

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

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Kevin Camcovich
Interim Chief Executive Officer, Chair of the Board of Directors
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:

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Chief Financial Officer
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400 Capitol Mall, Suite 1100
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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 Accelerated filer Non-accelerated filer Smaller reporting company 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 comply with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act.

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share(2)	Aggregate maximum offering price	Amount of registration fee (2)
Common Stock, \$0.001 value per share	2,749,591	\$0.85	\$2,337,152	\$216.65

- (1) Represents shares of common stock, par value \$0.001 per share, which may be sold by the selling stockholders named in this registration statement. Pursuant to Rule 416 under the Securities Act of 1933, as amended, this registration statement also covers an indeterminate amount of shares of common stock as may become issuable to prevent dilution resulting from stock splits, stock dividends or similar events.
- (2) Calculated pursuant to Rule 457(c) of the Securities Act of 1933, as amended, solely for the purpose of computing the amount of the registration fee, on the basis of the average of the high and low prices of the registrant's common stock quoted on The Nasdaq Stock Market on January 24, 2022.

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.

**2,749,591
Common Stock**

Pursuant to this prospectus, the selling stockholders identified herein are offering on a resale basis an aggregate of 2,749,591 shares of our common stock that are issuable upon the exercise of outstanding warrants to purchase our common stock. These warrants were issued in connection with a private placement we completed on December 22, 2020. We will not receive any of the proceeds from the sale by the selling stockholders of the common stock. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

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 14. 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 January 24, 2022, the last reported sale price of our common stock was \$0.86 per share.

INVESTING IN OUR SECURITIES INVOLVES RISKS. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES DESCRIBED UNDER THE HEADING "RISK FACTORS" CONTAINED HEREIN AND IN OUR ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2020, 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 _____, 2021.

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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, 2020, 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.

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 using science-based approaches to develop high value crop improvements primarily in wheat, hemp and soy, 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. We have used 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.

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, 2020, 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.

PRIVATE PLACEMENT OF SECURITIES

On December 22, 2020, we completed the closing of a registered direct offering with several institutional investors, or Investors, for the sale of a total of 2,618,658 shares of our common stock at a price per share of \$2.93, for aggregate gross proceeds of \$7.67 million.

In a concurrent private placement, or Private Placement, we sold to the Investors warrants, or Private Placement Warrants, to purchase a total of 2,618,658 shares of our common stock at an exercise price of \$3.00 per share which are exercisable for five and one half years following the closing date. Each Private Placement Warrant was sold at a price of \$0.125 per underlying share of common stock, for total gross proceeds of \$327,332. The closing of the Private Placement occurred on December 22, 2020. H.C. Wainwright & Co., LLC, or Wainwright, served as the sole placement agent for the Private Placement. In connection with the Private Placement, we also issued to certain designees of Wainwright warrants, or Wainwright Warrants, for the purchase of a total of 130,933 shares of our common stock at an exercise price per share of \$3.8188 pursuant to the terms of our letter agreement with Wainwright. The Wainwright Warrants are exercisable for five years from the date of issuance. The shares underlying the Private Placement Warrants and the Wainwright Warrants, or together the Warrants, are being registered for resale hereunder.

DIRECTORS AND EXECUTIVE OFFICERS

Executive Officers and Directors

The following table sets forth the names, ages and positions of our current executive officers and directors (ages as of January 24, 2022):

Name	Age	Position
Kevin Comcovich	53	Interim CEO, Chair of the Board of Directors
Pamela Haley	51	Chief Financial Officer
Laura Pitlik	48	Chief Marketing Officer
Albert D. Bolles, Ph.D.	64	Director
Deborah Carosella	65	Director
Lilian Shackelford Murray	63	Director
Gregory D. Waller	72	Director
Amy Yoder	54	Director

Director Executive Officers

Kevin Comcovich was appointed as the interim Chief Executive Officer of the Company on January 1, 2022. Mr. Comcovich has served as a director of our Company since November 2016. Before retiring in 2014, he was a founder and portfolio manager of HTX Energy Fund, a hedge fund, in Houston, Texas since 2012. He was previously the President and Chief Investment Officer (CIO) of Sound Energy Partners and served as Chief Information Officer and research analyst for Southport Energy Plus Partners Fund. Mr. Comcovich received his MBA from the University of Indiana and earned his bachelor's degree from the College of the Holy Cross. We believe Mr. Comcovich is qualified to serve on our Board of Directors due to his extensive experience in financial leadership, business strategy, investment management and global capital market strategies.

Non-Director Executive Officers

Pam Haley was appointed as our Chief Financial Officer in September 2019. She previously served as the Controller from September 2014 to September 2019, and previously served in various other accounting management positions since joining the Company in 2005. Ms. Haley brings more than 26 years of financial and accounting experience. She previously worked in the telecommunications and semiconductor industries, in addition to public accounting, prior to joining Arcadia. She is a certified public accountant and a graduate of the University of Arizona where she earned a bachelor's degree in accounting.

Laura Pitlik was appointed as our Chief Marketing Officer in July 2021. She is an accomplished marketing executive, her experience developing new products and brands began early in her career when she led the launch of Dr Pepper® Cherry and continued when she launched the first national line of all-natural breads, Nature's Pride®, for Hostess Brands. Since then, she has continued to build deep expertise leading marketing and innovation efforts across Fortune 500, mid-sized and private equity-owned companies, growing brands including Wonder® Bread and On The Border® tortilla chips and salsas. Ms. Pitlik served as Senior Vice President of Air Care for Niteo products from August 2019 to July 2021, as Senior Vice President of Marketing and Innovation for Century Snacks from June 2017 to August 2019, and as Vice President of Marketing and Innovation at Truco Enterprises from September 2014 to February 2017. Laura earned a B.S. in advertising and public relations from Texas Christian University and holds an M.B.A from the Cox School of Business at Southern Methodist University.

Each executive officer serves at the discretion of our Board of Directors and holds office until his or her successor is duly elected and qualified or until his or her earlier resignation or removal. There are no family relationships among any of our directors or executive officers.

Non-employee Directors

Albert D. Bolles, Ph.D. joined the board of directors in May 2018. He most recently served as the executive vice president, chief technology and operations officer of ConAgra Foods, a leading consumer products food company, where he directed the development and execution of multiple product innovations. Prior to ConAgra, Dr. Bolles was the vice president of worldwide research and development for PepsiCo Beverages and Foods and the research and development director for Gerber Foods. As an industry partner with the Food and Drug Administration and U.S Department of Agriculture to influence public policy, Dr. Bolles was instrumental in the passage of the Food Safety Modernization Act of 2010. He is a graduate of Michigan State University, where he earned Ph.D. and M.S. degrees in food science and a bachelors' degree in microbiology. Dr. Bolles holds several patents and has won numerous awards for his contributions to food science, the industry and academics. He currently serves as a director for Landec Corporation and SunOpta. We believe Dr. Bolles is qualified to serve on our board of directors because of his more than 30 years of experience in the consumer food industry and his expertise in global product innovation, corporate strategy and supply chain management, as well as his familiarity with corporate governance issues from serving on the boards of other public companies.

Deborah Carosella joined the Arcadia board of directors in February 2021. She is the former CEO of Madhava Natural Sweeteners. A recognized leader in the natural and organic food industry, Ms. Carosella previously served as the senior vice president of innovation for Dean Foods/ WhiteWave Foods where she led the development of value-added brands across the company. Prior to that, she was on the executive leadership team at ConAgra Foods where she was both a general manager and innovator for numerous brands in a multitude of food categories. Ms. Carosella is a graduate of the University of Missouri. She currently advises multiple natural and organic companies on a broad range of business initiatives and serves on numerous corporate and non-profit boards. We believe Ms. Carosella is qualified to serve on our Board of Directors due to her extensive experience in the consumer food industry.

Lilian Shackelford Murray joined the board of directors in June 2018. She previously served as a board observer for the Company from March 2007 until May 2015, as well as to PatientKeeper, Inc., a private company acquired by HCA Healthcare, Inc. within the past five years. Ms. Murray is the founder and manager of Dovedale Investments, LLC, a money management firm investing in emerging market exchange traded funds. Ms. Murray also serves as managing member of Saints Capital V, LLC, an affiliate of Saints Capital, LLC, where she provides investment fund management services. Ms. Murray was previously a managing director and senior healthcare banker at Prudential Volpe Technology Group and its predecessor, Volpe, Brown Whelan. Prior to Volpe, Ms. Murray was a managing director and co-head of healthcare investment banking for Wheat First Securities and a senior vice president at Dean Witter Reynolds. Ms. Murray's prior board experience includes service as a director of eMedicine.com, Inc., which was sold to WebMD, LLC in 2006; Extended Care Information Network, Inc. which was sold to AllscriptsHealthcare Solutions, Inc. in 2008; and LifeMasters Supported SelfCare, Inc. Ms. Murray received an MBA from Harvard Business School and a BS from the University of Virginia. Ms. Murray's qualifications to serve on the board include over 34 years of financial and management experience as a financial advisor, investment banker and managing director of investment funds, as well as her familiarity with the company's business, operations and board functions from her previous service as a board observer.

Gregory D. Waller has served as a director since June 2017. He has served as a director of CHF Solutions since August 2011. Mr. Waller also serves on the board of Endologix Corporation and is the chair of the audit committees and a member of the nominating and governance committees for all three companies. Until April 2015, Mr. Waller was chief financial officer of Ulthera Corporation, a privately-held company providing ultrasound technology for aesthetic and medical applications, which was sold to Merz North America in July 2014. From March 2006 until April 2011, Mr. Waller was chief financial officer of Universal Building Products, a manufacturer of concrete construction accessories. Mr. Waller served as vice president-finance, chief financial officer and treasurer of Sybron Dental Specialties, Inc., a manufacturer and marketer of consumable dental products, from August 1993 until his retirement in May 2005 and was formerly the vice president and treasurer of Kerr, Ormco Corporation, and Metrex. Mr. Waller's prior board experience includes service as a director for the following publicly-traded companies: Cardiogenesis Corporation, from April 2007 until its acquisition by Cryolife in 2011; Clariant, Inc., from December 2006 until its acquisition by General Electric Company in December 2010; Biolase Technology, Inc., from October 2009 to August 2010; SenoRx, Inc., from May 2006 until its acquisition by

C.R. Bard, Inc. in July 2010; and Alsius Corporation, from June 2007 until its acquisition by Zoll Medical Corporation in September 2009. Mr. Waller has a Master of Business Administration with a concentration in accounting from California State University, Fullerton. We believe Mr. Waller is qualified to serve as a member of our board of directors because of his 46 years of financial and management experience, as well as his familiarity with public company board functions from his service on the boards of other public companies.

Amy Yoder joined the Arcadia board in June 2017. She is president and CEO of Anuvia Plant Nutrients, a company that creates enhanced plant nutrition products from recycled organic waste sources. Ms. Yoder is the former president and CEO of Arysta Life Science and has held a variety of senior sales, marketing and executive positions with companies throughout the agricultural and related industries, including Spectrum Brands, BioLab and United Agri Products. Ms. Yoder received a bachelor's degree in agricultural technology and systems management from Michigan State University, with an emphasis in crop and soil science. She has served on boards of various agricultural associations and universities and currently serves as a director for Compass Minerals International. We believe Ms. Yoder is qualified to serve on our Board of Directors due to her extensive experience across various agriculture sectors, deep knowledge of the capital markets and public board governance expertise.

Director Independence

Our board of directors has undertaken a review of its composition, the composition of its committees, and the independence of each director, and has considered whether any director has a material relationship with the Company that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. Based on information provided by each director concerning his or her background, employment, and affiliations, including family relationships, our board of directors has determined that Dr. Bolles, Mses. Carosella, Shackelford Murray and Yoder, and Mr. Waller do not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the applicable rules and regulations of the SEC, and the listing standards of The Nasdaq Stock Market (the "Applicable Rules"). The board determined that Mr. Comcovich is not "independent" as that term is defined under the Applicable Rules. In making these determinations, our board of directors considered the current and prior relationships that each director has with our Company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each director or affiliated entities, and the transactions involving them described in the section titled "Certain Relationships and Related Party Transactions."

DIRECTOR COMPENSATION

Non-Employee Director Compensation

The following table summarizes compensation paid to our non-employee directors for services performed during the year ended December 31, 2021. Directors who are also our employees receive no additional compensation for their service as a director. During the year ended December 31, 2021, Mr. Plavan, our former chief executive officer, was an employee.

Name	Fees Earned or Paid in Cash(1)	Option Awards(2)	Total
Kevin Comcovich	\$ 133,000	\$ 70,000	\$ 203,000
Albert D. Bolles, Ph.D.	\$ 45,688	\$ 30,000	\$ 75,688
Deborah Carosella	\$ 81,660	\$ 90,000	\$ 171,660
Gregory Waller	\$ 64,000	\$ 30,000	\$ 94,000
Lilian Shackelford Murray	\$ 59,500	\$ 30,000	\$ 89,500
Amy Yoder	\$ 56,000	\$ 30,000	\$ 86,000

- (1) Represents the cash annual retainer and the meeting attendance fees earned by the non-employee directors. Mr. Comcovich and Ms. Carosella earned additional amounts for serving on a temporary transition committee related to the recruitment of a new chief executive officer.
- (2) Amounts do not reflect compensation actually received by the non-employee director. Instead, the amounts represent aggregate grant date fair value of options granted during 2021 computed in accordance with ASC Topic 718 Stock Compensation. The valuation assumptions used in determining such amounts are consistent with those described in Note 14 of the Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2020. Mr. Comcovich, as the continuing non-employee chairman, received a grant of 25,514 stock options, which vest as described below. Ms. Carosella, as a new non-employee director, received 21,853 stock options as a new non-employee director and an additional 10,935 stock options as a continuing non-employee director, which vest as described below. Dr. Bolles, Mr. Waller, Ms. Yoder and Ms. Shackelford Murray, as continuing non-employee directors, each received a grant of 10,935 stock options, which vest as described below.

The following table lists all outstanding equity awards held by our non-employee directors as of December 31, 2021.

Director Name	Option Grant Date	Number of Options Granted		Option Exercise Price Per Share (\$/1)	Option Expiration Date
Kevin Comcowich	10/30/2016	2,396	(2)	\$ 34.40	10/30/2026
	6/7/2017	3,018	(2)	\$ 14.60	6/7/2027
	6/6/2018	7,476	(2)	\$ 10.80	6/6/2028
	6/3/2019	16,128	(2)	\$ 5.04	6/3/2029
	6/1/2020	21,320	(2)	\$ 3.69	6/1/2030
	7/8/2020	5,273	(2)	\$ 3.73	7/8/2030
	6/2/2021	25,514	(3)	\$ 2.89	6/2/2031
Albert D. Bolles, Ph.D.	5/12/2018	8,210	(2)	\$ 9.16	5/12/2028
	6/6/2018	3,204	(2)	\$ 10.80	6/6/2028
	6/3/2019	6,912	(2)	\$ 5.04	6/3/2029
	6/1/2020	9,137	(2)	\$ 3.69	6/1/2030
	6/2/2021	10,935	(3)	\$ 2.89	6/2/2031
Deborah Carosella	2/22/2021	21,853	(4)	\$ 3.25	2/22/2031
	6/2/2021	10,935	(3)	\$ 2.89	6/2/2031
Lilian Shackelford Murray	6/6/2018	6,408	(2)	\$ 10.80	6/6/2028
	6/3/2019	6,912	(2)	\$ 5.04	6/3/2029
	6/1/2020	9,137	(2)	\$ 3.69	6/1/2030
	7/8/2020	753	(2)	\$ 3.73	7/8/2030
	6/2/2021	10,935	(3)	\$ 2.89	6/2/2031
Gregory D. Waller	6/7/2017	5,969	(2)	\$ 14.60	6/7/2027
	6/6/2018	3,204	(2)	\$ 10.80	6/6/2028
	6/3/2019	6,912	(2)	\$ 5.04	6/3/2029
	6/1/2020	9,137	(2)	\$ 3.69	6/1/2030
	6/2/2021	10,935	(3)	\$ 2.89	6/2/2031
Amy Yoder	8/7/2017	10,123	(2)	\$ 8.60	8/7/2027
	6/6/2018	3,204	(2)	\$ 10.80	6/6/2028
	6/3/2019	6,912	(2)	\$ 5.04	6/3/2029
	6/1/2020	9,137	(2)	\$ 3.69	6/2/2030
	6/2/2021	10,935	(3)	\$ 2.89	6/2/2031

- (1) The option exercise price per share reflects the fair market value per share of our common stock on the date of grant.
- (2) These options are fully vested.
- (3) These options vest on the earlier of the one-year anniversary of the date of grant and the date of the Company's next annual meeting.
- (4) These options vest in three equal annual installments, with one-third of the shares subject to the option vesting on each of the first three anniversaries of the date of the award.

Non-Employee Director Compensation Policy

Cash Compensation

Each non-employee director receives an annual cash retainer of \$30,000 for serving on our Board of Directors. The retainer is payable in arrears in equal quarterly installments, subject to such director's continued service on the last day of the preceding quarter and prorated as necessary to reflect service commencement or termination during the quarter. In addition, each non-employee director shall receive the following amount for each regular meeting of the Board attended: (i) \$2,500 if attendance is in person or (ii) \$500 if attendance is through remote means (e.g., attending by telephone); provided, however, that the total meeting fees may not exceed \$10,000 per calendar year.

The chair and non-chair members of the Board's three standing committees are entitled to the following additional annual cash fees (payable quarterly in arrears and prorated for partial service in a quarter):

The chair and non-chair members of the board's three standing committees are entitled to the following additional annual cash fees (payable quarterly in arrears and prorated for partial service in a quarter):

Board Committee	Chairperson Fee	Non-Chair Member Fee
Audit Committee	\$ 18,000	\$ 7,500
Compensation Committee	12,000	6,000
Nominating and Governance Committee	8,500	4,500

The chair of the board is entitled to an additional \$40,000 annual cash fee (payable quarterly in arrears and prorated for partial service in a quarter).

Equity Compensation

Upon joining the Board, each newly elected non-employee director (excluding an employee director who ceases to be an employee, but who remains a director) receives an initial option to purchase a number of shares of our common stock equal to (x) \$60,000 divided by (y) the Black-Scholes value of a share on the date of grant, as determined consistent with the historical practices of the Company. This initial option will vest and become exercisable in three equal installments on each of the first three anniversaries of the date of grant, subject to the director's continued service through each vesting date. The per share exercise price for the initial option shall be equal to the fair market value for a share of our common stock on the date of grant, which shall be equal to the closing price of our common stock on the date of grant. An employee director who ceases to be an employee, but who remains a director, will not receive an option grant.

On the date of each annual meeting of our stockholders, each non-employee director (including a non-employee director who was previously an employee) will be granted an annual option to purchase a number of shares of our common stock equal to (x) \$30,000 divided by (y) the Black-Scholes value of a share on the date of grant, as determined consistent with the historical practices of the Company. This annual option will vest and become exercisable on the earlier of (i) the one-year anniversary of the date of grant or (ii) the date of our next annual meeting of stockholders, subject to the director's continued service through the vesting date. The per share exercise price for the annual option shall be equal to the fair market value for a share of our common stock on the date of grant.

On the date of each annual meeting of our stockholders, the chair of the Board will be granted an additional annual option to purchase a number of shares of our common stock equal to (x) \$40,000 divided by (y) the Black-Scholes value of a share on the date of grant, as determined consistent with the historical practices of the Company. This annual option for the chair of the Board will vest and become exercisable on the earlier of (i) the one-year anniversary of the date of grant or (ii) the date of our next annual meeting of stockholders, subject to the chair of the Board's continued service through the vesting date. The per share exercise price for the annual option for the chair of the Board shall be equal to the fair market value for a share of our common stock on the date of grant.

Notwithstanding the vesting schedules described above, the vesting of each equity award will accelerate in full upon a change in control and termination of directorship.

EXECUTIVE COMPENSATION

Processes and Procedures for Compensation Decisions

Our compensation committee is responsible for the executive compensation programs for our executive officers and reports to the Board of Directors on its discussions, decisions and other actions. Our Chief Executive Officer makes recommendations to our compensation committee, attends committee meetings, and is involved in the determination of compensation for the respective executive officers that report to him, except that our Chief Executive Officer does not make recommendations as to his own compensation. Additionally, our Chief Executive Officer makes recommendations to our compensation committee regarding short- and long-term compensation for all executive officers (other than himself) based on our results, an individual executive officer's contribution toward these results, and performance toward individual goal achievement. Our compensation committee then reviews the recommendations and other data and makes decisions as to total compensation for each executive officer other than the Chief Executive Officer, as well as each individual compensation component. Our compensation committee makes recommendations to the Board of Directors regarding compensation for our Chief Executive Officer. The independent members of the Board of Directors make the final decisions regarding executive compensation for our Chief Executive Officer.

The compensation committee is authorized to retain the services of one or more executive compensation advisors, as it sees fit, in connection with the establishment of our compensation programs and related policies.

2021 Summary Compensation Table

The following table provides information regarding the compensation of our 2021 named executive officers during the fiscal years ended December 31, 2021 and 2020.

Name and Principal Position	Fiscal Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)(1)	Non-Equity Incentive Plan Compensation (\$)(2)	All Other Compensation (\$)	Total (\$)
Matthew T. Plavan	2021	\$ 443,998(3)	—	—	\$ 813,784	\$ 81,612	—	\$ 1,339,394
Former President and Chief Executive Officer	2020	\$ 370,000	—	—	\$ 325,642	\$ 98,506	—	\$ 794,148
Pamela Haley	2021	\$ 240,000	—	—	\$ 224,336	—	—	\$ 464,336
Chief Financial Officer	2020	\$ 240,000	—	—	\$ 171,391	\$ 31,800	—	\$ 443,191
Laura Pitlik	2021	\$ 110,577	\$ 25,000	—	\$ 182,522	—	—	\$ 318,099
Chief Marketing Officer	2020	—	—	—	—	—	—	\$ —
Chris Cuvelier	2021	\$ 152,889	\$ 125,000	—	\$ 227,454	—	—	\$ 526,177
Former Chief Growth Officer	2020	—	—	—	—	—	—	\$ —
Randy Shultz, Ph.D.	2021	\$ 138,208	—	—	\$ 145,160	—	—	\$ 405,679
Former Chief Technology Officer	2020	\$ 244,923	\$ 12,500	—	\$ 158,157	\$ 15,900	—	\$ 431,480

- (1) Amounts do not reflect compensation actually received by the officer. Instead, the amounts represent aggregate grant date fair value of options granted during 2020 computed in accordance with ASC Topic 718 Stock Compensation. The valuation assumptions used in determining such amounts are consistent with those described in Note 14 of the Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2020.
- (2) The amounts shown for 2020 represent amounts earned pursuant to our Executive Incentive Bonus Plan for services in 2020, which were paid in 2021. The amounts for 2021 are not included as they will be approved at the board of directors meeting scheduled to be held on March 14, 2022, with the exception of Mr. Plavan's bonus as it was determined in his Separation Agreement. The 2021 bonus amounts for the other executives will be determined based on a weighting of the achievement of Financial and Individual Goals.
- (3) This amount includes the payout of Mr. Plavan's paid time off balance upon his termination.

Executive Employment Arrangements
Matthew T. Plavan (Former President and Chief Executive Officer)

In connection with the appointment of Mr. Plavan to the position of Chief Financial Officer in September 2016, we entered into a confirmatory offer letter with Mr. Plavan. Pursuant to the offer letter, Mr. Plavan's annual base salary was established as \$280,000 and his target bonus opportunity was 35% of his annual base salary. In July 2018, Mr. Plavan's annual base salary was increased to \$300,000 and his target bonus opportunity was increased to 50% of his annual base salary. In connection with the appointment of Mr. Plavan to the position of President and Chief Executive Officer in August 2019, Mr. Plavan's annual base salary was increased to \$370,000 and his target bonus opportunity was increased to 55% of his annual base salary, prorated for the portion of 2019 during which he served as Chief Executive Officer, and 50% of his base salary for the portion of 2019 during which he served as Chief Financial Officer. In February 2020, Mr. Plavan was granted an option to purchase 76,000 shares of the common stock of the Company. Mr. Plavan's right to exercise the option vests over 4 years (1/48 per month), subject to his continued service. In January 2021, Mr. Plavan was granted an option to purchase 250,000 shares of the common stock of the Company. Mr. Plavan's right to exercise the option vests over 4 years (1/48 per month), subject to his continued service.

On December 14, 2021, Matt Plavan submitted his resignation from his positions as Chief Executive Officer, President and as a member of the Board of Directors, effective December 31, 2021. On December 19, 2021, Arcadia and Mr. Plavan entered into a Separation and Release Agreement. Pursuant to the Separation Agreement, (i) Mr. Plavan will be entitled to severance payments of \$61,666 on each of January 1, 2022 and February 1, 2022 and \$143,278 on March 1, 2022 and (ii) all stock options held by Mr. Plavan will become vested in full on December 31, 2021 and exercisable until June 30, 2024.

Pamela Haley (Chief Financial Officer)

In June 2019, Ms. Haley was granted an option to purchase 4,100 shares of the common stock of the Company. Ms. Haley's right to exercise the option vests over 4 years (25% on the one-year anniversary of the grant date and 1/48 per month thereafter), subject to her continued service. Ms. Haley's annual base salary in 2018 before her appointment as Chief Financial Officer in October 2019 was \$200,850. In connection with the appointment of Ms. Haley to the position of Chief Financial Officer in October 2019, Ms.

Haley's annual base salary was increased to \$240,000 and her target bonus opportunity was established at 35% of her annual base salary, prorated for the portion of 2019 during which she served as Chief Financial Officer, and 25% of her base salary immediately prior to her appointment for the portion of 2019 during which she served as controller. In March 2020, her 2019 bonus opportunity was increased to 40% of her annual base salary, prorated for the portion of 2019 during which she served as Chief Financial Officer. In February 2020, Ms. Haley was granted an option to purchase 40,000 shares of the common stock of the Company. Ms. Haley's right to exercise the option vests over 4 years (1/48 per month), subject to her continued service. In January 2021, Ms. Haley was granted an option to purchase 85,000 shares of the common stock of the Company. Ms. Haley's right to exercise the option vests over 4 years (1/48 per month), subject to her continued service.

Laura Pitlik (Chief Marketing Officer)

Ms. Pitlik's starting compensation when hired in July 2021 included a base salary of \$250,000, a signing bonus of \$50,000, an annual incentive cash bonus targeted at 40% of base salary, and the grant of stock options to purchase 75,000 shares of Arcadia's common stock under the 2015 Omnibus Equity Incentive Plan. The Stock Options have a term of ten years and vest over four years, with 25% of the shares subject to the Stock Options vesting on the first anniversary of the Grant Date, and an additional 1/36th of the shares vesting each month thereafter, subject to continued service through the applicable vesting dates.

Chris Cuvelier (Former Chief Growth Officer)

Mr. Cuvelier's initial compensation when hired included a base salary of \$250,000, a signing bonus of \$125,000 and an inducement stock option to purchase 100,000 shares of Arcadia's common stock. The Inducement Option has a term of ten years and vests over four years, with 25% of the shares subject to the Inducement Option vesting on the first anniversary of the Grant Date, and an additional 1/36th of the shares vesting each month thereafter, subject to continued service through the applicable vesting dates. Mr. Cuvelier was terminated in November 2021 and did not have any stock options outstanding as of December 31, 2021.

Randall Shultz, Ph.D. (Former Chief Technology Officer)

Dr. Shultz's annual base salary before his appointment as Chief Technology Officer in April 2020 was \$225,000 and his target bonus opportunity was established at 30%. In July 2020, Dr. Shultz's annual base salary was increased to \$265,000. Dr. Shultz was terminated in April 2021 and did not have any stock options outstanding as of December 31, 2021.

Severance and Change in Control Agreements

In February 2015, our board approved severance and change in control agreements (the "CIC Agreements") for each of our executive officers, the specific terms of which are discussed below. Each of the CIC Agreements expires by its terms on the third anniversary of the effective date of such agreement.

Pursuant to the CIC Agreements, if we terminate an executive's employment with us for a reason other than cause (as defined in the CIC Agreements) or the executive's death or disability (as defined in the CIC Agreements) at any time other than during the twelve-month period immediately following a change of control (as defined in the CIC Agreements), then such executive will receive the following severance benefits from the Company: (i) severance in the form of base salary continuation for a period of six months (three months for Mr. Cuvelier and Ms. Pitlik); and (ii) reimbursement for premiums paid for coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, or COBRA, for the executive and the executive's eligible dependents for up to six months (three months for Mr. Cuvelier and Ms. Pitlik).

If during the twelve-month period immediately following a change of control (as defined in the CIC Agreements), (x) we terminate an executive's employment with us for a reason other than cause (as defined in the CIC Agreements) or the executive's death or disability (as defined in the CIC Agreements), or (y) an executive resigns from such employment for good reason (as defined in the CIC Agreements), then, in lieu of the above described severance benefits, such executive shall receive the following severance benefits from the Company: (i) severance in the form of base salary continuation for a period of twelve months; (ii) reimbursement for premiums paid for coverage pursuant to COBRA, for the executive and the executive's eligible dependents for up to twelve months; and (iii) vesting shall accelerate as to 100% of all of the executive's outstanding equity awards.

An executive's receipt of severance payments or benefits pursuant to a CIC Agreement is subject to the executive signing a release of claims in our favor and complying with certain restrictive covenants set forth in the CIC Agreement.

Each CIC Agreement contains a "better after-tax" provision, which provides that if any of the payments to an executive constitutes a parachute payment under Section 280G of the Code, the payments will either be (i) reduced or (ii) provided in full to the executive, whichever results in the executive receiving the greater amount after taking into consideration the payment of all taxes, including the excise tax under Section 4999 of the Code, in each case based upon the highest marginal rate for the applicable tax.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding outstanding stock options held by our named executive officers as of December 31, 2021.

Name and Principal Position	Option Awards			
	Number of securities underlying unexercised options (#) exercisable(1)	Number of securities underlying unexercised options (#) unexercisable(1)	Option Exercise Price (\$)	Option Expiration Date
Matthew T. Plavan Former President and Chief Executive Officer	6,250	— (2)	\$ 43.80	9/11/2026
	11,250	— (2)	\$ 14.00	6/8/2027
	47,200	— (2)	\$ 4.63	9/18/2028
	16,779	— (2)	\$ 5.04	6/3/2029
	36,409	— (2)	\$ 4.91	2/3/2030
	250,000	— (2)	\$ 3.05	1/21/2031
Pamela Haley Chief Financial Officer	38	—	\$ 271.20	12/31/2022
	125	—	\$ 122.40	10/29/2024
	350	—	\$ 144.00	2/11/2025
	250	—	\$ 42.80	8/18/2026
	5,000	—	\$ 14.00	6/8/2027
	8,700	—	\$ 4.63	9/18/2028
	2,640	1,460 (3)	\$ 5.04	6/3/2029
	19,159	20,841 (4)	\$ 4.91	2/3/2030
21,240	63,760 (5)	\$ 3.05	1/21/2031	
Laura Pitlik Chief Marketing Officer	—	75,000 (6)	\$ 2.80	7/12/2031

- (1) Stock options to purchase our common stock were granted pursuant to our 2015 Omnibus Incentive Plan.
- (2) As a result of his separation and release agreement, all stock options held by Mr. Plavan became vested in full on December 31, 2021, and exercisable until June 30, 2024.
- (3) The stock options vested as to 25% of the shares on June 3, 2020, with the remaining 75% vesting in 36 equal monthly installments beginning on June 30, 2020, and ending on May 31, 2023, such that the award is fully vested on May 31, 2023, subject to the executive officer's continued service through each vesting date.
- (4) The stock options vest in 48 equal installments beginning February 29, 2020, and ending January 31, 2024, subject to the executive officer's continued service through each vesting date.
- (5) The stock options vested as to 25% of the shares on January 21, 2022, with the remaining 75% of shares vesting in 36 equal monthly installments commencing on February 21, 2022, and ending on January 21, 2025, such that the award is fully vested on January 31, 2025, subject to the executive officer's continued service through each vesting date.
- (6) The stock options will vest as to 25% of the shares on July 12, 2022, with the remaining 75% vesting in 36 equal monthly installments beginning on July 31, 2022, and ending on June 30, 2025, such that the award is fully vested on June 30, 2025, subject to the executive officer's continued service through each vesting date.

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 Securities Exchange Act of 1934, as amended, or 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” the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and certain information that we will later file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below, as well as any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act from the date of the initial registration statement and prior to the effectiveness of this registration statement, and any filings made after the date of this prospectus until we sell all of the securities under this prospectus, except that we do not incorporate any document or portion of a document that was furnished and deemed by the rules of the SEC not to have been filed:

- Our annual report on Form 10-K for the fiscal year ended December 31, 2020, filed with the SEC on [March 31, 2021](#);
- Our quarterly reports on Form 10-Q for the quarters ended March 31, 2021, June 30, 2021 and September 30, 2021, filed with the SEC on [May 17, 2021](#), [August 16, 2021](#), and [November 15, 2021](#), respectively;
- Our Current Reports on Form 8-K (other than information furnished rather than filed) filed with the SEC on [January 29, 2021](#), [February 24, 2021](#), [May 21, 2021](#), [June 7, 2021](#), [July 2, 2021](#), [July 6, 2021](#), [July 20, 2021](#), [August 2, 2021](#), [September 7, 2021](#), [October 12, 2021](#), and [November 19, 2021](#), and [December 20, 2021](#);
- Our Proxy Statement on DEF 14A, filed with the SEC on [April 20, 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.

Additionally, all reports and other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, except as to any portion of any report or document that is not deemed filed under such provisions, (i) on or after the date of filing of the registration statement containing this prospectus and prior to effectiveness of the registration statement and (ii) on or after the date of this prospectus and until the earlier of the date on which all the securities registered hereunder have been sold or the registration statement of which this prospectus is a part has been withdrawn, shall be deemed to be incorporated by reference in this prospectus and to be part hereof from the date of filing of such reports and other documents. Any information that we subsequently file with the SEC that is incorporated by reference as described above will automatically update and supersede any previous information that is part of this prospectus. Nothing in this prospectus shall be deemed to incorporate information furnished but not filed with the SEC pursuant to Items 2.02, 7.02 or 9.01 of Form 8-K.

Upon written or oral request, we will provide without charge to each person to whom a copy of the prospectus is delivered a copy of the documents incorporated by reference herein (other than exhibits to such documents, unless such exhibits are specifically incorporated by reference herein). You may request a copy of these filings, at no cost, by writing or telephoning us at the following address: Arcadia Biosciences, Inc., 202 Cousteau Place, Suite 105, Davis, CA 95618, Attention: Corporate Secretary, Telephone (530) 756-7077.

SELLING STOCKHOLDERS

This prospectus covers the possible resale by the selling stockholders identified in the table below of 2,749,591 shares of common stock issuable upon the exercise of the Warrants. The selling stockholders may sell some, all or none of their shares of common stock. We do not know how long the selling stockholders will hold the Warrants, whether any will exercise the Warrants, and upon such exercise, how long such selling stockholders will hold the shares of common stock before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholders regarding the sale of any of the shares.

The following table presents information regarding the selling stockholders and the shares that each may offer and sell from time to time under this prospectus. The table is prepared based on information supplied to us by the selling stockholders without regard to ownership limitations set forth in the applicable agreements or other documents relating to such shares, including (i) all of the shares offered hereby, and (ii) to our knowledge, all other securities held by each of the selling shareholders as of the date hereof. Except for the ownership of shares of capital stock and as described below, each selling stockholder has not had any material relationship with us within the past three years. Beneficial ownership is determined in accordance with Section 13(d) of the Exchange

Act and Rule 13d-3 thereunder. The percentage of shares beneficially owned prior to the offering is based on 22,184,235 shares of our common stock actually outstanding as of December 31, 2021.

Name of Selling Stockholder	Shares Beneficially Owned Before		Shares to be Sold in this		Shares Beneficially Owned After Offering	
	Offering	this Offering	Offering	this Offering	Number	Percentage
Armistice Capital Master Fund Ltd. (1)		395,648		654,665	1,050,313	2.99%
FiveT Capital AG/FiveT Investment Management Ltd. (1)		501,175		600,000	1,101,175	3.14%
L1 Capital Global Opportunities Master Fund (1)		—		327,333	327,333	0.93%
Intracoastal Capital, LLC (1)		939,100		119,459	1,058,559	3.01%
Bigger Capital Fund, L.P.(1)		—		164,000	164,000	0.47%
District 2 Capital Fund LP (1)		—		164,000	164,000	0.47%
Iroquois Capital Investment Group LLC (1)		23,493		24,550	48,043	0.14%
Iroquois Master Fund Ltd. (1)		54,816		73,650	128,466	0.37%
Cavalry Fund I LP (1)		19,577		81,833	101,410	0.29%
Cavalry Special Ops Fund, LLC (1)		19,577		81,834	101,411	0.29%
Brio Capital Master Fund, Ltd. (1)		78,309		163,667	241,976	0.69%
Alpha Capital Anstalt (1)		117,463		163,667	281,130	0.80%
Michael Vasinkevich (1)(2)		415,345		83,961	499,306	1.42%
Noam Rubinstein (1)(3)		226,989		41,244	268,233	0.76%
Craig Schwabe (1)(4)		16,724		4,419	21,143	0.06%
Charles Worthman (1) (5)		7,205		1,309	8,514	0.02%

- (1) All shares of common stock issuable upon exercise of the Warrants.
- (2) Mr. Vasinkevich is affiliated with Wainwright, which served as the placement agent for the Private Placement.
- (3) Mr. Rubinstein is affiliated with Wainwright, which served as the placement agent for the Private Placement.
- (4) Mr. Schwabe is affiliated with Wainwright, which served as the placement agent for the Private Placement.
- (5) Mr. Worthman is affiliated with Wainwright, which served as the placement agent for the Private Placement.

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 December 31, 2021, there were no outstanding shares of preferred stock and 22,184,235 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 or the 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.

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 Warrants for which the underlying Warrant shares are being registered hereunder. Assuming full cash exercise of the Warrants, we would receive proceeds of approximately \$8.3 million. We currently intend to use the cash proceeds from any Warrant exercise for working capital and general corporate purposes.

PLAN OF DISTRIBUTION

The selling stockholders, including their transferees, donees, pledgees, assignees and successors-in-interest, may, from time to time, sell, transfer or otherwise dispose of any or all of the shares of common stock offered by this prospectus from time to time on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market price, at varying prices determined at the time of sale or at negotiated prices. The selling stockholders may use any one or more of the following methods when selling shares:

- 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;
- broker-dealers may agree with a selling stockholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 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. The selling stockholders do not expect these commissions and discounts relating to its sales of shares to exceed what is customary in the types of transactions involved.

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 common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out its short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of 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. The selling stockholders have informed us that they do not have any agreement or understanding, directly or indirectly, with any person to distribute the common stock.

Because each of the selling stockholders may be deemed to be an “underwriter” within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. The selling stockholders have advised us that they have not entered into any agreements, understandings or arrangements with any underwriter or broker-dealer regarding the sale of the resale shares.

The shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the shares 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.

We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

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 our common stock for a period of two business days 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 shares of our 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 the selling stockholders of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale.

We will not receive any proceeds from the sale of the shares by the selling stockholders.

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, 2020 and 2019, and for each of the two years in the period ended December 31, 2020, 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 audited consolidated financial statements of Rever Holdings, LLC ("Rever Holdings") for the year ended December 31, 2020, and the related notes for such financial statements are incorporated by reference from the Company's Current Report on Form 8-K/A, as amended, on August 2, 2021.

The audited 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 are incorporated by reference from the Company's Current Report on Form 8-K/A, as amended, on August 2, 2021.

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.

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	217
Legal Fees and Expenses*	20,000
Accounting Fees and Expenses*	25,000
Miscellaneous Fees and Expenses*	5,000
TOTAL:	\$55,217

* 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 have issued the following securities that were not registered under the Securities Act:

Between March 22, 2018 and May 8, 2018, we issued and sold to two investors, for a total purchase price of \$10 million, a total of 1,201,636 shares of common stock and warrants to purchase a total of 1,282,832 shares of common stock. The warrants have an exercise price per share of \$10.7258 and terms of five years. We also issued to the placement agent in this transaction warrants to purchase a total of 15,038 shares of common stock, which warrants have an exercise price per share of \$41.5625 and terms of 5 years.

On June 14, 2018, we issued and sold to four investors warrants to purchase a total of 1,392,345 shares of common stock at a total price of \$174,043 (the "June 2018 Warrants"). The warrants have an exercise price per share of \$9.94 and terms of five and one-half years. We also issued to the placement agent in this transaction warrants to purchase a total of 69,617 shares of common stock, which warrants have an exercise price per share of \$12.568 and terms of 5 years.

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 2 years.

On May 14, 2020, we entered into letter agreements with several existing accredited investors to exercise certain outstanding warrants to purchase up to an aggregate of 1,392,345 shares of the Company's common stock at a reduced exercise price per share of \$4.90 (the "Existing Warrants"). In consideration for the immediate exercise of the Existing Warrants for cash, the exercising holders received new unregistered warrants to purchase up to an aggregate of 1,392,345 shares of common stock at an exercise price of \$4.775 per share and an exercise period of five years from the date of issuance.

In May 2020, we amended the exercise price of the June 2018 Warrants to \$4.90 per share and issued a total of 1,392,345 shares of common stock upon exercise of the June 2018 Warrants at this new exercise price. As consideration for the exercise of the June 2018 Warrants, the Company issued warrants to purchase 1,392,345 shares of common stock at an exercise price of \$4.775 per share with an exercise period of five years from the date of issuance. The Company also issued placement agent warrants to purchase a total of 69,617 shares of common stock that have an exercise price per share equal to \$6.125 and a term of five years.

In July 2020, pursuant to the July 2020 Warrant Exercise Transaction, the Company amended the exercise price of 641,416 March 2018 Warrants to \$3.975 per share and issued a total of 641,416 shares of common stock upon exercise of those March 2018 Warrants at this new exercise price. As consideration for the exercise of these March 2018 Warrants, the Company issued warrants to purchase 641,416 shares of common stock at an exercise price of \$3.85 per share with an exercise period of five and one-half years from the date of issuance. The Company also issued placement agent warrants to purchase a total of 32,071 shares of common stock that have an exercise price per share equal to \$4.969 and a term of five and one-half years.

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

On December 18, 2020, we entered into a securities purchase agreement with certain institutional and accredited investors for the issuance and sale to the investors warrants exercisable for an aggregate of 2,618,658 shares of Common Stock for a purchase price of \$0.125 per underlying share and with an exercise price of \$3.00 per share. Subject to certain ownership limitations, the Warrants are exercisable upon issuance and will expire on the 5.5 year anniversary of the date of issuance.

On January 25, 2021, we entered into a securities purchase agreement with certain institutional and accredited investors relating to the issuance and sale in a private placement of 7,876,784 shares of Company common stock at a purchase price of \$3.1925 per share and warrants exercisable for an aggregate of 3,938,392 shares of Common Stock with an exercise price of \$3.13 per Warrant Share. Subject to certain ownership limitations, the Warrants are exercisable upon issuance and will expire on the 5.5 year anniversary of the date of issuance.

On May 17, 2021, we issued 827,400 unregistered 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.

The foregoing transactions were exempt from registration under the Securities Act pursuant to Rule 506 of Regulation D promulgated under the Securities Act.

Item 16. Exhibits

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

Exhibit Number	Exhibit Description	Incorporated by Reference			Filing Date	Filed Herewith
		Form	File No.	Exhibit		
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 Investor Warrant.	8-K	001-37383	4.1	12/22/2020	
4.3	Form of Placement Agent Warrant.	8-K	001-37383	4.2	12/22/2020	
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	

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	File No.	Exhibit	
10.8	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
10.9*	Separation and Release Agreement between the Registrant and Rajendra Ketkar, dated August 23, 2019.	8-K	001-37383	10.1	8/28/2019
10.10*	Employment Letter and appended form of Severance and Change In Control Agreement between the Registrant and Matthew Plavan, dated October 1, 2019.	8-K/A	001-37383	10.1	10/7/2019
10.11*	Offer Letter and appended form of Severance and Change In Control Agreement between the Registrant and Sarah Reiter, dated February 16, 2018.	S-1	333-232858	10.17	7/26/2019
10.12*	Employment Letter and appended form of Severance and Change In Control Agreement between the Registrant and Pam Haley, dated October 1, 2019.	8-K/A	001-37383	10.2	10/7/2019
10.13+	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
10.14	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
10.15	Form of Registration Rights Agreement.	8-K	001-37383	10.2	3/23/2018
10.16	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
10.17	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
10.18	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
10.19	Promissory Note, dated April 16, 2020, by and between MidFirst Bank and Arcadia Biosciences, Inc.	8-K	001-37383	10.1	4/21/2020
10.20	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
10.21	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
10.22	Form of Letter Agreement, dated as of May 14, 2020.	8-K	001-37383	10.1	5/18/2020
10.23	Loan Agreement, dated May 18, 2020, by and between MidFirst Bank and Arcadia Biosciences, Inc.	8-K	001-37383	10.1	7/2/2020

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith	
		Form	File No.	Filing Date		
10.24	Pledge and Security Agreement dated May 18, 2020, by and between MidFirst Bank and Arcadia Biosciences, Inc.	8-K	001-37383	10.2	7/2/2020	
10.25	Promissory Note, dated June 26, 2020, by and between MidFirst Bank and Arcadia Biosciences, Inc.	8-K	001-37383	10.3	7/2/2020	
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	Master Transaction Agreement*+.	8-K	001-37383	10.2	12/22/2020	
10.29	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	
10.30	Form of Registration Rights Agreement.	8-K	001-37383	10.2	1/29/2021	
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	
10.32*	Inducement Option Grant to Chris Cuvelier.	8-K	001-37383	10.2	5/21/2021	
10.33*	Employment Agreement for Chris Cuvelier, Chief Growth Officer.	10-Q	001-37383	10.1	8/16/2021	
10.34*	CEO Transition Agreement.	8-K	001-37383	10.1	9/7/2021	
10.35*	Employment Agreement for Laura Pitlik, Chief Marketing Officer Officer.	10-Q	001-37383	10.1	11/15/2021	
10.36*	Severance and Change of Control Agreement for Laura Pitlik.	10-Q	001-37383	10.2	11/15/2021	
21.1	List of Subsidiaries.					X
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

* 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 28th day of January 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 individual whose signature appears below constitutes and appoints Pamela Haley 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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ KEVIN COMCOWICH</u> Kevin Comcowich	Interim Chief Executive Officer and Chair of the Board of Directors (principal executive officer)	January 28, 2022
<u>/s/ PAMELA HALEY</u> Pamela Haley	Chief Financial Officer (principal financial and accounting officer)	January 28, 2022
<u>/s/ ALBERT D. BOLLES</u> Albert D. Bolles, Ph.D.	Director	January 28, 2022
<u>/s/ DEBORAH D. CAROSELLA</u> Deborah D. Carosella	Director	January 28, 2022
<u>/s/ LILIAN SHACKELFORD MURRAY</u> Lilian Shackelford Murray	Director	January 28, 2022
<u>/s/ GREGORY D. WALLER</u> Gregory D. Waller	Director	January 28, 2022
<u>/s/ AMY YODER</u> Amy Yoder	Director	January 28, 2022

January 28, 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 2,749,591 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 2,749,591 shares of common stock issuable upon the exercise of outstanding warrants 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 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.

The opinions set forth in this letter are limited solely to the federal laws of the United States of America and the State of California, and we express no opinion as to the laws of any other jurisdiction.

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

SUBSIDIARIES OF ARCADIA BIOSCIENCES, INC.

Name	State/Jurisdiction of Formation
Arcadia Wellness, LLC	Delaware

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, 2021 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, 2020. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ Deloitte & Touche LLP

Phoenix, Arizona
January 28, 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
January 28, 2022

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 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
January 28, 2022