

PROSPECTUS SUPPLEMENT
(to the Prospectus dated July 30, 2021)



**3,303,305 Units, Each Consisting of One Share of Common Stock and
One Warrant to Purchase One Share of Common Stock**

and

3,303,305 Shares of Common Stock Underlying the Warrants

Pursuant to this prospectus supplement, the accompanying prospectus and the securities purchase agreement dated December 29, 2023 (the "Securities Purchase Agreement"), we are offering 3,303,305 units, each consisting of one share of our common stock, par value \$0.001 per share (the "Common Stock"), and one warrant to purchase one share of our Common Stock, at an offering price of \$3.33 per unit to certain institutional and accredited investors. Each warrant will have an exercise price of \$3.21 per share of Common Stock, will be exercisable immediately, and will expire five years from the date of issuance.

The units will not be issued or certificated. The shares of Common Stock and the accompanying warrants can only be purchased together in this offering, but the securities contained in the units will be immediately separable upon issuance and will be issued separately. The shares of Common Stock issuable from time to time upon exercise of the warrants are also being offered by this prospectus supplement.

We have engaged Roth Capital Partners, LLC (the "Placement Agent") as our exclusive placement agent in connection with this offering. The Placement Agent has agreed to use its reasonable best efforts to arrange for the sale of the securities offered by this prospectus supplement and the accompanying prospectus. The Placement Agent is not purchasing or selling any of the securities we are offering, and the Placement Agent is not required to arrange the purchase or sale of any specific number or dollar amount of securities. We have agreed to pay to the Placement Agent the placement agent fees set forth in the table below, which assumes that we sell all of the securities offered by this prospectus supplement and the accompanying base prospectus. We will bear all costs associated with the offering. See "Plan of Distribution" beginning on page S-22 of this prospectus supplement for more information regarding these arrangements.

Our Common Stock is listed on The Nasdaq Capital Market under the symbol "FBIO." On December 28, 2023, the last trading day before our entry into the Securities Purchase Agreement providing for the sale of the shares of Common Stock and the accompanying warrants, the last reported sale price of our Common Stock on The Nasdaq Capital Market was \$3.89 per share. There is no established public trading market for the warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing the warrants on any national securities exchange or other nationally recognized trading market. Without an active market, the liquidity of the warrants will be limited.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page S-5 of this prospectus supplement and page 3 of the accompanying prospectus as well as the information under the caption "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2022 and in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, and in the other documents incorporated by reference into this prospectus supplement and the accompanying prospectus for a discussion of the risks and uncertainties you should carefully consider before investing in our securities.

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

		Per Unit		Total
Offering price	\$	3.3300	\$	11,000,005.65
Placement agent fees ⁽¹⁾	\$	0.2331	\$	770,000.40
Proceeds, before expenses, to us	\$	3.0969	\$	10,230,005.25

(1) We have agreed to pay the Placement Agent a cash placement commission equal to 7.0% of the aggregate proceeds from the sale of the units sold in this offering. We have also agreed to reimburse the Placement Agent for certain expenses incurred in connection with this offering. See "Plan of Distribution" beginning on page S-22 for additional information regarding the compensation to be paid to the Placement Agent.

We expect to deliver the securities to the investors on or about January 3, 2024, subject to the satisfaction of certain closing conditions.

Roth Capital Partners

The date of this prospectus supplement is December 29, 2023

IMPORTANT NOTICE ABOUT INFORMATION IN THIS PROSPECTUS SUPPLEMENT	S-ii
FORWARD-LOOKING STATEMENTS	S-iii
PROSPECTUS SUPPLEMENT SUMMARY	S-1
THE OFFERING	S-3
RISK FACTORS	S-5
CAPITALIZATION	S-10
USE OF PROCEEDS	S-12
DILUTION	S-13
DIVIDEND POLICY	S-14
DESCRIPTION OF SECURITIES WE ARE OFFERING	S-14
CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS	S-17
PLAN OF DISTRIBUTION	S-22
DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES	S-25
LEGAL MATTERS	S-25
EXPERTS	S-25
WHERE YOU CAN FIND ADDITIONAL INFORMATION	S-25
INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE	S-26

PROSPECTUS

ABOUT THIS PROSPECTUS	ii
FORWARD-LOOKING STATEMENTS	ii
SUMMARY	1
DESCRIPTION OF CAPITAL STOCK	1
DESCRIPTION OF WARRANTS	5
DESCRIPTION OF DEBT SECURITIES	5
DESCRIPTION OF UNITS	9
PLAN OF DISTRIBUTION	10
LEGAL MATTERS	11
EXPERTS	11
WHERE YOU CAN FIND MORE INFORMATION	11
INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE	11

S-i

IMPORTANT NOTICE ABOUT INFORMATION IN THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is the prospectus supplement, which describes the specific terms of this offering, the Common Stock and the accompanying warrants, and also adds to and updates information contained in the accompanying base prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying base prospectus. The second part is the accompanying base prospectus, which gives more general information about securities we may offer from time to time, some of which may not apply to this offering of Common Stock and accompanying warrants. Generally, when we refer only to the “prospectus” we are referring to both this prospectus supplement and the accompanying base prospectus combined. If the information relating to this offering varies between this prospectus supplement and the accompanying base prospectus, you should rely on the information in this prospectus supplement.

Any statement made in this prospectus supplement or in a document incorporated or deemed to be incorporated by reference into this prospectus supplement will be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or in any other subsequently filed document that is also incorporated by reference into this prospectus supplement modifies or supersedes that statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement. Please read “Where You Can Find Additional Information” and “Incorporation of Certain Documents by Reference” in this prospectus supplement.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement and any free writing prospectus that we may authorize for use in connection with this offering. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus supplement, the documents incorporated by reference in this prospectus supplement and any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the documents incorporated by reference in this prospectus supplement and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision.

Unless otherwise indicated in this prospectus supplement or the context otherwise requires, all references to “we,” “us,” “our,” “the Company,” and “Fortress” refer to Fortress Biotech, Inc. individually, to one or more of its subsidiaries and/or partner companies, or to all such entities as a group, as dictated by context. Generally, “subsidiary” refers to a private Fortress subsidiary, “partner company” refers to a public Fortress subsidiary, and “partner” refers to entities with whom one of the foregoing parties has a significant business relationship, such as an exclusive license or an ongoing product-related payment obligation. The context in which any such term is used throughout this document, however, may dictate a different construal from the foregoing.

S-ii

FORWARD-LOOKING STATEMENTS

This prospectus supplement, including the documents that we incorporate by reference, may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Statements in this prospectus supplement, and documents we incorporate by reference, that are not descriptions of historical facts are forward-looking statements that are based on management’s current expectations and are subject to risks and uncertainties that could negatively affect our business, operating results, financial condition and stock price. For such forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. We have attempted to identify forward-looking statements by terminology including “anticipates,” “believes,” “can,” “continue,” “could,” “estimates,” “expects,” “intends,” “may,” “might,” “plans,” “potential,” “predicts,” “should,” or “will” or the negative of these terms or other comparable terminology. Factors that could cause actual results to differ

materially from those currently anticipated include those set forth under “Risk Factors” including, in particular, risks relating to:

- the completion of the offering, the satisfaction of customary closing conditions related to the offering and the anticipated use of proceeds therefrom;
- our growth strategy;
- financing and strategic agreements and relationships;
- our need for substantial additional funds and uncertainties relating to financings;
- our ability to identify, acquire, close and integrate product candidates and companies successfully and on a timely basis;
- our ability to attract, integrate and retain key personnel;
- the early stage of products under development;
- the results of research and development activities;
- uncertainties relating to preclinical and clinical testing;
- the ability to secure and maintain third-party manufacturing, marketing and distribution of our and our partner companies’ products and product candidates
- government regulation;
- patent and intellectual property matters; and
- competition.

You should read this prospectus supplement and the documents that we reference herein completely and with the understanding that our actual future results may be materially different from what we currently expect. You should assume that the information appearing in this prospectus supplement and any document incorporated by reference is accurate as of its date only. Because the risk factors referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this prospectus supplement, the accompanying prospectus and any document incorporated herein by reference, and particularly our forward-looking statements, by these cautionary statements.

S-iii

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere in or incorporated by reference into this prospectus supplement. Because this is a summary, it may not contain all of the information that may be important to you and to your investment decision. The following summary is qualified in its entirety by the more detailed information and financial statements and notes thereto included elsewhere in this prospectus supplement and the documents incorporated herein by reference and other documents to which we refer. You should read “Risk Factors” beginning on page S-5 of this prospectus supplement, as well as the information appearing under the caption “Item 1A. Risk Factors” in our [Annual Report on Form 10-K for the fiscal year ended December 31, 2022](#) and “Item 1A. Risk Factors” in our [Quarterly Report on Form 10-Q for the quarter ended September 30, 2023](#), as may be updated by our subsequently filed Exchange Act reports, for more information about important risks that you should consider carefully before buying our securities.

Overview

Fortress Biotech, Inc. (“Fortress” or the “Company”) is a biopharmaceutical company dedicated to acquiring, developing and commercializing pharmaceutical and biotechnology products and product candidates, which we do through Fortress itself and through partner companies and subsidiaries. Fortress has a talented and experienced business development team, comprising scientists, doctors and finance professionals, who work in concert with our extensive network of key opinion leaders to identify and evaluate promising products and product candidates for potential acquisition. We have executed arrangements in partnership with some of the world’s foremost universities, research institutes and pharmaceutical companies, including City of Hope National Medical Center, Fred Hutchinson Cancer Center, St. Jude Children’s Research Hospital, Dana-Farber Cancer Institute, Nationwide Children’s Hospital, Cincinnati Children’s Hospital Medical Center, Columbia University, the University of Pennsylvania, Mayo Foundation for Medical Education and Research, AstraZeneca plc., and Dr. Reddy’s Laboratories, Ltd.

Business Strategy

Following the exclusive license or other acquisition of the intellectual property underpinning a product or product candidate, Fortress leverages its business, scientific, regulatory, legal and financial expertise to help our subsidiaries and partner companies achieve their goals. Those companies then assess a broad range of strategic arrangements to accelerate and provide additional funding to support research and development, including joint ventures, partnerships, out-licensings, sales transactions, and public and private financings. To date, four partner companies are publicly-traded, and three of our subsidiaries have consummated strategic partnerships with industry leaders, including AstraZeneca plc, as successor-in-interest to Alexion Pharmaceuticals, Inc., (“AstraZeneca”) and Sentyln Therapeutics, Inc. (“Sentyln”).

Our subsidiaries and partner companies that are pursuing development and/or commercialization of biopharmaceutical products and product candidates are Avenue Therapeutics, Inc. (Nasdaq: ATXI, “Avenue”), Baergic Bio, Inc. (“Baergic,” a subsidiary of Avenue), Cellvation, Inc. (“Cellvation”), Checkpoint Therapeutics, Inc. (Nasdaq: CKPT, “Checkpoint”), Cyprium Therapeutics, Inc. (“Cyprium”), Helocyte, Inc. (“Helocyte”), Journey Medical Corporation (Nasdaq: DERM, “Journey” or “JMC”), Mustang Bio, Inc. (Nasdaq: MBIO, “Mustang”), Oncogenuity, Inc. (“Oncogenuity”) and Urica Therapeutics, Inc. (“Urica”).

Recent Developments

On October 9, 2023 Fortress filed a Certificate of Amendment to its Amended and Restated Certificate of Incorporation, as amended, to effect a 15-for-1 reverse stock split of its issued and outstanding Common Stock (the “Reverse Stock Split”). The Reverse Stock Split was approved by the Company’s Board of Directors on August 10, 2023 and by the Company’s stockholders at a special meeting held on October 9, 2023, with the authorization to determine the final ratio (within a specified range) having been granted to the Company’s Board of Directors.

As a result of the Reverse Stock Split, every 15 shares of the Company’s pre-reverse split Common Stock was combined and reclassified as one share of

Common Stock. The proportionate voting rights and other rights of common stockholders were not affected by the Reverse Stock Split, other than as the result of payment for fractional shares. No fractional shares were issued in connection with the Reverse Stock Split. Stockholders who would otherwise have held a fractional share of Common Stock received a cash payment in lieu thereof, without interest or deduction, in an amount equal to the product obtained by multiplying (a) the closing price per share of the Common Stock as reported on The Nasdaq Stock Market as of the effective date of the Reverse Stock Split, by (b) the fraction of one share owned by the stockholder.

S-1

The Reverse Stock Split became market effective on October 10, 2023 and the Common Stock was quoted on The Nasdaq Stock Market on a post-split basis beginning upon the commencement of trading on October 10, 2023. The Company's post-reverse split Common Stock has a new CUSIP number, 34960Q307, but the par value and other terms of the Common Stock were not affected by the Reverse Stock Split.

On November 14, 2023, Fortress closed a public offering of an aggregate of 5,885,000 units, consisting of one share of common stock and one warrant to purchase one share of common stock, at a public offering price of \$1.70 per unit. The warrants were immediately exercisable at a price of \$1.70 per share and expire five years from the date of issuance. Certain directors and officers of the Company participated in the offering and purchased an aggregate amount of approximately \$2.9 million of units at the same purchase price. The gross proceeds from the offering, before deducting the Placement Agent's fees and other offering expenses, were approximately \$10.0 million.

Corporate Information

Our principal executive offices are located at 1111 Kane Concourse, Suite 301, Bay Harbor Islands, FL 33154, and our telephone number is 781-652-4500. We maintain a website on the Internet at www.fortressbiotech.com and our e-mail address is info@fortressbiotech.com. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Exchange Act are available, free of charge, under the Investor Relations tab of our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The SEC also maintains an Internet website located at www.sec.gov that contains the information we file or furnish electronically with the SEC. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus supplement, and you should not consider it part of this prospectus supplement.

S-2

THE OFFERING

Issuer:	Fortress Biotech, Inc.
Units Offered by Us:	3,303,305 units on a "reasonable best efforts" basis, each unit consisting of one share of Common Stock and one warrant, each warrant exercisable for one share of Common Stock. The shares of Common Stock and warrants that are part of the units are immediately separable and will be issued separately in this offering. The warrants included within the units are exercisable immediately, have an exercise price equal to \$3.21 and expire five years after the date of issuance. This prospectus supplement also relates to the offering of the shares of Common Stock issuable upon exercise of the warrants. For more information regarding the warrants, you should carefully read the section titled " <i>Description of Securities We Are Offering</i> " in this prospectus supplement.
Common Stock Outstanding Prior to the Offering:	15,073,445 shares of Common Stock
Common Stock to be Outstanding after the Offering:	18,376,750 shares of Common Stock (assuming that none of the holders of warrants issued in the offering exercise their warrants)
Offering Price:	\$3.33 per unit
Use of Proceeds:	<p>We estimate the net proceeds from this offering will be approximately \$10.1 million, after deducting placement fees and estimated offering expenses payable by us.</p> <p>We intend to use the net proceeds of this offering for our operations, including, but not limited to, general corporate purposes, which may include research and development expenditures, clinical trial expenditures, license or acquisition of new products, and working capital.</p>
Lock-up:	Our directors and officers have agreed to enter into lock-ups restricting the transfer of shares of or relating to our capital stock for 90 days after the closing of this offering subject to certain customary exceptions. This lock-up period applies to any shares the executive officers and directors may purchase in this offering.
Risk Factors:	Investing in our securities involves a high degree of risk. You should carefully consider each of the risks described under the caption " <i>Risk Factors</i> " beginning on page S-5 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.
Nasdaq Capital Market Symbol:	Our Common Stock is listed on The Nasdaq Capital Market under the symbol "FBIO."

The number of shares of our Common Stock to be outstanding after this offering is based on 15,073,445 shares of our Common Stock outstanding as of December 28, 2023, and excludes as of that date:

- 242,978 shares of Common Stock underlying unvested Restricted Stock Units;
- 372,666 shares of Common Stock underlying deferred Restricted Stock Units;
- 151,310 shares of Common Stock underlying deferred Restricted Stock Awards;
- 1,198,902 shares of Common Stock underlying unvested Restricted Stock;
- 18,896 shares of Common Stock issuable upon the exercise of stock options with a weighted average exercise price of \$20.55 per share;
- 5,787,288 shares of Common Stock issuable upon exercise of outstanding warrants with a weighted average exercise price of \$1.88 per share; and

· 3,303,305 shares of Common Stock issuable upon exercise of the warrants included in the units offered hereby.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the outstanding warrants or options or settlement of outstanding restricted stock units, described above.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in our [Annual Report on Form 10-K for the fiscal year ended December 31, 2022](#), including the consolidated financial statements and the related notes, as well as the risks, uncertainties and other information set forth in the reports and other materials filed or furnished by our partner companies Avenue, Checkpoint, Journey and Mustang with the SEC, before deciding to invest in our securities, as well as any amendment or update to our risk factors in subsequent filings with the SEC, and other information in our consolidated financial statements, all of which are incorporated by reference into this prospectus supplement. If any of the following risks, the risk factors incorporated by reference hereto, or the risks included in the public filings of Avenue, Checkpoint, Journey or Mustang, were to materialize, our business, financial condition, results of operations, and future growth prospects could be materially and adversely affected. In that event, the market price of our securities could decline, and you could lose part of or all of your investment in our securities. In addition, you should be aware that the below stated risks should be read as being applicable to our subsidiaries and partner companies such that, if any of the negative outcomes associated with any such risk is experienced by one of our subsidiaries or partner companies, the value of Fortress' holdings in such entity may decline. As used throughout this filing, the words "we", "us" and "our" may refer to Fortress individually, to one or more subsidiaries and/or partner companies, or to all such entities as a group, as dictated by context.

Risks Related to this Offering and Our Securities

This is a reasonable best efforts offering, with no minimum amount of securities required to be sold, and we may sell fewer than all of the securities offered hereby.

The Placement Agent has agreed to use its reasonable best efforts to solicit offers to purchase the securities in this offering. The Placement Agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities that must be sold as a condition to completion of this offering, and there can be no assurance that the offering contemplated hereby will ultimately be consummated. Even if we sell securities offered hereby, because there is no minimum offering amount required as a condition to closing of this offering, the actual offering amount is not presently determinable and may be substantially less than the maximum amount set forth on the cover page of this prospectus supplement. We may sell fewer than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us. Thus, we may not raise the amount of capital we believe is required for our operations in the short-term and may need to raise additional funds, which may not be available or available on terms acceptable to us.

The market for our Common Stock may not provide investors with adequate liquidity.

The Common Stock is currently listed on The Nasdaq Capital Market. However, the trading market for the Common Stock may not be maintained and may not provide investors with adequate liquidity. The liquidity of the market for the Common Stock depends on a number of factors, including prevailing interest rates, our financial condition and operating results, the number of holders of the Common Stock, the market for similar securities and the interest of securities dealers in making a market in the Common Stock. We cannot predict the extent to which investor interest in our Company will maintain the trading market in our Common Stock, or how liquid that market will be. If an active market is not maintained, investors may have difficulty selling shares of our Common Stock.

Our revenues, operating results and cash flows may fluctuate in future periods, and we may fail to meet investor expectations, which may cause the price of our Common Stock to decline.

Variations in our quarterly and year-end operating results are difficult to predict, and our income and cash flows may fluctuate significantly from period to period. If our operating results fall below the expectations of investors or securities analysts, the price of our Common Stock could decline substantially. Specific factors that may cause fluctuations in our operating results include:

- demand and pricing for our products;
- government or commercial healthcare reimbursement policies;

- physician and patient acceptance of any of our products;
- introduction of competing products;
- our operating expenses which fluctuate due to growth of our business;
- timing and size of any new product or technology acquisitions we may complete; and
- variable sales cycle and implementation periods for our products.

The market price of our Common Stock could be substantially affected by various factors.

The market price of the Common Stock depends on many factors, which may change from time to time, including:

- prevailing interest rates, increases in which may have an adverse effect on the market price of the Common Stock;
- trading prices of similar securities;
- general economic and financial market conditions;
- government action or regulation;
- the financial condition, performance and prospects of us and our competitors;
- changes in financial estimates or recommendations by securities analysts with respect to us or our competitors in our industry;

- our issuance of preferred equity or debt securities; and
- actual or anticipated variations in quarterly operating results of us and our competitors.

As a result of these and other factors, holders of the Common Stock may experience a decrease, which could be substantial and rapid, in the market price of the Common Stock, including decreases unrelated to our operating performance or prospects.

We have never paid and currently do not intend to pay cash dividends on our Common Stock in the near future. As a result, capital appreciation, if any, will be your sole source of gain.

We have never paid cash dividends on our Common Stock, or made stock dividends, and we currently intend to retain future earnings, if any, to fund the development and growth of our businesses, and retain our stock positions. In addition, the terms of existing and future debt agreements may preclude us from paying cash of stock dividends. Equally, each of our affiliates and partners is governed by its own board of directors with individual governance and decision-making regimes and mandates to oversee such entities in accordance with their respective fiduciary duties. As a result, we alone cannot determine the acts that could maximize value to you of such affiliates/partners in which we maintain ownership positions, such as declaring cash or stock dividends. As a result, capital appreciation, if any, of our Common Stock will be your sole source of gain for the foreseeable future.

The warrants are not listed for trading on any exchange, so the ability to trade the warrants is limited.

There is no established public trading market for the warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing the warrants on any national securities exchange or other trading market. Without an active market, the liquidity of the warrants will be limited.

The warrants are speculative in nature.

The warrants included in the units offered hereby do not confer any rights of Common Stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of our Common Stock at a fixed price. Specifically, commencing on the date of issuance, holders of the warrants may exercise their right to acquire the shares of our Common Stock and pay an exercise price of \$3.21. Moreover, following this offering, the market value of the warrants is uncertain and there can be no assurance that the market value of the warrants will equal or exceed their exercise price. Furthermore, each warrant will expire five years from the original issuance date. In the event the price of our Common Stock does not exceed the exercise price of the warrants during the period when the warrants are exercisable, the warrants may not have any value.

S-6

A substantial number of shares of our Common Stock could be sold into the public market in the near future, which could depress our stock price.

Sales of substantial amounts of Common Stock in the public market could reduce the prevailing market prices for our Common Stock. Substantially all of our outstanding Common Stock is eligible for sale as are shares of Common Stock issuable under vested and exercisable stock options. If our existing stockholders sell a large number of shares of our Common Stock, or the public market perceives that existing stockholders might sell shares of Common Stock, the market price of our Common Stock could decline significantly. These sales might also make it more difficult for us to sell equity securities at a time and price that we deem appropriate.

Holders of the warrants will have no rights as a common stockholder until they acquire shares of our Common Stock.

Until you acquire shares of our Common Stock upon exercise of your warrants, you will have no rights with respect to shares of Common Stock issuable upon exercise of such warrants. Upon exercise of your warrants, you will be entitled to exercise the rights of a holder of our Common Stock as to the security exercised only as to matters for which the record date occurs after the exercise.

Provisions of the warrants offered by this prospectus could discourage an acquisition of us by a third party.

In addition to the provisions of our amended and restated certificate of incorporation and bylaws discussed elsewhere in this prospectus, certain provisions of the warrants offered by this prospectus could make it more difficult or expensive for a third party to acquire us. The warrants prohibit us from engaging in certain transactions constituting “fundamental transactions” unless, among other things, the surviving entity assumes our obligations under the warrants. These and other provisions of the warrants offered by this prospectus could prevent or deter a third party from acquiring us even where the acquisition could be beneficial to you.

We have broad discretion in the use of the net proceeds of this offering and may not use them effectively.

We intend to use the net proceeds from this offering for our operations, including, but not limited to, general corporate purposes, which may include research and development expenditures, clinical trial expenditures, license or acquisition of new products, and working capital. However, our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our Common Stock. The failure by management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our Common Stock to decline, and delay our growth strategy, including but not limited to, the development and commercialization of our and our subsidiaries’ product candidates.

Some of our executives, directors and principal stockholders can control our direction and policies, and their interests may be adverse to the interests of our other stockholders.

At December 28, 2023, Lindsay A. Rosenwald, M.D., our Chairman, President and Chief Executive Officer, beneficially owned 17.2% of our issued and outstanding Common Stock and Michael S. Weiss, our Executive Vice Chairman, Strategic Development, beneficially owned 7.5% of our issued and outstanding Common Stock. By virtue of their holdings and membership on our Board of Directors, Dr. Rosenwald and Mr. Weiss may individually influence our management and our affairs and may make it difficult for us to consummate corporate transactions such as mergers, consolidations or the sale of all or substantially all of our assets that may be favorable from our standpoint or that of our other stockholders.

If you purchase shares of our Common Stock included as part of the units in this offering, you will incur immediate and substantial dilution in the book value of your shares.

Investors purchasing shares of our Common Stock included as part of the units in this offering will pay a price per unit that substantially exceeds the pro forma as adjusted net tangible book value per share. As a result, investors purchasing shares of our Common Stock included as part of the units in this offering will incur immediate dilution of \$5.31 per share, representing the difference between the offering price of \$3.33 per unit and our pro forma as adjusted net tangible book value per share as of September 30, 2023. To the extent outstanding options or warrants to purchase our Common Stock are exercised and to the extent that we issue shares of Common Stock following the closing of this offering, new investors may incur further dilution. For more information on the dilution you may experience as a result of investing in this offering, see the section of this prospectus supplement entitled “*Dilution.*”

We act, and are likely to continue acting, as guarantor and/or indemnitor of the obligations, actions or inactions of certain of our subsidiaries and partner companies. We have also entered into, and may again enter into, certain arrangements with our subsidiaries, partner companies and/or third parties pursuant to which a substantial number of shares of our Common Stock may be issued. Depending on the terms of such arrangements, we may be contractually obligated to pay substantial amounts to third parties, or issue a substantially dilutive number of shares of our Common Stock, based on the actions or inactions of our subsidiaries and/or partner companies, regulatory agencies or other third parties.

We act, and are likely to continue acting, as indemnitor of potential losses or liabilities that may be experienced by one or more of our subsidiaries, partner companies and/or their partners or investors. If we become obligated to pay all or a portion of such indemnification amounts, our business and the market value of our Common Stock and/or debt securities may be materially adversely affected.

For instance, Caelum Biosciences, Inc. (“Caelum”), a former subsidiary of Fortress that was sold to AstraZeneca’s Alexion (“Alexion”) in October 2021, is the defendant in a lawsuit brought by The University of Tennessee Research Foundation (“UTRF”) captioned as *University of Tennessee Research Foundation v. Caelum Biosciences, Inc.*, No. 19-cv-00508, which is pending in the United States District Court for the Eastern District of Tennessee (the “UTRF Litigation”). UTRF brought claims against Caelum, for, inter alia, tortious interference and trade secret misappropriation. UTRF primarily alleges that Caelum unauthorizedly used non-patent trade secrets owned by UTRF in the development of Caelum’s 11-1F4 monoclonal antibody, known as CAEL-101. Under the agreement pursuant to which Alexion acquired Caelum (as amended, the “DOSPA”), Fortress has indemnification obligations of Caelum under certain circumstances, including for certain of Caelum’s legal expenses and potential damages arising out of the UTRF Litigation (with such indemnification capped in the aggregate as to Fortress at the amount of Caelum acquisition proceeds received by Fortress and which, at Caelum’s election, may be satisfiable in the form of offsets against future amounts that Caelum may owe Fortress under the DOSPA). Caelum is defending the UTRF Litigation, with Fortress participating in such defense and maintaining a consent right over any potential settlements. Caelum’s legal fees and costs in defending the UTRF Litigation are being reimbursed by Fortress by distribution from a \$15 million escrow account established concurrently with the acquisition of Caelum; Fortress considers the amount remaining in escrow to be in excess of the amount of its anticipated out-of-pocket indemnifiable costs and damages in the UTRF Litigation and therefore has not accrued any liability pertaining to this indemnity. Caelum and Fortress both believe the UTRF Litigation is without merit and intend to continue defending it vigorously (including exhausting all appeals if applicable). Caelum’s motion for summary judgment is currently pending, and a trial is scheduled for March 2024 with respect to any of UTRF’s claims that may survive summary judgment.

Additionally, we have agreed in the past, and may agree in the future, to act as guarantor in connection with equity or debt raises by our partner companies, including with respect to the Company’s obligation to issue Fortress Common Stock as dividends on the Urica Therapeutics, Inc. 8% Cumulative Convertible Class B Preferred Stock and the Company’s obligation to issue either cash or shares of the Series A Preferred Stock in the event of certain exchanges of the Cyprrium Therapeutics, Inc. 9.375% Series A Cumulative Redeemable Perpetual Preferred Stock (the “Cyprrium Perpetual Preferred Stock”). Under these and other future similar obligations, we may become obligated either to pay what could be a significant amount of cash or issue what could be a significant number of shares of Fortress Common Stock or perpetual preferred stock if certain events occur or do not occur, which could lead to a depletion of resources or dilution to our Common Stock, or both.

Under the provisions of the Cyprrium Perpetual Preferred Stock, in the event that Cyprrium has not sold a Priority Review Voucher issued by the U.S. Food and Drug Administration in connection with its approval of a New Drug Application (“NDA”) for CUTX-101, Cyprrium’s copper histidinate product candidate (the “PRV Sale”), by September 18, 2024, then Fortress is obligated to exchange all shares of Cyprrium Preferred Stock that remain outstanding as of such date into cash, Fortress Series A Preferred Stock, or a combination of the foregoing, with the composition of such payments and/or issuances to be determined at Fortress’ discretion. As of the date of this prospectus supplement, approximately \$7.5 million of subscriptions of Cyprrium Perpetual Preferred Stock remain outstanding, reflecting the combined value of cash payments or Fortress Series A Preferred Stock (or some combination of the foregoing) that will need to be paid or issued by Fortress on or prior to September 18, 2024, if the PRV Sale has not occurred by such date. Also, on December 5, 2023, Fortress and Cyprrium completed the asset transfer of CUTX-101 to Sentyln Therapeutics, Inc. (“Sentyln”), whereby Sentyln now controls the development of the CUTX-101 program; there is no guarantee that Sentyln will obtain NDA approval prior to September 18, 2024.

CAPITALIZATION

The following table sets forth our cash and capitalization as of September 30, 2023:

- on an actual basis; and
- on an as adjusted basis to give effect to the issuance and sale of 3,303,305 units in this offering at the offering price of \$3.33 per unit, after deducting placement agent fees and estimated offering expenses payable by us and assuming that none of the holders of warrants issued in the offering exercise their warrants.

You should read this table together with our financial statements and related notes and the “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” in each of our Annual Report on Form 10-K for the year ended December 31, 2022 and our Quarterly Report on Form 10-Q for the quarter ended September 30, 2023.

	September 30, 2023 (unaudited)	
	Actual	As Adjusted
(\$ in thousands, except share and per share amounts)		
Cash and cash equivalents	\$ 72,307	\$ 82,412
Notes payable, long-term, net	45,791	45,791
Stockholders’ Equity (Deficit)		
Cumulative Redeemable Perpetual Preferred Stock (\$0.001 par value), 15,000,000 authorized, 5,000,000 designated Series A shares, liquidation value of \$25.00 per share		
Series A Preferred Stock, 3,427,138 shares issued and outstanding as of September 30, 2023	3	3
Common Stock (\$0.001 par value), 200,000,000 shares authorized		

8,937,587 and 12,240,892 shares issued and outstanding as of September 30, 2023, actual and as adjusted, respectively	9	12
Additional paid-in capital	702,253	712,355
Accumulated deficit	(685,591)	(685,591)
Total Stockholders' Equity attributed to the company	16,674	26,779
Non-controlling interests	(29,917)	(29,917)
Total Capitalization	<u>\$ (13,243)</u>	<u>\$ (3,138)</u>

The number of shares of Common Stock to be outstanding after this offering is based on 8,937,587 shares of our Common Stock outstanding as of September 30, 2023, and excludes as of that date:

- 5,885,000 shares of Common Stock issued on November 14, 2023 in connection with a public offering;
- 5,885,000 shares of Common Stock issuable upon exercise of the warrants included with the November 14, 2023 public offering with an average exercise price of \$1.70;
- 99,942 shares of Common Stock underlying unvested Restricted Stock Units;
- 92,666 shares of Common Stock underlying deferred Restricted Stock Units;
- 151,310 shares of Common Stock underlying deferred Restricted Stock Awards;
- 1,242,887 shares of Common Stock underlying unvested Restricted Stock;
- 160,228 shares of Common Stock issuable upon the exercise of stock options with a weighted average exercise price of \$10.74 per share;
- 127,288 shares of Common Stock issuable upon exercise of outstanding warrants with a weighted average exercise price of \$10.06 per share; and

S-10

- 3,303,305 shares of Common Stock issuable upon exercise of the warrants included in the units offered hereby.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the outstanding options or warrants or settlement of outstanding restricted stock units, described above.

S-11

USE OF PROCEEDS

We estimate that the proceeds from this offering, after deducting estimated offering expenses payable by us and placement agent fees, will be approximately \$10.1 million (assuming no exercise of the warrants included in the units) based upon the offering price of \$3.33 per unit. We will only receive additional proceeds from the exercise of the warrants included in the units we are selling in this offering if the warrants are exercised for cash.

We intend to use the net proceeds of this offering for our operations, including, but not limited to, general corporate purposes, which may include research and development expenditures, clinical trial expenditures, license or acquisition of new products, and working capital. The timing and amounts of our actual expenditures will depend on several factors. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds to us from an offering. Accordingly, our management will have broad discretion in the application of proceeds. Pending their ultimate use, we intend to invest the net proceeds in a variety of securities, including commercial paper, government and non-government debt securities and/or money market funds that invest in such securities.

S-12

DILUTION

Purchasers of the securities offered by this prospectus will suffer immediate and substantial dilution in the net tangible book value per share of the Common Stock included in the units they purchase. Net tangible book value per share represents the amount of total tangible assets less total liabilities, divided by the number of shares of our Common Stock outstanding as of September 30, 2023. Our net tangible book value as of September 30, 2023 was approximately \$(34.3) million, or \$(3.84) per share of our Common Stock.

Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers in this offering and the net tangible book value per share of our Common Stock immediately after this offering. After giving effect to the sale of the maximum number of units offered hereby at the offering price of \$3.33 per unit, and after deducting the estimated placement agent fees and the estimated expenses payable by us and assuming that none of the holders of warrants issued in the offering exercise their warrants following the closing of this offering, our net tangible book value as of September 30, 2023 would have been approximately \$(24.2) million, or \$(1.98) per share of Common Stock. This represents an immediate increase in net book value of \$1.86 per share to our existing stockholders and an immediate dilution in net tangible book value of \$5.31 per share to new investors participating in this offering.

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

Offering price per share		\$ 3.33
Net tangible book value per share as of September 30, 2023	\$ (3.84)	
Increase in net tangible book value per share attributable to new investors in this offering	<u>\$ 1.86</u>	
As adjusted net tangible book value per share after giving effect to this offering		\$ (1.98)
Dilution in net tangible book value per share to new investors		\$ (5.31)

The number of shares of Common Stock to be outstanding after this offering is based on 8,937,587 shares of our Common Stock outstanding as of September 30, 2023, and excludes as of that date:

- 5,885,000 shares of Common Stock issued on November 14, 2023 in connection with a public offering;
- 5,885,000 shares of Common Stock issuable upon exercise of the warrants included with the November 14, 2023 public offering with an average exercise price of \$1.70;
- 99,942 shares of Common Stock underlying unvested Restricted Stock Units;
- 92,666 shares of Common Stock underlying deferred Restricted Stock Units;
- 151,310 shares of Common Stock underlying deferred Restricted Stock Awards;
- 1,242,887 shares of Common Stock underlying unvested Restricted Stock;
- 160,228 shares of Common Stock issuable upon the exercise of stock options with a weighted average exercise price of \$10.74 per share;
- 127,288 shares of Common Stock issuable upon exercise of outstanding warrants with a weighted average exercise price of \$10.06 per share; and
- 3,303,305 shares of Common Stock issuable upon exercise of the warrants included in the units offered hereby.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the outstanding options or warrants or settlement of outstanding restricted stock units, described above.

To the extent that outstanding options or warrants are exercised, you may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

S-13

DIVIDEND POLICY

We have never paid cash dividends to the holders of our Common Stock and currently intend to retain all available funds and any future earnings to fund the development and expansion of our business. We do not anticipate paying any cash dividends to the holders of our Common Stock in the foreseeable future. Investors should not purchase our Common Stock with the expectation of receiving cash dividends. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions, and other factors that our board of directors may deem relevant.

DESCRIPTION OF SECURITIES WE ARE OFFERING

Description of Capital Stock

The following description summarizes the material terms of Fortress capital stock. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description of our capital stock, you should refer to our Amended and Restated Certificate of Incorporation, as amended, our amended and restated bylaws and to the provisions of applicable Delaware law.

Authorized Capital Stock

Our authorized capital stock consists of 200,000,000 shares of Common Stock, with \$0.001 par value, and 15,000,000 shares of Preferred Stock, with \$0.001 par value, of which 5,000,000 have been designated as Series A Cumulative Redeemable Perpetual Preferred Stock (the "Series A Preferred Stock") and the remainder of which are undesignated Preferred Stock.

As of December 28, 2023, there were 15,073,445 shares of our Common Stock outstanding held by approximately 431 record stockholders and 3,427,138 shares of our Series A Preferred Stock outstanding.

Common Stock

Our Common Stock is traded on The Nasdaq Capital Market under the symbol "FBIO." The last reported sale price of our Common Stock on December 28, 2023 was \$3.89 per share.

The terms, rights, preference and privileges of the Common Stock are as follows:

Voting Rights

Each holder of Common Stock is entitled to one vote per share of Common Stock held on all matters submitted to a vote of the stockholders, including the election of directors. The Company's certificate of incorporation and bylaws do not provide for cumulative voting rights.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of the Company's outstanding shares of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by the Company's Board of Directors out of legally available funds.

Liquidation

In the event of the Company's liquidation, dissolution or winding up, holders of Common Stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of the Company's debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

S-14

Rights and Preference

Holders of the Company's Common Stock have no preemptive, conversion or subscription rights, and there is no redemption or sinking fund provisions applicable to our Common Stock. The rights, preferences and privileges of the holders of Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of the Company's preferred stock that are or may be issued.

Fully Paid and Nonassessable

All of the Company's outstanding shares of Common Stock are fully paid and nonassessable.

Warrants to be Issued in this Offering

The following summary of certain terms and provisions of the warrants included in the units offered hereby is not complete and is subject to, and qualified in its entirety by the provisions of the form of warrant, which is filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions set forth in the form of warrant.

Exercisability

The warrants are exercisable immediately and at any time up to the date that is five years after their original issuance. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the offer and sale of the shares of Common Stock underlying the warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of shares of Common Stock purchased upon such exercise. If a registration statement registering the offer and sale of the shares of Common Stock underlying the warrants under the Securities Act is not effective or available and an exemption from registration under the Securities Act is not available for the issuance of such shares, the holder may elect to exercise the warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of Common Stock determined according to the formula set forth in the warrant. No fractional shares of Common Stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Exercise Limitation

A holder will not have the right to exercise any portion of the warrant if the holder (together with its affiliates and certain related parties) would beneficially own in excess of 4.99% of the number of shares of our Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days following notice from the holder to us.

Exercise Price

The exercise price per whole share of Common Stock purchasable upon exercise of the warrants is equal to \$3.21. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our Common Stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

Transferability

Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent.

S-15

Exchange Listing

We do not intend to list the warrants on any securities exchange or nationally recognized trading system.

Certificated Warrants

The warrants will be issued in certificated form.

Fundamental Transactions

In the event of a fundamental transaction, as described in the warrants and generally including any reorganization, recapitalization or reclassification of our Common Stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, or any person or group, becoming the beneficial owner of 50% of the voting power represented by our outstanding capital stock, the holders of the warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction.

Rights as a Stockholder

Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our Common Stock, the holder of a warrant does not have the rights or privileges of a holder of our Common Stock, including any voting rights, until the holder exercises the warrant.

Governing Law

The warrants are governed by New York law.

S-16

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a discussion of certain material U.S. federal income tax consequences of the acquisition, ownership and disposition of our shares of units (each consisting of one share of our Common Stock and one warrant to purchase one share of our Common Stock), which we refer to as our securities, that are purchased in this offering by U.S. Holders (as defined below) and Non-U.S. Holders (as defined below). Because the components of a unit are generally separable at the option of the holder, the holder of a unit generally should be treated, for U.S. federal income tax purposes, as the owner of the underlying share of our Common Stock and one warrant to purchase one share of our Common Stock. As a result, the discussion below with respect to holders of shares of our Common Stock and warrants should also apply to holders of units.

This discussion applies only to securities that are held as capital assets for U.S. federal income tax purposes and is applicable only to initial holders who are receiving our securities in this offering.

This discussion is a summary only and does not describe all of the tax consequences that may be relevant to you in light of your particular circumstances, including but not limited to the alternative minimum tax, the Medicare tax on certain investment income and the different consequences that may apply if you are subject to special rules that apply to certain types of investors (such as the effects of Section 451 of the federal income tax code (the "Code")), including but not limited to:

- bank and other financial institutions or financial services entities;
- broker-dealers;
- mutual funds;
- retirement plans, individual retirement accounts or other tax-deferred accounts;
- governments or agencies or instrumentalities thereof;
- regulated investment companies;
- pension plans;
- "controlled foreign corporations," "passive foreign investment companies," "qualified foreign pension funds," and corporations that accumulate earnings to avoid U.S. federal income tax;
- real estate investment trusts;
- expatriates or former long-term residents of the United States;
- persons that actually or constructively own five percent or more of our voting shares;
- insurance companies;
- taxpayers subject to a mark-to-market method of accounting rules;
- persons holding the securities as part of a "straddle," constructive sale, hedge, conversion or other integrated or similar transaction;
- U.S. holders (as defined below) whose functional currency is not the U.S. dollar;
- persons subject to alternative minimum tax;
- partnerships or other pass-through entities for U.S. federal income tax purposes and any beneficial owners of such entities;
- tax-exempt entities; and
- persons that acquired our securities pursuant to an exercise of employee share options, in connection with employee share incentive plans or otherwise as compensation or in connection with services.

This discussion is based on the Code, and administrative pronouncements, judicial decisions and final, temporary and proposed Treasury regulations as of the date hereof, which are subject to change, possibly on a retroactive basis, and changes to any of which subsequent to the date of this prospectus may affect the tax consequences described herein. This discussion does not address any aspect of state, local or non-U.S. taxation, or any U.S. federal taxes (e.g., gift and estate taxes) other than income taxes.

We have not sought, and will not seek, a ruling from the IRS as to any U.S. federal income tax consequence described herein. The IRS may disagree with the discussion herein, and its determination may be upheld by a court. Moreover, there can be no assurance that future legislation, regulations, administrative rulings or court decisions will not adversely affect the accuracy of the statements in this discussion. You are urged to consult your tax advisor with respect to the application of U.S. federal tax laws to your particular situation, as well as any tax consequences arising under the laws of any state, local or foreign jurisdiction.

S-17

This discussion does not consider the tax treatment of partnerships or other pass-through entities or persons who hold our securities through such entities. If a partnership (or other entity or arrangement classified as a partnership or other pass-through entity for United States federal income tax purposes) is the beneficial owner of our securities, the United States federal income tax treatment of a partner or member in the partnership or other pass-through entity generally will depend on the status of the partner or member and the activities of the partnership or other pass-through entity. If you are a partner or member of a partnership or other pass-through entity holding our securities, we urge you to consult your own tax advisor.

THIS DISCUSSION IS ONLY A SUMMARY OF CERTAIN UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS ASSOCIATED WITH THE ACQUISITION, OWNERSHIP AND DISPOSITION OF OUR SECURITIES. EACH PROSPECTIVE INVESTOR IN OUR SECURITIES IS URGED TO CONSULT ITS OWN TAX ADVISOR WITH RESPECT TO THE PARTICULAR TAX CONSEQUENCES TO SUCH INVESTOR OF THE ACQUISITION, OWNERSHIP AND DISPOSITION OF OUR SECURITIES, INCLUDING THE APPLICABILITY AND EFFECT OF ANY UNITED STATES FEDERAL NON-INCOME, STATE, LOCAL, AND NON-U.S. TAX LAWS.

Allocation of Purchase Price and Characterization of a Unit

No statutory, administrative or judicial authority directly addresses the treatment of a unit or instruments similar to a unit for U.S. federal income tax purposes, and therefore, that treatment is not entirely clear. The acquisition of a unit should be treated for U.S. federal income tax purposes as the acquisition of one share of our Common Stock and one warrant, and we intend to treat the acquisition of a unit in this manner. For U.S. federal income tax purposes, each holder of a unit must allocate the purchase price paid by such holder for such unit among the underlying securities based on the relative fair market value of each at the time of issuance. Under U.S. federal income tax law, each investor must make its own determination of such value based on all the relevant facts and circumstances. Therefore, we strongly urge each investor to consult its tax advisor regarding the determination of value for these purposes. The price allocated to each share of our Common Stock and/or warrants should constitute the holder's initial tax basis in such share and/or warrant, respectively. Any disposition of a Unit should be treated for U.S. federal income tax purposes as a disposition of the share of our Common Stock and warrant comprising the Unit, and the amount realized on the disposition should be allocated among the underlying securities based on their respective relative fair market values at the time of disposition.

The foregoing treatment of the securities and a holder's purchase price allocation are not binding on the IRS or the courts. Because there are no authorities that directly address instruments that are similar to the units, no assurance can be given that the IRS or the courts will agree with the characterization described above or the discussion below. Accordingly, each prospective investor is urged to consult its tax advisor regarding the tax consequences of an investment in a unit (including alternative characterizations of a unit). The balance of this discussion assumes that the characterization of the units described above is respected for U.S. federal income tax purposes.

U.S. Holders

This section applies to you if you are a "U.S. holder." A U.S. holder is a beneficial owner of our shares of Common Stock who or that is, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation) that is created or organized (or treated as created or organized) in or under the laws of the United States, any state thereof or the District of Columbia; or
- an estate the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust, if (i) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons (as defined in the Code) have authority to control all substantial decisions of the trust or (ii) it has a valid election in effect under Treasury Regulations to be treated as a U.S. person.

Taxation of Distributions. If we pay distributions in cash or other property (other than certain distributions of our stock or rights to acquire our stock) to U.S. holders of shares of our Common Stock, such distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions in excess of current and accumulated earnings and profits will constitute a return of capital that will first be applied against and reduce (but not below zero) the U.S. holder's adjusted tax basis in our Common Stock. Any remaining excess will be treated as gain realized on the sale or other disposition of the Common Stock and will be treated as described under "U.S. Holders — Gain or Loss on Sale, Taxable Exchange or Other Taxable Disposition of Common Stock" below.

Dividends we pay to a U.S. holder that is a taxable corporation generally will qualify for the dividends received deduction if the requisite holding period is satisfied. With certain exceptions (including, but not limited to, dividends treated as investment income for purposes of investment interest deduction limitations), and provided certain holding period requirements are met, dividends we pay to a non-corporate U.S. holder may constitute "qualified dividends" that will be subject to tax at the maximum tax rate accorded to long-term capital gains. If the holding period requirements are not satisfied, then a corporation may not be able to qualify for the dividends received deduction and would have taxable income equal to the entire dividend amount, and non-corporate holders may be subject to tax on such dividend at regular ordinary income tax rates instead of the preferential rate that applies to qualified dividend income.

Gain or Loss on Sale, Taxable Exchange or Other Taxable Disposition of our Securities. Upon a sale or other taxable disposition of our shares of Common Stock or warrants, a U.S. holder generally will recognize capital gain or loss in an amount equal to the difference between the amount realized and the U.S. holder's adjusted tax basis in such shares of Common Stock or warrants. Any such capital gain or loss generally will be long-term capital gain or loss if the U.S. holder's holding period for the Common Stock or warrants so disposed of exceeds one year. If the holding period requirements are not satisfied, any gain on a sale or taxable disposition of our securities would be subject to short-term capital gain treatment and would be taxed at regular ordinary income tax rates. Long-term capital gains recognized by non-corporate U.S. holders will be eligible to be taxed at reduced rates. The deductibility of capital losses is subject to limitations.

Generally, the amount of gain or loss recognized by a U.S. holder is an amount equal to the difference between (i) the sum of the amount of cash and the fair market value of any property received in such disposition and (ii) the U.S. holder's adjusted tax basis in its shares of Common Stock or warrants disposed. A U.S. holder's adjusted tax basis in its shares of Common Stock or warrants generally will equal the U.S. holder's acquisition cost (that is, the portion of the purchase price of a Unit allocated to a share of our Common Stock or warrant, as described above under "— Allocation of Purchase Price and Characterization of a Unit") reduced, in the case of a share of Common Stock, by any prior distributions treated as a return of capital.

Information Reporting and Backup Withholding. In general, information reporting requirements may apply to dividends paid to a U.S. holder and to the proceeds of the sale or other disposition of our securities, unless the U.S. holder is an exempt recipient. Backup withholding may apply to such payments if the U.S. holder fails to provide a taxpayer identification number, a certification of exempt status or has been notified by the IRS that it is subject to backup withholding (and such notification has not been withdrawn).

Any amounts withheld under the backup withholding rules generally should be allowed as a refund or a credit against a U.S. holder's U.S. federal income tax liability provided the required information is timely furnished to the IRS.

Non-U.S. Holders

This section applies to you if you are a "Non-U.S. holder." As used herein, the term "Non-U.S. holder" means a beneficial owner of our units who is not a U.S. Holder or any other person that is for U.S. federal income tax purposes:

- a non-resident alien individual (other than certain former citizens and residents of the U.S. subject to U.S. tax as expatriates),
- a foreign corporation, or
- an estate or trust that is not a U.S. holder.

The term "Non-U.S. Holder" generally does not include a U.S. Holder or a partnership or other entity classified as a partnership for U.S. federal income tax purposes and does not include an individual who is present in the United States for 183 days or more in the taxable year of disposition of the securities. If you are such an individual, you should consult your tax advisor regarding the U.S. federal income tax consequences of the acquisition, ownership or sale or other disposition of our securities.

Taxation of Distributions. In general, any distributions we make to a Non-U.S. holder of shares of our Common Stock, to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles), will constitute dividends for U.S. federal income tax purposes and, provided such dividends are not effectively connected with the Non-U.S. holder's conduct of a trade or business within the United States, we will be required to withhold tax from the gross amount of the dividend at a rate of 30%, unless such Non-U.S. holder is eligible for a reduced rate of withholding tax under an applicable income tax treaty and provides proper certification of its eligibility for such reduced rate (usually on an IRS Form W-8BEN or W-8BEN-E). Any distribution not constituting a dividend will be treated first as reducing (but not below zero) the Non-U.S. holder's adjusted tax basis in its shares of our Common Stock and, to the extent such distribution exceeds the Non-U.S. holder's adjusted tax basis, as gain realized from the sale or other disposition of the Common Stock, which will be treated as described under "Non-U.S. Holders — Gain on Sale, Taxable Exchange or Other Taxable Disposition of Our Securities" below. If we are unable to determine, at a time reasonably close to the date of payment of a distribution on our Common Stock, what portion, if any, of the distribution will constitute a dividend, then we may withhold U.S. federal income tax on the basis of assuming that the full amount of the distribution will be a dividend. If we or another withholding agent apply over-withholding, a non-U.S. holder may be entitled to a refund or credit of any excess tax withheld by timely filing an appropriate claim with the IRS. In addition, if we determine that we are or are likely to be classified as a "United States real property holding corporation" (see "Non-U.S. Holders — Gain on Sale, Taxable Exchange or Other Taxable Disposition of Our Securities" below), we will withhold 15% of any distribution that exceeds our current and accumulated earnings and profits, including a distribution in redemption of shares of our Common Stock.

The withholding tax does not apply to dividends paid to a non-U.S. holder who provides a Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. holder's conduct of a trade or business within the United States. Instead, the effectively connected dividends will be subject to regular U.S. income tax as if the Non-U.S. holder were a U.S. resident, subject to an applicable income tax treaty providing otherwise. A Non-U.S. corporation receiving effectively connected dividends may

also be subject to an additional “branch profits tax” imposed at a rate of 30% (or a lower treaty rate).

Any documentation provided to an applicable withholding agent may need to be updated in certain circumstances. The certification requirements described above also may require a non-U.S. holder to provide its U.S. taxpayer identification number.

Gain on Sale, Taxable Exchange or Other Taxable Disposition of Common Stock. A Non-U.S. holder generally will not be subject to U.S. federal income or withholding tax in respect of gain recognized on a sale, taxable exchange or other taxable disposition of our Common Stock or warrants, in each case without regard to whether such securities were held as part of a unit, unless:

- the gain is effectively connected with the conduct of a trade or business by the Non-U.S. holder within the United States (and, under certain income tax treaties, is attributable to a United States permanent establishment or fixed base maintained by the Non-U.S. holder);
- the non-U.S. holder is a nonresident alien individual who is present in the United States for a period or periods aggregating 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty) on the amount by which the non-U.S. holder’s capital gains allocable to U.S. sources exceed capital losses allocable to U.S. sources during the taxable year of the disposition (without taking into account any capital loss carryovers); or
- we are or have been a “U.S. real property holding corporation” for U.S. federal income tax purposes at any time during the shorter of the five-year period ending on the date of disposition or the period that the Non-U.S. holder held our Common Stock, and, in the case where shares of our Common Stock are regularly traded on an established securities market, the Non-U.S. holder has owned, directly or constructively, more than 5% of our Common Stock at any time within the shorter of the five-year period preceding the disposition or such Non-U.S. holder’s holding period for the shares of our Common Stock. There can be no assurance that our Common Stock will be treated as regularly traded on an established securities market for this purpose. Generally, a corporation is a U.S. real property holding corporation if the fair market value of its U.S. real property interests, as defined in the Code and applicable U.S. Treasury Regulations, equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation for U.S. federal income tax purposes, or that we are likely to become one in the future. These rules may be modified for Non-U.S. Holders of warrants. If we are or have been a “United States real property holding corporation” and you own warrants, you are urged to consult your own tax advisor regarding the application of these rules.

S-20

Unless an applicable treaty provides otherwise, gain described in the first bullet point above will be subject to tax at generally applicable U.S. federal income tax rates as if the Non-U.S. holder were a U.S. resident. Any gains described in the first bullet point above of a Non-U.S. holder that is a foreign corporation may also be subject to an additional “branch profits tax” at a 30% rate (or lower treaty rate).

If the third bullet point above applies to a Non-U.S. holder, gain recognized by such holder on the sale, exchange or other disposition of our Common Stock or warrants, will generally be subject to tax at applicable U.S. federal income tax rates as if the Non-U.S. Holder were a U.S. resident. In addition, a buyer of our Common Stock or warrants from any such holder may be required to withhold U.S. income tax at a rate of 15% of the amount realized upon such disposition if our Common Stock is not treated as regularly traded on an established securities market. We cannot determine whether we will be a United States real property holding corporation in the future. In general, we would be classified as a United States real property holding corporation if the fair market value of our “United States real property interests” equals or exceeds 50% of the sum of the fair market value of our worldwide real property interests plus our other assets used or held for use in a trade or business, as determined for U.S. federal income tax purposes.

Information Reporting and Backup Withholding. Information returns will be filed with the IRS in connection with payments of dividends and the proceeds from a sale or other disposition of our shares of Common Stock or warrants. A Non-U.S. holder may have to comply with certification procedures to establish that it is not a United States person in order to avoid information reporting and backup withholding requirements. The certification procedures required to claim a reduced rate of withholding under a treaty will satisfy the certification requirements necessary to avoid the backup withholding as well. The amount of any backup withholding from a payment to a Non-U.S. holder will be allowed as a credit against such holder’s U.S. federal income tax liability and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

FATCA Withholding Taxes. Provisions commonly referred to as “FATCA” impose withholding of 30% on payments of dividends (including constructive dividends) on our Common Stock to “foreign financial institutions” (which is broadly defined for this purpose and in general includes investment vehicles) and certain other Non-U.S. entities unless various U.S. information reporting and due diligence requirements (generally relating to ownership by U.S. persons of interests in or accounts with those entities) have been satisfied by, or an exemption applies to, the payee (typically certified as to by the delivery of a properly completed IRS Form W-8BEN-E). If FATCA withholding is imposed, a beneficial owner that is not a foreign financial institution will be entitled to a refund of any amounts withheld by filing a U.S. federal income tax return (which may entail significant administrative burden). Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules. Under certain circumstances, a Non-U.S. holder might be eligible for refunds or credits of such withholding taxes, and a Non-U.S. holder might be required to file a U.S. federal income tax return to claim such refunds or credits. Prospective investors should consult their tax advisers regarding the effects of FATCA on their investment in our securities.

The preceding discussion of material U.S. federal tax considerations is for general information only. It is not tax advice. You should consult your own tax advisors regarding the particular U.S. federal, state, local and non-U.S. tax consequences of purchasing, holding and disposing of our Common Stock, including the consequences of any proposed changes in applicable laws.

S-21

PLAN OF DISTRIBUTION

We are offering 3,303,305 units, each consisting of one share of Common Stock and one warrant to purchase one share of Common Stock, for gross proceeds of up to \$11.0 million before deduction of placement agent commissions and offering expenses, in a best-efforts offering. There is no minimum amount of proceeds that is a condition to closing of this offering.

Roth Capital Partners, LLC (the “Placement Agent” or “Roth”) has agreed to act as the exclusive placement agent in connection with this offering subject to the terms and conditions of the placement agency agreement dated December 29, 2023 (the “Placement Agency Agreement”). The Placement Agent is not purchasing or selling any of the securities offered by this prospectus supplement, nor is it required to arrange the purchase or sale of any specific number or dollar amount of securities, but has agreed to use its reasonable best efforts to arrange for the sale of all of the securities offered hereby. Therefore, we may not sell the entire amount of securities being offered. We entered into a securities purchase agreement directly with the institutional investors who purchased our securities in this offering. The Placement Agent may engage one or more subagents or selected dealers in connection with this offering.

We will deliver the securities being issued to the investors upon receipt of investor funds for the purchase of the securities offered pursuant to this prospectus

supplement. We expect to deliver the securities being offered pursuant to this prospectus supplement on or about January 3, 2024.

We have agreed to indemnify the Placement Agent against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the Placement Agent may be required to make in respect thereof.

Placement Agent Fees, Commissions and Expenses

We have agreed to pay the Placement Agent a fee equal to seven percent (7.0%) of the gross proceeds raised in this offering. In addition, we agree to reimburse the Placement Agent for certain of its expenses, including its reasonable fees and expenses of counsel up to \$50,000.

The following table shows the public offering price per unit and total placement agent fees we will pay to the Placement Agent in connection with the sale of securities pursuant to this prospectus supplement and the accompanying prospectus.

	Per Unit		Total	
Offering price	\$	3.3300	\$	11,000,005.65
Placement agent fees	\$	0.2331	\$	770,000.40
Proceeds to us, before expenses	\$	3.0969	\$	10,230,005.25

After deducting certain fees and expenses due to the Placement Agent and our estimated offering expenses, we expect the net proceeds from this offering to be approximately \$10.1 million.

Regulation M

The Placement Agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the shares underlying the warrants sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the Placement Agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares by the Placement Agent acting as principal. Under these rules and regulations, the Placement Agent:

- may not engage in any stabilization activity in connection with our securities; and
- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

S-22

Electronic Distribution

This prospectus supplement and the accompanying prospectus may be made available in electronic format on websites or through other online services maintained by the Placement Agent or by an affiliate of the Placement Agent. Other than this prospectus supplement and the accompanying prospectus, the information on the Placement Agent's website and any information contained in any other website maintained by the Placement Agent is not part of this prospectus supplement and the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus form a part, has not been approved and/or endorsed by us or the Placement Agent, and should not be relied upon by investors.

Other Information

The foregoing does not purport to be a complete statement of the terms and conditions of the Placement Agency Agreement and the securities purchase agreement. A copy of the form of securities purchase agreement with the purchasers will be included as an exhibit to our Current Report on Form 8-K to be filed with the SEC in connection with this offering and incorporated by reference into the registration statement of which this prospectus supplement and the accompanying prospectus form a part. See "*Incorporation of Certain Documents by Reference*" and "*Where You Can Find Additional Information*."

Determination of Offering Price and Exercise Price

The public offering price of the securities we are offering, and the exercise price of the warrants included in the units that we are offering, were negotiated between us and the investors in the offering based on the trading of our Common Stock prior to the offering, among other things. Other factors considered in determining the public offering price of the securities we are offering, as well as the exercise price of the warrants included in the units that we are offering include our history and prospects, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, the general conditions of the securities markets at the time of the offering and such other factors as were deemed relevant.

Lock-Up Agreements

Pursuant to certain "lock-up" agreements, (a) our directors, executive officers and employees have agreed, subject to certain exceptions, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any securities of the Company without the prior written consent of the Placement Agent for a period of 90 days from the date of effectiveness of this offering, and (b) we, and any successor, have agreed to not, subject to certain exceptions, for a period of three (3) months from the date of this prospectus supplement (1) offer, sell, issue or otherwise transfer or dispose of, directly or indirectly, any equity of the Company, (2) file or cause to be filed any registration with the SEC relating to the placement of any shares of Common Stock of the Company or any securities convertible into or exercisable or exchangeable for shares of Common Stock of the Company, or (3) enter into any agreement or announce the intention to effect any of the actions described in subsections (1) or (2). We have further agreed to not, subject to certain exceptions, for a period of six (6) months from the date of this prospectus supplement, engage in any variable rate transactions (as defined in the purchase agreement).

This lock-up provision applies to Common Stock and to securities convertible into or exchangeable or exercisable for Common Stock. It also applies to Common Stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. The exceptions permit, among other things and subject to restrictions, the issuance of Common Stock upon the exercise of outstanding stock options and warrants or other outstanding convertible securities. The Placement Agent may in its sole discretion and at any time without notice release some or all of the shares subject to lock-up agreements prior to the expiration of the lock-up period. When determining whether or not to release shares from the lock-up agreements, the Placement Agent will consider, among other factors, the security holder's reasons for requesting the release, the number of shares for which the release is being requested and market conditions at the time.

S-23

Tail

In the event that any investors (excluding certain exempt investors) that were contacted by the Placement Agent or were introduced to the Company by the Placement Agent during the term of our engagement with the Placement Agent provide any capital to us in an offering of equity or equity-linked securities that is consummated within 6 months following the termination or expiration of the placement agency agreement with the Placement Agent, we shall pay the Placement Agent the cash compensation provided above on the gross proceeds from such investors.

Other Relationships

The Placement Agent and certain of its affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees; however, except as disclosed in this prospectus supplement, we have no present arrangements with the Placement Agent or any of its affiliates.

Transfer Agent and Registrar

The transfer agent and registrar for our Common Stock is VStock Transfer, LLC.

Listing

Our Common Stock is traded on The Nasdaq Capital Market under the symbol "FBIO."

S-24

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Our directors and officers are indemnified as provided by Section 145 of the General Corporation Law of Delaware and our amended and restated bylaws. We have agreed to indemnify each of our directors and certain officers against certain liabilities, including liabilities under the Securities Act. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the provisions described above, or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than our payment of expenses incurred or paid by our director, officer or controlling person in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

LEGAL MATTERS

Certain legal matters relating to the validity of the securities offered hereby will be passed upon for us by McGuireWoods LLP, Charlotte, North Carolina. Ellenoff Grossman & Schole LLP, New York, New York, is counsel for the Placement Agent in connection with this offering.

EXPERTS

The consolidated financial statements of Fortress Biotech, Inc. as of December 31, 2022 and 2021, and for each of the years in the two-year period ended December 31, 2022, have been incorporated by reference in this prospectus supplement and the accompanying prospectus, in reliance on the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as expert in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We are subject to the reporting requirements of the Exchange Act, and file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an Internet website that contains reports, proxy and information statements and other information regarding issuers, including us, that file electronically with the SEC. The SEC's Internet website address is www.sec.gov. Our Internet website address is www.fortressbiotech.com.

We have filed with the SEC a registration statement under the Securities Act relating to the offering of our securities. The registration statement, including the attached exhibits, contains additional relevant information about us and the securities. This prospectus supplement and the accompanying prospectus do not contain all of the information set forth in the registration statement. Statements contained in this prospectus supplement and the accompanying prospectus regarding the contents of any contract or any other document to which reference is made are not necessarily complete, and, in each instance where a copy of a contract or other document has been filed as an exhibit to the registration statement, reference is made to the copy so filed, each of those statements being qualified in all respects by the reference. The registration statement and the documents referred to below under "Incorporation of Certain Documents by Reference" are available on our Internet website, www.fortressbiotech.com and on the SEC's website at www.sec.gov. We have not incorporated by reference into this prospectus supplement the information on, or that can be accessed through, our website, and you should not consider it to be a part of this prospectus supplement.

S-25

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information we file with it into our registration statement of which this prospectus supplement is a part, which means that we can disclose important information to you by referring you to other documents. The information incorporated by reference is considered to be part of this prospectus supplement, and information that we file later with the SEC and incorporate by reference will automatically update and supersede this information. We incorporate by reference into this prospectus supplement the documents listed below and all future filings made by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, except for information "furnished" under Items 2.02, 7.01 or 9.01 on Form 8-K or other information "furnished" to the SEC which is not deemed filed and not incorporated in this prospectus supplement, until the termination of the offering of securities described in the applicable prospectus supplement.

We hereby incorporate by reference the following documents:

- (a) [our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on March 31, 2023 \(the "2022 Form 10-K"\);](#)

- (b) the information specifically incorporated by reference into our 2022 Form 10-K from our [Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 28, 2023](#);
- (c) our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2023, June 30, 2023 and September 30, 2023, filed with the SEC on [May 15, 2023](#), [August 14, 2023](#) and [November 14, 2023](#), respectively;
- (d) our Current Reports on Form 8-K filed with the SEC on [February 9, 2023](#), [April 13, 2023](#), [May 5, 2023](#), [June 16, 2023](#), [June 23, 2023](#), [August 14, 2023](#), [October 10, 2023](#), [October 26, 2023](#) and [November 14, 2023](#); and
- (e) the description of our Common Stock included in [Exhibit 4.3](#) to the 2022 Form 10-K.

Any statement contained in this prospectus or in a document incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus modifies or supersedes such statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents in writing to: Fortress Biotech, Inc., 1111 Kane Concourse, Suite 301, Bay Harbor Islands, FL 33154, Attention: Corporate Secretary, Tel: 781-652-4500. These documents are also available on the Investors section of our website, which is located at www.fortressbiotech.com, or as described under “Where You Can Find Additional Information” above. The reference to our website address does not constitute incorporation by reference of the information contained on our website.

You should rely only on information contained in, or incorporated by reference into, this prospectus. 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.

S-26

PROSPECTUS

\$125,000,000



**Common Stock
Preferred Stock
Warrants
Debt Securities
Units**

We may offer and sell an indeterminate number of shares of our common stock, preferred stock, warrants to purchase our common stock, preferred stock, debt securities, or units comprised of two or more such securities (the “Securities”) from time to time under this prospectus. You should read this prospectus and any prospectus supplement carefully before you invest.

We may offer the Securities in one or more offerings in amounts, at prices, and on terms determined at the time of the offering. We may sell the Securities through agents we select or through underwriters and dealers we select. If we use agents, underwriters or dealers, we will name them and describe their compensation in a prospectus supplement.

This prospectus provides a general description of the Securities we may offer. Each time we sell Securities, we will provide specific terms of the Securities offered in a supplement to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest in any Securities. This prospectus may not be used to consummate a sale of Securities unless accompanied by the applicable prospectus supplement.

Our common stock is listed for trading on the Nasdaq Capital Market under the symbol “FBIO.” Our 9.375% Series A Perpetual Preferred Stock is listed for trading on the Nasdaq Capital Market under the symbol “FBIOP.”

Investing in our Securities involves risks.

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

The date of this Prospectus is July 30, 2021

TABLE OF CONTENTS

FORWARD-LOOKING STATEMENTS	ii
SUMMARY	1
DESCRIPTION OF CAPITAL STOCK	1
DESCRIPTION OF WARRANTS	5
DESCRIPTION OF DEBT SECURITIES	5
DESCRIPTION OF UNITS	9
PLAN OF DISTRIBUTION	10
LEGAL MATTERS	11
EXPERTS	11
WHERE YOU CAN FIND MORE INFORMATION	11
INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE	11

ABOUT THIS PROSPECTUS

This prospectus is part of a “shelf” registration statement that we have filed with the SEC. By using a shelf registration statement, we may sell our Securities, as described in this prospectus, from time to time in one or more offerings. Each time we sell Securities, we will provide a prospectus supplement to this prospectus that contains specific information about the terms of such offering. The prospectus supplement may also add, update or change information contained in this prospectus. Before purchasing any securities, you should carefully read both this prospectus and any supplement, together with the additional information incorporated into this prospectus or described under the headings “Where You Can Find Additional Information” and “Incorporation of Certain Documents by Reference.”

You should rely only on the information contained or incorporated by reference in this prospectus and any prospectus supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We will not make an offer to sell Securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus, as well as information we previously filed with the Securities and Exchange Commission (the “SEC” or “Commission”) and have incorporated by reference, is accurate as of the date on the front cover of this prospectus only, or when such document was filed with the SEC. Our business, financial condition, results of operations and prospects may have changed since the relevant date.

Neither we, nor any of our officers, directors, agents or representatives or underwriters, make any representation to you about the legality of an investment. You should not interpret the contents of this prospectus, any prospectus supplement, or any free writing prospectus to be legal, business, investment or tax advice. You should consult with your own advisors for that type of advice and consult with them about the legal, tax, business, financial and other issues that you should consider before investing in our common stock.

When we refer to “Fortress,” “we,” “our,” “us” and the “Company” in this prospectus, we mean Fortress Biotech, Inc., unless otherwise specified. When we refer to “you,” we mean the potential holders of the applicable series of Securities.

We will not use this prospectus to offer and sell Securities unless it is accompanied by a prospectus supplement that more fully describes the terms of the offering.

FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Statements in this prospectus, and documents we incorporate by reference, that are not descriptions of historical facts are forward-looking statements that are based on management’s current expectations and are subject to risks and uncertainties that could negatively affect our business, operating results, financial condition and stock price. We have attempted to identify forward-looking statements by terminology including “anticipates,” “believes,” “can,” “continue,” “could,” “estimates,” “expects,” “intends,” “may,” “might,” “plans,” “potential,” “predicts,” “should,” or “will” or the negative of these terms or other comparable terminology. Factors that could cause actual results to differ materially from those currently anticipated include those set forth under “Risk Factors” including, in particular, risks relating to:

- our growth strategy;
- our ability to continue to commercialize products;
- our ability to identify, acquire, close and integrate product candidates and companies successfully and on a timely basis;
- financing and strategic agreements, acquisitions and relationships;
- our need for substantial additional funds and uncertainties relating to financings;

- our ability to attract, integrate and retain key personnel;
- the early stage of products under development;
- the results of research and development activities;
- uncertainties relating to preclinical and clinical testing;
- our ability to secure and maintain third-party manufacturing, marketing and distribution of our products;
- dependence on third-party suppliers;
- government regulation;
- patent and intellectual property matters; and
- competition.

You should read this prospectus and the documents that we reference herein completely and with the understanding that our actual future results may be materially

different from what we currently expect. You should assume that the information appearing in this prospectus and any document incorporated by reference is accurate as of its date only. Because the risk factors referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events, and we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this prospectus, any accompanying prospectus supplement and any document incorporated herein by reference, and particularly our forward-looking statements, by these cautionary statements.

SUMMARY

Overview

Fortress Biotech, Inc. (“Fortress” or the “Company”) is a biopharmaceutical company dedicated to acquiring, developing and commercializing pharmaceutical and biotechnology products and product candidates, which the Company does at the Fortress level, at its majority-owned and majority-controlled subsidiaries and joint ventures, and at entities the Company founded and in which it maintains significant minority ownership positions. Fortress has a talented and experienced business development team comprised of scientists, doctors and finance professionals, who identify and evaluate promising products and product candidates for potential acquisition by new or existing partner companies. Fortress, through its partner companies has executed such arrangements in partnership with some of the world’s foremost universities, research institutes and pharmaceutical companies, including City of Hope National Medical Center, Fred Hutchinson Cancer Research Center, St. Jude Children’s Research Hospital, Dana-Farber Cancer Institute, Nationwide Children’s Hospital, Cincinnati Children’s Hospital Medical Center, Columbia University, the University of Pennsylvania, and AstraZeneca plc.

Business Strategy

Following the exclusive license or other acquisition of the intellectual property underpinning a product or product candidate, Fortress leverages its business, scientific, regulatory, legal and financial expertise to help the partners achieve their goals. Partner companies then assess a broad range of strategic arrangements to accelerate and provide additional funding to support research and development, including joint ventures, partnerships, out-licensings, and public and private financings. To date, three partner companies are publicly-traded, and three have consummated strategic partnerships with industry leaders: Alexion Pharmaceuticals, Inc.; InvaGen Pharmaceuticals, Inc. (“InvaGen”) (a subsidiary of Cipla Limited); and Sentyln Therapeutics, Inc. (“Sentyln”).

As of March 31, 2021, several of the Fortress partner companies possess licenses to product candidate intellectual property, including Aevitas Therapeutics, Inc. (“Aevitas”), Avenue Therapeutics, Inc. (“Avenue”), Baergic Bio, Inc. (“Baergic”), Caelum Biosciences, Inc. (“Caelum”), Cellvation, Inc. (“Cellvation”), Checkpoint Therapeutics, Inc. (“Checkpoint”), Cyprium Therapeutics, Inc. (“Cyprium”), FBIO Acquisition Corp. VIII, Helocyte, Inc. (“Helocyte”), Journey Medical Corporation (“Journey” or “JMC”), Mustang Bio, Inc. (“Mustang”) and Oncogenuity, Inc. (“Oncogenuity”).

Our principal executive offices are located at 2 Gansevoort Street, 9th Floor, New York, New York 10014, and our telephone number is 781-652-4500. We maintain a website on the internet at www.fortressbiotech.com and our e-mail address is info@fortressbiotech.com. Our internet website, and the information contained on it, are not to be considered part of this prospectus.

DESCRIPTION OF CAPITAL STOCK

The following description summarizes the material terms of Fortress capital stock as of the date of this registration statement. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description of our capital stock, you should refer to our certificate of incorporation, our bylaws and to the provisions of applicable Delaware law.

Common Stock

Our common stock is traded on The Nasdaq Capital Market under the symbol “FBIO.” The last reported sale price of our common stock on July 22, 2021 was \$3.15 per share.

The Company’s Certificate of Incorporation, as amended, authorizes the Company to issue 170,000,000 shares of \$0.001 par value Common Stock of which 97,263,054 shares were outstanding at March 31, 2021.

The terms, rights, preference and privileges of the Common Stock are as follows:

Voting Rights

Each holder of Common Stock is entitled to one vote per share of Common Stock held on all matters submitted to a vote of the stockholders, including the election of directors. The Company’s certificate of incorporation and bylaws do not provide for cumulative voting rights.

Dividends

Subject to preferences that may be applicable to any then-outstanding preferred stock, the holders of the Company’s outstanding shares of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by the Company’s Board of Directors out of legally available funds.

Liquidation

In the event of the Company’s liquidation, dissolution or winding up, holders of Common Stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of the Company’s debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Rights and Preference

Holders of the Company’s Common Stock have no preemptive, conversion or subscription rights, and there is no redemption or sinking fund provisions applicable to our Common Stock. The rights, preferences and privileges of the holders of Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares

of any series of the Company's preferred stock that are or may be issued.

Fully Paid and Nonassessable

All of the Company's outstanding shares of Common Stock are fully paid and nonassessable.

Series A Preferred Stock

On October 26, 2017, the Company designated 5,000,000 shares of preferred stock as Series A Cumulative Redeemable Perpetual Preferred Stock, or Series A Preferred Stock. The Company currently has 15,000,000 authorized shares of preferred stock. As of March 31, 2021, there were 3,427,138 shares of our Series A Preferred Stock outstanding. Our Series A Preferred Stock is traded on The Nasdaq Capital Market under the symbol "FBIOP." The last reported sale price of our Series A Preferred Stock on July 22, 2021 was \$25.78 per share.

Voting Rights

Except as may be otherwise required by law, the voting rights of the holders of the Series A Preferred Stock are limited to the affirmative vote or consent of the holders of at least two-thirds of the votes entitled to be cast by the holders of the Series A Preferred Stock outstanding at the time in connection with the: (1) authorization or creation, or increase in the authorized or issued amount of, any class or series of capital stock ranking senior to the Series A Preferred Stock with respect to payment of dividends or the distribution of assets upon liquidation, dissolution or winding up or reclassification of any of the Company's authorized capital stock into such shares, or creation, authorization or issuance of any obligation or security convertible into or evidencing the right to purchase any such shares; or (2) amendment, alteration, repeal or replacement of the Company's certificate of incorporation, including by way of a merger, consolidation or otherwise in which the Company may or may not be the surviving entity, so as to materially and adversely affect and deprive holders of Series A Preferred Stock of any right, preference, privilege or voting power of the Series A Preferred Stock.

Dividends

Dividends on Series A Preferred Stock accrue daily and will be cumulative from, and including, the date of original issue and shall be payable monthly at the rate of 9.375% per annum of its liquidation preference, which is equivalent to \$2.34375 per annum per share. The first dividend on Series A Preferred Stock sold in the offering was payable on December 31, 2017 (in the amount of \$0.299479 per share) to the holders of record of the Series A Preferred Stock at the close of business on December 15, 2017 and thereafter for each subsequent quarter in the amount of \$0.5839375 per share. The Company recorded approximately \$6.5 million and \$2.6 million of dividends in Additional Paid in Capital on the Consolidated Balance Sheets as of December 31, 2020 and 2019, respectively.

No Maturity Date or Mandatory Redemption

The Series A Preferred Stock has no maturity date, and the Company is not required to redeem the Series A Preferred Stock. Accordingly, the Series A Preferred Stock will remain outstanding indefinitely unless the Company decides to redeem it pursuant to its optional redemption right or its special optional redemption right in connection with a Change of Control (as defined below), or under the circumstances set forth below under "Limited Conversion Rights Upon a Change of Control" and elect to convert such Series A Preferred Stock. The Company is not required to set aside funds to redeem the Series A Preferred Stock.

Optional Redemption

The Series A Preferred Stock may be redeemed in whole or in part (at the Company's option) any time on or after December 15, 2022, upon not less than 30 days nor more than 60 days' written notice by mail prior to the date fixed for redemption thereof, for cash at a redemption price equal to \$25.00 per share, plus any accumulated and unpaid dividends to, but not including, the redemption date.

Special Optional Redemption

Upon the occurrence a Change of Control (as defined below), the Company may redeem the shares of Series A Preferred Stock, at its option, in whole or in part, within one hundred twenty (120) days of any such Change of Control, for cash at \$25.00 per share, plus accumulated and unpaid dividends (whether or not declared) to, but excluding, the redemption date. If, prior to the Change of Control conversion date, the Company has provided notice of its election to redeem some or all of the shares of Series A Preferred Stock (whether pursuant to the Company's optional redemption right described above under "Optional Redemption" or this special optional redemption right), the holders of shares of Series A Preferred Stock will not have the Change of Control conversion right with respect to the shares of Series A Preferred Stock called for redemption. If the Company elects to redeem any shares of the Series A Preferred Stock as described in this paragraph, the Company may use any available cash to pay the redemption price.

A "Change of Control" is deemed to occur when, after the original issuance of the Series A Preferred Stock, the following have occurred and are continuing:

- the acquisition by any person, including any syndicate or group deemed to be a "person" under Section 13(d)(3) of the Exchange Act of beneficial ownership, directly or indirectly, through a purchase, merger or other acquisition transaction or series of purchases, mergers or other acquisition transactions of the Company's stock entitling that person to exercise more than 50% of the total voting power of all the Company's stock entitled to vote generally in the election of the Company's directors (except that such person will be deemed to have beneficial ownership of all securities that such person has the right to acquire, whether such right is currently exercisable or is exercisable only upon the occurrence of a subsequent condition); and
- following the closing of any transaction referred to in the bullet point above, neither the Company nor the acquiring or surviving entity has a class of common equity securities (or American Depositary Receipts representing such securities) listed on the NYSE, the NYSE American LLC or the Nasdaq Stock Market, or listed or quoted on an exchange or quotation system that is a successor to the NYSE, the NYSE American LLC or the Nasdaq Stock Market.

Conversion, Exchange and Preemptive Rights

Except as described below under "Limited Conversion Rights upon a Change of Control," the Series A Preferred Stock is not subject to preemptive rights or convertible into or exchangeable for any other securities or property at the option of the holder.

Limited Conversion Rights upon a Change of Control

Upon the occurrence of a Change of Control, each holder of shares of Series A Preferred Stock will have the right (unless, prior to the Change of Control Conversion Date, the Company has provided or provides irrevocable notice of its election to redeem the Series A Preferred Stock as described above under "Optional Redemption," or "Special Optional Redemption") to convert some or all of the shares of Series A Preferred Stock held by such holder on the Change of Control Conversion Date, into the Common Stock Conversion Consideration, which is equal to the lesser of:

- the quotient obtained by dividing (i) the sum of the \$25.00 liquidation preference per share of Series A Preferred Stock plus the amount of any accumulated and unpaid dividends (whether or not declared) to, but not including, the Change of Control Conversion Date (unless the Change of Control Conversion Date is after a record date for a Series A Preferred Stock dividend payment and prior to the corresponding Dividend Payment Date, in which case no additional amount for such accumulated and unpaid dividend will be included in this sum) by (ii) the Common Stock Price (such quotient, the "Conversion Rate"); and
- 13.05483 shares of common stock, subject to certain adjustments.

In the case of a Change of Control pursuant to which the Company's common stock will be converted into cash, securities or other property or assets, a holder of Series A Preferred Stock will receive upon conversion of such Series A Preferred Stock the kind and amount of Alternative Form Consideration which such holder would have owned or been entitled to receive upon the Change of Control had such holder held a number of shares of the Company's common stock equal to the Common Stock Conversion Consideration immediately prior to the effective time of the Change of Control.

Notwithstanding the foregoing, the holders of shares of Series A Preferred Stock will not have the Change of Control Conversion Right if the acquiror has shares listed or quoted on the NYSE, the NYSE American LLC or Nasdaq Stock Market or listed or quoted on an exchange or quotation system that is a successor to the NYSE, the NYSE American LLC or Nasdaq Stock Market, and the Series A Preferred Stock becomes convertible into or exchangeable for such acquiror's listed shares upon a subsequent Change of Control of the acquiror.

Liquidation Preference

In the event the Company liquidates, dissolves or is wound up, holders of the Series A Preferred Stock will have the right to receive \$25.00 per share, plus any accumulated and unpaid dividends to, but not including, the date of payment, before any payment is made to the holders of the Company's common stock.

Ranking

The Series A Preferred Stock will rank, with respect to rights to the payment of dividends and the distribution of assets upon the Company's liquidation, dissolution or winding up, (1) senior to all classes or series of the Company's common stock and to all other equity securities issued by the Company other than equity securities referred to in clauses (2) and (3); (2) on a par with all equity securities issued by the Company with terms specifically providing that those equity securities rank on a par with the Series A Preferred Stock with respect to rights to the payment of dividends and the distribution of assets upon the Company's liquidation, dissolution or winding up; (3) junior to all equity securities issued by the Company with terms specifically providing that those equity securities rank senior to the Series A Preferred Stock with respect to rights to the payment of dividends and the distribution of assets upon the Company liquidation, dissolution or winding up; and (4) junior to all of the Company's existing and future indebtedness.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase shares of our common stock or preferred stock in one or more series together with other securities or separately, as described in each applicable prospectus supplement.

The prospectus supplement relating to any warrants we offer will include specific terms relating to the offering. These terms will include some or all of the following:

- the title of the warrants;
- the aggregate number of warrants offered;
- the designation, number and terms of the shares of common stock purchasable upon exercise of the warrants and procedures by which those numbers may be adjusted;
- the exercise price of the warrants;
- the dates or periods during which the warrants are exercisable;
- the designation and terms of any securities with which the warrants are issued;
- if the warrants are issued as a unit with another security, the date on and after which the warrants and the other security will be separately transferable;
- if the exercise price is not payable in U.S. dollars, the foreign currency, currency unit or composite currency in which the exercise price is denominated;
- any minimum or maximum amount of warrants that may be exercised at any one time;
- any terms relating to the modification of the warrants;
- any terms, procedures and limitations relating to the transferability, exchange or exercise of the warrants; and
- any other specific terms of the warrants.

DESCRIPTION OF DEBT SECURITIES

We may offer debt securities which may be senior, subordinated or junior subordinated and may be convertible. Unless otherwise specified in the applicable prospectus supplement, our debt securities will be issued in one or more series under an indenture to be entered into between us and a trustee. We will issue the debt securities offered by this prospectus and any accompanying prospectus supplement under an indenture to be entered into between us and the trustee identified in the applicable prospectus supplement. The terms of the debt securities will include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as in effect on the date of the indenture. We have filed a copy of the form of indenture as an exhibit to the registration statement in which this prospectus is included. The indenture will be subject to and governed by the terms of the Trust Indenture Act of 1939.

The following description briefly sets forth certain general terms and provisions of the debt securities that we may offer. The particular terms of the debt securities

offered by any prospectus supplement and the extent, if any, to which these general provisions may apply to the debt securities, will be described in the related prospectus supplement. Accordingly, for a description of the terms of a particular issue of debt securities, reference must be made to both the related prospectus supplement and to the following description.

Debt Securities

The aggregate principal amount of debt securities that may be issued under the indenture is unlimited. The debt securities may be issued in one or more series as may be authorized from time to time pursuant to a supplemental indenture entered into between us and the trustee or an order delivered by us to the trustee. For each series of debt securities we offer, a prospectus supplement accompanying this prospectus will describe the following terms and conditions of the series of debt securities that we are offering, to the extent applicable:

- title and aggregate principal amount;
- whether the debt securities will be senior, subordinated or junior subordinated;
- applicable subordination provisions, if any;
- provisions regarding whether the debt securities will be convertible or exchangeable into other securities or property of the Company or any other person;
- percentage or percentages of principal amount at which the debt securities will be issued;
- maturity date(s);
- interest rate(s) or the method for determining the interest rate(s);
- whether interest on the debt securities will be payable in cash or additional debt securities of the same series;
- dates on which interest will accrue or the method for determining dates on which interest will accrue and dates on which interest will be payable;
- whether the amount of payment of principal of, premium, if any, or interest on the debt securities may be determined with reference to an index, formula or other method;
- redemption, repurchase or early repayment provisions, including our obligation or right to redeem, purchase or repay debt securities under a sinking fund, amortization or analogous provision;
- if other than the debt securities' principal amount, the portion of the principal amount of the debt securities that will be payable upon declaration of acceleration of the maturity;
- authorized denominations;
- form;
- amount of discount or premium, if any, with which the debt securities will be issued, including whether the debt securities will be issued as "original issue discount" securities;
- the place or places where the principal of, premium, if any, and interest on the debt securities will be payable;

- where the debt securities may be presented for registration of transfer, exchange or conversion;
- the place or places where notices and demands to or upon the Company in respect of the debt securities may be made;
- whether the debt securities will be issued in whole or in part in the form of one or more global securities;
- if the debt securities will be issued in whole or in part in the form of a book-entry security, the depository or its nominee with respect to the debt securities and the circumstances under which the book-entry security may be registered for transfer or exchange or authenticated and delivered in the name of a person other than the depository or its nominee;
- whether a temporary security is to be issued with respect to such series and whether any interest payable prior to the issuance of definitive securities of the series will be credited to the account of the persons entitled thereto;
- the terms upon which beneficial interests in a temporary global security may be exchanged in whole or in part for beneficial interests in a definitive global security or for individual definitive securities;
- the guarantors, if any, of the debt securities, and the extent of the guarantees and any additions or changes to permit or facilitate guarantees of such debt securities;
- any covenants applicable to the particular debt securities being issued;
- any defaults and events of default applicable to the debt securities, including the remedies available in connection therewith;
- currency, currencies or currency units in which the purchase price for, the principal of and any premium and any interest on, such debt securities will be payable;

- time period within which, the manner in which and the terms and conditions upon which the Company or the purchaser of the debt securities can select the payment currency;
- securities exchange(s) on which the debt securities will be listed, if any;
- whether any underwriter(s) will act as market maker(s) for the debt securities;
- extent to which a secondary market for the debt securities is expected to develop;
- provisions relating to defeasance;
- provisions relating to satisfaction and discharge of the indenture;
- any restrictions or conditions on the transferability of the debt securities;
- provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;
- any addition or change in the provisions related to compensation and reimbursement of the trustee;
- provisions, if any, granting special rights to holders upon the occurrence of specified events;

- whether the debt securities will be secured or unsecured, and, if secured, the terms upon which the debt securities will be secured and any other additions or changes relating to such security; and
- any other terms of the debt securities that are not inconsistent with the provisions of the Trust Indenture Act of 1939 (but may modify, amend, supplement or delete any of the terms of the indenture with respect to such series of debt securities).

General

One or more series of debt securities may be sold as “original issue discount” securities. These debt securities would be sold at a substantial discount below their stated principal amount, bearing no interest or interest at a rate which at the time of issuance is below market rates. One or more series of debt securities may be variable rate debt securities that may be exchanged for fixed rate debt securities.

United States federal income tax consequences and special considerations, if any, applicable to any such series will be described in the applicable prospectus supplement.

Debt securities may be issued where the amount of principal and/or interest payable is determined by reference to one or more currency exchange rates, commodity prices, equity indices or other factors. Holders of such debt securities may receive a principal amount or a payment of interest that is greater than or less than the amount of principal or interest otherwise payable on such dates, depending upon the value of the applicable currencies, commodities, equity indices or other factors. Information as to the methods for determining the amount of principal or interest, if any, payable on any date, the currencies, commodities, equity indices or other factors to which the amount payable on such date is linked and certain additional United States federal income tax considerations will be set forth in the applicable prospectus supplement.

The term “debt securities” includes debt securities denominated in U.S. dollars or, if specified in the applicable prospectus supplement, in any other freely transferable currency or units based on or relating to foreign currencies.

We expect most debt securities to be issued in fully registered form without coupons and in denominations of \$1,000 and any integral multiples thereof. Subject to the limitations provided in the indenture and in the prospectus supplement, debt securities that are issued in registered form may be transferred or exchanged at the principal corporate trust office of the trustee, without the payment of any service charge, other than any tax or other governmental charge payable in connection therewith.

Global Securities

The debt securities of a series may be issued in whole or in part in the form of one or more global securities that will be deposited with, or on behalf of, a depository identified in the prospectus supplement. Global securities will be issued in registered form and in either temporary or definitive form. Unless and until it is exchanged in whole or in part for the individual debt securities, a global security may not be transferred except as a whole by the depository for such global security to a nominee of such depository or by a nominee of such depository to such depository or another nominee of such depository or by such depository or any such nominee to a successor of such depository or a nominee of such successor. The specific terms of the depository arrangement with respect to any debt securities of a series and the rights of and limitations upon owners of beneficial interests in a global security will be described in the applicable prospectus supplement.

Governing Law

The indenture and the debt securities shall be construed in accordance with and governed by the laws of the State of New York.

DESCRIPTION OF UNITS

We may issue, in one more series, units comprised of shares of our common stock, preferred stock, warrants to purchase common stock or preferred stock, debt securities or any combination of those securities. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We may evidence units by unit certificates that we issue under a separate agreement. We may issue the units under a unit agreement between us and one or more unit agents. If we elect to enter into a unit agreement with a unit agent, the unit agent will act solely as our agent in connection with the units and will not assume any obligation or relationship of agency or trust for or with any registered holders of units or beneficial owners of units. We will indicate the name and address and other information regarding

the unit agent in the applicable prospectus supplement relating to a particular series of units if we elect to use a unit agent.

We will describe in the applicable prospectus supplement the terms of the series of units being offered, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described herein; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The other provisions regarding our common stock, preferred stock, warrants and debt securities as described in this section will apply to each unit to the extent such unit consists of shares of our common stock, warrants and/or debt securities.

PLAN OF DISTRIBUTION

We may sell the Securities covered in this prospectus in any of three ways (or in any combination):

- through underwriters or dealers;
- directly to a limited number of purchasers or to a single purchaser; or
- through agents.

Each time that we use this prospectus to sell our Securities, we will also provide a prospectus supplement that contains the specific terms of the offering. The prospectus supplement will set forth the terms of the offering of the Securities, including:

- the name or names of any underwriters, dealers or agents and the amounts of any Securities underwritten or purchased by each of them; and
- the public offering price of the common stock and the proceeds to us and any discounts, commissions or concessions allowed or reallocated or paid to dealers.

Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

If underwriters are used in the sale of any Securities, the Securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The Securities may be either offered to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters. Generally, the underwriters' obligations to purchase the Securities will be subject to certain conditions precedent. The underwriters will be obligated to purchase all of the Securities if they purchase any of Securities.

We may sell the Securities through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of the securities and any commissions we pay to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the Securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

Agents and underwriters may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the agents or underwriters may be required to make in respect thereof. Agents and underwriters may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

We may enter into derivative transactions with third parties, or sell Securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell Securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use Securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of Securities, and may use Securities received from us in settlement of those derivatives to close out any related open borrowings of Securities. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement (or a post-effective amendment).

LEGAL MATTERS

Certain legal matters will be passed upon for us by Alston & Bird LLP, New York, New York. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The financial statements as of December 31, 2020 and 2019, and for each of the two years in the period ended December 31, 2020 incorporated by reference in this Prospectus, have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the Securities offered hereby. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. For further information with respect to the Company and its Securities, reference is made to the registration statement and the exhibits and any schedules filed therewith. Statements contained in this prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance, if such contract or document is filed as an exhibit, reference is made to the copy of such contract or other document filed as an exhibit to the registration statement, each statement being qualified in all respects by such reference. A copy of the registration

statement, including the exhibits and schedules thereto, may be read and copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an internet site at www.sec.gov, from which interested persons can electronically access the registration statement, including the exhibits and any schedules thereto.

We are subject to the information reporting requirements of the Exchange Act, and we file periodic reports and other information with the SEC. All documents filed with the SEC are available for inspection and copying at the addresses set forth above. We also maintain an internet site at www.fortressbiotech.com. Our website and the information contained therein or connected thereto shall not be deemed to be incorporated into this prospectus or the registration statement of which it forms a part.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. This prospectus incorporates by reference the documents listed below (other than, unless otherwise specifically indicated, current reports furnished under Item 2.02, Item 7.01 or Item 9.01 of Form 8-K and exhibits filed on such form that are related to such items):

- (a) Our [Annual Report on Form 10-K for the fiscal year ended December 31, 2020](#) and our [annual report on Form 10-K/A for the fiscal year ended December 31, 2020, filed with the SEC on April 9, 2021](#);
- (b) [Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2021](#);
- (c) Our Current Reports on Form 8-K filed with the SEC on [February 24, 2021](#), [March 31, 2021](#), [April 1, 2021](#), [April 13, 2021](#), [May 17, 2021](#), [June 17, 2021](#), [June 23, 2021](#), and [July 15, 2021](#) (excluding any information furnished pursuant to Item 2.02 or Item 9.01); and

11

- (d) The description of the Common Stock as included under the caption "Description of Registrant's Securities to be Registered" in our Registration Statements on Form 8-A12B filed with the Commission on [December 7, 2011](#) and [November 7, 2017](#), and any amendment or report filed for the purpose of further updating such descriptions.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference.

12

**3,303,305 Units, Each Consisting of One Share of Common Stock and
One Warrant to Purchase One Share of Common Stock**

and

3,303,305 Shares of Common Stock Underlying the Warrants



PROSPECTUS SUPPLEMENT

December 29, 2023

Roth Capital Partners

The prospectus to which this Exhibit is attached is a final prospectus for the related offering. The maximum aggregate offering price for such offering is \$21,603,614.70.
