

PROSPECTUS

## 1,300,000 Shares of Common Stock

### Acurx Pharmaceuticals, Inc.

This prospectus relates to the resale, from time to time, of up to 1,300,000 shares of our common stock, par value \$0.001 per share, by Lincoln Park Capital Fund, LLC, which we refer to in this prospectus as “Lincoln Park” or the “selling stockholder.”

The shares of common stock to which this prospectus relates are shares that have been or may be issued to Lincoln Park pursuant to the purchase agreement dated May 8, 2025 that we entered into with Lincoln Park (the “Purchase Agreement”). See “Our Agreements with Lincoln Park” for a description of that agreement and “Selling Stockholder” for additional information regarding Lincoln Park. The prices at which Lincoln Park may sell the shares will be determined by the prevailing market price for the shares or in negotiated transactions.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares by the selling stockholder. However, we may receive up to \$4.7 million (in addition to the \$7.3 million previously received from sales made pursuant to the Purchase Agreement prior to the date of this prospectus) in aggregate gross proceeds under the Purchase Agreement from any sales of common stock we make to Lincoln Park pursuant to the Purchase Agreement, from time to time in our discretion after May 29, 2025 (the date on which the First Prior Registration Statement (as defined below) was declared effective by the Securities and Exchange Commission (“SEC”)) and after satisfaction of other conditions in the Purchase Agreement (the “Commencement Date”). In connection with the Purchase Agreement, under the registration statement previously filed with the SEC, and declared effective by the SEC on May 29, 2025, (the “First Prior Registration Statement”), under the registration statement previously filed with the SEC, and which became effective by operation of law on November 10, 2025 (the “Second Prior Registration Statement”), and under the registration statement previously filed with the SEC, and declared effective by the SEC on February 11, 2026, (the “Third Prior Registration Statement”), we have registered an aggregate of 1,879,963 shares of common stock, 1,835,000 of which have been sold to Lincoln Park to date. In accordance with our obligations under the Registration Rights Agreement, we are registering additional shares of common stock under this prospectus.

The selling stockholder may sell or otherwise dispose of the shares of common stock described in this prospectus in a number of different ways and at varying prices. See “Plan of Distribution” beginning on page 21 of this prospectus for more information about how and the prices at which the selling stockholder may sell or otherwise dispose of the shares of our common stock being offered. The selling stockholder is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended.

The selling stockholder will pay all brokerage fees and commissions and similar expenses. We will pay all expenses (except brokerage fees and commissions and similar expenses) relating to the registration of the shares with the Securities and Exchange Commission.

Our common stock is listed on The Nasdaq Capital Market (“Nasdaq”) under the symbol “ACXP”. The last reported sale price of our common stock on Nasdaq on May 1, 2026 was \$2.16 per share.

We are an “emerging growth company” under applicable Securities and Exchange Commission rules and, as such, we are subject to reduced public company reporting requirements.

**On August 4, 2025, we effected a 1-for-20 reverse stock split pursuant to which every 20 shares of our issued and outstanding common stock were reclassified as one share of common stock (the “Reverse Stock Split”). The Reverse Stock Split had no impact on the par value of our common stock or the authorized number of shares of our common stock. Unless otherwise indicated, all share and per share information in this prospectus is adjusted to reflect the effect of the Reverse Stock Split.**

**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.**

**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 date of this prospectus is May 11, 2026.

---

#### TABLE OF CONTENTS

	Page
<a href="#">ABOUT THIS PROSPECTUS</a>	<a href="#">2</a>
<a href="#">PROSPECTUS SUMMARY</a>	<a href="#">3</a>
<a href="#">THE OFFERING</a>	<a href="#">7</a>
<a href="#">RISK FACTORS</a>	<a href="#">8</a>
<a href="#">SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</a>	<a href="#">11</a>
<a href="#">OUR AGREEMENTS WITH LINCOLN PARK</a>	<a href="#">13</a>
<a href="#">USE OF PROCEEDS</a>	<a href="#">18</a>
<a href="#">DILUTION</a>	<a href="#">19</a>
<a href="#">MARKET FOR COMMON STOCK AND DIVIDEND POLICY</a>	<a href="#">20</a>

<a href="#">PLAN OF DISTRIBUTION</a>	<a href="#">23</a>
<a href="#">DESCRIPTION OF OUR SECURITIES TO BE REGISTERED</a>	<a href="#">25</a>
<a href="#">LEGAL MATTERS</a>	<a href="#">28</a>
<a href="#">EXPERTS</a>	<a href="#">28</a>
<a href="#">WHERE YOU CAN FIND MORE INFORMATION</a>	<a href="#">28</a>
<a href="#">INCORPORATION OF DOCUMENTS BY REFERENCE</a>	<a href="#">29</a>

## 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 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.”

The selling stockholder named in this prospectus may sell up to 1,300,000 shares of our common stock previously issued and issuable pursuant to the Purchase Agreement from time to time. This prospectus also covers any shares of common stock that may become issuable as a result of share splits, share dividends, or similar transactions. We have agreed to pay the expenses incurred in registering these shares, including legal and accounting fees.

We have not, and the selling stockholder has 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.

The selling stockholder is offering to sell, and seeking offers to buy, shares of our common stock only under circumstances and in jurisdictions where it is lawful to do so. The selling stockholder is not making an offer to sell these securities in any state or jurisdiction where the offer or sale is not permitted.

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 herein includes 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.

## 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 that block the active site of the Gram positive specific bacterial enzyme deoxyribonucleic acid (“DNA”) polymerase III, inhibiting DNA replication and leading to Gram-positive bacterial cell death. Our research and development pipeline includes antibiotic product candidates that target Gram-positive bacteria, including Clostridioides difficile, methicillin-resistant Staphylococcus aureus, vancomycin resistant Enterococcus and drug-resistant Streptococcus pneumoniae and B. anthracis (anthrax; a Bioterrorism Category A Threat-Level pathogen).

These bacterial targets are listed as priority pathogens by the World Health Organization (“WHO”), the United States 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 as identified by the WHO, CDC and FDA.

### Recent Developments

#### 2026 April Registered Direct Offering

On April 15, 2026, we entered into a securities purchase agreement (the “April Purchase Agreement”) with certain investors named therein (the “Investors”), pursuant to which we agreed to issue and sell, in a registered direct offering by us directly to the Investors (the “Registered Offering”) (i) 816,068 shares of common stock, par value \$0.001 per share, at a purchase price of \$3.03 per share and (ii) pre-funded common stock purchase warrants (the “Pre-Funded Warrants”) to purchase up to 9,017 shares of common stock (the “Pre-Funded Warrant Shares”) at a purchase price of \$3.029 per Pre-Funded Warrant for aggregate gross proceeds of approximately \$2.5 million, before deducting

The April Purchase Agreement contained customary representations and warranties and agreements of us and the Investors and customary indemnification rights and obligations of the parties. Pursuant to the terms of the April Purchase Agreement, we agreed to certain restrictions on the issuance and sale of our common stock or Common Stock Equivalents (as defined in the April Purchase Agreement) during the 15-day period following the closing of the Registered Offering (the “Lock-up Period”). Additionally, we agreed not to enter into a variable rate transaction for a period of one year following the closing of the Registered Offering, provided, however, that following the Lock-up Period, (i) we may enter into and/or issue shares of common stock in an “at-the-market” facility with Wainwright (as defined below) as sales agent, and (ii) we may enter into, or effect a transaction under, an equity line of credit.

The shares of common stock, the Pre-Funded Warrants and Pre-Funded Warrant Shares were offered by us pursuant to a registration statement on Form S-3 (File No. 333-288595), which was filed with the SEC on July 9, 2025 and was declared effective by the SEC on January 6, 2026.

In a concurrent private placement (the “Private Placement” and together with the Registered Offering, the “Offering”), we agreed to issue to the Investors series H warrants (the “warrants”) to purchase up to an aggregate of 1,650,170 shares of common stock. The warrants have an exercise price of \$2.78 per share, were immediately exercisable and will expire twenty-four months following the effective date of the registration statement registering the resale of the common stock underlying the warrants. The warrants and the shares of our common stock issuable upon the exercise of the warrants were offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act, and Rule 506(b) promulgated thereunder. The Offering closed on April 16, 2026.

#### ***New Ibezapolstat Clinical Trial Program in Patients with Recurrent CDI***

On March 9, 2026, we announced a new clinical development initiative to expand the ibezapolstat program into recurrent *C. difficile* infection (rCDI). The initiative includes an open label pilot trial in multiply recurrent CDI that will enroll up to 20 patients who have experienced at least two recurrences within the past 12 months. Trial start up activities are scheduled to begin in the second quarter of this year, and first patient enrollment is expected in the fourth quarter of this year. We intend to use data from this 20 patient study to inform the design of a planned active controlled Phase 3 registration trial in rCDI. Following a successful pivotal Phase 3 study, we plan to seek the FDA’s approval under the Limited Population Pathway for Antibacterial and Antifungal Drugs (LPAD) for treatment and prevention of rCDI.

#### **The Lincoln Park Transaction**

On May 8, 2025, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park agreed to purchase from us up to an aggregate of \$12.0 million of our common stock (subject to certain limitations) from time to time over the term of the Purchase Agreement (of which an aggregate of \$7.3 million of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus). Pursuant to the Purchase Agreement, we issued 44,963 shares of common stock to Lincoln Park as a fee for making its irrevocable commitment to purchase our common stock under the Purchase Agreement (the “Commitment Shares”). Also on May 8, 2025, we entered into a registration rights agreement with Lincoln Park (the “Registration Rights Agreement”), pursuant to which we filed with the SEC a registration statement (the “First Prior Registration Statement”) on Form S-1 (Registration No. 333-287478) to register up to 544,963 shares of common stock that have subsequently been issued and sold by us to Lincoln Park, consisting of (i) 500,000 shares of common stock that we issued and sold to Lincoln Park as Purchase Shares, commencing on the Commencement Date (as defined below) for aggregate gross proceeds of \$3.0 million, and (ii) 44,963 Commitment Shares. On October 20, 2025, we filed with the SEC a registration statement (the “Second Prior Registration Statement”) on Form S-1 (Registration No. 333-290968) to register up to 585,000 shares of common stock. On February 2, 2026, we filed with the SEC a registration statement (the “Third Prior Registration Statement” and, together with the First Prior Registration Statement and the Second Prior Registration Statements, the “Prior Registration Statements”) on Form S-1 (Registration No. 333-293136) to register up to 750,000 shares of common stock. To date, we have issued and sold 1,835,000 shares of common stock pursuant to the Prior Registration Statements for aggregate gross proceeds of \$7.3 million.

The purpose of this registration statement on Form S-1 is to register an additional 1,300,000 Purchase Shares for resale by Lincoln Park, pursuant to the terms of the Purchase Agreement and the Registration Rights Agreement. This prospectus covers the resale by the selling stockholder of up to 1,300,000 shares of our common stock that we have reserved for sale to Lincoln Park under the Purchase Agreement from time to time after the date of this prospectus, if and when we determine to sell shares of our common stock to Lincoln Park under the Purchase Agreement.

Under the applicable rules of The Nasdaq Stock Market, on July 17, 2025, we obtained stockholder approval to issue to Lincoln Park, pursuant to the Purchase Agreement, shares of our common stock, including the Commitment Shares, which exceed 220,315 shares, which was equal to 19.99% of the shares of our common stock outstanding immediately prior to the execution of the Purchase Agreement.

We did not have the right to commence any sales of our common stock to Lincoln Park under the Purchase Agreement until the conditions set forth in the Purchase Agreement were satisfied, which occurred on May 29, 2025 (the “Commencement Date”). From time to time after the Commencement Date, at our sole discretion, on any business day selected by us on which the closing sale price of our common stock is not below \$1.00 per share, we may direct Lincoln Park to purchase up to 3,000 shares of our common stock (each, a “Regular Purchase”); provided that the share amount under a Regular Purchase may be increased to up to 4,500 shares or up to 6,000 shares if the closing sale price of our common stock is not below \$40.00 or \$60.00, respectively, on the business day on which we initiate the purchase. We refer to such share amount limitation in this prospectus as the “Regular Purchase Share Limit.” In any case, Lincoln Park’s maximum commitment in any single Regular Purchase may not exceed \$500,000. The Regular Purchase Share Limit is subject to proportionate adjustment in the event of a reorganization, recapitalization, non-cash dividend, stock split, reverse stock split, or other similar transaction; provided, that if, after giving effect to such full proportionate adjustment, the adjusted Regular Purchase Share Limit would preclude us from requiring Lincoln Park to purchase common stock at an aggregate purchase price equal to or greater than \$60,000 in any single Regular Purchase, then the Regular Purchase Share Limit will not be fully adjusted, but rather the Regular Purchase Share Limit for such Regular Purchase shall be adjusted as specified in the Purchase Agreement, such that, after giving effect to such adjustment, the Regular Purchase Share Limit will be equal to (or as close as can be derived from such adjustment without exceeding) \$60,000. All share and dollar amounts disclosed in this paragraph relating to Regular Purchases have been adjusted to reflect the effect of the Reverse Stock Split. The purchase price per share for each Regular Purchase will be 97% of the lower of (i) the lowest sale price of our common stock on the business day on which we initiate the Regular Purchase and (ii) the average of the three lowest closing sale prices of our common stock during the 10-business day period immediately preceding the business day on which we initiate the Regular Purchase. In addition to Regular Purchases, we may also direct Lincoln Park to purchase other amounts of common stock as accelerated purchases and as additional accelerated purchases, subject to limits specified in the Purchase Agreement, at a purchase price per share calculated as specified in the Purchase Agreement. We will control the timing and amount of any sales of our common stock to Lincoln Park.

We may terminate the Purchase Agreement at any time after the Commencement Date, at no penalty or cost, other than the Commitment Shares. There are no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement or Registration Rights Agreement, other than a prohibition on our issuing, or entering into any agreement to effect the issuance of, shares of our common stock or common stock equivalents involving a transaction that is defined in the Purchase Agreement as a “Variable Rate Transaction.” Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement.

The Purchase Agreement also prohibits us from directing Lincoln Park to purchase any shares of common stock if those shares, when aggregated with all other shares of our common stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park and its affiliates having beneficial ownership, at any single point in time, of more than 4.99% of the then total outstanding shares of our common stock, as calculated pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and Rule 13d-3 thereunder, which limitation we refer to as the Beneficial Ownership Cap. Lincoln Park, upon written notice to us, may increase the Beneficial Ownership Cap to up to 9.99%. Any increase in the Beneficial Ownership Cap will not be effective until the 61st day after such written notice is delivered to us.

As of the date of this prospectus, we have (i) issued and sold to Lincoln Park 1,835,000 shares of common stock as Purchase Shares, for aggregate gross proceeds of \$7.3 million, and (ii) issued to Lincoln Park 44,963 Commitment Shares in consideration for Lincoln Park's commitment to purchase shares of common stock at our discretion under the Purchase Agreement. Although the Purchase Agreement provides that we may sell up to \$12.0 million of our common stock to Lincoln Park (of which an aggregate of \$7.3 million of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), only 1,300,000 additional Purchase Shares that we may issue to Lincoln Park as Purchase Shares from and after the date of this prospectus, if and when we elect to sell such Purchase Shares to Lincoln Park under the Purchase Agreement, are being registered under the Securities Act for resale by Lincoln Park under the registration statement that includes this prospectus. Depending on the market price of our common stock at the time we elect to issue and sell shares of our common stock to Lincoln Park under the Purchase Agreement, we may need to register for resale under the Securities Act additional shares of our common stock in order to receive aggregate gross proceeds equal to the \$4.7 million available to us under the Purchase Agreement.

As of April 20, 2026, there were 4,278,492 shares of our common stock outstanding, of which 4,149,886 shares were held by non-affiliates. If all of the 1,300,000 shares of our common stock that may be sold to Lincoln Park in the future under the Purchase Agreement that are being registered for resale hereunder were issued and outstanding as of April 20, 2026 without taking into account the Beneficial Ownership Cap described above, such shares of our common stock, would represent approximately 23% of the total number of shares of our common stock outstanding, and approximately 24% of the total number of outstanding shares held by non-affiliates of the Company, in each case as of April 20, 2026.

Issuances of our common stock to Lincoln Park will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted as a result of any such issuance. Although the number of shares of common stock that our existing stockholders own will not decrease, the shares owned by our existing stockholders will represent a smaller percentage of our total outstanding shares after any such issuance to Lincoln Park. There are substantial risks to our stockholders as a result of the sale and issuance of common stock to Lincoln Park under the Purchase Agreement. See "Risk Factors."

#### **Emerging Growth Company**

We are an "emerging growth company", as defined in the Jumpstart Our Business Startups Act (the "JOBS Act"). As an emerging growth company, we are eligible, and have elected, to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies. These include, but are not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 and reduced disclosure obligations regarding executive compensation (to the extent applicable to a foreign private issuer).

We could remain an emerging growth company until the last day of our fiscal year following the fifth anniversary of the consummation of our initial public offering. However, if our annual gross revenue is \$1.235 billion or more, or our non-convertible debt issued within a three year period exceeds \$1 billion, or the market value of our shares of common stock that are held by non-affiliates exceeds \$700 million on the last day of the second fiscal quarter of any given fiscal year, we would cease to be an emerging growth company as of the last day of that fiscal year.

#### **Smaller Reporting Company**

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, 2025 incorporated herein by reference. You should read these 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.

#### **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](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. On June 23, 2021, we converted from a Delaware limited liability company into a Delaware corporation pursuant to a statutory conversion, and changed its name to Acurx Pharmaceuticals, Inc.

### **THE OFFERING**

#### **Shares of our common stock offered by the selling stockholder**

Up to 1,300,000 Purchase Shares that we may issue and sell to Lincoln Park from time to time under the Purchase Agreement from and after the Commencement Date.

#### **Selling stockholder**

Lincoln Park Capital Fund, LLC. See "Selling Stockholder" on page 19 of this prospectus.

## Common stock outstanding prior to this offering

4,278,492 shares.

## Common stock outstanding immediately after this offering

5,578,492 shares, assuming the sale of 1,300,000 shares. The actual number of shares issued will vary depending on the sales prices in this offering.

## Use of Proceeds

We will receive no proceeds from the sale of shares of our common stock by Lincoln Park pursuant to this prospectus. We may receive up to \$4.7 million (in addition to the \$7.3 million previously received from sales made pursuant to the Purchase Agreement prior to the date of this prospectus) in aggregate gross proceeds under the Purchase Agreement from any sales of shares of our common stock we make to Lincoln Park pursuant to the Purchase Agreement after the Commencement Date, assuming that we sell the full amount of our common stock remaining available to us that we have the right, but not the obligation to sell to Lincoln Park under the Purchase Agreement. Any proceeds that we receive from sales of shares of our common stock to Lincoln Park under the Purchase Agreement will be used for working capital and general corporate purposes. See "Use of Proceeds."

## Nasdaq Capital Markets

### Symbols

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

## Risk Factors

Investment in our securities involves a high degree of risk and could result in a loss of your entire investment. See "Risk Factors" beginning on page 6, and the other information included in or incorporated by reference in this prospectus for a discussion of the factors you should consider carefully before deciding to invest in our securities.

The number of shares of our common stock to be outstanding immediately after this offering is based on 2,348,113 shares of our common stock outstanding as of December 31, 2025, and excludes, as of such date, the following:

- 2,573,049 shares of common stock issuable upon the exercise of outstanding warrants with a weighted average exercise price of \$7.25 per share including warrants issued in the Company's April 2026 registered direct offering;
- 227,775 shares of our common stock issuable upon the exercise of stock options, with a weighted-average exercise price of \$88.45 per share;
- 133,872 shares of common stock reserved for future issuance pursuant to future awards under our 2021 Equity Incentive Plan as of December 31, 2025;
- 1,083,603 shares of common stock issued pursuant to the Purchase Agreement subsequent to December 31, 2025, with a weighted average purchase price of \$3.07 per share;
- 9,017 shares of common stock issuable upon exercise of the pre-funded warrants issued in the Company's April 2026 registered direct offering, each with an exercise price of \$0.001 per share; and
- 816,068 shares of common stock issued in the Company's April 2026 registered direct offering.

## 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, 2025. 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.*

***The sale of our common stock to Lincoln Park may cause dilution and the subsequent sale of the shares of common stock acquired by Lincoln Park, or the perception that such sales may occur, could cause the price of our common stock to fall.***

On May 8, 2025, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park committed to purchase up to \$12.0 million of our common stock (of which an aggregate of \$7.3 million of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), and we issued the Commitment Shares. Other than the Commitment Shares, the shares of our common stock that may be issued under the Purchase Agreement may be sold by us to Lincoln Park from time to time at our discretion over a 24-month period from the Commencement Date through May 29, 2027, unless the Purchase Agreement is terminated prior to such date. The purchase price for the shares that we may sell to Lincoln Park under the Purchase Agreement will vary based on the price of our common stock at the time we initiate the sale. Depending on market liquidity at the time, sales of such shares may cause the trading price of our common stock to fall.

We generally have the right to control the timing and amount of any future sales of our shares to Lincoln Park. Sales of shares of our common stock to Lincoln Park under the Purchase Agreement, if any, will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Lincoln Park all, some or none of the shares of our common stock that may be available for us to sell pursuant to the Purchase Agreement. If and when we do sell shares to Lincoln Park, after Lincoln Park has acquired the shares, Lincoln Park may resell all, some or none of those shares at any time or from time to time in its discretion. Therefore, sales to Lincoln Park by us could result in substantial dilution to the interests of other holders of our common stock. Additionally, the sale of a substantial number of shares of our common stock to Lincoln Park, or the anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.

***It is not possible to predict the actual number of shares of common stock we may sell to Lincoln Park under the Purchase Agreement, or the actual gross proceeds resulting from those sales.***

Because the purchase price per share to be paid by Lincoln Park for the shares of common stock that we may elect to sell to Lincoln Park under the Purchase Agreement, if any, will fluctuate based on the market prices of our common stock at the time we elect to sell shares to Lincoln Park pursuant to the Purchase Agreement, if any, it is not

possible for us to predict, as of the date of this prospectus and prior to any such sales, the number of shares of common stock that we will sell to Lincoln Park under the Purchase Agreement, the purchase price per share that Lincoln Park will pay for shares purchased from us under the Purchase Agreement, or the aggregate gross proceeds that we will receive from those purchases by Lincoln Park under the Purchase Agreement.

Moreover, although the Purchase Agreement provides that we may sell up to an aggregate of \$12.0 million of our common stock to Lincoln Park, only 1,300,000 shares of common stock are being registered under the Securities Act for resale by Lincoln Park under the registration statement of which this prospectus forms a part. We may elect to sell to Lincoln Park, in our sole discretion, from time to time from and after the Commencement Date under the Purchase Agreement.

If after the Commencement Date we elect to sell to the selling stockholder all of the 1,300,000 shares of common stock being registered for resale by Lincoln Park under this prospectus that are available for sale by us to the selling stockholder under the Purchase Agreement, depending on the market prices of our common stock at the time of such sales, the actual gross proceeds from the sale of all such shares of common stock by us to Lincoln Park may be substantially less than the \$4.7 million total purchase commitment that remains available to us under the Purchase Agreement, which could materially adversely affect our liquidity.

---

8

If we elect to issue and sell to Lincoln Park more than the 1,300,000 shares of our common stock that we may elect to issue and sell to Lincoln Park under the Purchase Agreement that are being registered for resale by Lincoln Park hereunder, which we have the right, but not the obligation, to do, we must first file with the SEC one or more additional registration statements to register under the Securities Act for resale by Lincoln Park such additional shares of our common stock we wish to sell from time to time under the Purchase Agreement, which the SEC must declare effective, in each case before we may elect to sell any additional shares of our common stock to Lincoln Park under the Purchase Agreement. Any issuance and sale by us under the Purchase Agreement of a substantial amount of shares of common stock in addition to the 1,300,000 shares of common stock that we may elect to issue and sell to Lincoln Park under the Purchase Agreement that are being registered for resale by Lincoln Park hereunder could cause additional substantial dilution to our stockholders. The number of shares of our common stock ultimately offered for sale by Lincoln Park is dependent upon the number of shares of common stock, if any, we ultimately sell to Lincoln Park under the Purchase Agreement, and the sale of common stock under the Purchase Agreement may cause the trading price of our common stock to decline.

***Investors who buy shares at different times will likely pay different prices, and the sale of the shares of common stock acquired by Lincoln Park could cause the price of our common stock to decline.***

Pursuant to the Purchase Agreement, we will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares sold to Lincoln Park. If and when we do elect to sell shares of our common stock to Lincoln Park pursuant to the Purchase Agreement, after Lincoln Park has acquired such shares, Lincoln Park may resell all, some or none of such shares at any time or from time to time in its discretion and at different prices. As a result, investors who purchase shares from Lincoln Park in this offering at different times will likely pay different prices for those shares, and so may experience different levels of dilution and in some cases substantial dilution and different outcomes in their investment results. Investors may experience a decline in the value of the shares they purchase from Lincoln Park in this offering as a result of future sales made by us to Lincoln Park at prices lower than the prices such investors paid for their shares in this offering. Further, the sale of a substantial number of shares of our common stock by Lincoln Park, or anticipation of such sales, could cause the trading price of our common stock to decline or make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise desire.

***We may not have access to the full amount available under the Purchase Agreement with Lincoln Park. We may require additional financing to sustain our operations, without which we may not be able to continue operations, and the terms of subsequent financings may adversely impact our stockholders.***

We may direct Lincoln Park to purchase up to \$12.0 million (of which \$7.3 million of our common stock has previously been issued and sold to Lincoln Park) worth of shares of our common stock in a Regular Purchase from time to time under the Purchase Agreement over a 24-month period beginning on the Commencement Date, generally in amounts up to 3,000 shares of our common stock, which may be increased to up to 4,500 shares or up to 6,000 shares depending on the closing sale price of our common stock at the time of sale. In any case, Lincoln Park's maximum commitment in any single Regular Purchase may not exceed \$500,000. The Regular Purchase Share Limit is subject to proportionate adjustment in the event of a reorganization, recapitalization, non-cash dividend, stock split, reverse stock split, or other similar transaction; provided, that if, after giving effect to such full proportionate adjustment, the adjusted Regular Purchase Share Limit would preclude us from requiring Lincoln Park to purchase common stock at an aggregate purchase price equal to or greater than \$60,000 in any single Regular Purchase, then the Regular Purchase Share Limit will not be fully adjusted, but rather the Regular Purchase Share Limit for such Regular Purchase shall be adjusted as specified in the Purchase Agreement, such that, after giving effect to such adjustment, the Regular Purchase Share Limit will be equal to (or as close as can be derived from such adjustment without exceeding) \$60,000. All share and dollar amounts disclosed in this paragraph relating to Regular Purchases have been adjusted to reflect the effect of the Reverse Stock Split. Moreover, under certain circumstances as set forth in the Purchase Agreement, we may, in our sole discretion, also direct Lincoln Park to purchase additional shares of common stock in "accelerated purchases," and "additional accelerated purchases" as set forth in the Purchase Agreement.

---

9

Depending on the prevailing market price of our common stock, we may not be able to sell shares to Lincoln Park for the maximum \$12.0 million over the term of the Purchase Agreement. Lincoln Park will not be required to purchase any shares of our common stock if such sale would result in Lincoln Park's beneficial ownership of our common stock exceeding the Beneficial Ownership Cap. Our inability to access a portion or the full amount available under the Purchase Agreement, in the absence of any other financing sources, could have a material adverse effect on our business.

The extent we rely on Lincoln Park as a source of funding will depend on a number of factors including the prevailing market price of our common stock and the extent to which we are able to raise capital from other sources. The purchase by Lincoln Park of the remaining amount issuable under the Purchase Agreement would result in gross proceeds to us of approximately \$4.7 million. If obtaining sufficient funding from Lincoln Park were to prove unavailable or prohibitively dilutive, we will need to secure another source of capital in order to satisfy our working capital needs. Even if we sell all \$12.0 million of shares of our common stock to Lincoln Park under the Purchase Agreement, we will need to raise substantial additional capital to continue to fund our operations and execute our current business strategy.

***Our management will have broad discretion over the use of the net proceeds, if any, from sales of shares of our common stock to Lincoln Park, you may not agree with how we use the proceeds and the proceeds may not be used effectively.***

This prospectus relates to shares of our common stock that may be offered and sold from time to time by Lincoln Park. We will not receive any proceeds upon the sale of shares by Lincoln Park. However, we may receive gross proceeds of up to \$4.7 million from the sale of shares being registered for resale under this prospectus under the Purchase Agreement to Lincoln Park (in addition to the \$7.3 million previously received from sales made pursuant to the Purchase Agreement prior to the date of this prospectus). The anticipated use of net proceeds from the sale of our common stock to Lincoln Park under the Purchase Agreement represents our intentions based upon our current plans and business conditions. Because we have not designated the amount of net proceeds from the sale of shares under the Purchase Agreement to be used for any particular purpose, our management will have broad discretion as to the use of the net proceeds from our sale of shares of common stock to Lincoln Park. Accordingly, you will be relying on the judgment of our management with regard to the use of those net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that, pending their use, we may invest those net proceeds in a way that does not yield a favorable, or any, return

### 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 to differ materially from any future 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 about:

- 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 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;

- the development of major public health concerns, including the 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, geopolitical tensions involving China, the conflict between the U.S., Israel and Iran and tensions in the Middle East;
- the volatility of the price of our common stock;
- our financial performance;
- our ability to comply with the listing requirements of The Nasdaq Capital Market and any delisting or potential delisting of shares of our common stock; 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.

## OUR AGREEMENTS WITH LINCOLN PARK

### Overview

On May 8, 2025, we entered into the Purchase Agreement with Lincoln Park. Pursuant to the terms of the Purchase Agreement, Lincoln Park agreed to purchase from us up to an aggregate of \$12.0 million of our common stock (of which an aggregate of \$7.3 million of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), subject to certain limitations, from time to time during the 24-month term commencing from the Commencement Date, unless the Purchase Agreement is terminated prior to such date. Pursuant to the Purchase Agreement we issued 44,963 Commitment Shares to Lincoln Park as consideration for its commitment to purchase our common stock from time to time at our direction under the Purchase Agreement. We may only receive additional proceeds of up to \$4.7 million from our sale of Purchase Shares pursuant to the Purchase Agreement.

On May 8, 2025, concurrently with the execution of the Purchase Agreement, we entered into a registration rights agreement with Lincoln Park (the “Registration Rights Agreement”), pursuant to which we filed with the SEC a registration statement (the “First Prior Registration Statement”) on Form S-1 (Registration No. 333-287478) to register up to 544,963 shares of common stock that have subsequently been issued and sold by us to Lincoln Park, consisting of (i) 500,000 shares of common stock that we issued and sold to Lincoln Park as Purchase Shares, commencing on the Commencement Date (as defined below) for aggregate gross proceeds of \$3.0 million, and (ii) 44,963 Commitment Shares. On October 20, 2025, we filed with the SEC a registration statement (the “Second Prior Registration Statement”) on Form S-1 (Registration No. 333-290968) to register up to 585,000 shares of common stock. On February 2, 2026, we filed with the SEC a registration statement (the “Third Prior Registration Statement”) and, together with the First Prior Registration Statement and the Second Prior Registration Statements, the “Prior Registration Statements”) on Form S-1 (Registration No. 333-293136) to register up to 750,000 shares of common stock. To date, we have issued and sold 1,835,00 shares of common stock pursuant to the Prior Registration Statements for aggregate gross proceeds of \$7.3 million.

The purpose of this registration statement on Form S-1 is to register an additional 1,300,000 Purchase Shares for resale by Lincoln Park, pursuant to the terms of the Purchase Agreement and the Registration Rights Agreement. This prospectus covers the resale by the selling stockholder of up to 1,300,000 shares of our common stock that we have reserved for sale to Lincoln Park under the Purchase Agreement from time to time after the date of this prospectus, if and when we determine to sell shares of our common stock to Lincoln Park under the Purchase Agreement.

On July 17, 2025, we obtained stockholder approval to issue to Lincoln Park, pursuant to the Purchase Agreement, shares of our common stock, including the Commitment Shares, which exceed 220,315 shares, which was equal to 19.99% of the shares of our common stock outstanding immediately prior to the execution of the Purchase Agreement.

We did not have the right to commence any sales of our common stock to Lincoln Park under the Purchase Agreement until all of the conditions set forth in the Purchase Agreement were satisfied, which occurred on May 29, 2025 (the “Commencement Date”). From and after the Commencement Date, from time to time, at our sole discretion for a period of up to 24 months, we may direct Lincoln Park to purchase shares of our common stock in amounts of up to 3,000 shares on any single business day as a Regular Purchase. The amount of a Regular Purchase may be increased to up to 4,500 or 6,000 shares depending on the market price of our common stock at the time we initiate the sale, subject to a maximum commitment by Lincoln Park of \$500,000 per single Regular Purchase. In addition, at our discretion, Lincoln Park has committed to purchase other “accelerated amounts” and/or “additional accelerated amounts” under certain circumstances. The purchase price per share sold in any Regular Purchase will be 97% of the lower of (i) the lowest sale price of our common stock on the business day on which we initiate the purchase and (ii) the average of the three lowest closing sale prices of our common stock during the 10 consecutive business day period immediately preceding the business day on which we initiate the purchase. The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction occurring during the business days used to compute such price. Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement.

The Purchase Agreement also prohibits us from directing Lincoln Park to purchase any shares of common stock if those shares, when aggregated with all other shares of our common stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park exceeding the Beneficial Ownership Cap.

### Purchase of Shares Under the Purchase Agreement

From and after the Commencement Date, from time to time, at our sole discretion, on any business day selected by us on which the closing sale price of the common stock is not below \$1.00 per share, we may direct Lincoln Park to purchase shares of our common stock in amounts up to 3,000 shares on any single business day as a Regular Purchase; provided that such share limit increases to up to 4,500 shares if the closing sale price of our common stock is not below \$40.00 per share on the business day on which we initiate the purchase, and to up to 6,000 shares if the closing sale price of our common stock is not below \$60.00 per share on the business day on which we initiate the purchase. In any case, Lincoln Park’s maximum commitment in any single Regular Purchase may not exceed \$500,000. The Regular Purchase Share Limit is subject to proportionate adjustment in the event of a reorganization, recapitalization, non-cash dividend, stock split, reverse stock split, or other similar transaction; provided, that if, after giving effect to such full proportionate adjustment, the adjusted Regular Purchase Share Limit would preclude us from requiring Lincoln Park to purchase common stock at an aggregate purchase price equal to or greater than \$60,000 in any single Regular Purchase, then the Regular Purchase Share Limit will not be fully adjusted, but rather the Regular Purchase Share Limit for such Regular Purchase shall be adjusted as specified in the Purchase Agreement, such that, after giving effect to such adjustment, the Regular Purchase Share Limit will be equal to (or as close as can be derived from such adjustment without exceeding) \$60,000. All share and dollar amounts disclosed in this paragraph relating to Regular Purchases have been adjusted to reflect the effect of the Reverse Stock Split.

The purchase price per share for the shares that may be sold to Lincoln Park in any Regular Purchase will be 97% of the lesser of:

- the lowest sale price of our common stock on the business day on which we initiate the purchase; or
- the arithmetic average of the three lowest closing sale prices for our common stock during the 10-consecutive-business-day period immediately preceding the business day on which we initiate the purchase.

In addition to Regular Purchases, on any business day on which we have properly submitted a notice directing Lincoln Park to purchase the then applicable Regular Purchase Share Limit and properly delivered all the shares purchased in all prior purchases under the Purchase Agreement, we may direct Lincoln Park to purchase an additional amount of shares of our common stock, which we refer to as an “Accelerated Purchase,” not to exceed the lesser of:

- 30% of the total volume of shares of our common stock traded during the Accelerated Purchase Period (as defined in the Purchase Agreement); and
- three times the number of shares of common stock purchased pursuant to the corresponding Regular Purchase.

We may also direct Lincoln Park, by notice delivered before 1:00 p.m. Eastern time on a business day on which an Accelerated Purchase has been completed and all of the shares to be purchased thereunder (and under the corresponding Regular Purchase) have been properly delivered to Lincoln Park in accordance with the Purchase Agreement prior to such time on such business day, to purchase an additional amount of shares of our common stock, which we refer to as an Additional Accelerated Purchase, of up to the lesser of:

- 30% of the total volume of shares of our common stock traded during the Additional Accelerated Purchase Period (as defined in the Purchase Agreement); and
- three times the number of shares of common stock purchased pursuant to the corresponding Regular Purchase.

We may, in our sole discretion, submit multiple Additional Accelerated Purchase notices to Lincoln Park on a single Accelerated Purchase date, provided that all prior Accelerated Purchases and Additional Accelerated Purchases (including those that have occurred earlier on the same day) have been completed and all of the shares to be purchased thereunder (and under the corresponding Regular Purchase) have been properly delivered to Lincoln Park in accordance with the Purchase Agreement.

---

14

The purchase price per share for each Accelerated Purchase and each Additional Accelerated Purchase will be equal to 97% of the lesser of:

- the volume weighted average price of our common stock during the applicable Accelerated Purchase Period or Additional Accelerated Purchase Period; and
- the closing sale price of our common stock on the applicable Accelerated Purchase date.

In the case of any Regular Purchase, Accelerated Purchase and Additional Accelerated Purchase, the purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction occurring during the business days used to compute such price.

Other than as described above, there are no trading volume requirements or restrictions under the Purchase Agreement, and we will control the timing and amount of any sales of our common stock to Lincoln Park.

#### **Suspension Events**

Suspension Events under the Purchase Agreement include, among others, the following:

- a lapse in the effectiveness of the registration statement of which this prospectus forms a part for any reason (including, without limitation, the issuance of a stop order or similar order) or any required prospectus is unavailable for the resale by Lincoln Park of the shares of our common stock offered hereby and such lapse or unavailability continues for a period of 10 consecutive business days or for more than an aggregate of 30 business days in any 365-day period, subject to certain exceptions described in the Purchase Agreement;
- the suspension of our common stock from trading on The Nasdaq Capital Market (or such other nationally recognized market or exchange on which our common stock may be listed or traded) for a period of one business day;
- the delisting of our common stock from The Nasdaq Capital Market, unless our common stock is immediately thereafter trading or quoted on the New York Stock Exchange, The Nasdaq Global Market, The Nasdaq Global Select Market, the NYSE American, the NYSE Arca, the OTCQX Best Market or the OTCQB Venture Market operated by OTC Markets Group, Inc. (or any nationally recognized successor to any of the foregoing);
- the failure by our transfer agent to issue to Lincoln Park the shares purchased by Lincoln Park under the Purchase Agreement within two business days after the applicable date on which Lincoln Park is entitled to receive such shares;
- any breach by us of any of our representations, warranties or covenants in the Purchase Agreement or Registration Rights Agreement if such breach would reasonably be expected to have a Material Adverse Effect (as defined in the Purchase Agreement) and, in the case of a breach of a covenant that is reasonably curable, only if such breach continues for a period of at least five business days;
- we, voluntarily or involuntarily, become the subject of any insolvency or bankruptcy proceeding or any such proceeding is threatened against us, as more fully described in the Purchase Agreement; or
- if at any time we are not eligible to transfer shares of our stock electronically through the Depository Trust Company’s (“DTC”) Deposit and Withdrawal at Custodian (“DWAC”) service, or any similar program hereafter adopted by DTC performing substantially the same function.

Lincoln Park does not have the right to terminate the Purchase Agreement upon any of the Suspension Events set forth above. During a Suspension Event, or if any event has occurred which, after notice and/or lapse of time, would reasonably be expected to become a Suspension Event under the Purchase Agreement, all of which are outside of Lincoln Park’s control, we may not direct Lincoln Park to purchase any shares of our common stock under the Purchase Agreement.

---

15

## Term of the Purchase Agreement; Termination Rights

The Purchase Agreement will automatically terminate upon the earlier of (a) the date we sell all \$12.0 million in shares of our common stock to Lincoln Park under the Purchase Agreement, and (b) the first day of the month immediately following the 24-month anniversary of the Commencement Date. The Purchase Agreement will also automatically terminate upon commencement of a voluntary or involuntary bankruptcy proceeding by or against us, as more fully described in the Purchase Agreement.

After the Commencement Date, we may, at any time, for any reason or for no reason, terminate the Purchase Agreement upon one business day prior notice to Lincoln Park.

## No Short-Selling or Hedging by Lincoln Park

Lincoln Park has represented to us that at no time prior to the time of execution of the Purchase Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO under the Exchange Act) of our common stock or any hedging transaction, which establishes a net short position with respect to our Common Stock. Lincoln Park agreed that during the term of the Purchase Agreement, it, its agents, representatives or affiliates will not enter into or effect, directly or indirectly, any of the foregoing transactions.

## Prohibitions on Variable Rate Transactions

There are no restrictions or limitations on our ability to raise capital from other sources at our sole discretion, except that, until the twenty-four-month anniversary of the date of the Purchase Agreement, we agreed not to effect any issuance of, or enter into any agreement to effect any issuance of, shares of common stock or common stock equivalents involving a “variable rate transaction,” which is defined in the Purchase Agreement as an “equity line of credit” or substantially similar transaction whereby an investor is irrevocably bound to purchase securities over a period of time from us at a price based on the market price of our common stock at the time of each such purchase; provided that the foregoing prohibition does not prohibit the issuance and sale of our common stock pursuant to an “at-the-market offering” by us exclusively through a registered broker-dealer acting as agent of ours pursuant to a written agreement between us and such registered broker-dealer.

## Effect of Performance of the Purchase Agreement on Our Stockholders

All shares registered in this offering which have been or may be issued or sold by us to Lincoln Park under the Purchase Agreement are expected to be freely tradable. Other than the Commitment Shares, which were issued to Lincoln Park on May 8, 2025, the shares registered in this offering may be sold to Lincoln Park at our discretion over a period of up to 24 months beginning on the Commencement Date. The sale by Lincoln Park of a significant amount of the shares registered in this offering at any given time could cause the market price of our common stock to decline and to be highly volatile. Sales of our common stock to Lincoln Park, if any, will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Lincoln Park all, some or none of the shares of our common stock that may be available for us to sell pursuant to the Purchase Agreement. If and when we do sell shares to Lincoln Park, after Lincoln Park has acquired the shares, Lincoln Park may resell all, some or none of those shares at any time or from time to time in its discretion. Therefore, sales to Lincoln Park by us under the Purchase Agreement may result in substantial dilution to the interests of other holders of our common stock. In addition, if we sell a substantial number of shares to Lincoln Park under the Purchase Agreement, or if investors expect that we will do so, the actual sales of shares or the mere existence of our arrangement with Lincoln Park may make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect such sales. However, we have the right to control the timing and amount of any additional sales of our shares to Lincoln Park and the Purchase Agreement may be terminated by us at any time at our discretion without any additional cost to us.

Depending on the price per share at which we sell our common stock to Lincoln Park pursuant to the Purchase Agreement, we may need to sell more shares to Lincoln Park than are offered under this prospectus to receive aggregate gross proceeds equal to the \$4.7 million remaining available to us under the Purchase Agreement, which could cause additional substantial dilution to our stockholders. If we choose to sell more shares to Lincoln Park than are offered under this prospectus, we must first register for resale under the Securities Act such additional shares of our common stock. The number of shares ultimately offered for resale by Lincoln Park will depend upon the number of shares we elect to sell to Lincoln Park under the Purchase Agreement.

16

The following table sets forth the amount of gross proceeds we would receive from Lincoln Park from our sale of up to 1,300,000 shares of our common stock that we are registering hereby that we may issue and sell to Lincoln Park in the future under the Purchase Agreement at varying purchase prices:

Assumed Average Purchase Price Per Share	Number of Registered Shares of our Common Stock to be Issued if Full Purchase(1)	Percentage of Outstanding Shares of our Common Stock After Giving Effect to the Issuance to Lincoln Park(2)	Gross Proceeds from the Sale of Shares of our Common Stock to Lincoln Park Under the Purchase Agreement(1)
\$ 1.00	1,300,000	23%	\$ 1,300,000
\$ 2.00	1,300,000	23%	\$ 2,600,000
\$ 2.16(3)	1,300,000	23%	\$ 2,808,000
\$ 3.00	1,300,000	23%	\$ 3,900,000
\$ 3.615	1,300,000	23%	\$ 4,700,000

- (1) Although the Purchase Agreement provides that we may sell up to \$12.0 million of our common stock to Lincoln Park (of which an aggregate of \$7.3 million of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), we are only registering 1,300,000 shares that may be sold to Lincoln Park under this prospectus, which may or may not cover all the shares we ultimately sell to Lincoln Park under the Purchase Agreement, depending on the purchase price per share. We may only receive additional proceeds of up to \$4.7 million from our sale of Purchase Shares pursuant to the Purchase Agreement. On July 17, 2025, we obtained stockholder approval to issue to Lincoln Park, pursuant to the Purchase Agreement, shares of our common stock, including Commitment Shares, which exceed 220,315 shares, which was equal to 19.99% of the shares of our common stock outstanding immediately prior to the execution of the Purchase Agreement. The number of shares issued in this column does not give effect to the Beneficial Ownership Cap.
- (2) The denominator is based on 4,278,492 shares of our common stock outstanding as of April 20, 2026, adjusted to include the number of shares set forth in the adjacent column which we would have sold to Lincoln Park, assuming the purchase price in the adjacent column. The numerator is based on the number of shares of our common stock issuable under the Purchase Agreement at the corresponding assumed purchase price set forth in the adjacent column, without giving effect to the Beneficial Ownership Cap.
- (3) The closing sale price per share of our common stock on May 1, 2026.

17

This prospectus relates to shares of our common stock that may be offered and sold from time to time by Lincoln Park. See “Plan of Distribution” elsewhere in this prospectus for more information. We are not selling any securities under this prospectus and we will not receive any proceeds from the sale of shares by Lincoln Park under this prospectus.

We may receive up to \$4.7 million (in addition to the \$7.3 million previously received from sales made pursuant to the Purchase Agreement prior to the date of this prospectus) in aggregate gross proceeds from sales of shares of our common stock we make to Lincoln Park under the Purchase Agreement. We may choose to sell fewer than \$4.7 million in shares of our common stock, or, due to the Beneficial Ownership Cap, we may not be able to sell all \$4.7 million in shares of our common stock under the Purchase Agreement, in which case we would raise less than \$12 million in aggregate gross proceeds under the Purchase Agreement. It is also possible that we do not sell any shares under the Purchase Agreement.

We will have broad discretion in the use of the net proceeds from any sale of shares of our common stock to Lincoln Park under the Purchase Agreement. Based upon our current plans and business conditions, we intend to use net proceeds from such sales for working capital and general corporate purposes, which include, but are not limited to, research and development expenses and general and administrative expenses. We have not determined the amount of net proceeds to be used specifically for such purposes. The amounts and timing of our actual expenditures may vary significantly and will depend on numerous factors, including market conditions, cash generated or used by our operations, business developments and opportunities that may arise. We may find it necessary or advisable to use portions of the proceeds we receive from our sale of shares of common stock to Lincoln Park under the Purchase Agreement for other purposes. Pending the use of any net proceeds, we expect to invest the net proceeds in interest-bearing, marketable securities.

We will bear all of the costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, the registration and filing fees, printing fees, Nasdaq listing fees and fees and expenses of our counsel and our accountants, but all selling and other expenses incurred by the selling stockholder will be paid by the selling stockholder.

## DILUTION

The sale of common stock to Lincoln Park pursuant to the Purchase Agreement will have a dilutive impact on our stockholders. In addition, the lower our stock price is at the time we elect to sell shares to Lincoln Park under the Purchase Agreement, the more shares of our common stock we will have to sell to Lincoln Park to achieve the same gross proceeds amount, in which case our existing stockholders would experience greater dilution.

The amount that Lincoln Park will receive for our common stock when resold pursuant to this prospectus will depend upon the timing of sales and will fluctuate based on the trading price of our common stock.

As of December 31, 2025, we had a net tangible book value of \$5.3 million, or \$2.24 per share of common stock. Our net tangible book value per share represents total tangible assets less total liabilities, divided by the number of shares of our common stock outstanding as of December 31, 2025.

After giving effect to the sale of 1,300,000 shares of common stock to Lincoln Park pursuant to the Purchase Agreement at an assumed price of \$2.16 per share, the closing price of our common stock on Nasdaq on May 1, 2026, and deducting estimated offering expenses of \$45,000 payable by us, and without giving effect to the Beneficial Ownership Cap under the Purchase Agreement, our as adjusted net tangible book value as of December 31, 2025, would have been approximately \$8.0 million, or \$2.20 per share. This represents an immediate decrease in net tangible book value of \$0.04 per share to existing stockholders and an immediate accretion of \$0.04 per share to new investors.

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

Assumed public offering price per share	\$ 2.16
Net tangible book value per share of common stock as of December 31, 2025	\$ 2.24
Decrease in net tangible book value per share attributable to this offering	0.04
As adjusted, net tangible book value per share after this offering	2.20
Accretion per share to new investors purchasing shares in this offering	\$ 0.04

The foregoing table is based on 2,348,113 shares of common stock outstanding as of December 31, 2025, and excludes, as of such date, the following:

- 2,573,049 shares of common stock issuable upon the exercise of outstanding warrants with a weighted average exercise price of \$7.25 per share, including warrants issued in the Company’s April 2026 registered direct offering;
- 227,775 shares of our common stock issuable upon the exercise of stock options, with a weighted-average exercise price of \$88.45 per share;
- 133,872 shares of common stock reserved for future issuance pursuant to future awards under our 2021 Equity Incentive Plan as of December 31, 2025;
- 1,083,603 shares of common stock issued pursuant to the Purchase Agreement subsequent to December 31, 2025, with a weighted average purchase price of \$3.07 per share;
- 9,017 shares of common stock issuable upon exercise of the pre-funded warrants issued in the Company’s April 2026 registered direct offering, each with an exercise price of \$0.001 per share; and
- 816,068 shares of common stock issued in the Company’s April 2026 registered direct offering.

To the extent that outstanding options or warrants have been or may be exercised, new equity awards were or are issued, or we otherwise issued or issue additional shares of common stock, including in our “at the market” offering program, investors purchasing our common stock in this offering may experience further dilution

## 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 May 1, 2026 on the Nasdaq Capital Market was \$2.16 per share. As of May 4, 2026, there were 370 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.

### SELLING STOCKHOLDER

This prospectus relates to the possible resale by the selling stockholder, Lincoln Park, of additional shares of our common stock that may be issued to Lincoln Park pursuant to the Purchase Agreement. We are filing the registration statement of which this prospectus is a part pursuant to the provisions of the Registration Rights Agreement, which we entered into with Lincoln Park on May 8, 2025 concurrently with our execution of the Purchase Agreement, in which we agreed to provide certain registration rights with respect to sales by Lincoln Park of the shares of our common stock that have been and may be issued to Lincoln Park under the Purchase Agreement.

Lincoln Park, as the selling stockholder, may, from time to time, offer and sell pursuant to this prospectus up to 1,300,000 shares of our common stock that we have issued or may issue to Lincoln Park. The selling stockholder may sell some, all or none of the shares of common stock. We do not know how long the selling stockholder will hold the shares of our common stock before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholder regarding the sale of any of the shares of common stock. See “Plan of Distribution.”

The table below sets forth, to our knowledge, information concerning the beneficial ownership of shares of our common stock by the selling stockholder as of April 20, 2026. The percentages of shares owned before and after the offering are based on shares of common stock outstanding as of April 20, 2026. The information in the table below with respect to the selling stockholder has been obtained from the selling stockholder. Other than as described under “Our Agreements With Lincoln Park,” above, neither Lincoln Park nor any of its affiliates has held a position or office, or had any other material relationship, with us or any of our predecessors or affiliates. Beneficial ownership is determined in accordance with Section 13(d) of the Exchange Act and Rule 13d-3 thereunder.

<u>Name of Selling Stockholder</u>	<u>Number of Shares of Common Stock Owned Prior to Offering(2)</u>		<u>Maximum Number of Shares of Common Stock to be Offered Pursuant to this Prospectus(3)</u>	<u>Number of Shares of Common Stock Owned After Offering(4)</u>	
	<u>Number</u>	<u>Percent</u>		<u>Number</u>	<u>Percent</u>
Lincoln Park Capital Fund, LLC(1)	484,589	10.5%	1,300,000	484,589	8.2%

- (1) Consists of (i) 145,538 shares of common stock, (ii) 9,017 shares of common stock issuable upon exercise of pre-funded warrants subject to certain beneficial ownership limitations held by the selling stockholder and (iii) 330,034 shares of common stock issuable upon exercise of series H warrants subject to certain beneficial ownership limitations held by the selling stockholder. Josh Scheinfeld and Jonathan Cope, the Managing Members of Lincoln Park Capital, LLC, the manager of Lincoln Park Capital Fund, LLC, are deemed to be beneficial owners of all of the shares of common stock owned by Lincoln Park Capital Fund, LLC. Messrs. Cope and Scheinfeld have shared voting and investment power over the shares being offered under this prospectus. Neither Lincoln Park Capital, LLC nor Lincoln Park Capital Fund, LLC is a licensed broker dealer or an affiliate of a licensed broker dealer.
- (2) In accordance with Rule 13d-3(d) of the Exchange Act, we have excluded from the number of shares beneficially owned prior to this offering all the shares of common stock that we may issue and sell to Lincoln Park under the Purchase Agreement from and after the date of this prospectus that are being registered for resale under the registration statement of which this prospectus forms a part, because the issuance of such shares is solely at our discretion and is subject to certain conditions, the satisfaction of all of which are outside of Lincoln Park’s control, including the registration statement of which this prospectus forms a part becoming and remaining effective. Furthermore, under the terms of the Purchase Agreement, issuances and sales of shares of our common stock to Lincoln Park are subject to certain limitations on the amounts we may sell to Lincoln Park at any time, including the Beneficial Ownership Cap. See the description under the heading “Our Agreements with Lincoln Park” for more information about the Purchase Agreement.

- (3) Assumes issuance of the maximum 1,300,000 shares being registered hereby. Although the Purchase Agreement provides that we may sell up to \$12.0 million in shares of our common stock to Lincoln Park (of which an aggregate of \$7.3 million of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), only 1,300,000 shares of our common stock are being offered under this prospectus that may be sold by us to Lincoln Park at our discretion from time to time over a 24-month period following the date of this prospectus. Depending on the price per share at which we sell our common stock to Lincoln Park pursuant to the Purchase Agreement, we may need to sell to Lincoln Park under the Purchase Agreement more shares of our common stock than are offered under this prospectus to receive aggregate gross proceeds equal to the \$12.0 million total commitment of Lincoln Park under the Purchase Agreement. If we choose to do so, we must first register for resale under the Securities Act such additional shares. The number of shares ultimately offered for resale by Lincoln Park will depend upon the number of shares we elect to sell to Lincoln Park under the Purchase Agreement.

- (4) Assumes the sale by Lincoln Park of all 1,300,000 shares of our common stock registered hereby and the sale by Lincoln Park of all 1,879,963 shares of our common stock registered by the Prior Registration Statements, although the selling stockholder is under no obligation known to us to sell any shares of common stock at any particular time.

\* represents less than 1%

### PLAN OF DISTRIBUTION

The shares of our common stock offered by this prospectus are being offered by the selling stockholder, Lincoln Park Capital Fund, LLC. The shares may be sold or distributed from time to time by the selling stockholder directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The selling stockholder may use any one or more of the following methods when selling securities:

- ordinary brokers’ transactions;

- transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents;
- “at the market” into an existing market for the shares of our common stock;
- in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;
- in privately negotiated transactions; or
- any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares of our common stock offered by this prospectus may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares of our common stock offered by this prospectus may not be sold unless they have been registered or qualified for sale in the state or an exemption from the state’s registration or qualification requirement is available and complied with.

Lincoln Park is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act.

Lincoln Park has informed us that it intends to use an unaffiliated broker-dealer to effectuate all sales, if any, of our common stock that it has acquired and may in the future acquire from us pursuant to the Purchase Agreement. Such sales will be made at prices and at terms then prevailing or at prices related to the then current market price. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that each such broker-dealer will receive commissions from Lincoln Park that will not exceed customary brokerage commissions.

Brokers, dealers, underwriters or agents participating in the distribution of the shares of our common stock offered by this prospectus may receive compensation in the form of commissions, discounts, or concessions from the selling stockholder and/or the purchasers, for whom the broker-dealers may act as agent. The compensation paid to any such particular broker-dealer may be less than or in excess of customary commissions. Neither we nor Lincoln Park can presently estimate the amount of compensation that any agent will receive from the selling stockholder or from any purchasers of shares of our common stock sold by Lincoln Park.

We know of no existing arrangements between Lincoln Park or any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares of our common stock offered by this prospectus.

We may from time to time file with the SEC one or more supplements to this prospectus or amendments to the registration statement that includes this prospectus to amend, supplement or update information contained in this prospectus, including, if and when required under the Securities Act, to disclose certain information relating to a particular sale of shares of our common stock offered by this prospectus by the selling stockholder, including the names of any brokers, dealers, underwriters or agents participating in the distribution of such shares of our common stock by the selling stockholder, any compensation paid by Lincoln Park to any such brokers, dealers, underwriters or agents, and any other required information.

We will pay the expenses incident to the registration under the Securities Act of the offer and sale of the shares of our common stock included in this prospectus by Lincoln Park. We estimate that the total expenses for the offering will be approximately \$45,000. We have agreed to indemnify Lincoln Park and certain other persons against certain liabilities in connection with the offering of shares of our common stock offered by this prospectus, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Lincoln Park has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by Lincoln Park specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities.

Lincoln Park has represented to us that at no time prior to the Purchase Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our common stock or any hedging transaction, which establishes a net short position with respect to our common stock. Lincoln Park agreed that during the term of the Purchase Agreement, it, its agents, representatives or affiliates will not enter into or effect, directly or indirectly, any of the foregoing transactions.

We have advised Lincoln Park that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the selling stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the securities offered by this prospectus.

This offering will terminate on the earlier of (i) termination of the Purchase Agreement or (ii) the date that all shares offered by this prospectus have been sold by Lincoln Park.

## DESCRIPTION OF OUR SECURITIES TO BE REGISTERED

The securities to be registered on this registration statement on Form S-1 include up to an aggregate amount of 1,300,000 shares of our common stock. As of April 20, 2026, there were 4,278,492 shares of our common stock issued and outstanding, including the Commitment Shares. The authorized and unissued shares of common stock and the authorized and undesignated shares of preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange on which our securities may be listed. Unless approval of our stockholders is so required, our board of directors does not intend to seek stockholder approval for the issuance and sale of our common stock or preferred stock.

### General

The following is a summary of material characteristics of our capital stock as set forth in our certificate of incorporation, as amended (“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 conjunction 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 250,000,000 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 Rights.* 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.

---

25

*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 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.

---

26

## 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.

---

## LEGAL MATTERS

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., New York, New York, will pass upon the validity of the issuance of the securities to be offered by this prospectus.

## EXPERTS

The financial statements of Acurx Pharmaceuticals, Inc. for the two years ended December 31, 2025 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, 2025, 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.

## 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 year ended December 31, 2025, filed with the SEC on March 12, 2026](#)
- our Current Reports on Form 8-K, filed with the SEC on [March 9, 2026](#) and [April 16, 2026](#) (other than any portions thereof deemed furnished and not filed); 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 the same manner.

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.