



**FOR IMMEDIATE RELEASE**

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**Arcadia Biosciences Announces Fourth-Quarter and Full-Year 2018 Financial Results and Business Highlights**

***-- Company delivers regulatory, scientific and commercial progress in four crops, and launches new strategy in cannabis --***

**DAVIS, Calif. (March 27, 2019)** – Arcadia Biosciences, Inc. (Nasdaq: RKDA), a food ingredient company and proven leader in agricultural innovation, improving the quality and nutritional content of crops, today released its financial and business results for the fourth quarter and full year of 2018.

“2018 was a transformative year for Arcadia, as we delivered significant regulatory, commercial and scientific advancements in wheat, soy, tomato and safflower,” said Raj Ketkar. “We are now well positioned in 2019 to apply our years of expertise to a new crop – cannabis – with the formation of Arcadia Specialty Genomics. This new strategic business unit, headed by Matt Plavan, is dedicated to improving the plant quality, productivity, consistency and climate resilience of cannabis, working initially in hemp in federal and state legal markets.”

“This is a natural evolution of our business, consistent with Arcadia’s focus as a consumer-driven agricultural technology company, developing and commercializing innovative food ingredients, nutritional oils and products that improve crop productivity, nutritional quality and value,” Ketkar said.

**2018 Operating and Business Highlights**

- GoodWheat™ Portfolio of Branded Specialty Wheats. In Q1 of 2018, Arcadia launched its GoodWheat brand of wheat ingredients that add value to the entire wheat value chain, from seed to table, by enabling a wider range of choices to meet evolving consumer demands. The platform includes Arcadia’s current and future non-GM wheat portfolio of high fiber Resistant Starch (RS) and Reduced Gluten (RG) wheat varieties, as well as future wheat innovations.
- Key Technical Milestones Achieved with High Fiber, Resistant Starch GoodWheat. Arcadia achieved key technical milestones in its high fiber, RS wheat lines in 2018. Arcadia’s RS wheat varieties contain 94 percent amylose, compared to 25 to 30 percent in traditional wheat. Increased levels of amylose correspond to higher levels of resistant starch, which has been proven to deliver significant health benefits. These same wheat varieties deliver levels of total dietary fiber high enough to meet the FDA’s threshold for “Good Source” of fiber and “High in Fiber” designations on consumer packaging. These new non-GM wheat varieties, naturally

high in fiber, will help satisfy consumers' demands for healthier, clean-label ingredients in their favorite wheat-based foods.

- Reduced Gluten Wheat Added to GoodWheat Portfolio. Arcadia added new Reduced Gluten wheat to the GoodWheat portfolio, a non-GM, patent-pending, identity preserved specialty wheat in which allergenic glutens have been reduced by 70 percent while the levels of glutens important for baking are not changed. With the growing number of consumers making a conscious effort to reduce gluten in their diets, Arcadia's RG wheat represents a rich and untapped opportunity for specialty products and unique brand extensions.
- Industry Veterans Hired to Build Commercial Capabilities and Supply Chain Partnerships. Arcadia hired two agricultural biotech industry veterans to build its commercial capabilities. Sarah Reiter joined as chief commercial officer, and Grant Aldridge joined as head of commercial development to help build out the GoodWheat supply chain. Each of them has over 20 years of expertise in agronomic breeding, seed production and commercial development.
- US Patent Received for Extended Shelf Life Wheat. Arcadia was granted a U.S. patent for its Extended Shelf Life Wheat technology which extends the storage life of whole wheat flour by minimizing oxidation. This new trait was designed to promote whole wheat consumption by improving the shelf life and taste of whole grain wheat products.
- Partnership with Ardent Mills to Develop and Commercialize Innovative Wheat Traits. Arcadia announced a collaboration with Ardent Mills, the leading flour-milling and ingredient company in North America, to develop and commercialize innovative wheat varieties. The first project in this partnership will focus on extending the shelf life of whole wheat flour products to improve taste, reduce waste and positively impact health outcomes by increasing the consumption of whole grains.
- Verdeca General Manager Hired to Prepare for HB4 Commercialization. Arcadia's joint venture with Bioceres Crop Solutions Corporation, Verdeca, hired Martin Mariani Ventura, a seasoned agriculture executive with over 20 years of experience in marketing and commercialization of new products, as General Manager.
- Regulatory Approval for HB4 Drought Tolerance Trait Stacked with Herbicide Tolerance. Verdeca received approval in Argentina for its HB4 drought tolerant trait stacked with herbicide tolerant traits in soybeans. The approval allows Verdeca to incorporate tolerance to both glyphosate and glufosinate-ammonium into the trait and expands the addressable acres for HB4 technology in South America.
- HB4 Drought Tolerant Soybean Trials in Argentina Demonstrate Efficacy in Drought Conditions. During the 2017-18 field trial season in Argentina, HB4 Drought Tolerant soybeans showed improved yields under drought conditions in elite breeding lines. More than 50 million of the world's soybean hectares are grown in Argentina and Brazil, a region that has experienced significant drought conditions in recent years. Verdeca estimates that 30 percent of these hectares are the addressable market for the HB4 trait.
- Extended Shelf Life Tomato Achieves Key Milestone. Arcadia reached a technical milestone with partner Shriram Bioseed in India for Extended Shelf Life tomatoes. This non-GM trait is bred to fully ripen on the vine yet remain durable enough to survive the packing and shipping process, reducing post harvest damage and costly waste. This milestone

demonstrates Arcadia's ability to innovate novel traits in crops that add value for growers and other stakeholders in the supply chain.

- Double-Digit Yield Increases Demonstrated in Stacked Traits in Rice. Three of Arcadia's abiotic stress traits stacked together demonstrated double digit yield increases in rice in two crop seasons of field trials. Multiple lines carrying the nitrogen use efficiency (NUE), water use efficiency (WUE) and salinity tolerance (ST) traits outperformed control lines by an average of 25 percent under limiting nitrogen applications, when measured for yield.
- \$24M Raised in Financing. During 2018, Arcadia raised a total of \$24M in financing, through a private placement (PIPE) financing and a registered direct offering. These funds will be used to support commercialization activities for its portfolio of health and nutrition products.

### **Q1 Achievements and Strategic Outlook**

- New Business Unit Dedicated to Cannabis. In February 2019, Arcadia launched Arcadia Specialty Genomics, to leverage the company's years of plant science, industry and regulatory expertise, offering value-added capabilities for rapid growth in cannabis-based functional ingredients. This dedicated business unit will develop a proprietary germplasm estate and traits for license to cultivators, and for products serving the nutraceutical and food industries. These innovations are made possible through a proprietary approach combining conventional breeding, TILLING and gene editing. Matt Plavan, Arcadia's CFO, will lead the business unit as president of Arcadia Specialty Genomics.
- Licensed to Grow Hemp in Hawaii. Hawaii's Department of Agriculture recently granted Arcadia Biosciences a license for their Industrial Hemp Pilot Program. With this license, Arcadia Specialty Genomics can begin its research and cultivation immediately, and plans are already underway to begin planting in April.
- First Sales of GoodWheat expected in 2019. Arcadia's focus will continue on building and expanding partnerships throughout the wheat supply chain with growers, seed companies, millers and food companies. The first product in the GoodWheat portfolio, Resistant Starch wheat, is anticipated to be commercially available in 2019, so these partnerships will be key to launching innovative wheat ingredients and forming the foundation of a long-term, sustainable business.

**Arcadia Biosciences, Inc.**  
**Financial Snapshot**  
**(Unaudited)**  
*(\$ in thousands)*

	Three months ended Dec 31				Twelve months ended Dec 31			
	2018	2017	Favorable/ (Unfavorable)		2018	2017	Favorable/ (Unfavorable)	
			\$	%			\$	%
<b>Total Revenues</b>	444	1,428	(984)	(69%)	1,464	4,026	(2,562)	(64%)
<b>Total Operating Expenses</b>	4,798	4,428	(370)	(8%)	18,334	18,341	7	0%
<b>Loss From Operations</b>	(4,354)	(3,000)	(1,354)	(45%)	(16,870)	(14,315)	(2,555)	(18%)
<b>Net Loss Attributable to Common Stockholders</b>	(646)	(2,960)	2,314	78%	(13,480)	(15,707)	2,227	14%

## Revenues

Arcadia's revenues in 2018 reflect the impact of the company's transformation from a predominately research and licensing business model to a one of a consumer products health and ingredients model. As a result, revenues from its legacy R&D business model wound down during the year, and forward expectations for the onset and scale up of new revenues from nutritional ingredient products over the next nine to 18 months remain unchanged.

In the fourth quarter of 2018, revenues were \$444,000, compared to revenues of \$1.4 million in the fourth quarter of 2017. For annual 2018, overall revenues decreased to \$1.5 million compared to \$4.0 million during the same period of 2017. The quarter-over-quarter and annual results were primarily impacted by the decrease in government grant revenue, in addition to a contract research agreement in 2017 that was not present in 2018 and the recognition of previously deferred upfront license fees with the termination of several agreements in the fourth quarter of 2017. Over the next nine to 18 months, as the company transitions to its new focus on health and nutrition quality products, Arcadia expects revenue from government grants, research contracts and license revenues to be replaced by product and trait revenues.

## Operating Expenses

In the fourth quarter of 2018, operating expenses were \$4.8 million, compared to \$4.4 million in the fourth quarter of 2017. For annual 2018, operating expenses were \$18.3 million, consistent with the amount incurred during the same period in 2017. Annual research and development (R&D) spending decreased by \$1.3 million in 2018, primarily the result of the termination of license and contract research agreements at the end of 2017. General and administrative (SG&A) costs for annual 2018 were \$953,000 higher than annual 2017, driven primarily by higher intellectual property legal fees and additional marketing activity. Cost of product revenues was

\$210,000 higher than in the fourth quarter of 2017 and \$378,000 higher than annual 2017 due to the write-down of inventory and additional product sales in 2018.

### **Net Loss Attributable to Common Stockholders**

Net loss attributable to common stockholders for the fourth quarter of 2018 was \$646,000, or a loss of \$0.14 per share, a 78 percent improvement from the \$3.0 million loss in the fourth quarter of 2017. Net loss attributable to common stockholders for the year was \$13.5 million, or a loss of \$3.58 per share, a 14 percent improvement from the \$15.7 million loss in 2017.

The annual loss for 2018 includes non-cash income of \$9.6 million recognized as the fair values of the common stock warrant liabilities associated with the PIPE financing and Registered Direct Offering were adjusted from quarter to quarter during 2018. The loss for annual 2018 also includes \$4.0 million of expense recorded upon the initial recognition of the common stock warrant and adjustment feature liabilities associated with the PIPE financing. In addition, there was \$2.6 million of offering costs expensed in support of both transactions. The combined impact of this activity during annual 2018 netted to \$3.0 million of income.

The annual loss for 2017 includes a loss on extinguishment of debt in the amount of \$900,000, as well as \$747,000 of interest expense incurred through the July 2017 debt payoff.

### **Conference Call and Webcast**

The company has scheduled a conference call for 4:30 p.m. Eastern (1:30 p.m. Pacific) today, March 27, to discuss fourth-quarter and annual financial results and key strategic achievements.

Interested participants can join the conference call using the following numbers:

U.S. Toll-Free Dial-In: +1-844-243-4690  
International Dial-In: +1-225-283-0138  
Passcode: 6189179

A live webcast of the conference call will be available on the “Investors” section of the Arcadia’s website at [www.arcadiabio.com](http://www.arcadiabio.com). Following completion of the call, a recorded replay will be available on the company’s investor website.

### **About Arcadia Biosciences, Inc.**

Arcadia Biosciences (Nasdaq: RKDA) develops and markets high-value food ingredients and nutritional oils that help meet consumer demand for a healthier diet. Arcadia’s GoodWheat™ branded ingredients deliver health benefits to consumers and enable consumer packaged goods companies to differentiate their brands in the marketplace. The company’s agricultural traits are being developed to enable farmers around the world to be more productive and minimize the impact of agriculture on the environment. For more information, visit [www.arcadiabio.com](http://www.arcadiabio.com)

### **Safe Harbor Statement**

“Safe Harbor” statement under the Private Securities Litigation Reform Act of 1995: This press release and the accompanying conference call contain forward-looking statements about the company and its products, including statements relating to components of the company’s long-

term financial success and ongoing plans; the company's traits, commercial products, and collaborations; and the company's ability to manage the regulatory processes for its traits and commercial products. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially, and reported results should not be considered as an indication of future performance. These risks and uncertainties include, but are not limited to: the company's and its partners' ability to develop commercial products incorporating its traits and to complete the regulatory review process for such products; the company's compliance with laws and regulations that impact the company's business, and changes to such laws and regulations; and the company's future capital requirements and ability to satisfy its capital needs. Further information regarding these and other factors that could affect the company's financial results is included in filings the company makes with the Securities and Exchange Commission from time to time, including the section entitled "Risk Factors" in the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018 and additional information that will be set forth in its Form 10-K for the year ended December 31, 2018. These documents are or will be available on the SEC Filings section of the Investor Relations pages of the company's website at [www.arcadiabio.com](http://www.arcadiabio.com). All information provided in this release and in the attachments is as of the date hereof, and Arcadia Biosciences, Inc. undertakes no duty to update this information.

**Arcadia Biosciences, Inc.**  
**Consolidated Balance Sheets**  
**(Unaudited)**  
*(In thousands, except share data)*

	<b>As of December 31,</b>	
	<b>2018</b>	<b>2017</b>
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 11,998	\$ 9,125
Short-term investments	9,825	3,898
Accounts receivable	165	1,231
Unbilled revenue	3	4
Inventories — current	181	229
Prepaid expenses and other current assets	704	560
<b>Total current assets</b>	<b>22,876</b>	<b>15,047</b>
Property and equipment, net	395	299
Inventories — noncurrent	746	1,168
Other noncurrent assets	7	56
<b>Total assets</b>	<b>\$ 24,024</b>	<b>\$ 16,570</b>
<b>Liabilities and stockholders' equity</b>		
Current liabilities:		
Accounts payable and accrued expenses	\$ 2,645	\$ 2,496
Amounts due to related parties	29	29
Unearned revenue — current	96	1,000
Other current liabilities	284	-
<b>Total current liabilities</b>	<b>3,054</b>	<b>3,525</b>
Unearned revenue — noncurrent	-	2,038
Common stock warrant liabilities	5,083	—
Other noncurrent liabilities	3,072	3,000
<b>Total liabilities</b>	<b>11,209</b>	<b>8,563</b>
Stockholders' equity:		
Common stock, \$0.001 par value—150,000,000 shares authorized as of December 31, 2018 and December 31, 2017; 4,774,919 and 2,134,154 shares issued and outstanding as of December 31, 2018 and December 31, 2017, respectively.	45	42
Additional paid-in capital	191,136	175,223
Accumulated deficit	(178,366)	(167,257)
Accumulated other comprehensive loss	-	(1)
<b>Total stockholders' equity</b>	<b>12,815</b>	<b>8,007</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 24,024</b>	<b>\$ 16,570</b>

**Arcadia Biosciences, Inc.**  
**Consolidated Statements of Operations and Comprehensive Loss**  
**(Unaudited)**

*(In thousands, except share and per share data)*

	<b>Year Ended December 31,</b>	
	<b>2018</b>	<b>2017</b>
<b>Revenues:</b>		
Product	\$ 657	\$ 514
License	150	1,470
Contract research and government grants	657	2,042
<b>Total revenues</b>	<b>1,464</b>	<b>4,026</b>
<b>Operating expenses:</b>		
Cost of product revenues	661	283
Research and development	6,069	7,407
Selling, general and administrative	11,604	10,651
<b>Total operating expenses</b>	<b>18,334</b>	<b>18,341</b>
Loss from operations	(16,870)	(14,315)
Interest expense	—	(747)
Other income, net	394	281
Initial loss on common stock warrant and common stock adjustment feature liabilities	(4,000)	—
Change in fair value of common stock warrant and common stock adjustment feature liabilities	9,561	—
Offering costs	(2,555)	—
Loss on extinguishment of debt	—	(900)
Net loss before income taxes	(13,470)	(15,681)
Income tax provision	(10)	(26)
Net loss attributable to common stockholders	<u>\$ (13,480)</u>	<u>\$ (15,707)</u>
<b>Net loss per share attributable to common stockholders:</b>		
Basic and diluted	<u>\$ (3.58)</u>	<u>\$ (7.28)</u>
<b>Weighted-average number of shares used in per share calculations:</b>		
Basic and diluted	<u>3,766,419</u>	<u>2,156,201</u>
<b>Other comprehensive income, net of tax</b>		
Unrealized gains on available-for-sale securities	—	18
Other comprehensive income	—	18
Comprehensive loss attributable to common stockholders	<u>\$ (13,480)</u>	<u>\$ (15,689)</u>

**Arcadia Biosciences, Inc.**  
**Consolidated Statements of Cash Flows**  
**(Unaudited)**  
*(In thousands)*

	<u>Year Ended December 31,</u>	
	<u>2018</u>	<u>2017</u>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net loss	\$ (13,480)	\$ (15,707)
Adjustments to reconcile net loss to cash used in operating activities:		
Initial loss on common stock warrant and common stock adjustment feature liabilities	4,000	—
Change in fair value of common stock warrant and common stock adjustment feature liabilities	(9,561)	—
Offering costs	2,555	—
Depreciation	154	279
Gain on disposal of equipment	(3)	(1)
Net amortization of investment premium and discount	(193)	(89)
Stock-based compensation	1,550	1,474
Loss on sale of investments	—	2
Accretion of debt discount	—	98
Loss on extinguishment of debt	—	900
Write down of inventory	310	—
Changes in operating assets and liabilities:		
Accounts receivable	1,066	(882)
Unbilled revenue	2	179
Inventories	160	183
Prepaid expenses and other current assets	(151)	324
Other noncurrent assets	—	11
Accounts payable and accrued expenses	176	87
Amounts due to related parties	(1)	(1)
Unearned revenue	(312)	(822)
Other current liabilities	25	—
Other noncurrent liabilities	72	—
Net cash used in operating activities	<u>(13,631)</u>	<u>(13,965)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Proceeds from sale of property and equipment	10	4
Purchases of property and equipment	(250)	(79)
Purchases of investments	(29,885)	(19,405)
Proceeds from sales and maturities of investments	24,150	66,658
Net cash (used in) provided by investing activities	<u>(5,975)</u>	<u>47,178</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Proceeds from issuance of common stock and warrants under Purchase Agreement	10,000	—
Payments of offering costs relating to Purchase Agreement	(1,308)	—
Proceeds from issuance of common stock and warrants from June Offering	14,000	—
Payments of offering costs relating to June Offering	(1,182)	—
Payments of debt extinguishment costs	—	(1,125)
Proceeds from exercise of stock options and purchases through ESPP	969	24
Payments on notes payable	—	(25,000)
Net cash provided by (used in) financing activities	<u>22,479</u>	<u>(26,101)</u>
Net increase in cash and cash equivalents	2,873	7,112
Cash and cash equivalents — beginning of period	9,125	2,013
Cash and cash equivalents — end of period	<u>\$ 11,998</u>	<u>\$ 9,125</u>

SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:

Cash paid for interest	\$ —	\$ 746
Cash paid for income taxes	\$ 34	\$ 2
NONCASH TRANSACTIONS:		
Offering costs in accounts payable and accrued expenses at end of period	\$ 23	\$ 50
Common stock warrants issued to placement agent and included in offering costs related to Purchase Agreement	\$ 526	\$ —
Common stock warrants issued to placement agent and included in offering costs related to June Offering	\$ 239	\$ —
Proceeds from sale of fixed assets included in prepaid expenses and other current assets	\$ —	\$ 7
Reclassification of unearned revenue to other short term liabilities	\$ 259	\$ —
Reclassification of common stock adjustment feature liability balance to equity	\$ 8,378	\$ —
Exchange of membership interest in unconsolidated entity for common stock	\$ —	\$ 2

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