PROSPECTUS SUPPLEMENT (To Prospectus dated December 20, 2020)

ARCADIA BIOSCIENCES, INC.

9,892 Shares of Common Stock

This prospectus supplement updates, supersedes and amends certain information contained in the prospectus dated December 20, 2020 (the "Original Prospectus"), relating to the resale by a selling stockholder named therein of up to 9,892 shares of common stock, par value \$0.001 per share, issuable upon exercise of a warrant (the "Existing Warrant"), that we issued in a private placement pursuant to a securities purchase agreement dated September 10, 2019, that we entered into with certain institutional and accredited investors, including the selling stockholder. The Existing Warrant was issued to the selling stockholder with an original exercise price of \$300.80, which reflects an adjustment for a subsequent reverse stock split effected in March 2023. The Existing Warrant will be amended as described below under "Amendments to Existing Warrant."

The shares of common stock underlying the Existing Warrant are referred to herein as the warrant shares. The warrant shares were registered on behalf of the selling stockholder, to be offered and sold from time to time, to satisfy certain registration rights that we granted to the selling stockholder. This prospectus supplement solely relates to the 9,892 warrant shares issuable to a selling stockholder named herein and does not relate to any warrant shares issuable to the other selling stockholders named in the Original Prospectus.

This prospectus supplement should be read in conjunction with the Original Prospectus, and is qualified by reference to the Original Prospectus, except to the extent that the information presented herein supersedes the information contained in the Original Prospectus. This prospectus supplement is not complete without, and may only be delivered or used in connection with, the Original Prospectus, including any amendments or supplements thereto. We may amend or supplement the Prospectus from time to time by filing amendments or supplements as required. You should read the entire Prospectus and any amendments or supplements carefully before you make an investment decision.

Our common stock is listed on the Nasdaq Capital Market under the symbol "RKDA." On March 2, 2023, the last reported sale price of our common stock on the Nasdaq Capital Market was \$10.35 per share.

Effective on March 1, 2023, we filed an amendment to our Amended and Restated Certificate of Incorporation to effect a reverse stock split of the issued and outstanding shares of common stock, at a ratio of one share for forty shares (the "Reverse Stock Split"). All share and per share prices in this prospectus supplement have been adjusted to reflect the Reverse Stock Split. However, Common Stock share and per share amounts in certain of the documents incorporated by reference herein have not been adjusted to give effect to the Reverse Stock Split.

Investing in our securities involves a high degree of risk. See "Risk Factors" in the Original Prospectus and documents incorporated therein by reference for a discussion of such risk factors, which factors should be read carefully in connection with an investment in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

AMENDMENTS TO EXISTING WARRANT

This prospectus supplement is being filed to disclose the following:

On March 2, 2022, we entered into a securities purchase agreement with certain institutional investors (the "Purchasers") in a private placement of our securities (the "Offering"). In connection with the Offering, we entered into preferred investment option amendment agreements (the "Option Amendment Agreements") with the Purchasers. Under the Option Amendment Agreements, we agreed to amend certain existing warrants and preferred investment options to purchase up to a total of 178,132 shares of common stock that were previously issued to the Purchasers in September 2019, May 2020, July 2020, December 2020, January 2021 and August 2022, with exercise prices of \$301, \$191, \$154, \$120, \$125 and \$37 per share, respectively (the "Issued Warrants"), in consideration for the purchase of our securities in the private placement. Under the Option Amendment Agreements, we agreed to lower the exercise price of such Issued Warrants to \$9.00 per share. The amendment of the Issued Warrants pursuant to the Option Amendment Agreements is subject to the consummation of the Private Placement.

Prospectus supplement dated March 3, 2023

