with the SEC. Our filings with the SEC are also available to the public at the SEC's Internet web site at <http://www.sec.gov>.

We have filed a registration statement, of which this prospectus is a part, covering the securities offered hereby. As allowed by SEC rules, this prospectus does not include all of the information contained in the registration statement and the included exhibits, financial statements and schedules. You are referred to the registration statement, the included exhibits, financial statements and schedules for further information. This prospectus is qualified in its entirety by such other information.

We are subject to the information and periodic reporting requirements of the Exchange Act, and, in accordance therewith, file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information are available to the public over the Internet at the website of the SEC referred to above. We maintain a website at <http://www.arcadiabio.com>. The reference to our website address does not constitute incorporation by reference of the information contained on our website, and you should not consider the contents of our website in making an investment decision with respect to our common stock.

INCORPORATION OF INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We also incorporate by reference into this prospectus the documents listed below and any future filings made by us with the SEC (other than Current Reports on Form 8-K or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items and other portions of documents that are furnished, but not filed, pursuant to applicable rules promulgated by the SEC) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus is a part and prior to

effectiveness of the registration statement, and (ii) after the effectiveness of the registration statement but prior to the termination of the offering of the common stock covered by this prospectus:

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2021, filed with the SEC on March 31, 2022;
- Our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2022](#) and [June 30, 2022](#), filed with the SEC on May 12, 2022 and August 11, 2022, respectively;
- Our Current Reports on Form 8-K (other than information furnished rather than filed) filed with the SEC on [August 2, 2021](#), [February 7, 2022](#), [March 30, 2022](#), [May 12, 2022](#), [June 7, 2022](#), [August 11, 2022](#), [August 16, 2022](#) and [September 27, 2022](#);
- Our definitive [proxy statement](#) on Schedule 14A for our 2022 Annual Meeting of Stockholders, filed with the SEC on April 19, 2022 (to the extent incorporated by reference into Part III of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021); and
- the description of our common stock contained in our Form 8-A/A filed with the SEC on [May 14, 2015](#), including any amendment or report filed for the purpose of updating such description.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. You should direct any requests for documents by writing us at Arcadia Biosciences, Inc., 202 Cousteau Place, Suite 105, Davis, CA 95618, Attention: Corporate Secretary, Telephone (530) 756-7077.

You may also access the documents incorporated by reference in this prospectus through our website at <http://www.arcadiabio.com>. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The estimated expenses payable by the registrant in connection with the issuance and distribution of the securities being registered are as follows:

SEC Registration Fee	260
Legal Fees and Expenses*	20,000
Accounting Fees and Expenses*	20,000
Miscellaneous Fees and Expenses*	5,000
TOTAL:	\$45,260

* Estimated solely for the purposes of this Item. Actual expenses may vary.

Item 14. Indemnification of Directors and Officers

On completion of this offering, the Registrant's amended and restated certificate of incorporation will contain 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 will 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.

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 indemnification agreements with its 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.

Item 15. Recent Sales of Unregistered Securities

In the three years preceding the filing of this registration statement, we issued the securities described below without registration under the Securities Act. Unless otherwise indicated below, the securities were issued pursuant to the private placement exemption provided by Section 4(a)(2) of the Securities Act.

On April 15, 2019, we issued two warrants to a consulting entity to purchase up to 100,000 and 45,154 shares of our common stock, respectively. Each warrant has an exercise price per share of \$6.18 and has a term of 5 years.

On June 14, 2019, we issued and sold to five investors warrants to purchase a total of 1,489,575 shares of common stock at a total price of \$186,197. The warrants have an exercise price per share of \$5.00 and terms of five and one-half years. We also issued to the placement agent in this transaction warrants to purchase a total of 74,479 shares of common stock, which warrants have an exercise price per share of \$6.2938 and terms of 5 years.

On July 31, 2019, we issued a warrant to a consulting entity to purchase up to 10,000 shares of our common stock. The warrant has an exercise price per share of \$2.19 and a term of 2 years.

On August 5, 2019, we issued two warrants to consulting entities, each to purchase up to 10,000 shares of our common stock. Each warrant has an exercise price per share of \$1.92 and a term of 2 years.

On September 10, 2019, we issued and sold to two investors warrants to purchase a total of 659,414 shares of common stock at a total price of \$82,426. The warrants have an exercise price per share of \$7.52 and terms of five and one-half years. We also issued to the placement agent in this transaction warrants to purchase a total of 65,942 shares of common stock, which warrants have an exercise price per share of \$9.4781 and terms of 5 years.

On February 3, 2020, we issued a warrant to an independent contractor entity to purchase up to 10,000 shares of our common stock. The warrant has an exercise price per share of \$4.91 and a term of 2 years.

On February 12, 2020, we issued a warrant to a non-affiliated third party entity in connection with a professional services agreement to purchase up to 150,000 shares of our common stock. The warrant has an exercise price per share of \$4.71 and a term of 2 years.

On March 21, 2020, we issued a warrant to a non-affiliated third party entity in connection with a professional services agreement to purchase up to 18,350 shares of our common stock. The warrant has an exercise price per share of \$2.50 and a term of 3 years.

In May 2020, we reduced to \$4.90 the per share exercise price of outstanding warrants to purchase 1,392,345 shares of our common stock and issued 1,392,345 shares of our common stock upon exercise of these warrants at this new exercise price. As consideration for the exercise of these warrants, we issued new warrants to purchase 1,392,345 shares of common stock at an exercise price of \$4.775 per share and with an exercise period of five years from the date of issuance. We also issued to the placement agent in this transaction warrants to purchase a total of 69,617 shares of our common stock that have an exercise price per share equal to \$6.125 and terms of five years.

In July 2020, we reduced to \$3.975 the per share exercise price of outstanding warrants to purchase 641,416 shares of our common stock and issued 641,416 shares of common stock upon exercise of these warrants at this new exercise price. As consideration for the exercise of these warrants, we issued new warrants to purchase 641,416 shares of our common stock at an exercise price of \$3.85 per share and with an exercise period of five and one-half years from the date of issuance. We also issued to the placement agent in this transaction warrants to purchase a total of 32,071 shares of our common stock that have an exercise price per share equal to \$4.969 and terms of five and one-half years.

In August 2020, as consideration paid by us to acquire Industrial Seed Innovations (ISI), we issued 132,626 shares of our common stock to the former shareholders of ISI and agreed to issue up to a total of 265,252 additional shares of our common stock to these former shareholders if certain milestones are satisfied in 2021 and 2022.

On December 18, 2020, we issued and sold to certain institutional investors warrants to purchase a total of 2,618,658 shares of our common stock for a purchase price of \$0.125 per underlying share. The per share exercise price of these warrants is \$3.00 per share and a term of these warrants is five and one-half years from the date of issuance.

On January 25, 2021, we issued and sold to certain institutional investors 7,876,784 shares of our common stock at a purchase price of \$3.1925 per share and warrants exercisable for an aggregate of 3,938,392 shares of our common stock with an exercise price of \$3.13 per share. The Warrants are exercisable upon issuance and expire five and one-half years from the date of issuance.

On May 17, 2021, we issued 827,401 shares of our common stock as partial payment to TPCO US Holdings, LLC for the acquisition of assets from Eko Holdings, LLC, Lief Holdings, LLC, and Live Zola, LLC.

On July 29, 2021, we issued 10,000 shares of our common stock to a warrant holder upon the cash exercise of a warrant with an exercise price per share of \$2.19.

On August 4, 2021, we issued 4,000 shares of common stock to two warrant holders. The warrant holders utilized a cashless net exercise (based on a common stock price of \$2.37 per share on the date of exercise) of a total of 20,000 warrants, each with an exercise price per share of \$1.92.

On August 16, 2022, in connection with the registered offer and sale of our common stock and pre-funded warrants to an institutional investor, we issued and sold to that investor in a private placement a preferred investment option to warrant to purchase a total of 4,722,506 shares of our common stock. The preferred investment options have an exercise price per share of \$0.93376 and terms of five years. We also issued to the placement agent in this transaction preferred investment options to purchase a total of

236,125 shares of our common stock, which preferred investment options have an exercise price per share of \$1.3235 and terms of 5 years.

Item 16. Exhibits

The following exhibits are attached hereto or are incorporated by reference herein.

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	Amended and Restated Certificate of Incorporation of Registrant.	8-K	001-37383	3.1	5/26/2015	
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Registrant.	10-Q	001-37383	3.1	8/10/2017	
3.3	Amendment to the Amended and Restated, Certificate of Incorporation of Registrant.	8-K	001-37383	3.1	1/23/2018	
3.4	Amended and Restated Bylaws of Registrant.	8-K	001-37383	3.2	5/26/2015	
4.1	Form of Registrant's common stock certificate.	S-3	333-224061	4.1	3/30/2018	
4.2	Form of Common Stock Purchase Warrant.	8-K	001-37383	4.1	3/23/2018	
4.3	Form of Common Stock Purchase Warrant.	8-K	001-37383	4.1	6/14/2019	
4.4	Form of Placement Agent Warrant.	8-K	001-37383	4.2	6/14/2019	
4.5	Form of Common Stock Purchase Warrant.	8-K	001-37383	4.1	9/9/2019	
4.6	Form of Placement Agent Warrant.	8-K	001-37383	4.2	9/9/2019	
4.7	Description of Registrant's Securities Pursuant to Section 12 of the Securities Exchange Act of 1934, as amended.	10-K	001-37383	4.7	3/25/2020	
4.8	Form of Common Stock Purchase Warrant.	8-K	001-37383	4.1	5/18/2020	
4.9	Form of Placement Agent Warrant.	8-K	001-37383	4.2	5/18/2020	
4.10	Form of Common Stock Purchase Warrant.	8-K	001-37383	4.1	7/8/2020	
4.11	Form of Placement Agent Warrant.	8-K	001-37383	4.2	7/8/2020	
4.12	Form of Investor Warrant.	8-K	001-37383	4.1	12/22/2020	
4.13	Form of Placement Agent Warrant.	8-K	001-37383	4.2	12/22/2020	
4.14	Form of Pre-Funded Warrant.	8-K	001-37383	4.1	8/16/2022	
4.15	Form of Preferred Investment Option.	8-K	001-37383	4.2	8/16/2022	
4.16	Form of Placement Agent Preferred Investment Option.	8-K	001-37383	4.3	8/16/2022	
5.1	Opinion of Weintraub Tobin Chediak Coleman Grodin Law Corporation.					X

10.1*	Form of Indemnification Agreement between the Registrant and each of its Officers and Directors.	S-1	333-202124	10.7	2/17/2015
10.2*	2006 Stock Plan, as amended and restated, and form of agreement thereunder.	S-1	333-202124	10.8	2/17/2015
10.3*	2015 Omnibus Equity Incentive Plan and forms of agreement thereunder.	S-1	333-232858	10.9	7/26/2019
10.4*	2015 Employee Stock Purchase Plan and form of agreement thereunder.	S-1/A	333-202124	10.10	5/11/2015
10.5*	Executive Incentive Bonus Plan.	S-1/A	333-202124	10.15	5/11/2015
10.6*	Amended and Restated Director Compensation Policy.	10-Q	001-37383	10.14	5/10/2016
10.7*	Form of Severance and Change in Control Agreement.	S-1/A	333-202124	10.18	4/6/2015
10.8*	Employment letter for Laura Pitlik, Chief Marketing Officer.	10-Q	001-37383	10.1	11/15/2021
10.9*	Severance and Change In Control Agreement for Laura Pitlik.	10-Q	001-37383	10.1	11/15/2021
10.10*	Employment letter for Stanley E. Jacot, Jr.	10-Q	001-37383	10.1	5/12/2022
10.11*	Inducement Option Grant for Stanley E. Jacot, Jr.	10-Q	001-37383	10.2	5/12/2022
10.12*	Severance and Change in Control Agreement for Stanley E. Jacot, Jr.	10-Q	001-37383	10.3	5/12/2022
10.13*	Employment Letter and appended form of Severance and Change In Control Agreement between the Registrant and Pam Haley.	8-K/A	001-37383	10.2	10/7/2019
10.14+	Limited Liability Company Operating Agreement for Archipelago Ventures Hawaii, LLC, dated as of August 9, 2019.	8-K	001-37383	10.1	8/9/2019
10.15	Base Office Lease dated March 17, 2003 between the Registrant and Pac West Office Equities, LP, including Amendments 1-7.	S-1	333-229047	10.16	12/27/2018
10.16	Amendment No. 8 to the Office Lease dated March 17, 2003 between the Registrant and Pac West Office Equities, LP.	10-K	001-37383	10.8	5/12/2020
10.17	Amendment No. 9 to the Office Lease dated March 17, 2003 between the Registrant and Pac West Office Equities, LP.	10-Q	001-37383	10.2	8/13/2020
10.18	Promissory Note, dated April 16, 2020, by and between MidFirst Bank and Arcadia Biosciences, Inc.	8-K	001-37383	10.1	4/21/2020
10.19+	Master Transaction Agreement.	8-K	001-37383	10.2	12/22/2020
10.20	Securities Purchase Agreement dated as of March 19, 2018, between Arcadia Biosciences, Inc. and each purchaser named in the signature pages thereto.	8-K	001-37383	10.1	3/23/2018
10.21	Form of Registration Rights Agreement.	8-K	001-37383	10.2	3/23/2018
10.22	Form of Securities Purchase Agreement dated as of June 11, 2018, between Arcadia Biosciences, Inc. and each purchaser named in the signature pages thereto.	8-K	001-37383	10.1	6/14/2018

10.23	Form of Securities Purchase Agreement dated as of June 12, 2019, between Arcadia Biosciences, Inc. and each purchaser named in the signature pages thereto.	8-K	001-37383	10.1	6/14/2019	
10.24	Form of Securities Purchase Agreement dated as of September 5, 2019, between Arcadia Biosciences, Inc. and each purchaser named in the signature pages thereto.	8-K	001-37383	10.1	9/9/2019	
10.25	Form of Letter Agreement, dated as of May 14, 2020.	8-K	001-37383	10.1	5/18/2020	
10.26	Form of Letter Agreement, dated as of July 6, 2020.	8-K	001-37383	10.1	7/8/2020	
10.27	Form of Securities Purchase Agreement dated as of December 18, 2020, between Arcadia Biosciences, Inc. and each purchaser named on the signature pages thereto.	8-K	001-37383	10.1	12/22/2020	
10.28	Form of Securities Purchase Agreement dated as of January 25, 2021, between Arcadia Biosciences, Inc. and each purchaser named on the signature pages thereto.	8-K	001-37383	10.1	1/29/2021	
10.29	Form of Registration Rights Agreement.	8-K	001-37383	10.2	1/29/2021	
10.30	Form of Securities Purchase Agreement dated as of August 12, 2022, between Arcadia Biosciences, Inc. and each purchaser named on the signature pages thereto.	8-K	001-37383	10.1	8/16/2022	
10.31	Asset Purchase Agreement dated May 17, 2021, by and among Arcadia, Buyer, Seller, Eko, Lief, Zola and Parent.	8-K	001-37383	10.1	5/21/2021	
21.1	List of Subsidiaries.	S-1	333-262407	21.1	1/28/2022	
23.1	Consent of Deloitte & Touche LLP, independent registered public accounting firm.					X
23.2	Consent of Armanino LLP.					X
23.3	Consent of CohnReznick LLP.					X
23.4	Consent of Weintraub Tobin Chediak Coleman Grodin Law Corporation (included in Exhibit 5.1).					X
24.1	Power of attorney (included in the signature page to this filing).					X
107	Filing Fee Table.					X

* Indicates a management contract or compensatory plan or arrangement.

+ Certain information has been excluded from this exhibit because it is not material and would likely cause competitive harm to the registrant if publicly disclosed.

Item 17. 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 of 1933.

(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 the 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 SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(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 paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.

(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.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness.

Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is

part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the 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) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of this registration statement as of the time it was declared effective.

(d) The undersigned registrant hereby undertakes that, for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus 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.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described in Item 15 above, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the 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 Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant 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 27th day of September 2022.

ARCADIA BIOSCIENCES, INC.

By: /s/ PAMELA HALEY
Name: Pamela Haley
Title: Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints each of Stanley E. Jacot, Jr. and Pamela Haley, his or her true and lawful attorney-in-fact and agent with full power of substitution and re-substitution, for him/her and in his name, place and stead, in any and all capacities to sign any or all amendments (including, without limitation, post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, 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 that said attorney-in-fact and agent, or any substitute or substitutes for him or her, 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/ STANLEY E. JACOT, JR. Stanley E. Jacot, Jr.	President, Chief Executive Officer and Director (principal executive officer)	September 27, 2022
/s/ PAMELA HALEY Pamela Haley	Chief Financial Officer (principal financial and accounting officer)	September 27, 2022
/s/ KEVIN COMCOWICH Kevin Comcowich	Director	September 27, 2022
/s/ ALBERT BOLLES Albert Bolles	Director	September 27, 2022
/s/ LILIAN SHACKELFORD MURRAY Lilian Shackelford Murray	Director	September 27, 2022
/s/ GREGORY D. WALLER Gregory D. Waller	Director	September 27, 2022
/s/ AMY YODER Amy Yoder	Director	September 27, 2022
/s/ DEBORAH D. CAROSELLA Deborah D. Carosella	Director	September 27, 2022

September 27, 2022

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

Re: Registration Statement on Form S-1

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing with the Securities and Exchange Commission (the "**Commission**"), by Arcadia Biosciences, Inc., a Delaware corporation (the "**Company**"), of a Registration Statement on Form S-1 (the "**Registration Statement**"), including a related prospectus to be filed with the Commission pursuant to Rule 424(b) of Regulation C (the "**Prospectus**") under the Securities Act of 1933, as amended, relating to the resale from time to time by the selling stockholders named in the Registration Statement (the "**Selling Stockholders**") of up to 4,958,631 shares of the Company's common stock, \$0.001 par value per share (the "**Shares**"), in the manner set forth in the Registration Statement. The Shares consist of up to 4,958,631 shares of common stock issuable upon the exercise of outstanding preferred investment options of the Company (the "**Warrants**"), as described in the Registration Statement.

In connection with this opinion, we have examined and relied upon the Registration Statement and related Prospectus; the Company's certificate of incorporation, as amended and restated to date; the Company's Bylaws as in effect on the date hereof; the Warrants; and certain resolutions and minutes of meetings of the Board of Directors of the Company relating to the issuance of the Warrants, the Shares and the Registration Statement. We have considered such matters of law and of fact, including the examination of originals or copies, certified or otherwise identified to our satisfaction, of such records, documents, certificates, and other instruments of the Company, certificates of officers, directors and representatives of the Company, certificates of public officials, and such other documents as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. As to matters of fact material to our opinions, we have relied, without independent verification, on certificates and other inquiries of officers of the Company. We have assumed without investigation the genuineness and authenticity of all documents

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submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof, and the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof, the accuracy and completeness of all records made available to us by the Company, and that all offers and sales of the Shares will be made in compliance with the securities laws of the states having jurisdiction thereof. We have also assumed that (i) the Registration Statement and any amendments thereto (including post-effective amendments) have become effective and will continue to be effective at the time of the resale of any Shares, (ii) if necessary, a prospectus supplement will have been prepared and filed with the Commission describing any Shares offered thereby or any Selling Stockholders, (iii) all Shares will be sold in the manner stated in the Registration Statement and, if necessary, the applicable prospectus supplement, and (iv) at the time of the offering, there will not have occurred any changes in the law affecting the authorization, execution, delivery, validity or enforceability of the Shares.

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.

Based upon the foregoing, and in reliance thereon, we are of the opinion that when the Shares are issued upon exercise of the Warrants in accordance with the terms of the Warrants, upon receipt of the consideration contemplated thereby, such Shares will be validly issued, fully paid and nonassessable.

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus included in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement. In giving our consent, we do not admit that we are "experts" within the meaning of Section 11 of the Securities Act or within the category of persons whose consent is required by Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

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

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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-1 of our report dated March 31, 2022 relating to the financial statements of Arcadia Biosciences, Inc., appearing in the Annual Report on Form 10-K of Arcadia Biosciences, Inc. for the year ended December 31, 2021. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ Deloitte & Touche LLP

Phoenix, Arizona
September 27, 2022

CONSENT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

We consent to the incorporation by reference in this Registration Statement on Form S-1 of Arcadia Biosciences, Inc. of our report dated July 28, 2021 with respect to the consolidated financial statements of Rever Holdings, LLC. for the year ended December 31, 2020 appearing in the Current Report on Form 8-K/A of Arcadia Biosciences, Inc. on August 2, 2021. We also consent to the reference to us under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

/s/ Armanino, LLP

Bellevue, Washington
September 26, 2022

INDEPENDENT AUDITOR'S CONSENT

We consent to the incorporation by reference in this Registration Statement on Form S-1 of our report dated July 9, 2021, relating to the financial statements of the Coconut Water Line of Live Zola, LLC, appearing in the Current Report on Form 8-K/A of Arcadia Biosciences, Inc. on August 2, 2021. We also consent to the reference to us under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

/s/ CohnReznick LLP

Los Angeles, California
September 27, 2022

Calculation of Filing Fee Tables

Form S-1
(Form Type)Arcadia Biosciences, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation Or Carry Forward Rule	Amount Registered(1)	Proposed Maximum Offering Price Per Unit(2)	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Common Stock, \$0.001 par value per share (3)	457(c)	4,958,631	\$0.566	\$2,806,585	\$0.0000927	\$260.17
Total Offering Amounts						\$2,806,585		\$260.17
Total Fees Previously Paid								—
Total Fee Offsets								—
Net Fees Due								\$260.17

- (1) Pursuant to Rule 416 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 may be issued in connection with a stock dividend, stock split, recapitalization or similar transactions.
- (2) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457 under the Securities Act, based on the average of the high and low prices of the Common Stock on the Nasdaq Capital market on September 23, 2022.
- (3) Consists of 4,958,631 shares of Common Stock that may be sold by the selling stockholders named herein upon exercise of preferred investment options.

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