UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

Amendment No. 1 to

FORM S-1 REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

ACURX PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

2834 (Primary Standard Industrial Classification Code Number) 82-3733567 (I.R.S. Employer Identification Number)

259 Liberty Avenue Staten Island, New York 10305 (917) 533-1469

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

David P. Luci
President and Chief Executive Officer
Acurx Pharmaceuticals, Inc.
259 Liberty Avenue
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(917) 533-1469

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

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. \Box

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

If this Form is a post-effective amendment filed pursuant to Rule 462(c) 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.

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 number of the earlier effective registration statement for the same offering. \square

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 Exchange Act.

Large accelerated filer ☐ 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 complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act. \square

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, AS AMENDED, 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.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THE SELLING STOCKHOLDER MAY NOT RESELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS DECLARED EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED MARCH 29, 2024

PRELIMINARY PROSPECTUS



Acurx Pharmaceuticals, Inc.

12,019,230 Shares of Common Stock

We are offering 12,019,230 shares of our common stock. Our common stock is listed on The Nasdaq Capital Market under the symbol "ACXP." The last reported sale price of our common stock on March 26, 2024 was \$2.08 per share. The final public offering price will be determined between us, the underwriters and the investors in the offering and may be at a discount to the current market price of our common stock. Therefore, the assumed public offering price used throughout this prospectus may not be indicative of the final public offering price.

We are an "emerging growth company" and a "smaller reporting company" as defined under the federal securities laws and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and may elect to comply with reduced public company reporting requirements in future filings. See the section titled "Prospectus Summary - Implications of Being an Emerging Growth Company and a Smaller Reporting Company."

Investing in our common stock is highly speculative and involves a significant degree of risk. Please consider carefully the specific factors set forth under "Risk Factors" beginning on page 8 of this prospectus and in our filings with the Securities and Exchange Commission.

	Per Share	Total
Public offering price	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$
Proceeds to us, before expenses	\$	\$

(1) See "Underwriting" on page 25 for additional information regarding underwriting compensation.

The underwriters may also purchase up to an additional 1,802,884 shares from us at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be approximately \$2.0 million and the total proceeds to us, before expenses, will be approximately \$26.7 million.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the securities against payment in New York, New York on or about

, 2024.

Sole Bookrunner

Titan Partners Group

a division of American Capital Partners

, 2024.

The date of this prospectus is

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ABOUT THIS PROSPECTUS

The registration statement we filed with the Securities and Exchange Commission (the "SEC") includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus, the related exhibits filed with the SEC, and the documents incorporated by reference herein before making your investment decision. You should rely only on the information provided in this prospectus and the documents incorporated by reference herein or any amendment thereto. In addition, this prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find More Information."

We have not, and the underwriters have not, authorized anyone to provide any information or to make any representations other than those contained in this prospectus, the documents incorporated by reference herein or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The information contained in this prospectus, the documents incorporated by reference herein or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of our securities. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: we have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. 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 securities and the distribution of this prospectus outside the United States.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been or will be filed or have been or will be incorporated by reference as exhibits to the registration statement of which this prospectus forms a part, and you may obtain copies of those documents as described in this prospectus under the heading "Where You Can Find More Information."

Unless the context otherwise requires, "Acurx," "ACXP," "the Company," "we," "us," "our" and similar terms refer to Acurx Pharmaceuticals, Inc.

Industry and Market Data

This prospectus or the documents incorporated by reference hereinincludes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information.

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PROSPECTUS SUMMARY

The following is a summary of what we believe to be the most important aspects of our business and the offering of our securities under this prospectus. We urge you to read this entire prospectus, including the more detailed audited and unaudited financial statements, notes to the financial statements and other information incorporated by reference from our other filings with the SEC or included in any applicable prospectus supplement. Investing in our securities involves risks. Therefore, carefully consider the risk factors set forth in any prospectus supplements and in our most recent annual and quarterly filings with the SEC, as well as other information in this prospectus and any prospectus supplements and the documents incorporated by reference herein or therein, before purchasing our securities. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities.

Overview

We are a late-stage biopharmaceutical company focused on developing a new class of small molecule antibiotics for difficult-to-treat bacterial infections. Our approach is to develop antibiotic candidates with a Gram-positive selective spectrum ("GPSS®") that block the active site of the Gram positive specific bacterial enzyme deoxyribonucleic acid ("DNA") polymerase IIIC ("pol IIIC"), inhibiting DNA replication and leading to Gram-positive bacterial cell death. Our research and development ("R&D") pipeline includes antibiotic product candidates that target Gram-positive bacteria, including Clostridioides difficile, methicillin-resistant Staphylococcus aureus ("MRSA"), vancomycin resistant Enterococcus ("VRE") and drug-resistant Streptococcus pneumoniae ("DRSP").

These bacterial targets are listed as priority pathogens by the World Health Organization ("WHO"), the United States ("U.S.") Centers for Disease Control and Prevention ("CDC") and the U.S. Food and Drug Administration ("FDA"). Priority pathogens are those which require new antibiotics to address the worldwide crisis of

antimicrobial resistance ("AMR") as identified by the WHO, CDC and FDA.

Our Market Opportunity

The CDC estimates that, in the U.S., antibiotic-resistant pathogens infect one individual every 11 seconds and result in one death every 15 minutes. The WHO recently stated that growing antimicrobial resistance is equally as dangerous as the recent COVID-19 pandemic, threatens to unwind a century of medical progress and may leave us defenseless against infections that today can be treated easily. According to the WHO, the current clinical development pipeline remains insufficient to tackle the challenge of the increasing emergence and spread of antimicrobial resistance.

We believe we are developing the first DNA pol IIIC inhibitor to enter Phase 3 clinical trials and our Phase 2 clinical trial has provided positive clinical trial results for our lead pol IIIC antibiotic candidate.

Pol IIIC is the primary catalyst for DNA replication of several Gram-positive bacterial cells. Our research and development pipeline includes clinical stage and early-stage antibiotic candidates that target Gram-positive bacteria for oral and/or parenteral treatment of infections caused by *Clostridioides difficile* ("C. difficile"), Enterococcus (including VRE), Staphylococcus (including MRSA), and Streptococcus (including antibiotic resistant strains).

Pol IIIC is required for the replication of DNA in certain Gram-positive bacterial species. By blocking this enzyme, our antibiotic candidates are believed to be bactericidal and inhibit proliferation of several common Gram-positive bacterial pathogens, including both sensitive and resistant C. difficile, MRSA, vancomycin-resistant Enterococcus, penicillin-resistant Streptococcus pneumonia ("PRSP") and other resistant bacteria.

We expect to partner with a fully-integrated pharmaceutical company for late-stage clinical trials and commercialization or conduct Phase 3 clinical trials prior to such partnership and continue to review partnership opportunities on an ongoing basis up to FDA approval.

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Our lead antibiotic candidate, ibezapolstat (formerly named ACX-362E), has a novel mechanism of action that targets the pol IIIC enzyme, a previously unexploited scientific target. A Phase 2 clinical trial, comprised of a Phase 2a segment and a Phase 2b segment, provided data that demonstrates positive clinical trial results for our lead antibiotic candidate and demonstrates pol IIIC as an appropriate bacterial target.

Our Lead Product Candidate

Currently available antibiotics used to treat *C. difficile* infections ("CDI") utilize other mechanisms of action. We believe ibezapolstat is the first antibiotic candidate to work by blocking the DNA pol IIIC enzyme in *C. difficile*. This enzyme is necessary for replication of the DNA of certain Gram-positive bacteria, like*C. difficile*.

Our Other Candidates

We also have an early-stage pipeline of antibiotic product candidates with the same previously unexploited mechanism of action, which has established proof of concept in animal studies. This pipeline includes ACX-375C, a potential oral and parenteral treatment targeting Gram-positive bacteria, including MRSA, VRE and PRSP.

We continue to evaluate strategic transactions for the Company, including a partner for the further development and potential commercialization of our lead antibiotic candidate, ibezapolstat, as well as a potential sale, merger, third-party licensing arrangement or other strategic transaction. At this time, we have no commitments from potential partners or others to provide the Company with capital.

Recent Developments

Completion of the Phase 2b Segment of our Phase 2 Clinical Trial

On October 2, 2023, we discontinued the Phase 2b segment of our clinical trial of our lead antibiotic candidate, ibezapolstat, targeting the treatment of patients with CDI, and we anticipate advancing to Phase 3 clinical trials more expeditiously than originally planned. We made the decision to discontinue the Phase 2b segment of our clinical trial in consultation with our medical and scientific advisors and statisticians based upon observed aggregate blinded data and other factors, including the cost to maintain clinical trial sites and slow enrollment due to COVID-19.

We determined that the Phase 2b segment of our clinical trial performed as anticipated for each of ibezapolstat, our lead antibiotic candidate, and vancomycin, the control agent and a standard of care to treat patients with CDI, with high rates of clinical cure observed across the trial and no emerging safety concerns reported to date. Accordingly, the Independent Data Monitoring Committee was not required to perform an interim analysis of the Phase 2b clinical trial data as originally planned but was supportive of our decision to discontinue the Phase 2b segment of our clinical trial early and will remain involved for our Phase 3 clinical trials. Prior to discontinuing the Phase 2b clinical trial, we notified FDA of our decision to early discontinue the trial. The trial was not discontinued due to safety concerns.

Top-Line Ibezapolstat Phase 2 Clinical Results

On November 2, 2023, we announced top-line results from the Phase 2b segment of our Phase 2 clinical trial of ibezapolstat in patients with CDI. In the Phase 2b segment of the clinical trial, the observed Clinical Cure rate in the per protocol population was 15 of 16 patients (94%) in the ibezapolstat arm and 14 out of 14 patients (100%) in the vancomycin arm, respectively. In the Phase 2a segment of the clinical trial that evaluated ibezapolstat in patients with CDI, the observed Clinical Cure rate in the per protocol population was 10 out of 10 patients (100%). In a post hoc analysis conducted with the data available at the time of discontinuation of the trial, the overall observed Clinical Cure rate for ibezapolstat in the combined Phase 2a and Phase 2b segments of the clinical trial in patients with CDI was 96% (25 out of 26 patients), based on 10 out of 10 patients (100%) in the Phase 2a segment in the per protocol population, plus 15 out of 16 (94%) patients in the Phase 2b segment in the per protocol population. We believe that, based on the post hoc pooled Phase 2 ibezapolstat Clinical Cure rate of 96% and the historical vancomycin cure rate of approximately 81% (Vancocin® Prescribing Information, January 2021), Phase 3 trials conducted in accordance with the applicable FDA Guidance for Industry (October 2022) would be able to demonstrate the non-inferiority of ibezapolstat to vancomycin, though there can be no assurance that these early-stage, Phase 2 data will predict results in Phase 3 clinical trials.

blinded investigator to be drug-related. All three events were gastrointestinal in nature and resolved without treatment. In the Phase 2a segment, there were seven adverse events reported in four patients, with only one (nausea) being probably related to ibezapolstat. One severe adverse event occurred (an exacerbation of a migraine headache), but was considered to be unrelated to ibezapolstat. There were no drug-related treatment withdrawals or no drug-related serious adverse events, or other safety findings of concern in either segment of the Phase 2 clinical trial.

Further analyses will be forthcoming regarding secondary and exploratory endpoints, including Sustained Clinical Cure data, Extended Clinical Cure data up to 94 days and comparative effects on the gut microbiome.

We are currently preparing for an End-of-Phase 2 Meeting with FDA and advancement to Phase 3.

2023 At-the-Market Offering

On November 15, 2023, we entered into a Sales Agreement and established an "ATM Program," pursuant to which we may offer and sell, from time to time through A.G.P/Alliance Global Partners, as sales agent, shares of our common stock having an aggregate offering price of up to \$17.0 million. Under the Sales Agreement, the sales agent is entitled to compensation of 3.0% of the gross offering proceeds of all shares of common stock sold through it pursuant to the Sales Agreement.

As of the year ended December 31, 2023, we sold 698,121 shares of our common stock under the ATM Program at a weighted-average price of \$3.76 per share, raising \$2.6 million of gross proceeds and net proceeds of \$2.4 million, after deducting commissions to the sales agent and other ATM Program related expenses. There remains approximately \$14.4 million available for future sales of shares of common stock under the Sales Agreement.

2023 Registered Direct Offering

On May 16, 2023, we entered into a Securities Purchase Agreement (the "Purchase Agreement") with a single healthcare-focused U.S. institutional investor named therein (the "2023 Investor"), pursuant to which we issued and sold, in a registered direct offering by us directly to the 2023 Investor (the "2023 Registered Offering"), an aggregate of 601,851 shares of common stock at an offering price of \$3.00 per share and an aggregate of 731,482 pre-funded warrants exercisable for shares of common stock at an offering price of \$2.9999 per pre-funded warrant. The pre-funded warrants sold to the 2023 Investor have an exercise price of \$0.0001 and were immediately exercisable. As of September 30, 2023, all of the pre-funded warrants were exercised.

The gross proceeds to us from the 2023 Registered Offering were approximately \$4.0 million and net proceeds after deducting the placements agent's fees and other offering expenses payable by us were approximately \$3.5 million. The securities were offered by us pursuant to a registration statement on Form S-3 (File No. 333-265956) previously filed with the SEC on July 1, 2022, and which was declared effective by the SEC on July 11, 2022.

In a concurrent private placement (the "2023 Private Placement" and, together with the 2023 Registered Offering, the "2023 Offerings"), we issued to the 2023 Investor Series C Warrants exercisable for an aggregate of 1,333,333 shares of common stock at an exercise price of \$3.26 per share and Series D Warrants exercisable for an aggregate of 1,333,333 shares of common stock at an exercise price of \$3.26 per share. Each Series C Warrant was exercisable commencing on November 18, 2023 and will expire on November 18, 2025. Each Series D Warrant was exercisable commencing on November 18, 2023 and will expire on November 19, 2029.

The 2023 Offerings closed on May 18, 2023.

In connection with the 2023 Offerings, we also entered into a Warrant Amendment Agreement with the 2023 Investor. Under the Warrant Amendment Agreement, we amended our existing Series A Warrants to purchase up to an aggregate of 1,230,769 shares of our common stock and Series B Warrants to purchase up to an aggregate of 1,230,769 shares of our common stock (collectively, the "Existing Warrants") that were previously issued in July 2022, such that, effective upon the closing of the 2023 Offerings, the Existing Warrants were amended to have a termination date of May 18, 2029.

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Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended (the "JOBS Act"). We will remain an emerging growth company until the earliest of (1) the last day of the fiscal year following the fifth anniversary of the completion of our initial public offering, (2) the last day of the fiscal year in which we have total annual gross revenues of at least \$1.07 billion, (3) the date on which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which would occur if the market value of our common stock held by non-affiliates exceeded \$700.0 million as of the last business day of our most recently completed second fiscal quarter or (4) the date on which we have issued more than \$1.0 billion in non-convertible debt securities during the prior three-year period. An emerging growth company may take advantage of specified reduced reporting requirements and is relieved of certain other significant requirements that are otherwise generally applicable to public companies. As an emerging growth company,

· we may reduce our executive compensation disclosure;

we may present only two years of audited financial statements, plus unaudited condensed financial statements for any interim period, and related Management's Discussion and Analysis of Financial Condition and Results of Operations in this Prospectus;

we may avail ourselves of the exemption from the requirement to obtain an attestation and report from our auditors on the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002; and

· we may not require stockholder non-binding advisory votes on executive compensation or golden parachute arrangements.

We have availed ourselves in this Prospectus of the reduced reporting requirements described above with respect to compensation disclosure requirements and selected financial data. As a result, the information that we provide stockholders and potential investors may be less comprehensive than what other public companies provide. When we are no longer deemed to be an emerging growth company, we will not be entitled to the exemptions provided in the JOBS Act discussed above. We have not elected to avail ourselves of the exemption that allows emerging growth companies to extend the transition period for complying with new or revised financial accounting standards. This election is irrevocable.

We are also currently a "smaller reporting company," meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company, and have a public float of less than \$250 million or annual revenues of less than \$100 million during the most recently completed fiscal year. In the event that we are still considered a "smaller reporting company" at such time as we cease being an "emerging growth company," the disclosure we will be required to provide in our SEC filings will increase but will still be less than it would be if we were not considered either an "emerging growth company" or a "smaller reporting company." Specifically, similar to "emerging growth companies," "smaller reporting companies" are able to provide simplified executive compensation disclosures in their filings; are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting; and have certain other decreased disclosure obligations in

their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports. Decreased disclosures in our SEC filings due to our status as an "emerging growth company" or "smaller reporting company" may make it harder for investors to analyze our results of operations and financial prospects.

Risks Associated with Our Business

Our business and our ability to implement our business strategy are subject to numerous risks, as more fully described in the section entitled "Risk Factors" in this prospectus and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, which is incorporated herein by reference. You should read those risks before you invest in our securities. We may be unable, for many reasons, including those that are beyond our control, to implement our business strategy.

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Corporate Information and History

We were organized as a limited liability company in the State of Delaware in July 2017, and we commenced operations in February 2018 upon acquiring the rights to our lead antibiotic product candidate from GLSynthesis, Inc. Our principal executive offices are located at 259 Liberty Avenue, Staten Island, NY 10305, and our telephone number is (917) 533-1469. Our website address is www.acurxpharma.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference. On June 23, 2021, we converted from a Delaware limited liability company into a Delaware corporation pursuant to a statutory conversion and changed our name to Acurx Pharmaceuticals, Inc.

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THE OFFERING

Shares of Common Stock to Be Offered 12,019,230 shares.

Common Stock to Be Outstanding after this Offering 27,627,121 shares of common stock, or 29,430,005 shares of common stock if the underwriters exercise their

option to purchase additional shares of common stock in full.

Option to Purchase Additional Shares

We have granted a 30-day option to the underwriters to purchase up to an aggregate of 1,802,884 additional shares of common stock from us at the public offering price, less underwriting discounts and commissions, on

the same terms as set forth in this prospectus.

Use of Proceeds We estimate that we will receive net proceeds from the sale of shares of our common stock in this offering of

approximately \$22.9 million, or \$26.4 million if the underwriters exercise their option to purchase additional shares in full, assuming a public offering price of \$2.08 per share, which was the last reported sale price of our common stock on The Nasdaq Capital Market on March 26, 2024, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering primarily for working capital and other general purposes, including, but not limited to, clinical trials, research and development activities, capital expenditures, investments, acquisitions, should we choose to pursue any, and collaborations. See "Use of Proceeds" on page 13 of this prospectus for additional

information.

Nasdaq Capital Market Symbol ACXP.

Risk Factors

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 8 of this

prospectus, and any other risk factors described in the documents incorporated by reference herein, for a

discussion of certain factors to consider carefully before deciding to invest in our common stock.

The number of shares of our common stock to be outstanding after this offering set forth above is based on 14,468,229 shares of common stock outstanding as of December 31, 2023, as adjusted for the issuance of 1,139,662 shares under the ATM Program since December 31, 2023, resulting in 15,607,891 shares of common stock outstanding as of December 31, 2023 on a pro forma basis, and excludes, as of such date, the following:

- $\cdot \quad 6{,}195{,}456 \text{ shares of common stock is suable upon the exercise of outstanding warrants with a weighted average exercise price of $3.28 \text{ per share};}$
- · 2,985,000 shares of our common stock issuable upon the exercise of stock options, with a weighted-average exercise price of \$5.64 per share; and
- 485,868 shares of common stock reserved for future issuance pursuant to future awards under our 2021 Equity Incentive Plan.

Unless otherwise indicated, all information in this prospectus assumes no exercise of the outstanding options and warrants described above after December 31, 2023 and no exercise by the underwriters of their option to purchase 1,802,884 additional shares of our common stock in this offering.

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RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider and evaluate all of the information contained in this prospectus and in the documents we incorporate by reference into this prospectus before you decide to purchase our securities. In particular, you should carefully consider and evaluate the risks and

uncertainties described under the heading "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2023. Any of the risks and uncertainties set forth below and in the Annual Report, as updated by annual, quarterly and other reports and documents that we file with the SEC and incorporate by reference into this prospectus, or any prospectus, could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the value of any securities offered by this prospectus. As a result, you could lose all or part of your investment.

Risks Related to this Offering and Ownership of Our Common Stock

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

The public offering price will be substantially higher than the pro forma as adjusted net tangible book value per share of our common stock after this offering. Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the pro forma as adjusted net tangible book value per share after this offering. As a result, investors purchasing common stock in this offering will incur immediate dilution of \$0.93 per share, based on the public offering price of \$2.08 per share, representing the difference between our pro forma as adjusted net tangible book value per share after giving effect to this offering and the public offering price. This dilution is due to our investors who purchased shares prior to this offering having paid substantially less when they purchased their shares than the price offered to the public in this offering. To the extent outstanding options and warrants are exercised, there will be further dilution to new investors. For a further description of the dilution that you will experience immediately after this offering, see the section in this prospectus entitled "Dilution."

A substantial number of shares of common stock may be sold in the market following this offering, which may depress the market price for our common stock.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market, the trading price of our common stock could decline. Based on shares of common stock outstanding as of December 31, 2023, upon the completion of this offering we will have outstanding a total of 27,627,121 shares of common stock, assuming no exercise of the underwriters' option to purchase an additional 1,802,884 shares. Of these shares, as of the date of this prospectus, 25,281,709 shares of common stock, including the shares of common stock sold in this offering by us, plus any shares sold upon exercise of the underwriters' option to purchase an additional 1,802,884 shares, will be freely tradable, without restriction, in the public market immediately following this offering, assuming that our current directors and officers do not purchase shares in this offering. The remaining 2,345,412 shares are subject to lock-up restrictions. The lock-up agreements pertaining to this offering will expire 45 days following the closing of the offering to which this prospectus relates, subject to earlier release of all or a portion of the shares subject to such agreements by the representative of the underwriters in this offering in its sole discretion. After the lock-up agreements expire, based upon the number of shares of common stock outstanding as of December 31, 2023, up to an additional 2,345,412 shares of common stock will be eligible for sale in the public market, all of which are beneficially held by directors, executive officers and their affiliates and will be subject to certain limitations of Rule 144 under the Securities Act of 1933, as amended, or the Securities Act. The representative of the underwriters, however, may, in its sole discretion, permit our officers and directors who are subject to these lock-up restrictions to sell shares prior to the expiration of the lock-up restrictions.

As of March 26, 2024, there were 3,820,000 shares subject to outstanding options, which options have a weighted average exercise price of \$5.10 per share under our equity compensation plan. The shares of common stock underlying these equity awards have been registered under the Securities Act and can be freely sold in the public market upon issuance, subject to the lock-up agreements described herein, to the extent applicable. Additionally, the number of shares of our common stock reserved for issuance under our 2021 Equity Incentive Plan, or the 2021 Plan, can automatically increase on January 2 of each year, beginning on January 2, 2022, by 4% of the total number of shares of our capital stock outstanding on such date, or a lesser number of shares determined by our board of directors. As of March 26, 2024, we had outstanding warrants exercisable for up to 6,136,245 shares with a weighted average exercise price of \$3.28 per share. The shares of our common stock underlying such warrants will, upon issuance, be freely tradeable without restriction or further registration under the Securities Act.

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There may be future sales of our common stock, which could adversely affect the market price of our common stock and dilute a stockholder's ownership of common stock.

The sale of our common stock resulting from any future exercise(s) of (a) options granted to executive officers and other employees under our equity compensation plan and (b) warrants, and other issuances of our common stock could have an adverse effect on the market price of the shares of our common stock. Other than the restrictions set forth in the section titled "Underwriting," we are not restricted from issuing additional shares of common stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive shares of, common stock, provided that we are subject to the requirements of the Nasdaq Capital Market (which generally requires stockholder approval for any transactions which would result in the issuance of more than 20% of our then outstanding shares of common stock or voting rights representing over 20% of our then outstanding shares of stock). Sales of a substantial number of shares of our common stock in the public market or the perception that such sales might occur could materially adversely affect the market price of the shares of our common stock. Because our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings. Accordingly, our stockholders bear the risk that our future offerings will reduce the market price of our common stock and dilute their stock holdings in us.

We have broad discretion to determine how to use the funds raised in this offering and may use them in ways that may not enhance our operating results or the price of our common stock.

Our management will have broad discretion over the use of net proceeds from this offering, and we could spend the net proceeds from this offering in ways our stockholders may not agree with or that do not yield a favorable return, if at all. We currently expect to use the net proceeds from this offering for working capital and other general purposes, including, but not limited to, clinical trials, research and development activities, capital expenditures, investments, acquisitions, should we choose to pursue any, and collaborations. However, our use of these net proceeds may differ substantially from our current plans. If we do not invest or apply the net proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could cause our stock price to decline.

Our independent registered public accounting firm has expressed substantial doubt about our ability to continue as a going concern.

Our independent registered public accounting firm noted in its report accompanying our financial statements for the fiscal year ended December 31, 2023 that we had suffered significant accumulated deficit and had negative operating cash flows and that the development and commercialization of our product candidates are expected to require substantial expenditures. We have not yet generated any material revenues from our operations to fund our activities, and are therefore dependent upon external sources for financing our operations. There can be no assurance that we will succeed in obtaining the necessary financing to continue our operations. As a result, our independent registered public accounting firm has expressed substantial doubt about our ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. If we cannot successfully continue as a going concern, our stockholders may lose their entire investment in our common stock.

We may need substantial additional funding. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

We expect our expenses to increase in connection with our ongoing activities, particularly as we continue research and development and initiate additional clinical trials of our product candidates and seek regulatory approval for these and potentially other product candidates. In addition, if we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product manufacturing, marketing, sales and distribution. In particular, the costs that may be required for the manufacture of any product candidate that receives marketing approval may be substantial. Accordingly, we may need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research

As of December 31, 2023, we had approximately \$7.5 million in cash. In June 2021, we completed the IPO for net cash proceeds of \$14.8 million after deducting underwriting discounts and commissions and offering expenses. In July 2022, we completed a registered direct offering and concurrent private placement for net cash proceeds of \$3.7 million after deducting placement agent fees and offering expenses. In May 2023, we completed a registered direct offering and concurrent private placement for net cash proceeds of \$3.5 million after deducting placement agent fees and offering expenses. In November 2023, we entered into a Sales Agreement and established an ATM Program, pursuant to which we may offer and sell, from time to time through A.G.P./Alliance Global Partners, as sales agent, shares of our common stock having an aggregate offering price of up to \$17.0 million. As of the year ended December 31, 2023, we sold 698,121 shares of our common stock under the ATM Program, at a weighted-average price of \$3.76 per share, raising \$2.6 million of gross proceeds and net proceeds of \$2.4 million after deducting commissions to the sales agent and other ATM Program related expenses. There remains approximately \$14.4 million available for future sales of shares of common stock under the Sales Agreement. Other than the Sales Agreement and this offering, we currently do not have any commitments to obtain additional funds. We believe that, based upon our current operating plan, our existing capital resources, will not be sufficient to fund our anticipated operations for at least 12 months from the issuance of our financial statements for the year ended December 31, 2023. Our future capital requirements and the period for which we expect our existing resources to support our operations may vary significantly from what we expect. Our monthly spending levels vary based on new and ongoing research and development and other corporate activities. Because the length of time and activities associated with successful research and dev

Our future capital requirements will depend on many factors, including:

- · the timing, progress, and results of our ongoing and planned clinical trials of our product candidates;
- · our ability to manufacture sufficient clinical supply of our products candidates and the costs thereof;
- · discussions with regulatory agencies regarding the design and conduct of our clinical trials and the costs, timing and outcome of regulatory review of our product candidates:
- the cost and timing of future commercialization activities, including product manufacturing, marketing, sales and distribution, for any of our product candidates for which we receive marketing approval;
- the costs of any other product candidates or technologies we pursue;
- our ability to establish and maintain strategic partnerships, licensing or other arrangements and the financial terms of such agreements;
- the revenue, if any, received from commercial sales of any product candidates for which we receive marketing approval; and
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims.

We cannot be certain that additional funding will be available on acceptable terms, or at all. Any additional fundraising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize our product candidates. Our ability to raise additional funding will depend on financial, economic and market conditions and other factors, over which we may have no or limited control, including the conflict between Russia and Ukraine and the conflict in the Middle East between Israel and Hamas. In addition, our ability to obtain future funding when needed through equity financings, debt financings or strategic collaborations may be particularly challenging in light of the uncertainties and circumstances regarding the COVID-19 pandemic. Other than this offering, we have no committed source of additional capital and, if we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available or relinquish or license on unfavorable terms our rights to our product candidates in markets where we otherwise would seek to pursue development or commercialization ourselves.

Any of the above events could significantly harm our business, prospects, financial condition and results of operations and cause the price of our common stock to decline.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference in this prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Words such as, but not limited to, "believe," "expect," "anticipate," "estimate," "intend," "may," "plan," "potential," "predict," "project," "targets," "likely," "will," "would," "could," "should," "continue," and similar expressions or phrases, or the negative of those expressions or phrases, are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus and incorporated by reference in this prospectus, we caution you that these statements are based on our projections of the future that are subject to known and unknown risks and uncertainties and other factors that may cause our actual results, level of activity, performance or achievements expressed or implied by these forward-looking statements, to differ. The sections in our periodic reports, including our most recent Annual Report on Form 10-K, as revised or supplemented by our subsequent Quarterly Reports on Form 10-Q or our Current Reports on Form 8-K, entitled "Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations," as well as other sections in this prospectus and the other documents or reports incorporated by reference in this prospectus, discuss some of the factors that could contribute to these differences. These forward-looking statements include, among other things, statements abo

- $\cdot \quad \text{our ability to obtain and maintain regulatory approval of ibezapolstat and/or our other product candidates};\\$
- · our ability to successfully commercialize and market ibezapolstat and/or our other product candidates, if approved;
- · our ability to contract with third-party suppliers, manufacturers and other service providers and their ability to perform adequately;
- · the potential market size, opportunity and growth potential for ibezapolstat and/or our other product candidates, if approved;

- our ability to build our own sales and marketing capabilities, or seek collaborative partners, to commercialize ibezapolstat and/or our other product candidates, if approved;
- our ability to obtain funding for our operations;
- the initiation, timing, progress and results of our preclinical studies and clinical trials, and our research and development programs;
- the timing of anticipated regulatory filings;
- · the timing of availability of data from our clinical trials;
- · the impact of the ongoing COVID-19 pandemic and our response to it;
- the accuracy of our estimates regarding expenses, capital requirements and needs for additional financing;
- · our ability to retain the continued service of our key professionals and to identify, hire and retain additional qualified professionals;
- · our ability to advance product candidates into, and successfully complete, clinical trials;
- our ability to recruit and enroll suitable patients in our clinical trials and the timing of enrollment;
- the timing or likelihood of the accomplishment of various scientific, clinical, regulatory and other product development objectives;
- · the pricing and reimbursement of our product candidates, if approved;
- · the rate and degree of market acceptance of our product candidates, if approved;
- the implementation of our business model and strategic plans for our business, product candidates and technology;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates and technology;
- · developments relating to our competitors and our industry;

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- the development of major public health concerns, including the novel coronavirus outbreak or other pandemics arising globally, and the future impact of it and COVID-19 on our clinical trials, business operations and funding requirements;
- the effects of the recent disruptions to and volatility in the credit and financial markets in the United States and worldwide from the conflict between Russia and Ukraine as well as the conflict in the Middle East between Israel and Hamas;
- · the volatility of the price of our common stock;
- our financial performance; and
- · other factors described from time to time in documents that we file with the SEC.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important cautionary statements in this prospectus and in the documents incorporated by reference in this prospectus, particularly in the "Risk Factors" section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. For a summary of such factors, please refer to the section entitled "Risk Factors" in this prospectus, as updated and supplemented by the discussion of risks and uncertainties under "Risk Factors" contained in any supplements to this prospectus and in our most recent Annual Report on Form 10-K, as revised or supplemented by our subsequent Quarterly Reports on Form 10-Q or our Current Reports on Form 8-K, as well as any amendments thereto, as filed with the SEC and which are incorporated herein by reference. The information contained in this document is believed to be current as of the date of this document. We do not intend to update any of the forward-looking statements after the date of this document to conform these statements to actual results or to changes in our expectations, except as required by law.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this prospectus or in any document incorporated herein by reference might not occur. Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus or the date of the document incorporated by reference in this prospectus. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise. All subsequent forward-looking statements attributable to us or to any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

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USE OF PROCEEDS

We estimate that the net proceeds to us from this offering will be approximately \$22.9 million, or approximately \$26.4 millionif the underwriters exercise their option to purchase additional shares of common stock, assuming a public offering price of \$2.08 per share of common stock, which was the last reported sale price per common share on The Nasdaq Capital Market on March 26, 2024, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering for working capital and other general purposes, including, but not limited to, clinical trials, research and development activities, capital expenditures, investments, acquisitions, should we choose to pursue any, and collaborations. Our management will have broad discretion in the application of the net proceeds received from this offering. Pending use of the net proceeds of this offering as described above, we may invest the net proceeds in short-term, investment-grade, interest-bearing instruments.

The expected use of net proceeds from this offering reflects our intentions based on our current plans and business conditions, which could change in the future as our plans

and business conditions evolve. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our expenditures may vary significantly depending on numerous factors.

Each \$1.00 increase or decrease in the assumed public offering price of \$2.08 per share, the last reported sale price of our common stock on the Nasdaq Capital Market on March 26, 2024, would increase or decrease the net proceeds to us from this offering by approximately \$11.2 million, assuming the number of shares of common stock offered by us, as set forth on the cover of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares of common stock that we are offering. An increase or decrease of 200,000 shares of common stock offered by us would increase or decrease the net proceeds to us from this offering by approximately \$0.4 million, assuming the sale of all shares of common stock offered hereby, based on an assumed public offering price of \$2.08 per share, the last reported sale price of our common stock on the Nasdaq Capital Market on March 26, 2024, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

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MARKET FOR COMMON STOCK AND DIVIDEND POLICY

Our common stock is traded on the Nasdaq Capital Market under the symbol "ACXP." The last reported sale price of our common stock on March 26, 2024 on the Nasdaq Capital Market was \$2.08 per share. As of March 26, 2024, there were 362 stockholders of record of our common stock.

We have never declared or paid any cash dividend on our common stock. We intend to retain any future earnings and do not expect to pay dividends in the foreseeable future.

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CAPITALIZATION

The following table sets forth our capitalization as December 31, 2023:

- on an actual basis;
- on a pro forma basis, after giving effect to the sale of 1,139,662 shares of our common stock under the ATM Program after December 31, 2023; and
- on a pro forma as adjusted basis, after giving effect to (i) the pro forma adjustments set forth above and (ii) the sale of 12,019,230 shares of our common stock in this offering based on an assumed public offering price of \$2.08 per share, which was the last reported sale price of our common stock on the Nasdaq Capital Market on March 26, 2024, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. The final public offering price will be determined through negotiation between us and the underwriters in the offering and may be at a discount to the current market price. Therefore, the assumed offering price used throughout this prospectus may not be indicative of the final public offering price. The pro forma as adjusted information set forth in the table below is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

You should read this table together with our financial statements and the related notes thereto, as well as 'Management's Discussion and Analysis of Financial Condition and Results of Operations' and the other financial information, incorporated by reference in this prospectus from our SEC filings, including our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q or our Current Reports on Form 8-K. The information presented in the capitalization table below is unaudited.

	December 31, 2023			
	(in thousands, except share and par value data)			alue data)
		Actual	Pro Forma	Pro Forma As Adjusted
Cash and cash equivalents	\$	7,474	11,774	34,674
Shareholders' equity				
Common Stock; \$0.001 par value, 200,000,000 shares authorized 14,468,229 shares issued and outstanding, actual, 15,607,891 shares issued and outstanding, pro forma, 27,627,121 shares				
issued and outstanding, pro forma as adjusted		14	16	28
Additional paid-in capital		57,871	62,040	84,928
Accumulated deficit		(53,219)	(53,219)	(53,219)
Total shareholders' equity		4,667	8,837	31,737
Total capitalization	\$	4,667	8,837	31,737

A \$1.00 increase or decrease in the assumed public offering price of \$2.08 per share, the last reported sale price of our common stock on the Nasdaq Capital Market on March 26, 2024, would increase or decrease our cash and cash equivalents, additional paid in capital, and total stockholders' equity on a pro forma as adjusted basis, by approximately \$11.2 million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, and assuming that the number of shares of common stock offered by us, as set forth on the cover page of this prospectus, remains the same.

An increase or decrease of 200,000 shares of common stock offered by us, assuming that the assumed public offering price remains the same, would increase or decrease the gross proceeds received by us by approximately \$0.4 million.

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The table and discussion above are based on 14,468,229 shares of common stock outstanding as of December 31, 2023, and the pro forma column in the table above is based on 15,607,891 shares of common stock outstanding as of December 31, 2023 on a pro forma basis, after giving effect to the issuance of 1,139,662 shares under the ATM Program since December 31, 2023, and excludes, as of such date, the following:

· 6,195,456 shares of common stock issuable upon the exercise of outstanding warrants with a weighted average exercise price of \$3.28 per share;

- 2,985,000 shares of our common stock issuable upon the exercise of stock options, with a weighted-average exercise price of \$5.64 per share; and
- 485,868 shares of common stock reserved for future issuance pursuant to future awards under our 2021 Equity Incentive Plan.

Unless otherwise indicated, the discussion and table above assume no exercise of the outstanding options and warrants described above after December 31, 2023 and no exercise by the underwriters of their option to purchase additional shares of our common stock.

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DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted to the extent of the difference between the public offering price per share of our common stock in this offering and the pro forma as adjusted net tangible book value per share of our common stock after the closing of this offering.

As of December 31, 2023, our historical net tangible book value was \$4.7 million, or \$0.32 per share of common stock. Our historical net tangible book value per share is equal to our total tangible assets, less total liabilities, divided by the number of outstanding shares of common stock as of December 31, 2023.

On a pro forma basis, after giving effect to the sale of 1,139,662 shares of our common stock under the ATM Program after December 31, 2023, our pro forma net tangible book value as of December 31, 2023 would have been approximately \$8.8 million, or approximately \$0.57 per share of our common stock.

After giving further effect to the sale of shares of common stock in this offering based on an assumed public offering price of \$2.08 per share (which was the last reported sale price of our common stock on the Nasdaq Capital Market on March 26, 2024), and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of December 31, 2023 would have been \$31.7 million, or \$1.15 per share of common stock. This represents an immediate increase in pro forma as adjusted net tangible book value of \$0.58 per share to our existing shareholders and an immediate dilution of \$0.93 per share to investors participating in this offering based on the assumed public offering price. We determine dilution per share to investors participating in this offering by subtracting pro forma as adjusted net tangible book value per share after this offering from the assumed public offering price per share paid by investors participating in this offering. The information above is illustrative only and will change based on actual pricing and other terms of this offering determined at pricing. The final public offering price will be determined through negotiation between us and the underwriters in the offering and may be at a discount to the current market price. Therefore, the assumed offering price used throughout this prospectus may not be indicative of the final public offering price.

The following table illustrates this dilution on a per share basis:

Assumed combined public offering price per share of common stock	\$	2.08
Historical net tangible book value per share as of December 31, 2023	\$ 0.32	
Increase in historical net tangible book value per share as of December 31, 2023 attributable to the pro forma adjustments described		
above	\$ 0.25	
Pro forma net tangible book value per share as of December 31, 2023	\$ 0.57	
Increase in pro forma net tangible book value per share as of December 31, 2023 attributable to investors purchasing shares in this		
offering	\$ 0.58	
Pro forma as adjusted net tangible book value per share as of December 31, 2023 after giving effect to this offering	\$	1.15
Dilution per share to new investors in this offering	\$	0.93

Each \$1.00 increase or decrease in the assumed public offering price of \$2.08 per share, the last reported sale price of our common stock on the Nasdaq Capital Market on March 26, 2024, would increase or decrease our pro forma as-adjusted net tangible book value per share after this offering by \$0.40 per share. Each \$1.00 increase or decrease in the assumed public offering price would decrease or increase the dilution per share to new investors by \$0.60, assuming that the number of shares of common stock offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. An increase of 200,000 shares of common stock offered by us would increase the pro forma as adjusted net tangible book value after this offering by approximately \$0.01, and a decrease of 200,000 shares of common stock offered by us would decrease the pro forma as adjusted net tangible book value by approximately \$0.01 per share and increase the dilution per share to new investors by approximately \$0.01, assuming that the assumed public offering price remains the same, and after deducting estimated underwriting discounts and commissions.

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If the underwriters exercise in full their option to purchase additional shares of our common stock, our pro forma as adjusted net tangible book value per share after this offering would be \$1.20 per share, representing an increase in pro forma as adjusted net tangible book value per share of \$0.63 to existing stockholders and dilution of \$0.88 in pro forma as adjusted net tangible book value per share to investors purchasing common stock in this offering.

The foregoing table and discussion are based on 14,468,229 shares of common stock outstanding as of December 31, 2023, as adjusted for the issuance of 1,139,662 shares under the ATM Program since December 31, 2023, resulting in 15,607,891 shares of common stock outstanding as of December 31, 2023 on a pro forma basis, and excludes, as of such date, the following:

- 6,195,456 shares of common stock issuable upon the exercise of outstanding warrants with a weighted average exercise price of \$3.28 per share;
- 2,985,000 shares of our common stock issuable upon the exercise of stock options, with a weighted-average exercise price of \$5.64 per share; and
- · 485,868 shares of common stock reserved for future issuance pursuant to future awards under our 2021 Equity Incentive Plan.

Unless otherwise indicated, the discussion and table above assume no exercise of the outstanding options and warrants described above after December 31, 2023 and no exercise by the underwriters of their option to purchase additional shares of our common stock.

To the extent that any outstanding warrants or options are exercised, new options or other equity awards are issued under our equity incentive plans, or we issue additional shares in the future, there will be further dilution to new investors participating in this offering. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or equity-based securities, the issuance of these securities could result in further dilution to our stockholders.

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

We are offering shares of common stock. The following description of our shares of common stock summarizes the material terms and provisions thereof, including the material terms of the shares of common stock we are offering under this prospectus.

General

The following is a summary of material characteristics of our capital stock as set forth in our certificate of incorporation and bylaws, and certain provisions of Delaware law. The following description does not purport to be complete and is subject to and qualified in its entirety by, and should be read in conjuncture with, our certificate of incorporation and bylaws, each of which are filed as exhibits to this Registration Statement and are incorporated herein by reference. The summaries and descriptions below do not purport to be complete statements of the Delaware General Corporation Law ("DGCL").

Authorized Capital Stock

Our certificate of incorporation authorizes us to issue 200,000,000 shares of common stock, par value \$0.001 per share, and 10,000,000 shares of preferred stock, par value \$0.001 per share.

Common Stock

Voting. The holders of our common stock are entitled to one vote for each share held of record on all matters on which the holders are entitled to vote (or consent to).

Dividends. The holders of our common stock are entitled to receive, ratably, dividends only if, when and as declared by our board of directors out of funds legally available therefor and after provision is made for each class of capital stock having preference over the common stock.

Liquidation Rights. In the event of our liquidation, dissolution or winding-up, the holders of our common stock may be entitled to share, ratably, in all assets remaining available for distribution after payment or provision for payment of all debts and other liabilities and subject to the rights of each class or series of capital stock having preference over, or right to participate with, the common stock.

Preemptive and Similar Rights. The holders of our common stock have no preemptive or similar rights.

Forum Selection

Our certificate of incorporation and our bylaws provide that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the DGCL, our certificate of incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. Notwithstanding the foregoing, the exclusive forum provision does not apply to suits brought to enforce any liability or duty created by the Exchange Act, the Securities Act or any other claim for which the federal courts have exclusive jurisdiction. Unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by applicable law, be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. The choice of forum provision 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 such lawsuits against us and our directors, officers and other employees.

Anti-Takeover Provisions

Our certificate of incorporation and bylaws contain provisions that may delay, defer or discourage another party from acquiring control of us. We expect that these provisions, which are summarized below, will discourage coercive takeover practices or inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors, which we believe may result in an improvement of the terms of any such acquisition in favor of our stockholders. However, they also give our board of directors the power to discourage acquisitions that some stockholders may favor.

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Authorized but unissued shares. The authorized but unissued shares of our common stock and our preferred stock are available for future issuance without stockholder approval, subject to the requirements of any national securities exchange on which our common stock is listed, should we so qualify for listing. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make it more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Elimination of Stockholder Action by Written Consent. Our certificate of incorporation eliminates the right of stockholders to act by written consent without a meeting.

Special meetings of stockholders. Our certificate of incorporation and bylaws provide that, except as otherwise required by law or provided by the resolution or resolutions adopted by our board of directors designating the rights, powers and preferences of any series of preferred stock, special meetings of our stockholders may be called only by (a) our board of directors pursuant to a resolution approved by a majority of the total number of our directors that we would have if there were no vacancies or (b) the chair of our board of directors, and any power of our stockholders to call a special meeting is specifically denied.

Advance notice requirements for stockholder proposals and director nominations. Our bylaws provide for an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. In order for any matter to be "properly brought" before a meeting, a stockholder must comply with advance notice and duration of ownership requirements and provide us with certain information. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors or by a qualified stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying stockholder actions that are favored by the holders of a majority of our outstanding voting securities until the next stockholder meeting.

Amendment of Certificate of Incorporation or Bylaws. The DGCL provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation, unless a corporation's certificate of incorporation requires a greater percentage. Our certificate of incorporation provides that certain provisions of our certificate of incorporation (namely, those provisions relating to (i) directors; (ii) limitation of director liability, indemnification and advancement of expenses and renunciation of corporate opportunities; (iii) meetings of stockholders; and (iv) certain amendments to our certificate of incorporation and bylaws) may not be altered, amended or repealed in any respect (including by merger, consolidation or otherwise), nor may any provision inconsistent therewith be adopted, unless such alteration, amendment, repeal or adoption is approved by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all of

our then-outstanding shares then entitled to vote generally in an election of directors, voting together as a single class. Our certificate of incorporation and bylaws also provide that approval of stockholders holding sixty-six and two-thirds percent (66 2/3%) of the voting power of all of our then-outstanding shares entitled to vote generally in an election of directors, voting together as a single class, is required for stockholders to make, alter, amend, or repeal any provision of our bylaws. Our board of directors retains the right to alter, amend or repeal our bylaws.

Classified Board of Directors. Our certificate of incorporation provides for a classified board of directors consisting of three classes of approximately equal size, each serving staggered three-year terms. Only the directors in one class will be subject to election by a plurality of the votes cast at each annual meeting of stockholders, with the directors in the other classes continuing for the remainder of their respective three-year terms. Stockholders do not have the ability to cumulate votes for the election of directors.

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Limitations on Liability and Indemnification of Officers and Directors

Our certificate of incorporation and bylaws provide indemnification for our directors and officers to the fullest extent permitted by the DGCL. We have entered into Indemnification Agreements with each of our directors that may be, in some cases, broader than the specific indemnification provisions contained under the DGCL. In addition, as permitted by the DGCL, our certificate of incorporation and bylaws includes provisions that eliminate the personal liability of our directors for monetary damages resulting from breaches of certain fiduciary duties as a director. The effect of this provision is to restrict our rights and the rights of our stockholders in derivative suits to recover monetary damages against a director for breach of fiduciary duties as a director. These provisions may be held not to be enforceable for violations of the federal securities laws of the United States

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that such stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, 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 did own within three years prior to the determination of interested stockholder status, 15% or more of the corporation's voting stock.

Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, the board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation 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, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or
- at or after the time the stockholder became interested, the business combination was approved by the board of directors of the corporation and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

A Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its amended and restated certificate of incorporation or by-laws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. We have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Listing

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

Transfer Agent and Registrar

The transfer agent and registrar of our common stock is VStock Transfer, LLC. They are located at 18 Lafayette Place, Woodmere, New York 11598. Their telephone number is (212) 828-8436.

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MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO HOLDERS OF COMMON STOCK

The following is a summary of the material U.S. federal income tax consequences of the acquisition, ownership and disposition of our common stock, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed or subject to differing interpretations, possibly with retroactive effect, in a manner that may result in U.S. federal income tax consequences different from those set forth below. We have not sought and will not seek any ruling from the Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court will agree with such statements and conclusions.

This summary also does not address the tax considerations arising under the laws of any U.S. state or local or any non-U.S. jurisdiction, estate or gift tax, the 3.8% Medicare tax on net investment income or any alternative minimum tax consequences. In addition, this discussion does not address tax considerations applicable to a holder's particular circumstances or to a holder that may be subject to special tax rules, including, without limitation:

- $\cdot \quad \text{banks, insurance companies or other financial institutions;} \\$
- · tax-exempt or government organizations;
- · brokers or dealers in securities or currencies;
- · persons whose functional currency is not the U.S. dollar;
- · persons required for U.S. federal income tax purposes to conform the timing of income accruals to their financial statements under Section 451(b) of the Code;

- · traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- · persons that own, or are deemed to own, more than five percent of our capital stock;
- · certain U.S. expatriates, citizens or former long-term residents of the United States;
- persons who hold our common stock as a position in a hedging transaction, "straddle," "conversion transaction," synthetic security, other integrated investment, or other risk reduction transaction;
- · persons who do not hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, for investment purposes);
- · persons deemed to sell our common stock under the constructive sale provisions of the Code;
- · pension plans;
- pass-through entities such as partnerships, S corporations, disregarded entities for federal income tax purposes and limited liability companies that are treated as a pass-through entity for U.S. federal income tax purposes (and investors therein);
- persons for whom our stock constitutes "qualified small business stock" within the meaning of Section 1202 of the Code or as "Section 1244 stock" for purposes of Section 1244 of the Code;
- · integral parts or controlled entities of foreign sovereigns;
- · controlled foreign corporations (including "specified foreign corporations");
- tax-qualified retirement plans;
- · passive foreign investment companies and corporations that accumulate earnings to avoid U.S. federal income tax; or
- · persons that acquire our common stock as compensation for services.

In addition, if a partnership, including any entity or arrangement classified as a partnership for U.S. federal income tax purposes, holds our common stock, the tax treatment of a partner generally will depend on the status of the partner, the activities of the partnership, and certain determinations made at the partner level. Accordingly, partnerships (including any arrangement classified as a partnership for U.S. federal income tax purposes) that hold our common stock, and partners in such partnerships, should consult their tax advisors regarding the U.S. federal income tax consequences to them of the purchase, ownership, and disposition of our common stock.

You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our common stock arising under the U.S. federal estate or gift tax rules or under the laws of any U.S. state or local or any non-U.S. or other taxing jurisdiction or under any applicable tax treaty.

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Definition of a U.S. Holder

For purposes of this summary, a "U.S. Holder" is any beneficial owner of our common stock that is a "U.S. person," and is not a partnership, or an entity treated as a partnership or disregarded from its owner, each for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- · an individual who is a citizen or resident of the United States;
- · a corporation created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- · an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more U.S. persons (within the meaning of Section 7701(a)(30) of the Code), or (2) has a valid election in effect to be treated as a U.S. person for U.S. federal income tax purposes.

For purposes of this summary, a "Non-U.S. Holder" is any beneficial owner of our common stock that is not a U.S. Holder and is not a partnership, an entity treated as a partnership or an entity disregarded from its owner, in each case, for U.S. federal income tax purposes.

Tax Consequences to U.S. Holders

Distributions on Common Stock

As discussed above under "Market for Common Stock and Dividend Policy," we do not anticipate paying any dividends on our common stock in the foreseeable future. In the event that we do make distributions of cash or other property, distributions paid on our common stock, other than certain pro rata distributions of common stock, will be treated as a dividend to the extent paid out of our current or accumulated earnings and profits and will be includible in income by the U.S. Holder and taxable as ordinary income when received. If a distribution exceeds our current and accumulated earnings and profits, the excess will be first treated as a tax-free return of the U.S. Holder's investment, up to the U.S. Holder's tax basis in our common stock and will reduce the U.S. Holder's tax basis in the common stock (but not below zero). Any remaining excess will be treated as a capital gain, subject to the tax treatment described below in "Gains on Sale or Other Dispositions of Common Stock." Subject to applicable limitations, dividends paid to certain non-corporate U.S. Holders may be eligible for taxation as "qualified dividend income" and therefore may be taxable at rates applicable to long-term capital gains. U.S. Holders should consult their tax advisers regarding the availability of the reduced tax rate on dividends in their particular circumstances. Dividends received by a corporate U.S. Holder will be eligible for the dividends-received deduction if the U.S. Holder meets certain holding period and other applicable requirements. Any such distributions would be subject to the discussions below regarding back-up withholding and Foreign Account Tax Compliance Act, or FATCA.

Gains on Sale or Other Disposition of Common Stock

For U.S. federal income tax purposes, gain or loss realized on the sale or other disposition of our common stock will be capital gain or loss and generally will be long-term capital gain or loss if the U.S. Holder held the common stock for more than one year. The amount of the gain or loss will equal the difference between the U.S. Holder's tax

basis in the common stock disposed of and the amount realized on the disposition. Long-term capital gains recognized by non-corporate U.S. Holders will be subject to reduced tax rates. The deductibility of capital losses is subject to limitations.

Tax Consequences to Non-U.S. Holders

Distributions on Common Stock

As discussed in the section entitled "Market for Common Stock and Dividend Policy," we do not anticipate paying any dividends on our common stock in the foreseeable future. If we make distributions on our common stock, those payments will constitute dividends for U.S. federal income tax purposes to the extent we have current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will reduce a Non-U.S. Holder's basis in our common stock but not below zero. Any remaining excess will be treated as capital gain and taxed as described below under "Gain on Sale or Other Disposition of Common Stock." Any such distributions would be subject to the discussions below regarding back-up withholding and Foreign Account Tax Compliance Act, or FATCA.

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Subject to the discussion below on effectively connected income, any dividend paid to a Non-U.S. Holder on our common stock generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. To receive a reduced treaty rate, a Non-U.S. Holder must provide us or our agent with an IRS Form W-8BEN, IRS Form W-8 BEN-E or another appropriate version of IRS Form W-8 (or a successor form), which must be updated periodically, and which, in each case, must certify qualification for the reduced rate. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Dividends paid to a Non-U.S. Holder that are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States and that are not eligible for relief from U.S. (net basis) income tax under an applicable income tax treaty, generally are exempt from the (gross basis) withholding tax described above. To obtain this exemption from withholding tax, the Non-U.S. Holder must provide the applicable withholding agent with an IRS Form W-8ECI or successor form or other applicable IRS Form W-8 certifying that the dividends are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States. Such effectively connected dividends, if not eligible for relief under a tax treaty, would not be subject to a withholding tax, but would be taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits and, if the Non-U.S. Holder is a corporation, such Non-U.S. Holder may also be subject to a branch profits tax at a rate of 30% (or such lower rate as may be specified by an applicable income tax treaty).

Gain on Sale or Other Disposition of Common Stock

Subject to the discussion below regarding backup withholding and FATCA, a Non-U.S. Holder generally will not be required to pay U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States and not eligible for relief under an applicable income tax treaty, in which case the Non-U.S. Holder will be required to pay tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates, and for a Non-U.S. Holder that is a corporation, such Non-U.S. Holder may also be subject to the branch profits tax at a 30% rate (or such lower rate as may be specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items;
- the Non-U.S. Holder is an individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs (as calculated pursuant to Section 7701(b) of the Code) and certain other conditions are met, in which case the Non-U.S. Holder will be required to pay a flat 30% tax on the gain derived from the sale, which tax may be offset by U.S. source capital losses (even though the Non-U.S. Holder is not considered a resident of the United States) (subject to applicable income tax or other treaties); or
- we are a "U.S. real property holding corporation" for U.S. federal income tax purposes, or a USRPHC, at any time within the shorter of the five-year period preceding the disposition or the Non-U.S. Holder's holding period for our common stock. We believe we are not currently and do not anticipate becoming a USRPHC. Even if we become a USRPHC, however, gain arising from the sale or other taxable disposition by a Non-U.S. Holder of our common stock will not be subject to United States federal income tax if (a) shares of our common stock are "regularly traded," as defined by applicable Treasury Regulations, on an established securities market, such as Nasdaq, and (b) the Non-U.S. Holder owns or owned, actually and constructively, 5% or less of the shares of our common stock throughout the five-year period ending on the date of the sale or exchange.

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Information Reporting and Backup Withholding

Information returns will be filed with the IRS in connection with distributions on our common stock and the proceeds of a sale or other disposition of our common stock. A non-exempt U.S. Holder may be subject to U.S. backup withholding on these payments if it fails to provide an IRS form W-9 to the withholding agent.

A Non-U.S. Holder may be subject to U.S. information reporting and backup withholding on dividend payments unless the Non-U.S. Holder complies with certification procedures to establish that it is not a U.S. person (within the meaning of the Code). The certification requirements generally will be satisfied if the Non-U.S. Holder provides the applicable withholding agent with a statement on the applicable IRS Form W-8BEN or IRS Form W-8BEN-E (or suitable substitute or successor form), together with all appropriate attachments, signed under penalties of perjury, stating, among other things, that such Non-U.S. Holder is not a U.S. Person. Dividends on our common stock paid to a Non-U.S. Holder, and the amount of any U.S. federal tax withheld therefrom, must be reported annually to the IRS and the holder. This information may be made available by the IRS under the provisions of an applicable tax treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides.

Payment of the proceeds of the sale or other disposition of common stock to or through a non-U.S. office of a U.S. broker or of a non-U.S. broker with certain specified U.S. connections generally will be subject to information reporting requirements, but not backup withholding, unless the Non-U.S. Holder certifies under penalties of perjury that it is not a U.S. person or an exemption otherwise applies. Payments of the proceeds of a sale or other disposition of common stock to or through a U.S. office of a broker generally will be subject to information reporting and backup withholding, unless the Non-U.S. Holder certifies under penalties of perjury that it is not a U.S. person or otherwise establishes an exemption.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment generally will be allowed as a credit against the holder's U.S. federal income tax liability and may entitle the holder to a refund, provided that the required information is timely furnished to the IRS.

FATCA imposes withholding tax on certain types of payments made to foreign financial institutions and certain other non-U.S. entities. The legislation imposes a 30% withholding tax on dividends on, or, subject to the discussion of certain proposed Treasury Regulations below, gross proceeds from the sale or other disposition of, our common stock paid to a "foreign financial institution" or to certain "non-financial foreign entities" (each as defined in the Code), unless (i) the foreign financial institution undertakes certain diligence and reporting obligations, (ii) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (iii) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (i) above, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by "specified United States presons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. If the country in which a payee is resident has entered into an "intergovernmental agreement" with the United States regarding FATCA, that agreement may permit the payee to report to that country rather than to the U.S. Department of the Treasury. The U.S. Treasury recently released proposed Treasury Regulations which, if finalized in their present form, would eliminate the federal withholding tax of 30% applicable to the gross proceeds of a sale or other disposition of our common stock. In its preamble to such proposed Treasury Regulations, the U.S. Treasury stated tha

The preceding discussion of U.S. federal tax considerations is for general information only. It is not tax advice. Prospective Investors should consult their tax advisors with respect to the application of the U.S. federal income tax laws to their particular situations as well as any tax consequences of the purchase, ownership, and disposition of our common stock arising under the U.S. federal estate or gift tax laws or under the laws of any state, local, or non-U.S. taxing jurisdiction or under any applicable income tax treaty.

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UNDERWRITING

We are offering the securities described in this prospectus through the underwriters named below. We have entered into an underwriting agreement dated , 2024 with Titan Partners Group LLC, a division of American Capital Partners, LLC, as the representative of the underwriters in this offering. Subject to the terms and conditions of the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase the number of our securities set forth opposite its name below.

Number of Underwriter Shares

Titan Partners Group LLC, a division of American Capital Partners, LLC

Total

A copy of the underwriting agreement has been filed as an exhibit to the registration statement of which this prospectus is part.

We have been advised by the underwriters that they propose to offer the shares of common stock directly to the public at the public offering price set forth on the cover page of this prospectus. Any securities sold by the underwriters to securities dealers will be sold at the public offering price less a selling concession not in excess of \$ per share of common stock.

The underwriting agreement provides that the underwriters' obligation to purchase the securities we are offering is subject to conditions contained in the underwriting agreement.

No action has been taken by us or the underwriters that would permit a public offering of the securities in any jurisdiction outside the United States where action for that purpose is required. None of our securities included in this offering may be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sales of any of the securities offering hereby be distributed or published in any jurisdiction except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus are advised to inform themselves about and to observe any restrictions relating to this offering of securities and the distribution of this prospectus. This prospectus is neither an offer to sell nor a solicitation of any offer to buy the securities in any jurisdiction where that would not be permitted or legal.

The underwriters have advised us that they do not intend to confirm sales to any account over which they exercise discretionary authority.

Underwriting Discount and Expenses

The following table summarizes the underwriting discount and commission to be paid to the underwriters by us.

	Per Share	Total Without Over- Allotment	Total With Full Over- Allotment
Public offering price	\$	\$	\$
Underwriting discounts and commissions(1)(2)	\$	\$	\$
Proceeds to us, before expenses	\$	\$	\$

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- (1) We have also agreed to reimburse the accountable expenses of the representative of the underwriters up to a maximum of \$125,000.
- (2) We have granted a 30-day option to the underwriters to purchase up to 1,802,884 additional shares of common stock based on the assumed public offering price per share of common stock set forth above less the underwriting discounts and commissions solely to cover over-allotments, if any.

We estimate that our total expenses of the offering, excluding the estimated underwriting discounts and commissions, will be approximately \$350,000. We have agreed to reimburse the underwriter for certain expenses in an amount up to \$125,000.

The securities we are offering are being offered by the underwriters subject to certain conditions specified in the underwriting agreement.

In addition to the discount set forth in the above table, we have granted the underwriter a 30-day option to purchase from us up to an additional 1,802,884 common shares based on an assumed price of \$2.08 per common share, which was the last reported sale price of our common shares on The Nasdaq Capital Market on March 26, 2024, less the underwriting discount and commissions. If the underwriter exercises this option in full, the total underwriting discounts and commissions payable will be approximately \$2.0 million and the total proceeds to us, before expenses, will be approximately \$26.7 million. The underwriter may exercise the option solely to cover over-allotments, if any, made in connection with this offering.

Listing

Our shares of common stock are listed on The Nasdaq Capital Market under the symbol "ACXP."

The last reported sale price of our shares of common stock on March 26, 2024 was \$2.08 per share. The final public offering price will be determined between us, the underwriters and the investors in the offering and may be at a discount to the current market price of our common stock. Therefore, the assumed public offering price used throughout this prospectus may not be indicative of the final public offering price.

Lock-up Agreements

Each of our officers and directors have agreed with the underwriters to be subject to a lock-up period of 45 days following the closing of the offering being made pursuant to this prospectus. This means that, during the lock-up period, such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions. We have also agreed, in the underwriting agreement, to similar lock-up restrictions on the issuance and sale by or on behalf of the Company of our securities from the date of this prospectus for a period of 45 days following the closing of this offering, subject to certain exceptions. Titan Partners Group LLC, a division of American Capital Partners, LLC, may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements and similar provisions in the underwriting agreement.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is VStock Transfer, LLC.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including certain liabilities arising under the Securities Act, or to contribute to payments that the underwriters may be required to make for these liabilities.

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Stabilization, Short Positions and Penalty Bids

The underwriters may engage in syndicate covering transactions stabilizing transactions and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of our common stock:

- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. Such a naked short position would be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.
- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum.
- · Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These syndicate covering transactions, stabilizing transactions, and penalty bids may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on The Nasdaq Capital Market, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this offering, the underwriters also may engage in passive market making transactions in our common stock in accordance with Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of the distribution. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Neither we nor the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the prices of our securities. In addition, neither we nor the underwriters make any representation that the underwriters will engage in these transactions or that any transactions, once commenced will not be discontinued without notice.

Other Relationships

From time to time, certain of the underwriters and their affiliates may provide in the future, various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which they will receive customary fees and commissions. The representative of the underwriters may receive additional compensation in connection with advisory services.

Electronic Distribution

A prospectus in electronic format may be made available on the websites maintained by the underwriters, if any, participating in this offering and the underwriters may distribute prospectuses electronically. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or the underwriters, and should not be relied upon by investors.

LEGAL MATTERS

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., New York, New York, will pass upon the validity of the securities offered hereby. Certain legal matters will be passed upon for the underwriters by Katten Muchin Rosenman LLP.

EXPERTS

The financial statements of Acurx Pharmaceuticals, Inc. for the two years ended December 31, 2023 have been audited by CohnReznick LLP, independent registered public accounting firm, as set forth in their report thereon appearing in Acurx Pharmaceuticals, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2023 and incorporated by reference herein. Such financial statements are incorporated by reference herein in reliance upon such report, which includes an explanatory paragraph on Acurx Pharmaceuticals, Inc.'s ability to continue as a going concern, given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-1 with respect to the shares of common stock offered by this prospectus with the SEC in accordance with the Securities Act and the rules and regulations enacted under its authority. This prospectus, which constitutes a part of the registration statement, does not contain all of the information included in the registration statement and its exhibits and schedules. Any statement made in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual contract, agreement or other document. If we have filed or incorporated by reference any contract, agreement or other document as an exhibit to the registration statement, you should read the exhibit for a more complete understanding of the document or matter involved. Each statement regarding a contract, agreement or other document is qualified by reference to the actual document. For further information regarding us and the shares of common stock offered by this prospectus, we refer you to the full registration statement, including its exhibits and schedules, filed under the Securities Act.

The SEC maintains a website at http://www.sec.gov that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. Our registration statement, of which this prospectus constitutes a part, can be downloaded from the SEC's website.

We also file annual, quarterly and current reports, proxy statements and other information with the SEC. You can read our SEC filings on the SEC's website at http://www.sec.gov.

Our website address is http://www.acurxpharma.com. There we make available free of charge, on or through the investor relations section of our website, annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with the SEC. The information contained on, or that can be accessed through, our website is not a part of this prospectus, and our reference to the address for our website is intended to be an inactive textual reference only.

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INCORPORATION OF DOCUMENTS BY REFERENCE

The rules of the SEC allow us to incorporate by reference into this prospectus the information we file with the SEC. This means that we are disclosing important information to you by referring to other documents. The information incorporated by reference is considered to be part of this prospectus, except for any information superseded by information contained directly in this prospectus. We incorporate by reference the documents listed below (other than any portions thereof, which under the Exchange Act, and applicable SEC rules, are not deemed "filed" under the Exchange Act):

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on March 15, 2024; and
- the description of our common stock contained in our Registration Statement on Form 8-A initially filed on June 23, 2021, including any amendment or report filed for the purpose of updating such description.

The SEC file number for each of the documents listed above is 001-40536.

In addition, all documents subsequently filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of the offering, shall be deemed to be incorporated by reference into this prospectus; provided, however, that all reports, exhibits and other information that we "furnish" to the SEC will not be considered incorporated by reference into this prospectus. If we have incorporated by reference any statement or information in this prospectus and we subsequently modify that statement or information with information contained in this prospectus, the statement or information previously incorporated in this prospectus is also modified or superseded in

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting:

Acurx Pharmaceuticals, Inc. 259 Liberty Avenue Staten Island, NY 10305 Telephone: (917) 533-1469

You may also access these documents on our website, http://www.acurxpharma.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

You should rely only on information contained in, or incorporated by reference into, this prospectus and any prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.



PROSPECTUS

Sole Bookrunner

Titan Partners Group

a division of American Capital Partners

, 2024.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13.

Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses payable by the Company in connection with the registration and sale of the Common Stock being registered. All amounts are estimates except the SEC registration fee and the FINRA filing fee.

	Amount
SEC registration fee	\$ 4,243.50
FINRA filing fee	4,812.50
Printing expenses	25,000
Accounting fees and expenses	25,000
Legal fees and expenses	250,000
Transfer agent and registrar fees and expenses	5,000
Miscellaneous	35,944
Total expenses	\$ 350,000

ITEM 14. Indemnification of Directors and Officers.

The Delaware General Corporation Law and certain provisions of our certificate of incorporation and bylaws under certain circumstances provide for indemnification of our officers, directors and controlling persons against liabilities which they may incur in such capacities. A summary of the circumstances in which such indemnification is provided for is contained herein, but this description is qualified in its entirety by reference to our certificate of incorporation, bylaws and to the statutory provisions.

In general, any officer, director, employee or agent may be indemnified against expenses, fines, settlements or judgments arising in connection with a legal proceeding to which such person is a party, if that person's actions were in good faith, were believed to be in our best interest, and with respect to any criminal action or proceeding, such person had no reasonable cause to believe their actions were unlawful. Unless such person is successful upon the merits in such an action, indemnification may be awarded only after a determination by independent decision of the board of directors, by legal counsel, or by a vote of the stockholders, that the applicable standard of conduct was met by the person to be indemnified.

The circumstances under which indemnification is granted in connection with an action brought on our behalf is generally the same as those set forth above; however, with respect to such actions, indemnification is granted only with respect to expenses actually incurred in connection with the defense or settlement of the action. In such actions, unless the court determines otherwise, the person to be indemnified must have acted in good faith and in a manner believed to have been in our best interest, and have not been adjudged liable to the corporation.

Indemnification may also be granted pursuant to the terms of agreements which we are currently party to with each of our directors and executive officers, agreements which we may enter into in the future or pursuant to a vote of stockholders or directors. Delaware law and our certificate of incorporation also grant the power to us to purchase and maintain insurance which protects our officers and directors against any liabilities incurred in connection with their service in such a position, and such a policy may be obtained by us.

A stockholder's investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions. There is no pending litigation or proceeding involving any of our directors, officers or employees regarding which indemnification by us is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

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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:

Private Placement Issuances

On May 18, 2023, we issued to an investor in a private placement Series C Warrants to purchase up to 1,333,333 shares of common stock and Series D Warrants to purchase 1,333,333 shares of common stock, each with an exercise price of \$3.26 per share.

On July 27, 2022, we issued to investors in a private placement Series A Warrants to purchase up to 1,289,980 shares of common stock and Series B Warrants to purchase 1,289,980 shares of common stock. An aggregate of 59,211 Series A Warrants and an aggregate of 59,211 Series B Warrants were issued to certain affiliates with an exercise price of \$3.80 per share and an aggregate of 1,230,769 Series A Warrants and an aggregate of 1,230,769 Series B Warrants were issued to an investor with an exercise price of \$3.25 per share.

On July 27, 2022, we issued placement agent warrants to purchase up to 63,018 shares of common stock with an exercise price of \$3.60 in connection with the closing of the aforementioned offering.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. We believe the offers, sales and issuances of the above securities were exempt from registration under the Securities Act (or Regulation D promulgated thereunder) by virtue of Section 4(a)(2) of the Securities Act because the issuance of securities to the recipients did not involve a public offering. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising.

Service-Related Issuances

The Company granted shares of common stock to certain vendors in the ordinary course of business in exchange for consulting services. The Company granted 140,186 and 114,889 shares of common stock for the years ended December 31, 2023, and 2022, respectively, and warrants to purchase up to 2,729 shares of common stock, and 90,000 shares of common stock thus far in fiscal year 2024.

Prior to the Company's initial public offering, the Company granted Class A membership interests to certain vendors in the ordinary course of business in exchange for consulting services relating to research and development activities and investor relations. The Company granted 30,145 Class A membership interests for the year ended December 31, 2021.

The above-mentioned issuances of unregistered securities do not reflect the conversion ratio of one-half of one share of common stock of Acurx Pharmaceuticals, Inc. for each Class A membership interest of Acurx Pharmaceuticals, LLC that occurred as part of our corporate conversion in connection with the Company's initial public offering.

No underwriters were used in the foregoing transactions, and no discounts or commissions were paid. All sales of securities described above were exempt from the registration requirements of the Securities Act in reliance on Section 4(a)(2) of the Securities Act, Rule 701 promulgated under the Securities Act or Regulation D promulgated under the Securities Act, relating to transactions by an issuer not involving a public offering. All of the foregoing securities are deemed restricted securities for purposes of the Securities Act.

Item 16. Exhibits

(a) The following exhibits are filed herewith or incorporated herein by reference:

EXHIBIT INDEX

INCORPORATED

EXHIBIT NUMBER	EXHIBIT DESCRIPTION	FILED HEREWITH	REFERENCE HEREIN FROM FORM OR SCHEDULE	FILING DATE	SEC FILE/ REG. NUMBER
1.1*	Form of Underwriting Agreement				
3.1	Certificate of Incorporation of Acurx Pharmaceuticals, Inc.		<u>10-K</u>	03/15/24	001-40536
<u>3.2</u>	Bylaws of Acurx Pharmaceuticals, Inc.		<u>S-1</u>	05/27/21	333 256516
<u>4.1</u>	Form of Common Stock Certificate.		<u>S-1</u>	05/27/21	333 256516
<u>4.2</u>	Form of Series A Warrant,		<u>8-K</u>	07/25/22	001-40536
4.3	Form of Series B Warrant.		<u>8-K</u>	07/25/22	001-40536
<u>4.5</u>	Form of Placement Agent Warrant.		<u>8-K</u>	07/25/22	001-40536
<u>4.6</u>	Form of Series C Warrant.		<u>8-K</u>	05/17/23	001-40536
<u>4.7</u>	Form of Series D Warrant,		<u>8-K</u>	05/17/23	001-40536
4.8	Form of 2023 Pre-Funded Warrant.		<u>8-K</u>	05/17/23	001-40536
<u>5.1</u>	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.	<u>X</u>			

<u>10.1</u>	Form of Indemnification Agreement.		<u>S-1</u>	05/27/21	333 256516
10.2	Form of Warrant.		<u>S-1</u>	05/27/21	<u>333 256516</u>
10.3	Form of Common Stock Purchase Warrant.		<u>S-1</u>	05/27/21	<u>333 256516</u>
<u>10.4</u>	Form of Securities Purchase Agreement.		<u>8-K</u>	07/25/22	001-40536
10.5	Form of Investor Rights Agreement, by and between the Registrant and certain purchasers.		<u>S-1</u>	05/27/21	333 256516
10.6.1+	Acurx Pharmaceuticals, Inc. 2021 Equity Incentive Plan.		<u>S-8</u>	07/19/21	333-258026
10.6.2+	Form of Stock Option Agreement under the 2021 Equity Incentive Plan.		<u>S-8</u>	07/19/21	333-258026
	I	I- 3			
<u>10.6.3+</u>	Form of Restricted Stock Agreement under the 2021 Equity Incentive Plan.		<u>S-8</u>	<u>07/19/21</u>	<u>333-258026</u>
10.6.4+	Form of Recapitalization Exchange Option Agreement.		<u>S-8</u>	07/19/21	<u>333-258026</u>
<u>10.7+</u>	Amended and Restated Employment Agreement, by and between Acurx Pharmaceuticals, Inc. and Robert J. DeLuccia, dated May 25, 2021.		<u>S-1</u>	05/27/21	333 256516
<u>10.8+</u>	Amended and Restated Employment Agreement, by and between Acurx Pharmaceuticals, Inc. and David P. Luci, dated May 25, 2021.		<u>S-1</u>	05/27/21	333 256516
<u>10.9+</u>	Amended and Restated Employment Agreement, by and between Acurx Pharmaceuticals, Inc. and Robert Shawah, dated May 25, 2021.		<u>S-1</u>	05/27/21	333 256516
10.10	Master Clinical Services Agreement, dated October 11, 2019, by and between Acurx Pharmaceuticals, Inc. and Syneos Health, LLC.		<u>S-1</u>	05/27/21	333 256516
10.11#	Asset Purchase Agreement, dated February 5, 2018, by and between Acurx Pharmaceuticals, Inc. and GLSynthesis Inc.		<u>S-1</u>	05/27/21	<u>333 256516</u>
10.12	Form of Securities Purchase Agreement, dated as of May 16, 2023, by and between Acurx Pharmaceuticals, Inc. and the investor.		<u>10-Q</u>	08/11/23	001-40536
10.13	Form of Warrant Amendment Agreement, dated as of May 16, 2023, by and between Acurx Pharmaceuticals, Inc. and the investor.		<u>8-K</u>	05/17/23	001-40536
10.14	Sales Agreement, dated as of November 15, 2023, between Acurx Pharmaceuticals, Inc. and A.G.P/Alliance Global Partners.		<u>8-K</u>	11/15/23	001-40536
<u>21.1</u>	Subsidiaries.		<u>10-K</u>	03/15/24	001-40536
<u>23.1</u>	Consent of CohnReznick LLP, Independent Registered Public Accounting Firm.	X			
<u>23.2</u>	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included Exhibit 5.1).	X			
24.1**	Power of Attorney (included on signature page).				
107**	Filing Fee Table.				

[#] Certain confidential portions of this Exhibit were omitted by means of marking such portions with brackets ("[***]") because the identified confidential portions (i) are not material and (ii) would be competitively harmful if publicly disclosed.

⁺ Denotes management compensation plan or contract.

^{*} To be filed by amendment.

^{**} Filed previously.

- (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 (the "Securities Act");
- (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 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
- (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) of this section 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 Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

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

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- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii)Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii)The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (6) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act 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.
- (7) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities 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 Securities Act and will be governed by the final adjudication of such issue.
 - (8) The undersigned registrant hereby undertakes that:
- (i) 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 shall be deemed to be part of this registration statement as of the time it was declared effective.
- (ii) 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.

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SIGNATURES

ACURX PHARMACEUTICALS, INC.

By: /s/ David P. Luci
David P. Luci
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ David P. Luci David P. Luci	President, Chief Executive Officer and Director (Principal Executive Officer)	March 29, 2024
/s/ Robert G. Shawah Robert G. Shawah	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 29, 2024
* Robert J. DeLuccia	Executive Chairman	March 29, 2024
* Carl V. Sailer	Director	March 29, 2024
* Joseph C. Scodari	Director	March 29, 2024
* Thomas Harrison	Director	March 29, 2024
* Jack H. Dean	Director	March 29, 2024
* James Donohue	Director	March 29, 2024
*By: /s/ David P. Luci David P. Luci, Attorney-in-fact		

212 935 3000 mintz.com

919 Third Avenue New York, NY 10022



March 29, 2024

Acurx Pharmaceuticals, Inc. 259 Liberty Avenue Staten Island, New York 10305

Ladies and Gentlemen:

We have acted as legal counsel to Acurx Pharmaceuticals, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of a Registration Statement (No. 333-278028) on Form S-1, as amended (the "Registration Statement"), pursuant to which the Company is registering the offering for sale under the Securities Act of 1933, as amended (the "Securities Act"), of an aggregate of up to 13,822,114 shares (the "Shares") of the Company's common stock, par value \$0.001 per share (the "Common Stock"), including up to 1,802,884 shares of Common Stock subject to the underwriters' option to purchase additional shares.

The Shares are to be sold by the Company pursuant to an underwriting agreement (the "Underwriting Agreement") to be entered into by and between the Company and Titan Partners Group LLC, a division of American Capital Partners, LLC, as representative of the several underwriters to be named therein. The form of the Underwriting Agreement has been filed as Exhibit 1.1 to the Registration Statement. This opinion is being rendered in connection with the filing of the Registration Statement with the Commission. All capitalized terms used herein and not otherwise defined shall have the respective meanings given to them in the Registration Statement.

In connection with this opinion, we have examined the Company's Certificate of Incorporation and Bylaws, each as currently in effect, and the form of the Underwriting Agreement; such other records of the corporate proceedings of the Company and certificates of the Company's officers as we have deemed relevant; and the Registration Statement and the exhibits thereto.

In our examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such copies.

Our opinion is limited to the United States federal laws and the General Corporation Law of the State of Delaware, and we express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Shares under the securities or blue sky laws of any state or any foreign jurisdiction.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

Based upon the foregoing, we are of the opinion that the Shares, when issued and sold in accordance with the form of the Underwriting Agreement most recently filed as an exhibit to the Registration Statement and the prospectus that forms a part of the Registration Statement, will be validly issued, fully paid and non-assessable.

> LOS ANGELES BOSTON SAN DIEGO SAN FRANCISCO TORONTO WASHINGTON NEW YORK MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C.

MINTZ

March 29, 2024 Page 2



We understand that you wish to file this opinion with the Commission as an exhibit to the Registration Statement in accordance with the requirements of Item 601(b) (5) of Regulation S-K promulgated under the Securities Act and to reference the firm's name under the caption "Legal Matters" in the prospectus which forms part of the Registration Statement, and we hereby consent thereto. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-1 and related Prospectus, of our report dated March 15, 2024, with respect to the financial statements of Acurx Pharmaceuticals, Inc. as of December 31, 2023 and 2022, and for the years then ended, which report is included in the Annual Report on Form 10-K of Acurx Pharmaceuticals, Inc. for the year ended December 31, 2023, filed with the Securities and Exchange Commission. Our audit report includes an explanatory paragraph relating to the Acurx Pharmaceuticals, Inc.'s ability to continue as a going concern.

We also consent to the reference to our firm under the caption "Experts."

/s/ CohnReznick LLP

Parsippany, New Jersey March 29, 2024