

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

SCORPIUS HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

2834

(Primary Standard Industrial
Classification Code Number)

26-2844103

(I.R.S. Employer
Identification No.)

**627 Davis Drive, Suite 300
Morrisville, North Carolina 27560
(919) 240-7133**

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

**Jeffrey Wolf
Chief Executive Officer
627 Davis Drive, Suite 300
Morrisville, North Carolina 27560
(919) 240-7133**

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

Copies to:

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New York, New York 10020
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Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

If any of the Securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, check the following box:

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

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, please check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering:

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering:

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging Growth Company

If an emerging growth company, indicate by checkmark if the registrant has not elected to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS

SUBJECT TO COMPLETION

DATED DECEMBER 17, 2024



Scorpius Holdings, Inc.

47,396,667 Shares of Common Stock

This prospectus relates to the resale from time to time of up to 47,396,667 shares of common stock, par value \$0.0002 ("Common Stock"), of Scorpius Holdings, Inc., a Delaware corporation ("we," "us," "our," or the "Company"), by 3i, LP and Sabby Volatility Warrant Master Fund Ltd. (collectively, the "Selling Stockholders").

We are registering the resale of (i) up to an aggregate of 34,007,778 shares of Common Stock (the "Conversion Shares") issuable upon the conversion of the two outstanding senior secured convertible notes (the "Notes") that we issued on December 6, 2024 to the Selling Stockholders pursuant to that certain Securities Purchase Agreement, dated as of December 5, 2024 (the "Purchase Agreement"), between us and the Selling Stockholders, as more fully described in this prospectus; and (ii) up to an aggregate of 13,388,889 shares of Common Stock (the "Warrant Shares") issuable upon the exercise of the two outstanding warrants (the "Warrants") that we issued on December 6, 2024 to the Selling Stockholders pursuant to the Purchase Agreement. The Conversion Shares and Warrant Shares include: (i) up to 31,538,334 shares of Common Stock issuable to 3i, LP ("3i") upon conversion of a Note in the principal amount of \$12,416,667 and up to 12,416,667 shares of Common Stock issuable upon the exercise of a Warrant held by 3i; and (ii) up to 2,469,444 shares of Common Stock issuable to Sabby Volatility Warrant Master Fund Ltd. ("Sabby") upon conversion of a Note in the principal amount of \$972,222 and up to 972,222 shares of Common Stock issuable upon the exercise of a Warrant held by Sabby. See "[Description of the Private Placement](#)" for a description of the transaction, including the terms and conditions of the Purchase Agreement and "Selling Stockholders" for additional information regarding the Selling Stockholders.

The prices at which the Selling Stockholders may resell the shares offered hereby will be determined by the prevailing market price for the shares or in negotiated transactions. We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares of Common Stock by the Selling Stockholders. We may, however, receive proceeds from the cash exercise of the Warrants.

The Selling Stockholders may sell the shares of Common Stock described in this prospectus in a number of different ways and at varying prices. We provide more information about how the Selling Stockholders may sell their shares of Common Stock in the section titled "[Plan of Distribution](#)" on page 14 of this prospectus. The Selling Stockholders may be deemed "underwriters" within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended (the "Securities Act").

We will pay the expenses incurred in registering the securities covered by this prospectus, including legal and accounting fees. To the extent the Selling Stockholders decide to sell their shares of Common Stock we will not control or determine the price at which the shares are sold.

You should read this prospectus, together with additional information described under the heading "[Where You Can Find More Information](#)" carefully before you invest in any of our securities.

Our Common Stock is listed on the NYSE American LLC under the symbol "SCPX." The last reported sale price of our Common Stock on NYSE American LLC on December 13, 2024 was \$0.3001 per share. We urge prospective purchasers of our Common Stock to obtain current information about the market prices of the Common Stock.

Investing in the Common Stock involves a high degree of risk. Please consider carefully the risks described in this prospectus under "[Risk Factors](#)" beginning on page 6 of this prospectus and in our filings with the Securities and Exchange Commission.

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

The date of this prospectus is , 2024



State-Of-The-Art CGMP Clinical-Scale Facility

Brand new, 40,000 sq. ft. state-of-the-art facility in San Antonio, Texas with capacity:
Up to ~200L of Microbial-based products
Up to ~500L of Mammalian & Cell-Therapy based products



Process & Analytical Development

Fully-equipped 2,000 sq. ft. analytical testing lab, capable of all pre-clinical and clinical-phase analyses



Biomanufacturing

~8,600 sq. ft. of cGMP-compliant cleanroom manufacturing space

Biotechnology + Pharmaceutical Manufacturing = Biopharmaceuticals



Process Development

- Mammalian Cell Culture Development
- Microbial Fermentation Development
- Cell Therapy Development
- Downstream Process Development
- Formulation Development



Mammalian Cell Culture

- Antibody Production
- Monoclonals, Bi-Specifics
- Recombinant Therapeutic Proteins
- Allogeneic and Autologous Cell Therapy
- Fc Fusions
- Cells, Exosomes, Secretome



Microbial Fermentation

- Recombinant Therapeutic Proteins & Enzyme Products
- Bacterial Subunit Vaccines

Scorpius, with its mammalian and microbial platforms, will compete in two market segments:

- **Biodefense** (\$16.1B market in 2023, growing at CAGR of 5.0% to reach \$22.3B market by 2030)
- **Biopharmaceuticals** (\$389B market in 2021, growing at CAGR 7.1% to reach \$720B by 2030)



American Manufacturing & Development

Ownership, major equipment (such as Pall Allegro™ bioreactors), consumables and reagents all based in USA



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The registration statement containing this prospectus, including the exhibits to the registration statement, provides additional information about us and the Common Stock offered under this prospectus. The registration statement, including the exhibits, can be read on our website and the website of the Securities and Exchange Commission. See “[Where You Can Find More Information](#).”

Information contained in, and that can be accessed through our web site, www.scorpiusbiologics.com, shall not be deemed to be part of this prospectus or incorporated herein by reference and should not be relied upon by any prospective investors for the purposes of determining whether to purchase the Common Stock offered hereunder.

Unless the context otherwise requires, the terms “we,” “us,” “our,” the “Company,” “Scorpius” and “our business” refer to Scorpius Holdings, Inc. and “this offering” refers to the offering contemplated in this prospectus.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-1 that we filed with the U.S. Securities and Exchange Commission (the “SEC”). Under this registration process, the Selling Stockholders may, from time to time, sell the securities offered by them described in this prospectus. We will not receive any proceeds from the sale by the Selling Stockholders of the securities offered by them described in this prospectus.

We may also file a prospectus supplement or post-effective amendment to the registration statement of which this prospectus forms a part that may contain material information relating to this offering. The prospectus supplement or post-effective amendment may also add, update or change information contained in this prospectus. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or post-effective amendment, you should rely on the prospectus supplement or post-effective amendment, as applicable. Before purchasing any securities, you should carefully read this prospectus, any post-effective amendment, and any applicable prospectus supplement, together with the additional information described under the headings “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

Neither we nor the Selling Stockholders have authorized anyone to provide you with any information or to make any representations other than those contained, or incorporated by reference, in this prospectus, any post-effective amendment, or any applicable prospectus supplement prepared by or on behalf of us or to which we have referred you. We and the Selling Stockholders take no responsibility for and can provide no assurance as to the reliability of any other information that others may give you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should not assume that the information contained in this prospectus or any applicable prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus or any applicable prospectus supplement is delivered, or securities are sold, on a later date.

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

INDUSTRY AND MARKET DATA

Unless otherwise indicated, information in this prospectus concerning economic conditions, our industry, our markets and our competitive position is based on a variety of sources, including information from third-party industry analysts and publications and our own estimates and research. Some of the industry and market data contained in this prospectus are based on third-party industry publications. This information involves a number of assumptions, estimates and limitations.

The industry publications, surveys and forecasts and other public information generally indicate or suggest that their information has been obtained from sources believed to be reliable. We believe this information is reliable as of the applicable date of its publication, however, we have not independently verified the accuracy or completeness of the information included in or assumptions relied on in these third-party publications. In addition, the market and industry data and forecasts that may be included in this prospectus, any post-effective amendment or any prospectus supplement may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in this prospectus or any document incorporated herein by reference, any post-effective amendment and the applicable prospectus supplement. Accordingly, investors should not place undue reliance on this information.

PROSPECTUS SUMMARY

The following summary highlights information contained elsewhere in this prospectus or incorporated by reference herein and does not contain all the information that may be important to purchasers of our securities. Prospective purchasers of our securities should carefully read the entire prospectus and any applicable prospectus supplement, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in this prospectus, the applicable prospectus supplement and under similar headings in the other documents that are incorporated by reference into this prospectus. Prospective purchasers of our securities should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Our Company

We are a contract development and manufacturing organization (“CDMO”) that provides a comprehensive range of biologics manufacturing services from process development to Current Good Manufacturing Practices (“cGMP”) clinical and commercial manufacturing of biologics for the biotechnology and biopharmaceutical industries. Scorpius pairs cGMP biomanufacturing and quality control expertise with cutting edge capabilities in immunoassays, molecular assays, and bioanalytical methods to support the production of cell- and gene-based therapies as well as large molecule biologics. Our services include clinical and commercial drug substance manufacturing, release and stability testing and variety of process development services, including upstream and downstream development and optimization, analytical method development, cell line development, testing and characterization. Our San Antonio, TX facility commenced operations in October 2022.

Recent Developments

December 2024 Private Placement

On December 5, 2024, we entered into the Purchase Agreement with the Selling Stockholders, pursuant to which issued, in a private placement offering (the “Private Placement Offering”), 9% senior secured convertible notes (the Notes) in the aggregate principal amount of \$13,388,889, and Warrants to purchase up to an aggregate of 13,388,889 shares of Common Stock to the Selling Stockholders for an aggregate purchase price of \$12,050,000, representing an original issue discount of ten percent (10%). The closing of the Private Placement Offering was consummated on December 6, 2024. We received net proceeds from the Private Placement Offering of approximately \$3.3 million, net of the \$8.5 million of the proceeds that we agreed to use to pay to the Selling Stockholders pursuant to the Purchase Agreement to repurchase pre-funded warrants held by the Selling Stockholders and approximately \$226,000 to redeem the November 2024 Note (as defined below), including all principal and accrued interest. ThinkEquity LLC (“ThinkEquity”) acted as placement agent in the Private Placement Offering. See, “Description of the Private Placement” for a description of the transaction, including the terms and conditions of the Purchase Agreement and “Selling Stockholders” for additional information regarding the Selling Stockholders.

November 2024 Promissory Note

On November 27, 2024, we issued a non-convertible promissory note (the “November 2024 Note”) in the principal amount of \$225,000 to one of the Selling Stockholders. The November 2024 Note accrued interest at the rate of 5.0% per annum and matured on the earlier of: (i) December 15, 2024; (ii) the consummation of a Corporate Event (as such term is defined in the November 2024 Note); or (iii) when, upon or after the occurrence of an event of default under the November 2024 Note. The November 2024 Note provided that if at any time the November 2024 Note is outstanding we consummated a subsequent Financing (as such term is defined in the November 2024 Note), the holder had the right, in its sole discretion, to require that we redeem the entire outstanding balance of the November 2024 Note, together with all accrued interest thereon, using up to 100% of the gross proceeds of such Financing. The holder required that we redeem the entire outstanding balance of the November 2024 Note from the proceeds of the Private Placement Offering and upon consummation of the Private Placement Offering, the November 2024 Note was redeemed in full.

August 2024 Public Offering

On August 19, 2024, we consummated a public offering (the “August Offering”) of 2,428,000 shares of Common Stock and 11,947,000 pre-funded warrants to purchase up to 11,947,000 shares of Common Stock (the “August PFWs”), including 1,875,000 option pre-funded warrants to purchase up to 1,875,000 shares of Common Stock (the “August Option PFWs”) for a purchase price of \$1.00 per share of Common Stock, a purchase price of \$0.9998 per August PFW, and an exercise price of \$0.0002 per August PFW and August Option PFW, resulting in aggregate gross proceeds of approximately \$14.4 million, before deducting underwriting discounts and other offering expenses. Each August PFW and August Option PFW is exercisable for one share of Common Stock. ThinkEquity served as representative of the several underwriters named in the Underwriting Agreement that we entered into on August 16, 2024 with ThinkEquity as representative of the several underwriters named therein.

2024 Reverse Stock Split

On July 17, 2024, we effected a 1-for-200 reverse stock split of our outstanding shares of Common Stock (the “2024 Reverse Stock Split”). The 2024 Reverse Stock Split did not impact the number of authorized shares of Common Stock, which remained at 250,000,000 shares. Unless otherwise noted, all historical share and per share information and historical financial information included in this prospectus have been adjusted to reflect the 2024 Reverse Stock Split. Certain historical share and per share information and historical financial information incorporated by reference in this prospectus have not been restated to reflect the 2024 Reverse Stock Split.

Corporate Information

We were incorporated under the laws of the State of Delaware on May 12, 2017. Our principal executive offices are located at 627 Davis Drive, Suite 300, Morrisville, North Carolina 27560. Our telephone number is (610) 727-4597.

Our website address is www.scorpiusbiologics.com. The information contained in, or accessible through, our website does not constitute a part of this prospectus. You should not rely on any such information in making your decision whether to purchase our securities.

THE OFFERING

This prospectus relates to the resale or other disposition from time to time by the Selling Stockholders identified in this prospectus of up to 47,396,667 shares of our Common Stock. None of the shares registered hereby are being offered for sale by us.

Securities offered by the Selling Stockholders	This prospectus covers the resale of a total of up to 47,396,667 shares of our Common Stock, consisting of: (i) up to 34,007,778 shares of Common Stock issuable upon the conversion of the Notes; and (ii) up to 13,388,889 shares of Common Stock issuable upon exercise of the Warrants.
Common Stock outstanding prior to this offering	4,868,268 shares of Common Stock
Common Stock to be outstanding after this offering,	52,264,935 shares of Common Stock
Terms of the offering	The Selling Stockholders and any of their pledgees, assignees and successors-in-interest will determine when and how they sell the shares offered in this prospectus and may, from time to time, sell any or all of their shares covered hereby on the NYSE American LLC (“NYSE American”) or any other stock exchange, market or trading facility on which the shares are traded or in privately negotiated transactions. These sales may be at fixed or negotiated prices. See “ Plan of Distribution .”
Use of Proceeds	The Selling Stockholders will receive all of the proceeds from the sale of the shares offered for sale by them under this prospectus. We will not receive proceeds from the sale of the shares by the Selling Stockholders. We may receive proceeds from cash exercises of the Warrants; however, such Warrants are exercisable on a cashless basis under certain circumstances. Any proceeds we receive are expected to be used for working capital and other general corporate purposes. See “ Use of Proceeds .”
Risk Factors	Investment in our securities involves a high degree of risk and could result in a loss of your entire investment. See “ Risk Factors ” beginning on page 6 and the similarly entitled sections in the documents incorporated by reference into this prospectus.
NYSE American LLC Symbol	Our Common Stock is listed on the NYSE American under the symbol “SCPX”.

The number of shares of our Common Stock to be outstanding upon completion of this offering is based on 4,868,268 shares of our Common Stock outstanding as of December 13, 2024, assumes that we issue 34,007,778 shares of Common Stock upon conversion of the Notes and 13,388,889 shares of Common Stock upon exercise of the Warrants, and excludes:

- 30,738 shares of Common Stock issuable upon exercise of stock options outstanding, at a weighted-average exercise price of \$678.21 per share;
- 1,500,000 shares of Common Stock issuable upon exercise of pre-funded warrants outstanding, at an exercise price of \$0.0002 per share;
- 299,112 shares of Common Stock issuable upon exercise of common warrants outstanding, at an exercise price of \$24.00 per share;
- 103,908 shares of Common Stock issuable upon conversion in full (including accrued interest thereon calculated as of the date of maturity) of a convertible promissory note (the “Restated Note”) in the principal amount of \$2,250,000 held by Elusys Holdings, Inc. (“Elusys Holdings”), a company controlled by Jeffrey Wolf, our Chief Executive Officer and Chairman of the Board of Directors (the conversion of which is subject to both Elusys Holdings’ election and any required approval of NYSE American of such share issuance); and
- 156,269 shares of our Common Stock that are available for future issuance under our stock incentive plans or shares that will become available under our stock incentive plans.

Unless otherwise indicated, this prospectus reflects and assumes the following:

- the issuance of 34,007,778 shares of Common Stock upon the assumed conversion of the Notes and the issuance of 13,388,889 shares of Common Stock upon the assumed exercise of the Warrants;
- no exercise of any other outstanding options or warrants described above (other than the Warrants); and
- no conversion of the Restated Note.

All share and per share amounts of Common Stock presented in this prospectus have been retroactively adjusted to reflect the 2024 Reverse Stock Split.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained or incorporated by reference in this prospectus may contain “forward-looking statements” within the meaning of the federal securities laws. Our forward-looking statements include, but are not limited to, statements about us and our industry, as well as statements regarding our or our management team’s expectations, hopes, beliefs, intentions or strategies regarding the future. Additionally, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. We intend the forward-looking statements to be covered by the safe harbor provisions of the federal securities laws. Words such as “may,” “should,” “could,” “would,” “predicts,” “potential,” “continue,” “expects,” “anticipates,” “future,” “intends,” “plans,” “believes,” “estimates,” and similar expressions, as well as statements in future tense, may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking.

Forward-looking statements should not be read as a guarantee of future performance or results and may not be accurate indications of when such performance or results will be achieved. Forward-looking statements are based on information we have when those statements are made or management’s good faith belief as of that time with respect to future events and are subject to significant risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements.

These statements relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. We discuss in greater detail, and incorporate by reference into this prospectus in their entirety, many of these risks and uncertainties under the heading “[Risk Factors](#)” contained in this prospectus and in the documents incorporated by reference herein. Moreover, we operate in a rapidly changing and competitive environment. New risk factors emerge from time to time, and it is not possible for management to predict all such risk factors.

Further, it is not possible to assess the effect of all risk factors on our businesses 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. Given these risks and uncertainties, investors should not place undue reliance on forward-looking statements as a prediction of actual results. In addition, we disclaim any obligation to correct or update any forward-looking statements to reflect events or circumstances that occur after the date of this prospectus.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should consider carefully the risks described below, together with all of the other information included or incorporated by reference in this prospectus, including the risks and uncertainties discussed under “Risk Factors” in our annual report on Form 10-K, quarterly reports on Form 10-Q, and current reports on Form 8-K, which have been filed with the SEC and are incorporated by reference in this prospectus, as well as any updates thereto contained in subsequent filings with the SEC or any free writing prospectus, before deciding whether to purchase our securities in this offering. All of these risk factors are incorporated herein in their entirety. The risks described below and incorporated by reference are material risks currently known, expected or reasonably foreseeable by us. However, the risks described below and incorporated by reference are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business, operating results, prospects or financial condition. If any of these risks actually materialize, our business, prospects, financial condition, and results of operations could be seriously harmed. This could cause the trading price of our Common Stock to decline, resulting in a loss of all or part of your investment.

Risks Related to this Offering

It is not possible to predict the actual number of shares we will issue upon conversion of the Notes.

The Selling Stockholders have the option to determine whether the obligations outstanding under the Notes are paid in cash or shares of Common Stock. Accordingly, the number of shares of Common Stock that will be issued upon conversion of the Notes cannot be determined at this time.

Investors who buy shares at different times will likely pay different prices.

Investors who purchase shares in this offering at different times will likely pay different prices, and so may experience different levels of dilution and different outcomes in their investment results. The Selling Stockholders may sell such shares at different times and at different prices. Investors may experience a decline in the value of the shares they purchase from the Selling Stockholders in this offering as a result of sales made by us in future transactions to the Selling Stockholders at prices lower than the prices they paid.

The issuance of Common Stock to the Selling Stockholders may cause substantial dilution to our existing stockholders and the sale of such shares acquired by the Selling Stockholders could cause the price of our Common Stock to decline.

We are registering for resale by the Selling Stockholders up to 47,396,667 shares of Common Stock, consisting of up to 34,007,778 shares of Common Stock issuable upon the conversion of the Notes and up to 13,388,889 shares of Common Stock issuable upon exercise of the Warrants. The number of shares of our Common Stock ultimately offered for resale by the Selling Stockholders under this prospectus is dependent upon the number of shares converted under the Notes, and the number of Warrant Shares issued. Depending on a variety of factors, including market liquidity of our Common Stock, the issuance of shares to Selling Stockholders may cause the trading price of our Common Stock to decline.

Our management team may invest or spend the proceeds it receives from the cash exercise of the Warrants in ways with which you may not agree or in ways which may not yield a significant return.

Our management will have broad discretion over the use of proceeds it receives from the cash exercise of the Warrants. We intend to use the net proceeds, if any, received from such exercises for working capital and general corporate purposes. Our management will have considerable discretion in the application of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not increase our operating results or enhance the value of our Common Stock.

Our need for future financing may result in the issuance of additional securities, which will cause investors to experience dilution.

Our cash requirements may vary from those now planned. We will need to raise additional capital to fund our operations and we cannot be certain that funding will be available to us on acceptable terms on a timely basis, or at all. We do not expect our current cash and cash equivalents and short term investments, including the net proceeds of the Private Placement Offering, will support our operations beyond early January 2025, unless our revenue increases from past historical revenue. Our ability to raise additional capital is limited for so long as the Notes remain outstanding because the Notes prohibit us and, as applicable, our subsidiaries from incurring any new indebtedness, subject to limited exceptions set forth in the Notes. To meet our financing needs, we are considering multiple alternatives, including, but not limited to, additional equity financings, which we expect will include sales of Common Stock, equipment sale leasebacks, and/or funding from partnerships or collaborations; however, there are currently no other commitments by any person for future financing. Our ability to raise capital through the sale of securities may be limited by our inability to utilize a registration statement on Form S-3 to raise capital until June 2025 due to the late filing of our Annual Report on Form 10-K for the year ending December 31, 2023, the late filing of our Quarterly Report on Form 10-Q for the quarter ending March 31, 2024, and various rules of the NYSE American that place limits on the number and dollar amount of securities that we may sell.

Our securities may be offered to other investors at a price lower than the price per share offered to current stockholders, or upon terms which may be deemed more favorable than those offered to current stockholders. In addition, the issuance of securities in any future financing may dilute an investor's equity ownership and have the effect of depressing the market price for our securities. Moreover, we may issue derivative securities, including options and/or warrants, from time to time, to procure qualified personnel or for other business reasons. The issuance of any such derivative securities, which is at the discretion of our board of directors, may further dilute the equity ownership of our stockholders.

We have additional securities available for issuance, which, if issued, could adversely affect the rights of the holders of our Common Stock.

Our Certificate of Incorporation authorizes the issuance of 250,000,000 shares of our Common Stock and 10,000,000 shares of preferred stock. In certain circumstances, the Common Stock, as well as the awards available for issuance under our incentive plans, can be issued by our Board of Directors, without stockholder approval. Any future issuances of such stock would further dilute the percentage ownership of us held by holders of preferred stock and Common Stock. Our Board of Directors is authorized to designate and issue from time to time, only with stockholder approval, up to an aggregate of 10,000,000 shares of preferred stock, of which 8,212,500 have been designated. The authority to designate preferred stock may be used to issue series of preferred stock, or rights to acquire preferred stock, that could dilute the interest of, or impair the voting power of, holders of the Common Stock or could also be used as a method of determining, delaying or preventing a change of control.

Future sales of our Common Stock could cause the market price for our Common Stock to decline.

We cannot predict the effect, if any, that market sales of shares of our Common Stock or the availability of shares of our Common Stock for sale will have on the market price of our Common Stock prevailing from time to time. Sales of substantial amounts of shares of our Common Stock in the public market, or the perception that those sales will occur, could cause the market price of our Common Stock to decline or be depressed.

The shares of Common Stock issued in connection with this offering will be freely tradable without restriction or further registration under the Securities Act.

Because we will not declare cash dividends on our Common Stock in the foreseeable future, stockholders must rely on appreciation of the value of our Common Stock for any return on their investment.

We have never declared or paid cash dividends on our Common Stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and will not declare or pay any cash dividends in the foreseeable future. As a result, only appreciation of the price of our Common Stock, if any, will provide a return to investors in this offering.

Our failure to meet the continued listing requirements of the NYSE American could result in a de-listing of our Common Stock.

Our shares of Common Stock are currently listed on the NYSE American. On June 14, 2024, we received notice from the NYSE Regulation that it had suspended trading of our Common Stock on the NYSE American and determined to commence proceedings to delist our Common Stock from the NYSE American as a result of its determination that we were no longer suitable for listing pursuant to Section 1003(f)(v) of the NYSE American Company Guide due to the low selling price of our Common Stock. Our Common Stock began trading on the OTC Markets system on June 17, 2024. On July 17, 2024, we effected the 2024 Reverse Stock Split at a ratio of 1-for-200, to increase the selling price of our Common Stock in order to regain compliance with the requirements and policies of the NYSE American. On July 29, 2024, the NYSE American notified us that it had withdrawn its delisting determination and the trading suspension of our Common Stock on the NYSE American was lifted on August 2, 2024. The NYSE Regulation staff determined that our Common Stock was now trading above the threshold of low selling price issues as further defined by Section 1003(f)(v) of the NYSE American Company Guide. However, there can be no assurance that our increased stock price resulting from the 2024 Reverse Stock Split will remain at a price that will be sufficient in order to meet any requirements and policies of the NYSE American or that our Common Stock will remain listed on the NYSE American.

In addition, on April 17, 2024, we received an official notice of noncompliance from NYSE Regulation stating that we were not in compliance with the NYSE American continued listing standards under the timely filing criteria included in Section 1007 of the NYSE American Company Guide due to the failure to timely file our 2023 Annual Report on Form 10-K by the filing due date of April 16, 2024. On May 21, 2024, we received an official notice of noncompliance from NYSE Regulation stating that we were not in compliance with NYSE American continued listing standards under the timely filing criteria included in Section 1007 of the NYSE American Company Guide due to the failure to timely file our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024 by the filing due date of May 16, 2024. Upon the filing of the 2023 Annual Report on Form 10-K and the Quarterly Report on Form 10-Q we received a notice that we had cured such filing delinquencies.

Even though the 2024 Reverse Stock Split increased the market price of our Common Stock, there can be no assurance that our increased stock price will remain at a price that will be sufficient in order to meet any continued requirements and policies of the NYSE American or that our Common Stock will remain listed on the NYSE American.

The trading of our Common Stock resumed on the NYSE American on August 2, 2024 after we effected the 2024 Reverse Stock Split. There can be no assurance that the increased stock price resulting from the 2024 Reverse Stock Split will be maintained in order to allow us to continue to meet any requirements and policies of the NYSE American or that our Common Stock will remain listed on the NYSE American.

DESCRIPTION OF THE PRIVATE PLACEMENT

On December 5, 2024, we entered into the Purchase Agreement with the Selling Stockholders, pursuant to which we issued, in a private placement offering (the “Offering”), 9% senior secured convertible Notes in the aggregate principal amount of \$13,388,889, and the Warrants to purchase up to an aggregate of 13,388,889 shares of Common Stock to the Selling Stockholders for an aggregate purchase price of \$12,050,000, representing an original issue discount of ten percent (10%).

The closing was consummated on December 6, 2024 (the “Closing Date”). We received net proceeds from the Offering of approximately \$3.3 million, net of the \$8.5 million of the Offering proceeds that we agreed to use to pay to the Selling Stockholders pursuant to the Purchase Agreement to repurchase pre-funded warrants held by the Selling Stockholders (the “Pre-Funded Warrants”), which amount was paid to the Selling Stockholders at the closing of the Offering and approximately \$226,000 to redeem the November 2024 Note, including all principal and accrued interest. In connection with the Offering, we agreed to reimburse the Selling Stockholders for all costs and expenses incurred by them or their affiliates in connection with the transactions contemplated by the Purchase Agreement, up to \$50,000. ThinkEquity LLC acted as placement agent in the Offering. In connection with the closing of the Offering, we paid a placement fee of \$285,000 to ThinkEquity, equal to 8% of the net proceeds of the Offering paid to us, net of the amount used to repurchase the Pre-Funded Warrants and the amount of the original issue discount.

On the Closing Date, we, each of our domestic subsidiaries and the Selling Stockholders also entered into a Security Agreement (the “Security Agreement”), pursuant to which we and each of our domestic subsidiaries granted security interests in the Collateral (as such term is defined in the Security Agreement) to secure our obligations under the Notes and the Purchase Agreement. Each of our domestic subsidiaries also executed and delivered a Subsidiary Guarantee on the Closing Date, pursuant to which they agreed to guarantee our obligations under the Notes and act as surety for payment of the Notes.

The Notes mature on the third anniversary of their date of issuance, unless prior thereto there is an event of default, and bear interest at a rate of 9% per annum payable in cash on the first business day of each fiscal quarter beginning January 2, 2025. The Notes are convertible, at the option of the holder, at any time, into such number of shares of Common Stock equal to the principal amount of the Note plus all accrued and unpaid interest at a conversion price equal to \$0.50 (the “Conversion Price”), subject to adjustment for any stock splits, stock dividends, recapitalizations and similar events and subject to an Exchange Cap (as defined below) and other limitations. The Notes contain customary events of default, including the failure of Jeffrey Wolf to remain as our Chief Executive Officer, unless an individual reasonably acceptable to the Selling Stockholders has been appointed to replace Mr. Wolf within thirty (30) days of such occurrence, unless the Selling Stockholders extend such deadline for an additional thirty (30) days at their sole discretion. If an event of default occurs, until it is cured, the Selling Stockholders may increase the interest rate applicable to the Notes to fifteen percent (15%) annum. If an event of default occurs, the Selling Stockholders may require us to redeem (regardless of whether such event of default has been cured) all or any portion of the Notes. Subject to limited exceptions set forth in the Notes, the Notes prohibit us and, as applicable, our subsidiaries from incurring any new indebtedness. The Notes also provide that we shall, while the Notes remain outstanding, maintain a net monthly cash burn of not more than \$1,800,000, calculated on an average trailing-three-month basis, decreasing by increments of \$500,000 every three-months.

The Notes are redeemable by us at a redemption price equal to 110% of the sum of the principal amount to be redeemed plus accrued interest, if any. While the Notes are outstanding, if we enter into a Subsequent Placement (as such term is defined in the Purchase Agreement), each of the Selling Stockholders shall have the right, in their sole discretion, to require that we redeem all, or any portion, of the amount due under their Note in an amount not in excess of the Selling Stockholders’ pro rata amount of 25% of the gross proceeds of such Subsequent Placement.

The Warrants expire five years from their date of issuance. The Warrants are exercisable, at the option of the holder, at any time, for up to an aggregate of 13,388,889 shares of Common Stock at an exercise price equal to \$0.50 (the “Exercise Price”), subject to adjustment for any stock splits, stock dividends, recapitalizations, and similar events. The Warrants provide for cashless exercise under certain circumstances.

The Purchase Agreement prohibits us from entering into a Variable Rate Transaction (as such term is defined in the Purchase Agreement) for a period of twelve months from the Closing Date, other than an equity line of credit with one of the Selling Stockholders.

Pursuant to the Purchase Agreement, we agreed to file a registration statement within 30 days to register the resale of the Conversion Shares and the Warrant Shares with the SEC and to use our commercially reasonable best efforts to have the registration statement declared effective by the SEC within 75 calendar days of the Closing Date (or 135 days if the SEC elects to review such registration statement) and to keep such registration statement effective for one year after its effectiveness.

All of our officers and directors entered into Support Agreements, pursuant to which they each agreed to vote all shares of Common Stock beneficially owned by them in favor of the transactions contemplated by the Purchase Agreement, including (a) the issuance of all of the Conversion Shares and Warrant Shares in excess of 19.99% of the issued and outstanding Common Stock at the time we entered into the Purchase Agreement (the "Stockholder Approval"), and (b) any subsequent issuance(s) of the Conversion Shares or Warrants Shares in excess of 19.99% of the issued and outstanding Common Stock as a consequence of any corporate action, including the implementation of a reverse stock split. Pursuant to the Purchase Agreement, we have agreed to hold a meeting for the purpose of obtaining Stockholder Approval by March 31, 2025. If Stockholder Approval is not obtained by such date, we have agreed to hold a second meeting for the purpose of obtaining Stockholder Approval by July 1, 2025. If Stockholder Approval is not obtained by such date, we have agreed to hold a meeting every three months thereafter until Stockholder Approval is obtained.

The Purchase Agreement contains customary representations, warranties, agreements and conditions to completing future sale transactions, indemnification rights and obligations of the parties. Among other things, the Selling Stockholders represented to us that they are "accredited investors" (as such term is defined in Rule 501(a) of Regulation D under the Securities Act, and we sold the securities in reliance upon an exemption from registration contained in Section 4(a)(2) of the Securities Act and/or Regulation D promulgated thereunder.

The number of shares of Common Stock that may be issued upon conversion of the Notes and exercise of the Warrants, and inclusive of any shares issuable under and in respect of the Purchase Agreement, is subject to an exchange cap (the "Exchange Cap") of 19.99% of the outstanding number of shares of Common Stock at the time we entered into the Purchase Agreement, 865,820 shares, unless Stockholder Approval is obtained to exceed the Exchange Cap. If the Notes were to fully convert into Conversion Shares at the Conversion Price, assuming no Exchange Cap, we would issue 26,777,778 Conversion Shares, plus an additional 7,230,000 shares of Common Stock if interest and the Make-Whole Amount (as such term is defined in the Notes) is also converted into shares of Common Stock. In addition, under the terms of the Notes and the Warrants, the Investors may not convert the Notes or exercise the Warrants to the extent such conversion or exercise would cause such Investor, together with its affiliates and attribution parties, to beneficially own a number of shares of Common Stock that would exceed 4.99%, of our then outstanding Common Stock following such exercise.

USE OF PROCEEDS

The Selling Stockholders will receive all of the proceeds of the sale of shares of Common Stock offered from time to time pursuant to this prospectus. Accordingly, we will not receive any proceeds from the sale of shares of Common Stock that may be sold from time to time pursuant to this prospectus; however, we may receive proceeds from the cash exercise of the Warrants.

We currently intend to use any proceeds we receive for working capital and other general corporate purposes. Accordingly, our management will have broad discretion in the application of the net proceeds. We may use the proceeds for purposes that are not contemplated at the time of this offering.

SELLING STOCKHOLDERS

This prospectus covers the possible resale from time to time by the Selling Stockholders identified in the table below, including their pledgees, donees, transferees, assigns or other successors in interest, of up to an aggregate of 47,396,667 shares of Common Stock, which includes: (i) up to 31,538,334 shares of Common Stock issuable to 3i upon conversion of a Note in the principal amount of \$12,416,667 (the “3i Note”) and up to 12,416,667 shares of Common Stock issuable upon the exercise of a Warrant held by 3i (the “3i Warrant”); and (ii) up to 2,469,444 shares of Common Stock issuable to Sabby upon conversion of a Note in the principal amount of \$972,222 (the “Sabby Note”) and up to 972,222 shares of Common Stock issuable upon the exercise of a Warrant held by Sabby (the “Sabby Warrant”). Other than the transactions described under the “Description of the Private Placement,” the Selling Stockholders participation in our August 2024 underwritten public offering, 3i’s participation in our May 2024 underwritten public offering, and the November 2024 Note, the Selling Stockholders have not had any material relationship with us within the past three years.

We are filing the registration statement of which this prospectus forms a part pursuant to the provisions of the Purchase Agreement we entered into with the Selling Stockholders, in which we agreed to provide certain registration rights with respect to resales by them of the shares of our Common Stock that have been or may be issued to them under the Purchase Agreement.

The column “Number of Shares of Common Stock Beneficially Owned Prior to Offering” lists the number of shares of our Common Stock beneficially owned by the Selling Stockholders. The Selling Stockholders identified in the table below may from time to time offer and sell under this prospectus any or all of the shares of Common Stock described under the column “Maximum Number of Shares of Common Stock To be Sold in this Offering” in the table below. The table below has been prepared based upon information furnished to us by the Selling Stockholders. The Selling Stockholders identified below may have sold, transferred or otherwise disposed of some or all of its shares since the date on which the information in the following table is presented in transactions exempt from or not subject to the registration requirements of the Securities Act. Information concerning the Selling Stockholders may change from time to time and, if necessary, we will amend or supplement this prospectus accordingly and as required.

The table below lists the Selling Stockholders and provides information regarding each Selling Stockholder’s beneficial ownership of shares of our Common Stock. The second column lists the number of shares of Common Stock beneficially owned by each Selling Stockholder, based on its beneficial ownership of securities purchased in the Offering as well as all prior public and private offerings of our securities, as of the date indicated in the footnote for each Selling Stockholder, subject to limitations on beneficial ownership. The third column lists the maximum number of shares of Common Stock being offered by this prospectus by the Selling Stockholders, without regard to any limitations on exercises.

The fourth and fifth columns assume the sale of all of the shares offered by the Selling Stockholders pursuant to this prospectus and reflects all applicable beneficial ownership limitations of the securities.

Under the terms of the Notes and the Warrants, the Selling Stockholders may not convert the Notes or exercise the Warrants to the extent such conversion or exercise would cause such Selling Stockholder, together with its affiliates and attribution parties, to beneficially own a number of shares of Common Stock that would exceed 4.99%, of our then outstanding Common Stock following such exercise, excluding for purposes of such determination shares of Common Stock issuable upon exercise of such warrants which have not been exercised. The number of shares in the third column does not reflect this limitation, but the number of shares in the second, fourth and fifth columns do reflect this limitation. The Selling Stockholders may sell all, some or none of their shares in this offering. See “[Plan of Distribution](#).”

The number of shares reflected are those beneficially owned, as determined under applicable rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under applicable SEC rules, beneficial ownership includes any shares of Common Stock as to which a person has sole or shared voting power or investment power and any shares of Common Stock which the person has the right to acquire within 60 days after December 13, 2024 through the exercise of any option, warrant or right or through the conversion of any convertible security. Unless otherwise indicated in the footnotes to the table below, we believe, based on information furnished to us that the each Selling Stockholder named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned.

We have assumed that all shares of Common Stock reflected in the table as being offered in the offering covered by this prospectus will be sold from time to time in this offering. We cannot provide an estimate as to the number of shares of Common Stock that will be held by the Selling Stockholders upon termination of the offering covered by this prospectus because the Selling Stockholders may offer some, all or none of the shares of Common Stock being offered in the offering. Information about the Selling Stockholders may change over time. Any changed information will be set forth in an amendment to the registration statement or supplement to this prospectus, to the extent required by law.

The shares of Common Stock set forth in the second column in the table below is based on 4,868,268 shares outstanding prior to this offering. The shares of Common Stock set forth in the third and fifth columns in the table below, assumes that 52,264,935 shares of Common Stock are outstanding as of December 13, 2024, which is based on 4,868,268 shares outstanding prior to this offering and assumes the issuance of 47,396,667 shares of Common Stock upon conversion and exercise of the Notes and Warrants, as applicable.

Name of Selling Stockholder	Number of Shares of Common Stock Beneficially Owned Prior to This Offering	Maximum Number of Shares of Common Stock to be Sold in this Offering	Number of Shares of Common Stock Beneficially Owned After Offering	Percentage of Shares Beneficially Owned after Offering
3i, LP ⁽¹⁾	511,715	43,955,001	1,907,709	3.54%
Sabby Volatility Warrant Master Fund Ltd. ⁽²⁾	459,653	3,441,666	459,653	*

(1) The shares listed in the second column consist of (i) 257,709 shares of Common Stock, and (ii) pre-funded warrants exercisable for up to 254,006 shares of Common Stock, subject to a 9.99% beneficial ownership limitation provision, and does not include (i) pre-funded warrants exercisable for up to 1,245,994 shares of Common Stock, subject to a 9.99% beneficial ownership limitation provision; (ii) common stock purchase warrants exercisable for up to 150,000 shares of Common Stock, subject to a 4.99% beneficial ownership limitation provision; and (iii) an aggregate of 43,955,001 shares of Common Stock issuable to 3i upon conversion of the 3i Note and exercise of the 3i Warrant, the conversion and exercise of which are subject to a 4.99% beneficial ownership limitation. The shares listed in the third column consist of 31,538,334 shares of Common Stock issuable to 3i upon conversion of the 3i Note and 12,416,667 shares of Common Stock issuable upon the exercise of the 3i Warrant, which do not reflect the beneficial ownership limitations in the 3i Note and the 3i Warrant. The shares listed in the fourth column assume the issuance of all 47,396,667 shares of Common Stock issuable to the Selling Stockholders upon exercise or conversion of the Notes and Warrants, as applicable, all of which are assumed to have been sold in this Offering, and includes (i) 257,709 shares of Common Stock; (ii) pre-funded warrants exercisable for up to 1,500,000 shares of Common Stock, subject to a 9.99% beneficial ownership limitation provision; and (iii) common stock purchase warrants exercisable for up to 150,000 shares of Common Stock, subject to a 4.99% beneficial ownership limitation provision.

3i Management LLC (“3i Management”) is the general partner of 3i, and Maier Joshua Tarlow is the manager of 3i Management. As such, Mr. Tarlow exercises sole voting and investment discretion over securities beneficially owned directly or indirectly by 3i and 3i Management. Mr. Tarlow disclaims beneficial ownership of the securities beneficially owned directly by 3i and indirectly by 3i Management. The business address of each of the aforementioned parties is 2 Wooster Street, 2nd Floor, New York, NY 10013. We have been advised that none of Mr. Tarlow, 3i Management or 3i is a member of the Financial Industry Regulatory Authority (“FINRA”) or an independent broker-dealer, or an affiliate or associated person of a FINRA member or independent broker-dealer. The securities beneficially owned by 3i in the table above are calculated as of December 13, 2024.

(2) The shares listed in the second column consist of 459,653 shares of Common Stock and do not include an aggregate of 3,441,666 shares of Common Stock issuable to Sabby upon conversion of the Sabby Note and upon the exercise of the Sabby Warrant, the conversion and exercise of which are subject to a 4.99% beneficial ownership limitation. The shares listed in the third column consist of 2,469,444 shares of Common Stock issuable to Sabby upon conversion of the Sabby Note in the principal amount of \$972,222 and 972,222 shares of Common Stock issuable upon the exercise of the Sabby Warrant, which do not reflect the beneficial ownership limitations in the Sabby Note and Sabby Warrant. The shares listed in the fourth column assume the issuance of all 47,396,667 shares of Common Stock issuable to the Selling Stockholders upon exercise or conversion of the Notes and Warrants, as applicable, all of which are assumed to have been sold in this Offering, and includes shares of Common Stock.

Sabby Management, LLC (“Sabby Management”) is the investment manager of Sabby and shares voting and investment power with respect to these shares in this capacity. As manager of Sabby Management, Hal Mintz also shares voting and investment power on behalf of Sabby. Each of Sabby Management and Hal Mintz disclaims beneficial ownership over the securities listed except to the extent of their pecuniary interest therein.

DESCRIPTION OF CAPITAL STOCK

The following briefly summarizes the material terms of our capital stock that are contained in our Certificate of Incorporation and Second Amended and Restated Bylaws (the "Bylaws"). These summaries do not describe every aspect of these securities and documents and are subject to all the provisions of our Certificate of Incorporation or Bylaws and are qualified in their entirety by reference to these documents, which you should read (along with the applicable provisions of Delaware law) for complete information on our capital stock. The Certificate of Incorporation and Bylaws are included as exhibits to our registration statement on Form S-1, of which this prospectus forms a part. Since the terms of the Delaware General Corporation Law (the "DGCL") are more detailed than the general information provided below, you should read the actual provisions of the DGCL for complete information.

General

Our authorized capital stock consists of 250,000,000 shares of Common Stock, par value \$0.0002 per share, and 10,000,000 shares of preferred stock, par value \$0.0001 per share.

As of December 13, 2024, 4,868,268 shares of our Common Stock are issued and outstanding, and no shares of our preferred stock are issued and outstanding

Common Stock

Voting

The holders of our Common Stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and do not have cumulative voting rights.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

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

Rights and Preferences

The holders of our Common Stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our Common Stock. The rights, preferences and privileges of the holders of our Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Stockholder Rights Plan

On March 11, 2018, our board of directors declared a dividend of one common share purchase right (a "Right") for each outstanding share of our Common Stock, which was amended by Amendment No. 1 thereto on March 8, 2019, by Amendment No. 2 thereto on March 10, 2020, by Amendment No. 3 thereto on March 8, 2021, by Amendment No. 4 on March 11, 2022, by Amendment No. 5 thereto on March 11, 2023, by Amendment No. 6 thereto on December 11, 2023 and by Amendment No. 7 on March 11, 2024 to extend the expiration date of the stockholder's rights plan to March 11, 2025. The dividend was initially paid on March 23, 2018 (the "Record Date") to the stockholders of record at the close of business on that date. Each Right initially entitles the registered holder to purchase from us one share of Common Stock at a price of \$14.00 per share of Common Stock (the "Purchase Price"), subject to adjustment. The description and terms of the Rights are set forth in a Rights Agreement, dated as of March 11, 2018, as amended by Amendment No. 1 thereto dated March 8, 2019, Amendment No. 2 thereto dated March 10, 2020, Amendment No. 3 thereto dated March 8, 2021, Amendment No. 4 thereto dated March 11, 2022, Amendment No. 5 thereto dated March 11, 2023, Amendment No. 6 thereto dated December 11, 2023 and Amendment No. 7 thereto dated March 11, 2024 as the same may be further amended from time to time (the "Rights Agreement"), between the Company and Continental Stock Transfer & Trust Company, as Rights Agent (the "Rights Agent").

The Rights are designed to assure that all of our stockholders receive fair and equal treatment in the event of a hostile takeover of the Company, to guard against two-tier or partial tender offers, open market accumulations and other tactics designed to gain control of the Company without paying all stockholders a fair price, and to enhance the board of director's ability to negotiate with any prospective acquirer. Until the earlier to occur of (i) 10 business days following a public announcement that a person or group of affiliated or associated persons has become an Acquiring Person (as defined below) or (ii) 10 business days (or such later date as may be determined by action of the board of directors prior to such time as any person or group of affiliated or associated persons becomes an Acquiring Person) following the commencement of, or public announcement of an intention to make, a tender or exchange offer the consummation of which would result in any person or group of affiliated or associated persons becoming an Acquiring Person (the earlier of such dates being called the "Distribution Date"), the Rights will be evidenced, with respect to certificates representing Common Stock (or book entry shares of Common Stock) outstanding as of the Record Date, by such certificates (or such book entry shares) together with a copy of a summary of the Rights (the "Summary of Rights"). Except in certain situations, a person or group of affiliated or associated persons becomes an "Acquiring Person" upon acquiring beneficial ownership of 20% or more of the outstanding shares of Common Stock. Certain synthetic interests in securities created by derivative positions – whether or not such interests are considered to be ownership of the underlying Common Stock or are reportable for purposes of Regulation 13D of the Securities Exchange Act of 1934, as amended (the "Exchange Act") – are treated as beneficial ownership of the number of shares of the Common Stock equivalent to the economic exposure created by the derivative security, to the extent actual shares of Common Stock are directly or indirectly beneficially owned by a counterparty to such derivative security. Amendment No. 6 exempted Mr. Wolf and his affiliated entity from being an Acquiring Person under certain specified circumstances.

The Rights Agreement provides that, until the Distribution Date (or earlier expiration of the Rights), the Rights will be transferred with and only with the Common Stock. Until the Distribution Date (or earlier expiration of the Rights), new Common Stock certificates issued after the Record Date upon transfer or new issuances of Common Stock will contain a notation incorporating the Rights Agreement by reference. Until the Distribution Date (or earlier expiration of the Rights), the surrender for transfer of any certificates for shares of Common Stock (or book entry shares of Common Stock) outstanding as of the Record Date, even without such notation or a copy of the Summary of Rights, will also constitute the transfer of the Rights associated with the shares of Common Stock represented thereby. As soon as practicable following the Distribution Date, separate certificates evidencing the Rights ("Right Certificates") will be mailed to holders of record of the Common Stock as of the close of business on the Distribution Date and such separate Right Certificates alone will evidence the Rights.

The Rights are not exercisable until the Distribution Date. The Rights will expire at the close of business on March 11, 2025, unless the Rights are earlier redeemed or exchanged by the Company as described below.

The Purchase Price payable, and the number of shares of Common Stock (or cash, other assets, debt securities of the Company, or any combination thereof equivalent in value thereto) issuable, upon exercise of the Rights is subject to adjustment from time to time to prevent dilution (i) in the event of a stock dividend on, or a subdivision, combination or reclassification of, the Common Stock, (ii) upon the grant to holders of the Common Stock of certain rights or warrants to subscribe for or purchase Common Stock at a price, or securities convertible into Common Stock with a conversion price, less than the then-current market price of the Common Stock or (iii) upon the distribution to holders of the Common Stock of evidences of indebtedness or assets (excluding regular periodic cash dividends or dividends payable in Common Stock) or of subscription rights or warrants (other than those referred to above).

The number of outstanding Rights is subject to adjustment in the event of a stock dividend on the Common Stock payable in shares of Common Stock or subdivisions, consolidations or combinations of the Common Stock occurring, in any such case, prior to the Distribution Date.

In the event that any person or group of affiliated or associated persons becomes an Acquiring Person, each holder of a Right, other than Rights beneficially owned by the Acquiring Person (which will thereupon become void), will thereafter have the right to receive upon exercise of a Right that number of shares of Common Stock (or cash, property debt securities of the Company, or any combination thereof) having a market value of two times the exercise price of the Right.

In the event that, after a person or group has become an Acquiring Person, the Company is acquired in a merger or other business combination transaction or 50% or more of its consolidated assets or earning power are sold, proper provisions will be made so that each holder of a Right (other than Rights beneficially owned by an Acquiring Person which will have become void) will thereafter have the right to receive upon the exercise of a Right that number of shares of Common Stock of the person with whom the Company has engaged in the foregoing transaction (or its parent) that at the time of such transaction have a market value of two times the exercise price of the Right.

At any time after any person or group becomes an Acquiring Person and prior to the earlier of one of the events described in the previous paragraph or the acquisition by such Acquiring Person of 50% or more of the outstanding shares of Common Stock, the board of directors may exchange the Rights (other than Rights owned by such Acquiring Person which will have become void), in whole or in part, for shares of Common Stock (or cash, other assets, debt securities of the Company, or any combination thereof with an aggregate value equal to such shares) at an exchange ratio of one share of Common Stock (or cash, other assets, debt securities of the Company, or any combination thereof equivalent in value thereto) per Right.

With certain exceptions, no adjustment in the Purchase Price will be required until cumulative adjustments require an adjustment of at least 1% in such Purchase Price. No fractional shares of Common Stock will be issued, and in lieu thereof a cash payment will be made based on then current market price of the Common Stock.

At any time prior to the time an Acquiring Person becomes such, the Board may redeem the Rights in whole, but not in part, at a price of \$0.001 per Right (the "Redemption Price") payable, at the option of the Company, in cash, shares of Common Stock or such other form of consideration as the board of directors shall determine. The redemption of the Rights may be made effective at such time, on such basis and with such conditions as the board of directors in its sole discretion may establish. Immediately upon any redemption of the Rights, the right to exercise the Rights will terminate and the only right of the holders of Rights will be to receive the Redemption Price.

For so long as the Rights are then redeemable, the Company may, except with respect to the Redemption Price, amend the Rights Agreement in any manner. After the Rights are no longer redeemable, the Company may, except with respect to the Redemption Price, amend the Rights Agreement in any manner that does not adversely affect the interests of holders of the Rights.

Until a Right is exercised or exchanged, the holder thereof, as such, will have no rights as a stockholder of the Company, including, without limitation, the right to vote or to receive dividends. For more detailed information, please see the Rights Agreement.

Potential Anti-Takeover Effects

Certain provisions set forth in our Certificate of Incorporation and Bylaws, our Rights Agreement and in Delaware law, which are summarized below, may be deemed to have an anti-takeover effect and may delay, deter or prevent a tender offer or takeover attempt that a stockholder might consider to be in its best interests, including attempts that might result in a premium being paid over the market price for the shares held by stockholders.

Proposals of Business and Nominations

Our Bylaws generally regulate proposals of business and nominations for election of directors by stockholders. In general, Section 2.14 requires stockholders intending to submit proposals or nominations at a stockholders meeting to provide the Company with advance notice thereof, including information regarding the stockholder proposing the business or nomination as well as information regarding the proposed business or nominee. Section 2.14 provides a time period during which business or nominations must be provided to the Company that will create a predictable window for the submission of such notices, eliminating the risk that the Company finds a meeting will be contested after printing its proxy materials for an uncontested election and providing the Company with a reasonable opportunity to respond to nominations and proposals by stockholders.

Board Vacancies

Our Bylaws generally provide that only the board of directors (and not the stockholders) may fill vacancies and newly created directorships.

Special Meeting of Stockholders

Our Bylaws generally provide that only the board of directors may call a special meeting of stockholders and that the board of directors may postpone, reschedule or cancel any special meeting of stockholders that was previously scheduled by the board of directors.

Stockholder Rights Plan

The Rights issued pursuant to the Rights Agreement, if not redeemed or suspended, could work to dilute the stock ownership of a potential hostile acquirer, likely preventing acquisitions that have not been approved by our Board of Directors.

While the foregoing provisions of our Certificate of Incorporation, Bylaws, Rights Agreement plan and Delaware law may have an anti-takeover effect, these provisions are intended to enhance the likelihood of continuity and stability in the composition of the Board of directors and in the policies formulated by the board of directors and to discourage certain types of transactions that may involve an actual or threatened change of control. In that regard, these provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our Common Stock that could result from actual or rumored takeover attempts. Such provisions also may have the effect of preventing changes in our management.

Exclusive Forum

The exclusive forum provision contained in our Bylaws limits the forum to the Delaware Court of Chancery for certain actions against us.

Our Bylaws provide that, unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the exclusive forum for (i) any derivative action or proceeding brought on behalf of us, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, or other employees to us or our stockholders, (iii) any action arising pursuant to any provision of the Delaware General Corporation Law, or (iv) any action asserting a claim governed by the internal affairs doctrine, except, in each case for claims arising under the Securities Act, the Exchange Act, or other federal securities laws for which there is exclusive federal or concurrent federal and state jurisdiction.

We believe limiting state law-based claims to Delaware will provide the most appropriate outcomes as the risk of another forum misapplying Delaware law is avoided, Delaware courts have a well-developed body of case law and limiting the forum will preclude costly and duplicative litigation and avoids the risk of inconsistent outcomes. Additionally, Delaware Chancery Courts can typically resolve disputes on an accelerated schedule when compared to other forums. While we believe limiting the forum for state law-based claims is a benefit, stockholders could be inconvenienced by not being able to bring certain actions in another forum they find favorable.

Delaware Anti-Takeover Statute

We are subject to Section 203 of the DGCL. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a “business combination” with any “interested stockholder” for three years following the date that the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our Board of Directors or unless the business combination is approved in a prescribed manner. A “business combination” includes, among other things, a merger or consolidation involving us and the “interested stockholder” and the sale of more than 10% of our assets. In general, an “interested stockholder” is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

Listing of Common Stock

On June 14, 2024, we received notice from the NYSE Regulation that it had suspended trading of our Common Stock on NYSE American and determined to commence proceedings to delist our Common Stock from NYSE American as a result of its determination that we were no longer suitable for listing pursuant to Section 1003(f)(v) of the NYSE American Company Guide due to the low selling price of our Common Stock. Our Common Stock began to be quoted on the OTC Markets system on June 17, 2024. On July 17, 2024, we effected the 2024 Reverse Stock Split to increase the selling price of our Common Stock in order to regain compliance with the requirements and policies of NYSE American. On July 29, 2024, NYSE American notified us that it had withdrawn its delisting determination and our Common Stock resumed trading on NYSE American on Friday, August 2, 2024, under the symbol "SCPX." However, there can be no assurance that the market price of our Common Stock following the 2024 Reverse Stock Split will remain at a level that will be sufficient to meet any requirements and policies of NYSE American or that our Common Stock will remain listed on NYSE American.

Transfer Agent

The transfer agent and registrar for our Common Stock is Continental Stock Transfer & Trust Company. They are located at 1 State Street, 30th floor, New York, New York 10004. Their telephone number is (212) 509-4000.

Limitations on Liability and Indemnification of Officers and Directors

As permitted by Delaware law, our Certificate of Incorporation includes provisions that eliminate the personal liability of our directors and officers for monetary damages resulting from breaches of certain fiduciary duties as a director or officer, as applicable, except to the extent such an exemption from liability thereof is not permitted under the DGCL. The effect of these provisions are to restrict our rights and the rights of our stockholders in derivative suits to recover monetary damages against a director or officer for breach of fiduciary duties as a director or officer, subject to certain exceptions in which case the director or officer would be personally liable. An officer may not be exculpated for any action brought by or in the right of the corporation. A director may not be exculpated for improper distributions to stockholders. Further, pursuant to Delaware law, a director or officer may not be exculpated for:

- any breach of his duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; and
- any transaction from which the director or officer derived an improper personal benefit.

These limitations of liability will not apply to liabilities arising under the federal or state securities laws and do not affect the availability of equitable remedies such as injunctive relief or rescission.

In addition, our Bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by law. Our Bylaws also provide that we are obligated to advance expenses incurred by a present or former director or officer in advance of the final disposition of any action or proceeding. We entered into separate indemnification agreements with our directors and executive officers that may, in some cases, be broader than the specific indemnification provisions contained under Delaware law. These agreements, among other things, require us to indemnify our directors and officers for expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such directors or officers or on his or her behalf in connection with any action or proceeding arising out of their services as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request provided that such person follows the procedures for determining entitlement to indemnification and advancement of expenses set forth in the indemnification agreement. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

PLAN OF DISTRIBUTION

The Selling Stockholders and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on NYSE American or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. The Selling Stockholders may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction, a markup or markdown in compliance with FINRA IM-2440.

In connection with the sale of the securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The Selling Stockholders have informed us that they do not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

We are required to pay certain fees and expenses incurred by us incident to the registration of the securities. We have agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep the registration statement of which this prospectus is a part effective for one year after its effectiveness.

Pursuant to applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the Common Stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the Common Stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

EXPERTS

The consolidated financial statements of Scorpius Holdings, Inc. (the Company) as of December 31, 2023 and 2022 and for the years then ended, incorporated by reference into this prospectus and in the registration statement have been so incorporated in reliance on the report of BDO USA, P.C., an independent registered public accounting firm given on the authority of said firm as experts in accounting and auditing. The report on the consolidated financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

LEGAL MATTERS

Blank Rome LLP, New York, New York, is acting as counsel in connection with the registration of our securities under the Securities Act, and as such, will pass upon the validity of the securities offered hereby.

As of the date of this prospectus, an attorney of Blank Rome LLP beneficially owns Common Stock and securities exercisable to purchase shares of our Common Stock that represent less than 1% of our outstanding shares of Common Stock.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed with the registration statement. For further information about us and the securities offered hereby, we refer you to the registration statement and the exhibits filed with the registration statement. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. The SEC also maintains an internet website that contains reports, proxy statements and other information about registrants, like us, that file electronically with the SEC. The address of that website is www.sec.gov.

We are required to file periodic reports, proxy statements, and other information with the SEC pursuant to the Exchange Act. These reports, proxy statements, and other information will be available on the website of the SEC referred to above.

We also maintain a website at www.scorpiusbiologics.com, through which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on or accessed through our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus.

We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC (Commission File No. 001-35994):

- Our Annual Report on [Form 10-K](#) for the fiscal December 31, 2023, filed with the SEC on April 26, 2024;
- Our Quarterly Reports on Form 10-Q for the quarter ended [March 31, 2024](#), filed with the SEC on May 28, 2024, for the quarter ended [June 30, 2024](#), filed with the SEC on August 19, 2024, and for the quarter ended [September 30, 2024](#), filed with the SEC on November 14, 2024;
- Our Current Reports on Form 8-K filed with the SEC on [January 8, 2024](#) (other than information furnished under Item 7.01 and exhibits related thereto), [January 11, 2024](#), [January 16, 2024](#) (other than information furnished under Item 7.01 and exhibits related thereto), [January 22, 2024](#), [January 26, 2024](#), [January 30, 2024](#), [February 6, 2024](#), [March 11, 2024](#), [March 13, 2024](#), [April 22, 2024](#), [April 30, 2024](#), [May 2, 2024](#), [May 16, 2024](#), [May 22, 2024](#), [May 24, 2024](#), [May 29, 2024](#), [May 30, 2024](#), [June 17, 2024](#), [July 18, 2024](#), [July 30, 2024](#), [July 31, 2024](#), [August 9, 2024](#), [August 19, 2024](#), [August 26, 2024](#), [December 3, 2024](#), and [December 6, 2024](#);
- Our definitive proxy statement on [Schedule 14A](#), filed with the SEC on June 17, 2024; and
- The description of our Common Stock and our common stock purchase rights is set forth in our registration statement on [Form 8-A](#) filed with the SEC on February 4, 2022, [Form 8-A/A \(Amendment No. 1\)](#) filed on March 11, 2022, [Form 8-A/A \(Amendment No. 2\)](#) filed on March 13, 2023, and [Form 8-A/A \(Amendment No. 3\)](#) filed on March 13, 2024 as updated by the description of our Common Stock filed as [Exhibit 4.14](#) to our Annual Report on Form 10-K for the year ended December 31, 2023 filed with the SEC on April 26, 2024, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made (i) on or after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of such registration statement, and (ii) on or after the date of this prospectus but prior to the termination of the offering (i.e., until the earlier of the date on which all of the securities registered hereunder have been sold or the registration statement of which this prospectus forms a part has been withdrawn). Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to:

Scorpius Holdings, Inc.
627 Davis Drive, Suite 300
Morrisville, North Carolina 27560
Telephone (610) 727-4597
Attention: Corporate Secretary

You may also access these documents, free of charge, on the SEC’s website at www.sec.gov or on our website at <https://scorpiusbiologics.com/investors/sec-filings>. The information contained in, or that can be accessed through, our website is not incorporated by reference in, and is not part of, this prospectus or any accompanying prospectus supplement.

In accordance with Rule 412 of the Securities Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

You should rely only on information contained in, or incorporated by reference into, this prospectus and any prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference into 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 an offer or solicitation.

47,396,667 Shares of Common Stock



PROSPECTUS

, 2024

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth the expenses in connection with this registration statement. All of such expenses are estimates, other than the filing fee payable to the Securities and Exchange Commission.

Item	Amount
SEC registration fee	\$ 647
Legal fees and expenses	35,000
Accounting fees and expenses	5,000
Miscellaneous fees and expenses	4,353
Total	\$ 45,000

Item 14. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law (the “DGCL”) empowers a corporation to indemnify its directors and officers and to purchase insurance with respect to liability arising out of their capacity or status as directors and officers, provided that the person acted in good faith and in a manner the person reasonably believed to be in our best interests, and, with respect to any criminal action, had no reasonable cause to believe the person’s actions were unlawful. The DGCL further provides that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation’s bylaws, any agreement, a vote of stockholders or otherwise.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director or officer of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director or officer, except (i) for any breach of the director’s or officer’s duty of loyalty to the corporation or its stockholders; (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (iii) for any transaction from which the director or officer derived an improper personal benefit; (iv) a director for payments of unlawful dividends or unlawful stock repurchases or redemptions; or (v) an officer in any action by or in the right of the corporation.

Our Bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by law. Our Bylaws also provide that we are obligated to advance expenses incurred by a present or former director or officer in advance of the final disposition of any action or proceeding. In addition, as permitted by Delaware law, our Certificate of Incorporation includes provisions that eliminate the personal liability of our directors and officers for monetary damages resulting from breaches of certain fiduciary duties as a director or officer, as applicable, except to the extent such an exemption from liability thereof is not permitted under the DGCL.

We have entered into indemnification agreements with each of our directors and executive officers. These agreements will require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified.

The Registrant has an insurance policy in place that covers its officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

Item 15. Recent Sales of Unregistered Securities

The Company has not issued unregistered securities to any person within the last three years other than:

- the issuance to Elusys Holdings, Inc. on January 26, 2024 of a convertible promissory note in the aggregate amount of \$2,250,000 (the “Original Convertible Note”), the conversion of which was subject to both Elusys’ election and obtaining stockholder approval of the issuance of shares of our Common Stock upon such conversion. The Original Convertible Note bore interest at a rate of 1% per annum, matured on the one-year anniversary of its issuance and was convertible into shares of our Common Stock at the option of Elusys only if stockholder approval of the issuance of such shares of Common Stock issuable upon conversion of the Original Convertible Note was obtained prior to the maturity date, which approval has been obtained. The conversion price of the Original Convertible Note was equal to 110% of the volume weighted average price (VWAP) of Common Stock for the seven trading days prior to December 11, 2023 which was \$0.39109;
- the issuance to Elusys Holdings, Inc., on May 1, 2024, of a 1% non-convertible promissory note, as amended, due July 31, 2024 in the principal amount of \$750,000 (the “New Note”) for \$750,000;
- the issuance to Elusys Holdings, Inc., on May 1, 2024, of an amended and restated 1% convertible promissory note in the principal amount of \$2,250,000 with a maturity date of September 1, 2025 (the “Restated Note”) in exchange for the Original Convertible Note, the conversion of which is subject to both Elusys’ election and obtaining stockholder approval of the issuance of shares of our Common Stock upon such conversion, which approval has been obtained. The conversion price, as amended, was \$0.11, which was 110% of the public offering price per share of the shares of Common Stock sold in our May 2024 public offering, which conversion price was increased to \$22.00 as a result of the 2024 Reverse Stock Split;
- the issuance to an institutional investor, on November 27, 2024, of the November 2024 Note in the principal amount of Two Hundred Twenty-Five Thousand Dollars (\$225,000), which accrues interest at the rate of 5.0% per annum and matures on the earlier of: (i) December 15, 2024; (ii) the consummation of a Corporate Event (as such term is defined in the November 2024 Note); or (iii) when, upon or after the occurrence of an event of default under the November 2024 Note; and
- the issuance to certain institutional investors, on December 6, 2024, of the Notes, convertible into up to an aggregate of 34,007,778 shares of Common Stock, and the Warrants to purchase up to an aggregate of 13,388,889 shares of Common Stock, for an aggregate purchase price of \$12,050,000. The Notes mature on the third anniversary of their date of issuance, unless prior thereto there is an event of default, and bear interest at a rate of 9% per annum payable in cash on the first business day of each fiscal quarter beginning January 2, 2025. The Notes are convertible, at the option of the holder, at any time, into a number of shares of Common Stock equal to the principal amount of the Note, plus all accrued and unpaid interest, at a conversion price equal to \$0.50, subject to adjustment for any stock splits, stock dividends, recapitalizations and similar events and subject to an Exchange Cap (as defined in the Note) and other limitations.

The Original Convertible Note, the New Note, the November 2024 Note, the Notes, the Warrants and the shares of Common Stock that may be issued under the Notes and Warrants were offered and sold in transactions exempt from registration under Section 4(a)(2) of the Securities Act and the Restated Note and the shares of Common Stock that may be issued under the Restated Note, respectively, were offered and sold in transactions exempt from registration under the Securities Act in reliance on Section 3(a)(9) thereof.

The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients had adequate access, through their employment or other relationship with us or through other access to information provided by us, to information about us. The sales of these securities were made without any general solicitation or advertising.

Item 16. Exhibits and financial statement schedules.

(a) Exhibits

The exhibits to this registration statement are listed in the Exhibit Index to this registration statement, which immediately precedes the Signature Page and which Exhibit Index is hereby incorporated by reference.

(b) Financial Statement Schedules

Schedules not listed have been omitted because the information required to be set forth therein is not applicable, not material or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - i. to include any prospectus required by Section 10(a)(3) of the Securities Act;
 - ii. to reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement (notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of a prospectus filed with the Commission pursuant to Rule 424(b) under the Securities Act if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement); and
 - iii. to include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement; provided, however, that subparagraphs (i), (ii) and (iii) do not apply if the information required to be included in a post-effective amendment by those subparagraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration, by means of a post-effective amendment, any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
- (5) For purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (6) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by a Registrant of expenses incurred or paid by a director, officer or controlling person of a Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, that Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

EXHIBIT INDEX

Exhibit No.	Description
2.1	Merger Agreement, dated December 20, 2021, by and among the Registrant, Heat Acquisition Sub I, Inc. and Elusys Therapeutics, Inc. (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 21, 2021 (File No. 001-35994))
2.2	Asset and Equity Interests Purchase Agreement by and between the Registrant and Elusys Holdings Inc., dated as December 12, 2023 (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2023 (File No. 001-35994))
3.1	Third Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.5 to the Registration Statement on Form S-1 with the Securities and Exchange Commission on May 6, 2013 (File No. 333-188365))
3.2	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation filed on May 29, 2013 (incorporated by reference to Exhibit 3.6 to the Registration Statement on Form S-1 with the Securities and Exchange Commission on May 30, 2013 (File No. 333-188365))
3.3	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on July 17, 2017 (File No. 001-35994))
3.4	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on January 19, 2018 (File No. 001-35994))
3.5	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission March 23, 2020 (File No. 001 -35994))
3.6	Amended and Restated Bylaws, dated October 17, 2019 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on October 18, 2019 (File No. 001-35994))
3.7	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 10, 2020 (File No. 001 -35994))
3.8	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 3, 2022 (File No. 001 -35994))
3.9	Second Amended and Restated Bylaws, dated May 3, 2022 (incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 3, 2022 (File No. 001 -35994))
3.10	Certificate of Amendment to Certificate of Incorporation to the Third Amended and Restated Certificate of Incorporation, dated February 5, 2024 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on February 6, 2024 (File No. 001-35994))
3.11	Certificate of Amendment of the Company's Third Amended and Restated Certificate of Incorporation, filed with the Secretary of State of Delaware on July 17, 2024 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on July 18, 2024 (File No. 001-35994))
4.1#	2009 Stock Incentive Plan (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-1 with the Securities and Exchange Commission on May 6, 2013 (File No. 333-188365))
4.2#	First Amendment of the 2009 Stock Incentive Plan (incorporated by reference to Exhibit 4.2 to the Registration Statement on Form S-1 with the Securities and Exchange Commission on May 6, 2013 (File No. 333-188365))
4.3#	Second Amendment of the 2009 Stock Incentive Plan (incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-1 with the Securities and Exchange Commission on May 6, 2013 (File No. 333-188365))
4.4#	Third Amendment of the 2009 Stock Incentive Plan (incorporated by reference to Exhibit 4.4 to the Registration Statement on Form S-1 with the Securities and Exchange Commission on May 6, 2013 (File No. 333-188365))
4.5#	Fourth Amendment of the 2009 Stock Incentive Plan (incorporated by reference to Exhibit 4.5 to the Registration Statement on Form S-1 with the Securities and Exchange Commission on May 6, 2013 (File No. 333-188365))
4.6	Specimen Common Stock Certificate of Heat Biologics, Inc. (incorporated by reference to Exhibit 4.8 to the Registration Statement on Form S-1 with the Securities and Exchange Commission on May 6, 2013 (File No. 333-188365))
4.7#	2014 Stock Incentive Plan (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 with the Securities and Exchange Commission on June 13, 2014 (File No. 333-196763))
4.8#	Amended and Restated Heat Biologics, Inc. 2014 Stock Incentive Plan (incorporated by reference to Appendix A to the Definitive Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on June 22, 2015))
4.9#	2017 Stock Incentive Plan (incorporated by reference as Exhibit 4.1 to the Registration Statement on Form S-8 with the Securities and Exchange Commission on July 11, 2017 (File No. 333-219238))
4.10	Rights Agreement between Heat Biologics, Inc. and Continental Stock Transfer & Trust Company dated March 11, 2018 (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K with the Securities and Exchange Commission on March 12, 2018 (File No. 001-35994))
4.11#	2018 Stock Incentive Plan (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 with the Securities and Exchange Commission on October 4, 2018 (File No. 333-219238))

- 4.12 [Amendment No. 1 to Rights Plan \(incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on March 12, 2019 \(File No. 001-35994\)\)](#)
- 4.13 [Amendment No. 2 to the Rights Agreement dated as of March 10, 2020 to the Rights Agreement dated March 11, 2018, as amended by Amendment No. 1 thereto, dated as of March 8, 2019, by and between Heat Biologics, Inc. and Continental Stock Transfer & Trust Company, as rights agent \(incorporated by reference to Exhibit 4.3 to the Form 8-A/A filed with the Securities and Exchange Commission on March 13, 2020 \(File No. 001-35994\)\)](#)
- 4.14 [Amendment No. 3 to the Rights Agreement dated as of March 8, 2021 to the Rights Agreement dated March 11, 2018, as amended by Amendment No. 1 thereto, dated as of March 8, 2019, and Amendment No. 2 thereto, dated as of March 10, 2020, by and between Heat Biologics, Inc. and Continental Stock Transfer & Trust Company, as rights agent \(incorporated by reference to Exhibit 4.1 to the Form 8-K filed with the Securities and Exchange Commission on March 12, 2021 \(File No. 001-35994\)\)](#)
- 4.15 [Heat Biologics, Inc. 2021 Subsidiaries Stock Incentive Plan \(incorporated by reference as Exhibit B to the Heat Biologics, Inc. Definitive Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on August 3, 2021 \(File No. 001-35994\)\)](#)
- 4.16 [Amendment No. 4 to the Rights Agreement dated as of March 8, 2021 to the Rights Agreement dated March 11, 2018, as amended by Amendment No. 1 thereto, dated as of March 8, 2019, Amendment No. 2 thereto, dated as of March 10, 2020, and Amendment No. 3 thereto dated as of March 8, 2021 by and between Heat Biologics, Inc. and Continental Stock Transfer & Trust Company, as rights agent \(incorporated by reference to Exhibit 4.5 to the Form 8-K filed with the Securities and Exchange Commission on March 11, 2022 \(File No. 001-35994\)\)](#)
- 4.17 [Amendment No. 5 to the Rights Agreement dated as of March 11, 2023 to the Rights Agreement dated March 11, 2018, as amended by Amendment No. 1 thereto, dated as of March 8, 2019, Amendment No. 2 thereto, dated March 10, 2020, Amendment No. 3 thereto, dated March 8, 2021, and Amendment No. 4 thereto, dated March 11, 2022, by and between the Registrant and Continental Stock Transfer & Trust Company, as rights agent \(incorporated by reference to Exhibit 4.6 to the Form 8-K filed with the Securities and Exchange Commission on March 13, 2023 \(File No. 001-35994\)\)](#)
- 4.18 [Amendment No. 6 to the Rights Agreement dated as of December 11, 2023 to the Rights Agreement dated March 11, 2018, as amended by Amendment No. 1 thereto, dated as of March 8, 2019, Amendment No. 2 thereto, dated March 10, 2020, Amendment No. 3 thereto, dated March 8, 2021, Amendment No. 4 thereto, dated March 11, 2022, and Amendment No. 5 thereto, dated March 11, 2023, by and between the Registrant and Continental Stock Transfer & Trust Company, as rights agent \(incorporated by reference to Exhibit 4.7 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2023 \(File No. 001-35994\)\)](#)
- 4.19 [Amendment No. 7 to Rights Agreement \(incorporated by reference to Exhibit 4.8 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on March 13, 2024 \(File No. 001-35994\)\)](#)
- 4.20 [Convertible Note in the principal amount of \\$2,250,000 issued to Elusys Holdings Inc. \(incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on January 30, 2024 \(File No. 001-35994\)\)](#)
- 4.21 [Note, dated May 1, 2024, in the principal amount of \\$750,000 \(incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 2, 2024 \(File No. 001-35994\)\)](#)
- 4.22 [Amended and Restated Convertible Note, dated May 1, 2024 in the principal amount of \\$2,250,000 \(incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 2, 2024 \(File No. 001-35994\)\)](#)
- 4.23 [Form of Common Warrant incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 16, 2024 \(File No. 001-35994\)](#)
- 4.24 [Form of Pre-Funded Warrant \(incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 16, 2024 \(File No. 001-35994\)\)](#)
- 4.25 [Amendment dated July 16, 2024 to Note dated May 1, 2024 \(incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on July 18, 2024 \(File No. 001-35994\)\)](#)
- 4.26 [Form of Pre-Funded Warrant \(incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on August 19, 2024 \(File No. 001-35994\)\)](#)
- 4.27 [Form of Promissory Note \(incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 3, 2024 \(File No. 001-35994\)\)](#)
- 4.28 [Form of Senior Secured Convertible Note \(incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 6, 2024 \(File No. 001-35994\)\)](#)
- 4.29 [Form of Warrant \(incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 6, 2024 \(File No. 001-35994\)\)](#)
- 5.1* [Opinion of Blank Rome LLP](#)
- 10.1# [Form of Incentive Stock Option Agreement under the 2014 Stock Incentive Plan, as amended \(incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K with the Securities and Exchange Commission on July 27, 2015 \(File No. 001-35994\)\)](#)
- 10.2# [Form of Non-Statutory Stock Option Agreement under the 2014 Stock Incentive Plan, as amended \(incorporated by reference to Exhibit 10.5 to the Current Report on Form 8-K with the Securities and Exchange Commission on July 27, 2015 \(File No. 001-35994\)\)](#)
- 10.3 [Form of Indemnification Agreement by and between Heat Biologics, Inc. and its directors and officers \(incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q with the Securities and Exchange Commission on August 15, 2016 \(File No. 001-35994\)\)](#)
- 10.4# [Form of Restricted Stock Unit Award Agreement \(incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K with the Securities and Exchange Commission on January 4, 2017 \(File No. 001-35994\)\)](#)

- 10.5# [Form of Incentive Stock Option Agreement under the 2017 Stock Incentive Plan \(incorporated by reference to Exhibit 10.77 to the Heat Biologics, Inc.'s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 2, 2018 \(File No. 001-35994\)\)](#)
- 10.6# [Form of Non-Statutory Stock Option Agreement under the 2017 Stock Incentive Plan \(incorporated by reference to Exhibit 10.78 to the Heat Biologics, Inc.'s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 2, 2018 \(File No. 001-35994\)\)](#)
- 10.7# [Form of Restricted Stock Unit Award Agreement under the 2017 Stock Incentive Plan \(incorporated by reference to Exhibit 10.79 to the Heat Biologics, Inc.'s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 2, 2018 \(File No. 001-35994\)\)](#)
- 10.8# [Form of Incentive Stock Option Agreement under the 2018 Stock Incentive Plan \(incorporated by reference to Exhibit 4.2 to the Registration Statement on Form S-8 with the Securities and Exchange Commission on October 4, 2018 \(File No. 333-219238\)\)](#)
- 10.9# [Form of Non-Statutory Stock Option Agreement under the 2018 Stock Incentive Plan \(incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-8 with the Securities and Exchange Commission on October 4, 2018 \(File No. 333-219238\)\)](#)
- 10.10# [Form of Notice of Award under the 2018 Stock Incentive Plan \(incorporated by reference to Exhibit 4.4 to the Registration Statement on Form S-8 with the Securities and Exchange Commission on October 4, 2018 \(File No. 333-219238\)\)](#)
- 10.11# [Form of Restricted Stock Agreement under the 2018 Stock Incentive Plan \(incorporated by reference to Exhibit 4.5 to the Registration Statement on Form S-8 with the Securities and Exchange Commission on October 4, 2018 \(File No. 333-219238\)\)](#)
- 10.12# [Heat Biologics, Inc. Form of Restricted Stock Agreement \(incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on January 3, 2019 \(File No. 001-35994\)\)](#)
- 10.13# [Amendment No. 1 to the Heat Biologics, Inc. 2018 Stock Incentive Plan \(incorporated by reference to Appendix A to the Definitive Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on June 4, 2019 \(File No. 001-35994\)\)](#)
- 10.14# [Form of Restricted Stock Agreement \(incorporated by reference to Exhibit 10.4 to the Heat Biologics, Inc. Current Report on Form 8-K filed with the Securities and Exchange Commission on January 3, 2020 \(File No. 001-35994\)\)](#)
- 10.15# [Amendment no. 2 to the Heat Biologics 2018 Stock Incentive Plan \(incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-8 filed with the Securities and Exchange Commission on March 12, 2020\)](#)
- 10.16# [Amendment No. 3 to the Heat Biologics, Inc. 2018 Stock Incentive Plan \(incorporated by reference to Appendix A to the Definitive Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on July 27, 2020\)](#)
- 10.17# [Employment Agreement between Heat Biologics, Inc. and Jeffrey Wolf, dated as of January 4, 2021 \(incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on January 6, 2021 \(File No. 001-35994\)\)](#)
- 10.18# [Form of Restricted Stock Agreement \(incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on January 6, 2021 \(File No. 001-35994\)\)](#)
- 10.19 [Lease between Durham Keystone Tech 7, LLC and Heat Biologics, Inc. dated June 21, 2021 \(incorporated by reference to Exhibit 10.1 to the Heat Biologics, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 23, 2021 \(File No. 001-35994\)\)](#)
- 10.20# [Form of Stock Option Agreement for the Heat Biologics 2021 Subsidiaries Stock Incentive Plan \(incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on August 3, 2021 \(File No. 001-35994\)\)](#)
- 10.21# [Form of Restricted Stock Purchase Agreement for the Heat Biologics 2021 Subsidiaries Stock Incentive Plan \(incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on August 3, 2021 \(File No. 001-35994\)\)](#)
- 10.22# [Heat Biologics, Inc. 2021 Employee Stock Purchase Plan \(incorporated by reference to Exhibit A to the Definitive Proxy Statement on Schedule A filed with the Securities and Exchange Commission on August 3, 2021 \(File No. 001-35994\)\)](#)
- 10.23 [Lease between Merchants Ice II, LLC and Heat Biologics, Inc. dated June October 5, 2021 \(incorporated by reference to Exhibit 10.1 to the Heat Biologics, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on October 7, 2021 \(File No. 001-35994\)\)](#)
- 10.24# [Form of Amended and Restated Restricted Stock Agreement \(incorporated by reference to Exhibit 10.1 to the Heat Biologics, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on December 15, 2021 \(File No. 001-35994\)\)](#)
- 10.25# [Employment Agreement effective as of January 1, 2022 by and between Heat Biologics, Inc. and William Ostrander \(incorporated by reference to Exhibit 10.2 to the Heat Biologics, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on December 15, 2021 \(File No. 001-35994\)\)](#)
- 10.26 [Ordering Agreement between Lonza Sales AG and Elusys Therapeutics, Inc. \(incorporated by reference to Exhibit 10.62 to the Heat Biologics, Inc.'s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 31, 2023 \(File No. 001-35994\)\)](#)
- 10.27 [Ordering Agreement between Lonza Sales AG and Elusys Therapeutics, Inc. \(incorporated by reference to Exhibit 10.63 to the Heat Biologics, Inc.'s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 31, 2023 \(File No. 001-35994\)\)](#)
- 10.28# [Form of New Incentive Stock Option Agreement under the 2018 Stock Incentive Plan \(incorporated by reference to Exhibit 10.1 to the Current Report on Form 8 K with the Securities and Exchange Commission on January 3, 2022 \(File No. 001-35994\)\)](#)
- 10.29# [Form of New Non-Statutory Stock Option Agreement under the 2018 Stock Incentive Plan \(incorporated by reference to Exhibit 10.2 to the Current Report on Form 8 K with the Securities and Exchange Commission on January 3, 2022 \(File No. 001-35994\)\)](#)
- 10.30# [Amendment No. 4 to the Heat Biologics, Inc. 2018 Stock Incentive Plan \(incorporated by reference to Appendix A to the Definitive Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on July 28, 2022\)](#)
- 10.31# [Amendment No. 4 to the Scorpius Holdings, Inc. 2021 Subsidiaries Stock Incentive Plan \(incorporated by reference to Appendix A to the Definitive Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on July 28, 2022\)](#)
- 10.32# [Amendment No. 1 to Employment Agreement between Scorpius Holdings, Inc. and Jeffrey Wolf, effective as of December 7, 2022 \(incorporated by reference to Exhibit 10.2 to the Heat Biologics, Inc. Current Report on Form 8-K filed with the Securities and Exchange Commission on December 9, 2022 \(File No. 001-35994\)\)](#)
- 10.33# [Amendment No. 1 to Employment Agreement between Scorpius Holdings, Inc. and William Ostrander, effective as of December 7, 2022 \(incorporated by reference to Exhibit 10.1 to the Heat Biologics, Inc. Current Report on Form 8-K filed with the Securities and Exchange Commission on December 9, 2022 \(File No. 001-35994\)\)](#)

10.34	<u>Lease between TPB Merchants Ice LLC and Scorpion Biologics, Inc. dated December 31, 2022 (incorporated by reference to Exhibit 10.1 to the Heat Biologics, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on January 25, 2023 (File No. 001-35994))</u>
10.35#	<u>Amendment No. 2 to William Ostrander Employment Agreement with the Registrant, dated as of December 11, 2023 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2023 (File No. 001-35994))</u>
10.36	<u>Form of Shared Services Agreement between the Registrant and Elusys Holdings Inc. (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2023 (File No. 001-35994))</u>
10.37	<u>Patent Rights Sale and Assignment Agreement between NightHawk Biosciences, Inc. and Kopfkino IP, LLC (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on January 30, 2024 (File No. 001-35994))</u>
10.38	<u>Note Purchase Agreement, dated May 1, 2024 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 2, 2024 (File No. 001-35994))</u>
10.39#	<u>Amendment No. 5 to Nighthawk Biosciences, Inc. 2018 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on July 18, 2024 (File No. 001-35994))</u>
10.40	<u>Note Cancellation and Amendment to Asset and Equity Interests Purchase Agreement by and between the Registrant and Elusys Holdings Inc., dated as July 30, 2024 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on July 31, 2024 (File No. 001-35994))</u>
10.42#	<u>Amendment No. 2 to Jeffrey Wolf Employment Agreement with the Company dated as of August 23, 2024 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on August 26, 2024 (File No. 001-35994))</u>
10.43#	<u>Amendment No. 3 to William Ostrander Employment Agreement with the Company dated as of August 23, 2024 (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on August 26, 2024 (File No. 001-35994))</u>
10.44	<u>Securities Purchase Agreement, dated December 6, 2024 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 6, 2024 (File No. 001-35994))</u>
10.45	<u>Security Agreement, dated December 6, 2024 (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 6, 2024 (File No. 001-35994))</u>
10.46	<u>Subsidiary Guarantee, dated December 6, 2024 (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 6, 2024 (File No. 001-35994))</u>
10.47	<u>Form of Support Agreement, dated December 6, 2024 (incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 6, 2024 (File No. 001-35994))</u>
21.1	<u>List of Subsidiaries (incorporated by reference to Exhibit 21.1 to the Annual Report on Form 10-K filed with the Securities and Exchange Commission on April 26, 2024 (File No. 001-35994))</u>
23.1*	<u>Consent of Independent Registered Public Accounting Firm (BDO USA, P.C.)</u>
23.2*	<u>Consent of Blank Rome LLP (contained in Exhibit 5.1)</u>
24.1*	<u>Power of Attorney (reference is made to the signature page hereto)</u>
107*	<u>Filing fee table</u>

* Filed herewith

Management contract or compensatory plan or arrangement

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-1 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Morrisville, State of North Carolina, on December 17, 2024.

SCORPIUS HOLDINGS, INC.

By: /s/ Jeffrey Wolf
Title: Jeffrey Wolf
Name: Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Jeffrey Wolf and/or William Ostrander, as his true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

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

<u>Person</u>	<u>Capacity</u>	<u>Date</u>
<u>/s/ Jeffrey Wolf</u> Jeffrey Wolf	Chief Executive Officer, President and Chairman of the Board (Principal Executive Officer)	December 17, 2024
<u>/s/ William L. Ostrander</u> William L. Ostrander	Chief Financial Officer (Principal Financial and Accounting Officer)	December 17, 2024
<u>/s/ John Monahan, Ph.D.</u> John Monahan, Ph.D.	Director	December 17, 2024
<u>/s/ John K.A. Prendergast, Ph.D.</u> John K.A. Prendergast, Ph.D.	Director	December 17, 2024
<u>/s/ Edward B. Smith, III</u> Edward B. Smith, III	Director	December 17, 2024

BLANKROME

1271 Avenue of the Americas | New York, NY 10020
blankrome.com

December 17, 2024

The Board of Directors
Scorpius Holdings, Inc.
627 Davis Drive, Suite 300
Morrisville, North Carolina 27560

Re: Registration Statement on Form S-1

Ladies and Gentlemen:

We have acted as counsel to Scorpius Holdings, Inc., a Delaware corporation (the "Company"), in connection with the preparation of the Company's registration statement on Form S-1 ("Registration Statement"), as filed with the U.S. Securities and Exchange Commission (the "Commission") relating to the registration for resale, under the Securities Act of 1933, as amended, and the rules and regulations thereunder (the "Securities Act"), by the entities named in the Registration Statement (the "Selling Stockholders") of up to an aggregate of 47,396,667 shares (the "Shares") of the Company's common stock, par value \$0.0002 per share (the "Common Stock"), consisting of: (i) up to 34,007,778 shares of Common Stock (the "Conversion Shares") issuable upon the conversion of the senior secured convertible notes (the "Notes") that we issued on December 6, 2024 to the Selling Stockholders pursuant to that certain Securities Purchase Agreement, dated as of December 5, 2024 (the "Purchase Agreement"), between us and the Selling Stockholders named therein; and (ii) up to 13,388,889 shares of Common Stock (the "Warrant Shares") issuable upon the exercise of the warrants (the "Warrants") that we issued on December 6, 2024 to the Selling Stockholders pursuant to the Purchase Agreement.

This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act.

In rendering the opinion set forth herein, we have examined originals or copies, certified or otherwise identified to our satisfaction, of (i) the Registration Statement; (ii) the Purchase Agreement; (iii) the Notes; (iv) the Warrants; (v) resolutions adopted by the Board of Directors of the Company (the "Board"); (vi) the third amended and restated certificate of incorporation of the Company, as amended (the "Certificate of Incorporation"); (vii) the second amended and restated bylaws of the Company (the "Bylaws"); and (viii) such other corporate records, agreements, certificates, including, but not limited to, certificates or comparable documents of public officials and of officers and representatives of the Company, statutes and other instruments and documents as we considered relevant and necessary as a basis for the opinions hereinafter expressed.

In rendering this opinion, we have assumed, without inquiry, (i) the authenticity of all documents submitted to us as originals; (ii) the conformity to the original documents of all documents submitted to us as facsimile, electronic, certified or photostatic copies, and the authenticity of the originals of such copies; (iii) the legal capacity of all natural persons and the genuineness of all signatures on the Registration Statement and all documents submitted to us; and (iv) that the books and records of the Company are maintained in accordance with proper corporate procedures. We have also assumed that the Company will, at the time of any issuance of the Shares have a sufficient number of authorized but unissued shares of Common Stock pursuant to its Certificate of Incorporation to so issue the relevant number of Shares and such Shares will be issued for not less than the par value of the Common Stock.

Based upon the foregoing, it is our opinion that:

1. The Conversion Shares have been duly and validly authorized for issuance and, when issued by the Company and delivered by the Company upon the valid conversion of the Notes, in accordance with and in the manner described in the Registration Statement, the Purchase Agreement and the Notes, the Conversion Shares will be validly issued, fully paid and non-assessable.
2. The Warrant Shares have been duly and validly authorized for issuance and, when issued by the Company and delivered by the Company upon the valid exercise of the Warrants and against receipt of the exercise price therefor, in accordance with and in the manner described in the Registration Statement, the Purchase Agreement and the Warrants will be validly issued, fully paid and non-assessable.

We are opining solely on all applicable statutory provisions of Delaware corporate law, including the rules and regulations underlying those provisions, all applicable provisions of the Delaware Constitution and all applicable judicial and regulatory determinations. This opinion is limited to the laws of the State of Delaware as in effect on the date hereof and we express no opinion with respect to the laws of any other jurisdiction.

We hereby consent to the reference to our firm under the caption "Legal Matters" in the prospectus included in the Registration Statement and to the filing of this opinion as Exhibit 5.1 to the Company's Registration Statement relating to the resale of the Shares. In giving our consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ BLANK ROME LLP
BLANK ROME LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our report dated April 26, 2024, relating to the consolidated financial statements of Scorpius Holdings, Inc. (the Company), appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2023. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ BDO USA, P.C.
Raleigh, North Carolina

December 17, 2024

Calculation of Filing Fee Tables

Form S-1
(Form Type)

Scorpius Holdings, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1 – Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Share ⁽²⁾	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Common Stock, par value \$0.0002 per share	Rule 457(c) (2)	47,396,667	\$ 0.1675	\$ 7,938,941.72	\$ 0.00015310	\$ 1,215.45
	Total Offering Amounts					\$ 7,938,941.72		\$ 1,215.45
	Total Fees Previously Paid							—
	Total Fee Offsets					—	—	—
	Net Fee Due							<u>\$ 1,215.45</u>

(1) All of the shares of common stock offered hereby are for the account of the Selling Stockholders named herein. Pursuant to Rule 416 of the Securities Act of 1933, as amended (the “Securities Act”), this registration statement also covers any additional shares of common stock which become issuable by reason of any share dividend, share split, recapitalization or any other similar transaction without receipt of consideration which results in an increase in the number of shares of common stock outstanding.

(2) Calculated pursuant to Rule 457(c) of the Securities Act solely for purposes of calculating the registration fee. The price for these shares is based upon the average of the high and low sale prices of the Registrant’s common stock, par value \$0.0002 per share, reported on NYSE American LLC on December 13, 2024.