Filed Pursuant to Rule 424(b)(5)
Registration No. 333-277018

PROSPECTUS SUPPLEMENT

$13,500,000

Common Stock

We have previously entered into a sales agreement, or the sales agreement, with Cowen and Company, LLC, or TD Cowen, relating to shares of our common stock, par value $0.0001 per share, offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the sales agreement, we may offer and sell shares of our common stock, having an aggregate offering price of up to $75,000,000 from time to time through TD Cowen acting as our agent. This prospectus supplement is offering up to an aggregate of $13,500,000 in shares of our common stock. We will be required to file another prospectus supplement in the event we want to offer more than $13,500,000 in shares of our common stock in accordance with the sales agreement.

Our common stock is listed on the Nasdaq Capital Market under the symbol “AADI.” On April 30, 2024, the last reported sale price of our common stock on the Nasdaq Capital Market was $1.92 per share. As of March 13, 2024, the aggregate market value of our common stock held by our non-affiliates, as calculated pursuant to the rules of the Securities and Exchange Commission, was approximately $40.5 million, based upon 16,637,988 shares of our outstanding common stock held by non-affiliates at the per share price of $2.44, the closing sale price of our common stock on the Nasdaq Capital Market on March 4, 2024, the highest closing price of our common stock on the Nasdaq Capital Market during the preceding sixty day period. Pursuant to General Instruction I.B.6 of Form S 3, in no event will we sell securities in a public offering with a value exceeding more than one-third of our “public float” (the market value of our common stock held by our non-affiliates) in any 12-month period so long as our public float remains below $75.0 million. We have not sold any securities in reliance on General Instruction I.B.6 of Form S 3 during the 12 calendar months prior to and including the date of this prospectus.

Sales of our common stock, if any, under this prospectus supplement and the accompanying prospectus will be made in sales deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or the Securities Act. TD Cowen is not required to sell any specific amount of securities, but will act as our sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between TD Cowen and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The compensation to TD Cowen for sales of common stock pursuant to the sales agreement will be an amount equal to 3.0% of the gross proceeds of any shares of common stock sold under the sales agreement. In connection with the sale of the common stock on our behalf, TD Cowen will be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of TD Cowen will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to TD Cowen with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended.

Our business and an investment in our common stock involve significant risks. These risks are described under the caption “Risk Factors ” beginning on page S-9 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

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. Any representation to the contrary is a criminal offense.

TD Cowen

The date of this prospectus supplement is May 3, 2024

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PROSPECTUS SUPPLEMENT

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a registration statement on Form S-3 that we have filed with the U.S. Securities and Exchange Commission, or the SEC, utilizing a "shelf" registration process. By using a shelf registration statement, we may offer shares of our common stock having an aggregate offering price of up to $13,500,000 from time to time under this prospectus supplement at prices and on terms to be determined by market conditions at the time of offering. The $13,500,000 of shares of our common stock that may be sold under this prospectus are included in the $150,000,000 of shares of securities that may be sold under the registration statement.

We provide information to you about this offering of shares of our common stock in two separate documents that are bound together: (1) this prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this "prospectus," we are referring to both documents combined. If information in this prospectus supplement is inconsistent with the accompanying prospectus, you should rely on this prospectus supplement. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus supplement—the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates.

We have not, and TD Cowen has not, authorized anyone to provide any information other than that contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and TD Cowen take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not, and TD Cowen is not, making an offer to sell or soliciting an offer to buy our securities in any jurisdiction where an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus, and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

When we refer to "Aadi," "we," "our," "us" and the "Company" in this prospectus, we mean Aadi Bioscience, Inc., unless otherwise specified.

Aadi™, Aadi Bioscience™, and FYARRO® and our logo are some of our trademarks used in this prospectus. This prospectus also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, our trademarks and tradenames referred to in this prospectus may appear without the ® and ™ symbol, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor to these trademarks and tradenames.

MARKET, INDUSTRY AND OTHER DATA

This prospectus supplement, including the information incorporated by reference herein, contains estimates, projections and other information concerning our industry, our business, and the markets for certain drugs, including data regarding the estimated size of those markets. Information that is based on estimates, forecasts, projections or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by third parties, industry, medical and general publications, government data and similar sources. In some cases, we do not expressly refer to the sources from which this data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires.

PROSPECTUS SUPPLEMENT SUMMARY

This summary provides a general overview of selected information and does not contain all of the information you should consider before buying our common stock. Therefore, you should read the entire prospectus supplement, accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering carefully, including the information incorporated by reference herein and therein, before deciding to invest in our common stock. Investors should carefully consider the information set forth under "Risk Factors" beginning on page S-7 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

Overview

We are a biopharmaceutical company focused on developing and commercializing precision therapies for cancers with alterations in the mTOR pathway, a key regulator of cell growth and cancer progression. Our lead drug product, FYARRO® (sirolimus protein-bound particles for injectable suspension (albumin-bound), nab-sirolimus), combines two established technologies – nanoparticle albumin-bound (nab) technology and the anti-cancer agent, sirolimus. Nab-sirolimus is a potent inhibitor of the mTOR biological pathway with demonstrated anti-cancer activity in our lead indication, advanced malignant perivascular epithelioid cell tumor ("PEComa"), a rare cancer. We believe our approach to utilizing the novel combination of technologies has the potential to produce transformational therapies for patients with cancers beyond PEComa that have known mTOR pathway activation and/or cancers in which other mTOR inhibitors have not been fully exploited due to problems of pharmacology, effective drug delivery, safety, or effective targeting to the disease site.

On November 22, 2021, the U.S. Food and Drug Administration approved FYARRO sirolimus protein-bound particles for injectable suspension (albumin-bound) for the treatment of adult patients with locally advanced unresectable or metastatic malignant PEComa. On February 22, 2022, we launched FYARRO in the United States for treatment of advanced malignant PEComa and recognized net product sales of $24.4 million and $15.2 million for the years ended December 31, 2023 and 2022, respectively.

In addition to advanced malignant PEComa, based on exploratory data from the completed Phase 2 registrational study, Advanced Malignant PEComa Trial ("AMPECT") and data for FYARRO in other solid tumors with TSC1 and TSC2 inactivating alterations, we initiated a registration-directed tumor-agnostic Phase 2 study ("PRECISION1 trial") of FYARRO in patients with Tuberous Sclerosis Complex 1 ("*TSC1*") and Tuberous Sclerosis Complex 2 ("*TSC2*") alterations. The PRECISION1 trial was opened for enrollment in the United States during the first quarter of 2022, with dosing of our first patient in March 2022.

On December 14, 2023, we reported results from a planned interim analysis on the first third of participants in the PRECISION1 trial. The interim analysis included data from the first third of trial participants (n=40) with a minimum of 4.5 months of follow-up, including investigator-assessed response and safety analyzed separately in each of the *TSC1* and *TSC2* arms. Nine different tumor types were enrolled in the *TSC1* arm and 13 tumor types were enrolled in the *TSC2* arm.

With respect to the efficacy of nab-sirolimus in patients with tumors harboring pathogenic inactivating alteration in *TSC1*, of the 22 patients enrolled, 19 patients received $\geq$ 1 post baseline scan and were evaluable for efficacy. Observations included:

- A 26% Overall Response Rate (ORR) including 5 partial responses (PR) with 4 confirmed responses and 1 unconfirmed response (uPR). The patient with uPR remains on treatment and is awaiting a confirmatory scan

- 9 patients had stable disease (SD), 3 of which were greater than or equal to six months in duration, resulting in a clinical benefit rate of 42% (5 PR + 3 SD ≥ 6 months)
- Patients were heavily pre-treated with median of 3 prior lines of therapy
- Median time to response was 1.4 months and all responses were ongoing at time of data cutoff
- Responses were seen across four different epithelial carcinomas
- 60% of responders experienced > 50% tumor reduction

With respect to the efficacy of nab-sirolimus in patients with tumors harboring pathogenic inactivating alteration in *TSC2*, of the 18 patients enrolled, all 18 patients received ≥ 1 post baseline scan and were evaluable for efficacy. Observations included:

- An 11% ORR including 2 PRs with 1 confirmed and 1 uPR
- 12 patients had SD, 3 of which were greater than or equal to six months resulting in a clinical benefit rate of 28% (2 PR + 3 SD ≥ 6 mos)
- Patients were heavily pre-treated with median of 3.5 prior lines of therapy; 50% had ≥ 5 prior lines of therapy
- Responses were seen in one epithelial carcinoma and one sarcoma

No new safety signals were observed, and no grade four treatment-related events or deaths occurred. One patient discontinued the study due to grade two pneumonitis that completely resolved after discontinuation of therapy. Across both arms, the safety profile was consistent with the nab-sirolimus label and the mTOR inhibitor drug class.

As of December 14, 2023, 80 patients were enrolled in the PRECISION1 trial, supporting the two-thirds interim analysis expected in the third quarter of 2024. The ORR analysis in this cohort will be based on independent radiological review with a minimum of six months of follow-up for all patients. The trial is expected to be completed by the end of 2024 with results anticipated in early 2025.

On August 9, 2023, we announced the expansion of our FYARRO pipeline through the further investigation of mTOR pathway inhibition in endometrial cancer and neuroendocrine tumors (NETs). As part of our continued evaluation of potential new clinical programs for FYARRO, either as a single agent or in combination with other targeted therapies, we selected these new clinical indications based on preclinical data supporting these programs, which we believe are promising, and the prospect of providing enhanced therapeutic benefit in these indications with meaningful patient populations and high unmet needs.

We are currently enrolling patients in a Phase 2 open-label, multi-institutional study to evaluate the efficacy and safety of the combination of FYARRO with letrozole for the treatment of advanced or recurrent endometrioid-type endometrial cancer (EEC) and a Phase 2 multicenter, open-label, single-arm trial to evaluate FYARRO in adult patients with functional or non-functional, well-differentiated, locally advanced unresectable or metastatic NETs of the GI tract, lung, or pancreas who have received no more than two prior lines of therapy.

In October 2022, we entered into a collaboration and supply agreement with Mirati Therapeutics, Inc. (“Mirati”) to evaluate the combination of Mirati’s adagrasib, a KRASG12C selective inhibitor, and FYARRO in KRASG12C mutant non-small cell lung cancer (NSCLC) and other solid tumors. Under the terms of the agreement, Mirati will be responsible for sponsoring and operating the Phase 1/2 study and we will supply study drug and jointly share the cost of the study. The primary objective of this multi-center, single-arm, open-label Phase 1/2 trial is to determine the optimal dose and recommended Phase 2 dose for the combination of adagrasib and FYARRO in patients with KRASG12C-mutant solid

tumors. In addition, the study will investigate the safety, tolerability and efficacy of adagrasib and FYARRO in combination in patients both with and without prior exposure to a KRASG12C inhibitor. The trial will build on preclinical data showing enhanced anti-tumor efficacy with the combination of adagrasib and FYARRO relative to either agent alone. In August 2023, we announced that the first patient dosing occurred in the Phase 1/2 trial.

About Aadi

We were originally incorporated in the State of Delaware in November 2007 under the name "Zeta Acquisition Corp. II." Prior to the merger with Aerpio Pharmaceuticals, Inc., Zeta Acquisition Corp. II was a "shell" company registered under the Exchange Act with no specific business plan or purpose until it began operating the business of Aerpio through the merger on March 15, 2017, or the Aerpio Merger. On August 26, 2021, we effected a reverse merger, pursuant to which a wholly-owned subsidiary of ours merged with and into Aadi Subsidiary, Inc. (formerly Aadi Bioscience, Inc.), or Private Aadi, with Private Aadi surviving as a wholly owned subsidiary of ours. On August 26, 2021, we changed our name from Aerpio Pharmaceuticals, Inc. to Aadi Bioscience, Inc. Our principal executive offices are located at 17383 Sunset Blvd., Suite A250, Pacific Palisades, California 90272, and our telephone number is (424) 744-8055. Our website address is www.aadibio.com. The information on, or that can be accessed through, our website is not part of this prospectus supplement and is not incorporated by reference herein. We have included our website address as an inactive textual reference only.

THE OFFERING

Common stock offered by us	Shares of our common stock having an aggregate offering price of up to $13,500,000.
Common stock outstanding after this offering	Up to 31,585,455 shares, assuming sales at a price of $1.92 per share, which was the closing price of our common stock on the Nasdaq Capital Market on April 30, 2024. The actual number of shares issued will vary depending on the sales price under this offering.
Plan of Distribution	"At the market offering" that may be made from time to time through our sales agent, Cowen and Company, LLC. See "Plan of Distribution" on page S-14.
Use of Proceeds	We intend to use the net proceeds from this offering, if any, for general corporate purposes, which may include, among other things, working capital and funding research and development, and capital expenditures including the commercialization and clinical program progression of FYARRO. See "Use of Proceeds" on page S-11.
Risk Factors	Investing in our common stock involves significant risks. You should read the "Risk Factors" on page S-7 of this prospectus supplement and in the documents incorporated by reference in this prospectus supplement for a discussion of factors to consider before deciding to purchase shares of our common stock.
Nasdaq Capital Market Symbol	"AADI"

The number of shares of common stock to be outstanding after this offering is based on 24,554,205 shares of common stock outstanding as of December 31, 2023 and excludes, in each case as of December 31, 2023:

- 29,167 shares of our common stock issuable upon the exercise of warrants to purchase common stock that were outstanding as of December 31, 2023, with an exercise price of $7.29 per share;
- 4,579,659 shares of our common stock issuable upon the exercise of stock options to purchase common stock that were outstanding as of December 31, 2023, with a weighted average exercise price of $14.11 per share;
- 2,426,493 shares of our common stock issuable upon the exercise of prefunded warrants to purchase common stock that were outstanding as of December 31, 2023, with an exercise price of $0.0001 per share;
- 110,000 shares of common stock reserved for issuance pursuant to future awards under our 2023 Inducement Equity Incentive Plan;

- 657,734 shares of common stock reserved for issuance pursuant to future awards under our 2021 Equity Incentive Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan; and
- 659,146 shares of common stock reserved for issuance pursuant to future awards under our 2021 Employee Stock Purchase Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan.

In addition, unless we specifically state otherwise, all information in this prospectus assumes no exercise of outstanding stock options subsequent to December 31, 2023.

RISK FACTORS

You should consider carefully the risks described below and discussed under the section captioned "Risk Factors" contained in our annual report on Form 10-K for the year ended December 31, 2023 as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended, or the Exchange Act, each of which is incorporated by reference in this prospectus supplement in their entirety, together with other information in this prospectus supplement, and the information and documents incorporated by reference in this prospectus supplement, and any free writing prospectus that we have authorized for use in connection with this offering before you make a decision to invest in our common stock. If any of the following events actually occur, our business, operating results, prospects or financial condition could be materially and adversely affected. This could cause the trading price of our common stock to decline and you may lose all or part of your investment. The risks described below are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business operations.

Risks Relating to this Offering

Our management team may invest or spend the proceeds of this offering in ways with which you may not agree or in ways which may not yield a significant return.

Our management will have broad discretion over the use of proceeds from this offering. We intend to use the net proceeds, if any, from this offering for general corporate purposes, which may include, among other things, working capital and funding research and development, and capital expenditures including commercialization of FYARRO and clinical program progression of FYARRO for additional indications. Our management will have considerable discretion in the application of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not increase our operating results or enhance the value of our common stock.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we expect to in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering. In addition, the issuance of securities in any future financing may dilute your equity ownership and have the effect of depressing the market price for our securities. As of December 31, 2023, 4,779,951 shares of common stock that are either subject to outstanding options or reserved for future issuance under our existing equity incentive plans are eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules and Rule 144 and Rule 701 under the Securities Act.

The actual number of shares we will issue under the sales agreement, at any one time or in total, is uncertain.

Subject to certain limitations in the sales agreement and compliance with applicable law, we have the discretion to deliver a placement notice to TD Cowen at any time throughout the term of the sales agreement. The number of shares that are sold by TD Cowen after delivering a placement notice will fluctuate based on the market price of the common shares during the sales period and limits we set with TD Cowen. Because the price per share of each share sold will fluctuate based on the market price of our common stock during the sales period, it is not possible at this stage to predict the number of shares that will be ultimately issued.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, including the documents incorporated by reference herein, contains forward-looking statements concerning our business, operations and financial performance and condition, as well as our plans, objectives and expectations for our business operations and financial performance and condition. Any statements contained, or incorporated by reference, herein that are not statements of historical facts may be deemed to be forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “predict,” “potential,” “positioned,” “seek,” “should,” “target,” “will,” “would,” and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology. These forward-looking statements include, but are not limited to, statements about:

- our ability to maintain regulatory approval for FYARRO® in advanced malignant PEComa, or to obtain and maintain regulatory approval for FYARRO in additional indications, or any other product candidates we may develop in the future, and any related restrictions, limitations or warnings in the label of an approved product candidate;
- our plans and potential for success relating to commercializing FYARRO, or any other product candidate that we may develop, if approved;
- the anticipated timing of releasing data for current or future clinical trials;
- the anticipated timing of commencement, enrollment, and completion of any current or future clinical trials for FYARRO in additional indications, or any other product candidates we may develop in the future;
- our plans related to the further development and manufacturing of FYARRO;
- the timing, scope or likelihood of regulatory filings and approvals for FYARRO for advanced malignant PEComa in foreign jurisdictions and any additional indications we may pursue and any other product candidates we may develop in the future;
- the timing, scope or likelihood of regulatory filings and approvals for FYARRO for advanced malignant PEComa in foreign jurisdictions and any additional indications we may pursue and any other product candidates we may develop in the future;
- our commercialization, marketing and manufacturing capabilities and strategy;
- the pricing and reimbursement of FYARRO and any other product candidates we may develop in the future, if approved;
- the rate and degree of market acceptance of FYARRO and any other product candidates we may develop in the future, if approved;
- the timing, progress and results of preclinical studies and clinical trials for our programs and product candidates, the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available and our research and development programs;
- our ability to recruit and enroll suitable patients in our clinical trials;
- the expectations regarding the beneficial characteristics, safety, efficacy and therapeutic effects of FYARRO and any other product candidates that we may develop in the future;
- our ability to develop and advance product candidates into, and successfully complete, clinical studies;
- the implementation of our business model and our strategic plans for our business;
- our ability to establish or maintain collaborations or strategic relationships or obtain additional funding;

- our ability to contract with and rely on third parties to assist in conducting our clinical trials and manufacturing FYARRO and any other product candidates we may develop in the future;
- the size and growth potential of the markets for FYARRO and any other product candidates we may develop in the future, if approved, and our ability to serve those markets, either alone or in partnership with others;
- our ability to obtain funding for our operations, including funding necessary to commercialize FYARRO and to complete further development, approval and, if approved, commercialization of FYARRO in additional indications and any other product candidates we may develop in the future;
- the period over which we anticipate our existing cash and cash equivalents will be sufficient to fund our operating expenses and capital expenditure requirements;
- the potential for our business development efforts to maximize the potential value of our portfolio;
- our ability to compete with other companies currently marketing or engaged in the development of treatments for the indications that we are pursuing for FYARRO and any other product candidates we may develop in the future;
- our expectations regarding our ability to obtain and maintain intellectual property protection for our product candidates;
- our financial performance;
- statements regarding the legal proceedings related to the termination of the license agreement with EOC Pharma (Hong Kong) Limited;
- our ability to retain the continued service of our key professionals and to identify, hire and retain additional qualified professionals;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing; and
- other factors including but not limited to those detailed under the section entitled "*Risk Factors*."

These forward-looking statements are based on management's current expectations, estimates, forecasts and projections about our business and the industry in which we operate and management's beliefs and assumptions and are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in, or incorporated by reference in, this prospectus may turn out to be inaccurate. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under "Risk Factors" and elsewhere in this prospectus and the discussion in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, in each of "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." Potential investors are urged to consider these factors carefully in evaluating the forward-looking statements. These forward-looking statements speak only as of the date of this prospectus. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC after the date of this prospectus. See "Where You Can Find More Information."

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to $13,500,000 from time to time. The amount of proceeds from this offering will depend upon the number of shares of our common stock sold and the market price at which they are sold. There can be no assurance that we will be able to sell any shares under or fully utilize the sales agreement with TD Cowen as a source of financing. We intend to use the net proceeds, if any, from this offering for general corporate purposes, which may include, among other things, increasing our working capital and funding research and development and capital expenditures including commercialization of FYARRO and clinical program progression of FYARRO for additional indications.

The amounts and timing of our actual expenditures will depend on numerous factors, including our development and commercialization efforts with respect to FYARRO or any other product candidates that we may develop in the future, as well as the amount of cash used in our operations. We therefore cannot estimate with certainty the amount of net proceeds to be used for the purposes described above. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds. Pending the uses described above, we plan to invest the net proceeds, if any, from this offering in short-term, investment-grade, interest-bearing securities.

PLAN OF DISTRIBUTION

We have previously entered into a sales agreement, dated March 17, 2022, with TD Cowen, under which we may issue and sell from time to time up to $75,000,000 of our common stock through TD Cowen as our sales agent. This prospectus supplement is offering up to an aggregate of $13,500,000 in shares of our common stock. We will be required to file another prospectus supplement in the event we want to offer more than $13,500,000 in shares of our common stock in accordance with the sales agreement. Sales of our common stock, if any, will be made at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on the Nasdaq Capital Market or any other trading market for our common stock.

TD Cowen will offer our common stock subject to the terms and conditions of the sales agreement on a daily basis or as otherwise agreed upon by us and TD Cowen. We will designate the maximum amount of common stock to be sold through TD Cowen on a daily basis or otherwise determine such maximum amount together with TD Cowen. Subject to the terms and conditions of the sales agreement, TD Cowen will use its commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us. We may instruct TD Cowen not to sell common stock if the sales cannot be effected at or above the price designated by us in any such instruction. TD Cowen or we may suspend the offering of our common stock being made through TD Cowen under the sales agreement upon proper notice to the other party. TD Cowen and we each have the right, by giving written notice as specified in the sales agreement, to terminate the sales agreement in each party's sole discretion at any time.

The aggregate compensation payable to TD Cowen as sales agent will be equal to 3.0% of the gross sales price of the shares sold through it pursuant to the sales agreement. We have also agreed to reimburse TD Cowen up to $75,000 of TD Cowen's actual outside legal expenses incurred by TD Cowen in connection with this offering, and for certain other expenses. We estimate that the total expenses of the offering payable by us, excluding commissions and reimbursements payable to TD Cowen under the sales agreement, will be approximately $175,000.

The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental, regulatory, or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of such common stock.

TD Cowen will provide written confirmation to us following the close of trading on the Nasdaq Capital Market on each day in which common stock is sold through it as sales agent under the sales agreement. Each confirmation will include the number of shares of common stock sold through it as sales agent on that day, the volume weighted average price of the shares sold, the percentage of the daily trading volume and the net proceeds to us.

We will report at least quarterly the number of shares of common stock sold through TD Cowen under the sales agreement, the net proceeds to us and the compensation paid by us to TD Cowen in connection with the sales of common stock.

Settlement for sales of common stock will occur, unless the parties agree otherwise, on the second business day that is also a trading day following the date on which any sales were made in return for payment of the net proceeds to us. Pursuant to recent amendments to Rule 15c6-1 of the Exchange Act, settlement for any securities offered under this prospectus supplement on or after May 28, 2024, may occur on the first business day that is also a trading day following the date on which any sales were made in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sales of our common stock on our behalf, TD Cowen will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation paid to TD Cowen will be deemed to be underwriting commissions or discounts. We have agreed in the sales agreement to provide indemnification and contribution to TD Cowen against certain liabilities, including liabilities under the Securities Act. As sales agent, TD Cowen will not engage in any transactions that stabilizes our common stock.

Our common stock is listed on the Nasdaq Capital Market and trades under the symbol “AADI.” The transfer agent of our common stock is Equiniti Trust Company, LLC.

TD Cowen and/or its affiliates have provided, and may in the future provide, various investment banking and other financial services for us and our affiliates, for which services they have received, and may in the future receive, customary fees.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon by our counsel, Wilson Sonsini Goodrich & Rosati P.C., San Diego, California. Cowen and Company, LLC is being represented in connection with this offering by Cooley LLP, New York, New York. Certain members of, and investment partnerships comprised of members of, and person associated with, Wilson Sonsini Goodrich & Rosati, Professional Corporation, directly or indirectly own less than 0.1% of the outstanding shares of our common stock.

EXPERTS

The financial statements of Aadi Bioscience, Inc. as of December 31, 2023 and 2022, and for the years then ended, incorporated by reference in this Prospectus Supplement and in the Registration Statement have been so incorporated in reliance on the report of BDO USA, P.C., an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, of which this prospectus supplement and the accompanying prospectus form a part. The rules and regulations of the SEC allow us to omit from this prospectus supplement and the accompanying prospectus certain information included in the registration statement. For further information about us and the securities we are offering under this prospectus supplement and the accompanying prospectus, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus supplement and the accompanying prospectus regarding the contents of any agreement or any other document, in each instance, the statement is qualified in all respects by the complete text of the agreement or document, a copy of which has been filed as an exhibit to the registration statement.

We file reports, proxy statements and other information with the SEC under the Exchange Act. The SEC maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is *www.sec.gov*.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus supplement and the accompanying prospectus. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus, and later information that we file with the SEC will automatically update and supersede this information. Any statement contained in a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus modifies or replaces that statement. We incorporate by reference the documents listed below and any future information filed (rather than furnished) with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act between the date of this prospectus and the termination of this offering, provided, however, that we are not incorporating any information furnished under Item 2.02 or Item 7.01 of any current report on Form 8-K:

- our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on March 13, 2024;
- the information incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2023 from our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 26, 2024;
- our Current Report on Form 8-K filed with the SEC April 4, 2024; and
- the description of our capital stock contained in Exhibit 4.1 to our Annual Report on Form 10-K filed with the SEC on March 13, 2024, including any amendment or report updating such description.

These documents may also be accessed on our website at *www.aadibio.com*. Except as otherwise specifically incorporated by reference in this prospectus supplement and the accompanying prospectus, information contained in, or accessible through, our website is not a part of this prospectus supplement and the accompanying prospectus.

We will furnish without charge to you, upon written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents by writing or telephoning us at the following address:

Aadi Bioscience, Inc.
17383 Sunset Blvd., Suite A250
Pacific Palisades, California 90272
(424) 744-8055
Attention: Investor Relations

$13,500,000

Common Stock

PROSPECTUS SUPPLEMENT

TD Cowen

May 3, 2024