

PROSPECTUS

BiomX Inc.

7,163,000 Shares of Common Stock

This prospectus relates to the resale, from time to time, by the selling stockholders named in this prospectus (together with their donees, pledgees, transferees and other successors-in-interest, the **“selling stockholders”**) of up to an aggregate of 7,163,000 shares of our common stock, par value \$0.0001 per share (the **“Common Stock”**), consisting of (i) 2,223,000 shares of Common Stock previously issued to the selling stockholders (the **“Issued Shares”**), (ii) 4,615,000 shares of Common Stock issuable upon the exercise of certain warrants (the **“Warrant Shares”**) and (iii) up to 325,000 shares issuable upon conversion (the **“Conversion Shares”**) of an unsecured convertible promissory note in the principal amount of \$3,000,000 (the **“Note”**), representing the aggregate number of shares of Common Stock that may become issuable upon conversion of the principal and accrued interest of the Note at the \$12.00 conversion price. The Conversion Shares, together with the Warrant Shares and the Issued Shares, may be referred to from time to time as the **“Shares”**).

Of the Issued Shares, 1,300,000 shares of Common Stock were issued to Water IO Ltd. (**“Water IO”**) as partial consideration pursuant to a Stock Purchase Agreement between the Company and Water IO (the **“Water IO SPA”**), as described in the Company’s Current Report on Form 8-K filed with the Securities and Exchange Commission (the **“SEC”**) on April 10, 2026 (the **“Water IO 8-K”**).

The remaining 923,000 Issued Shares, together with pre-funded warrants exercisable for an additional 923,000 shares of Common Stock (the **“Pre-Funded Warrants”**), a five-year warrant exercisable for an additional 3,692,000 shares of Common Stock (the **“Five Year Warrant”**, and together with the Pre-Funded Warrants, the **“Warrants”**), and the Note were issued to Mandragola Ltd. (**“Mandragola”**) as consideration pursuant to a Stock Purchase and Assignment Agreement dated April 13, 2026 between the Company and Mandragola (the **“Mandragola SPA”**), as described in the Company’s Current Report on Form 8-K filed with the SEC on April 13, 2026 (the **“Mandragola 8-K”**).

The Issued Shares, the Warrants and the Note were issued in reliance upon the exemption from the registration requirements of the Securities Act of 1933, as amended (the **“Securities Act”**), provided by Section 4(a)(2) of the Securities Act and Regulation D promulgated thereunder. We are registering the resale of the Shares as required by the Registration Rights Agreements entered into in connection with each of the Water IO SPA and the Mandragola SPA.

The selling stockholders will receive all of the proceeds from any sales of the Shares offered hereby. We will not receive any of the proceeds from such sales, but we will incur expenses in connection with the offering. To the extent the Warrants are exercised for cash, if at all, we will receive the exercise price of the Warrants. We intend to use those proceeds, if any, for general corporate purposes.

The issuance of the Shares covered by this prospectus could cause substantial dilution to our existing stockholders. The actual number of shares of Common Stock that we issue to the selling stockholders upon exercise of the Warrants and conversion of the Note may be less than the aggregate number of Shares covered by this prospectus. Please refer to the risk factor entitled *“The issuance of the shares of Common Stock covered by this prospectus could significantly increase the total number of shares of Common Stock issued and outstanding and thereby cause our existing stockholders to experience substantial dilution”* beginning on page 11. For additional information regarding the Water IO SPA, the Mandragola SPA and the Warrants, you should refer to the section of this prospectus entitled *“Prospectus Summary”* beginning on page 1.

Our registration of the Shares covered by this prospectus does not mean that the selling stockholders will offer or sell any of the Shares. The selling stockholders, or their donees, pledgees, transferees or other successors-in-interest, may resell the Shares through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. For additional information on the possible methods of sale, see “*Plan of Distribution*” beginning on page 16.

Any Shares subject to resale hereunder will have been issued by us and acquired by the selling stockholders prior to any resale of such Shares pursuant to this prospectus.

No underwriter or other person has been engaged to facilitate the sale of the Shares in this offering. We will bear all costs, expenses and fees in connection with the registration of the Shares. The selling stockholders will bear all commissions and discounts, if any, attributable to their respective sales of the Shares.

Our Common Stock is listed on the NYSE American under the symbol “PHGE.” On June 26, 2026, the last reported sales price for our Common Stock on the NYSE American was \$0.3960 per share.

Investment in our Common Stock involves risk. See “Risk Factors” beginning on page 7 of this prospectus, and in our periodic reports filed from time to time with the SEC, which are incorporated by reference in this prospectus and in any applicable prospectus supplement. You should carefully read this prospectus and any applicable prospectus supplement, together with the documents we incorporate by reference, before you invest in our Common Stock.

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

The date of this prospectus is July 13, 2026.

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS	ii
PROSPECTUS SUMMARY	1
THE OFFERING	6
RISK FACTORS	7
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	13
USE OF PROCEEDS	14
SELLING STOCKHOLDERS	14
PLAN OF DISTRIBUTION	16
LEGAL MATTERS	18
EXPERTS	18
WHERE YOU CAN FIND MORE INFORMATION	18
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	19

ABOUT THIS PROSPECTUS

This prospectus is part of the registration statement that we filed with the SEC pursuant to which the selling stockholders named herein may, from time to time, offer and sell or otherwise dispose of the Shares covered by this prospectus. As permitted by the rules and regulations of the SEC, the registration statement filed by us includes additional information not contained in this prospectus.

This prospectus and the documents incorporated by reference into this prospectus include important information about us, the securities being offered and other information you should know before investing in our securities. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front cover of this prospectus 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 is delivered or Shares are sold or otherwise disposed of on a later date. It is important for you to read and consider all information contained in this prospectus, including the documents incorporated by reference therein, in making your investment decision. A prospectus supplement may add to, update or change the information contained in this prospectus. You should read both this prospectus and any applicable prospectus supplement together with additional information described below under the headings “Where You Can Find More Information” and “Incorporation of Certain Information by Reference” in this prospectus.

You should rely only on this prospectus and the applicable prospectus supplement and the information incorporated or deemed to be incorporated by reference in this prospectus. We have not, and the selling stockholders have not, authorized anyone to give any information or to make any representation to you other than those contained or incorporated by reference in this prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Unless otherwise indicated, information contained or incorporated by reference in this prospectus concerning our industry, including our general expectations and market opportunity, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, assumptions and estimates of our and our industry’s future performance are necessarily uncertain due to a variety of factors, including those described in “Risk Factors” beginning on page 7 of this prospectus. These and other factors could cause our future performance to differ materially from our assumptions and estimates.

PROSPECTUS SUMMARY

This summary provides an overview of selected information contained elsewhere or incorporated by reference in this prospectus and does not contain all of the information you should consider before investing in our securities. You should carefully read the prospectus, any applicable prospectus supplement, the information incorporated by reference and the registration statement of which this prospectus is a part in their entirety before investing in our securities, including the information discussed under “Risk Factors” in this prospectus and the documents incorporated by reference and our financial statements and related notes that are incorporated by reference in this prospectus. In this prospectus, unless the context indicates otherwise, “PHGE,” the “Company,” the “registrant,” “we,” “us,” “our,” or “ours” refer to BiomX Inc. and its consolidated subsidiaries.

Overview

BiomX Inc. is a Delaware corporation that was originally incorporated in 2017 as a blank check company under the name Chardan Healthcare Acquisition Corp. Following a business combination completed in October 2019, the Company operated as a clinical-stage biopharmaceutical company developing phage-based therapies targeting bacterial pathogens implicated in chronic diseases.

Beginning in the fourth quarter of 2025 and continuing into the first and second quarters of 2026, our company underwent a fundamental transformation of its business, management and strategic direction. In December 2025, the Company discontinued the development of BX004, its lead phage product candidate, and its former Israeli operating subsidiary, BiomX Ltd., commenced insolvency proceedings in Israel. In the first quarter of 2026, the Company underwent a complete transition of its management team and Board of Directors, appointed Michael Oster as Chief Executive Officer and David Rokach as Chief Financial Officer, and adopted a new strategy focused on building a diversified portfolio of advanced defense, security and critical infrastructure technologies.

We are executing this strategy through a series of acquisitions and the establishment of new operating subsidiaries. We currently operate through three principal subsidiaries: (i) Dr. Frucht Systems Ltd. (“DFSL”), a majority-owned (60%) Israeli LADAR-based detection systems company acquired in the Mandragola Acquisition (as described below); (ii) Zorronet Ltd. (“Zorronet”), a wholly-owned Israeli AI-powered security and command-and-control platform company acquired in the Water IO Acquisition (as described below); and (iii) X Security & Defense Ltd. (“X Security”), a wholly-owned Israeli subsidiary focused on security, defense and first-response technologies. The Company has also formed an Advisory Board, with the appointment of Dr. Ehud (Udi) Levi, former Deputy Head of the Mossad, to advise on strategic opportunities in security, defense and counter-UAS technologies.

Through our operating subsidiaries, we develop, deploy and commercialize advanced detection, surveillance, autonomous response and command-and-control technologies. DFSL’s proprietary LADAR (Laser Radar)-based detection systems combine laser-based sensing with proprietary AI algorithms and are deployed across counter-unmanned aerial systems, perimeter and border security (“virtual fencing”), wide-area 360-degree surveillance and rail and metro safety applications. Zorronet develops and deploys AI software that operates as an external middleware platform connecting to deployed cameras, sensors, analytics systems and robotic assets, and performs real-time autonomous threat detection, object recognition, perimeter intrusion identification and automated event-triggered response. X Security is focused on security, defense and first-response technologies and has signed a non-binding letter of intent with an unrelated third party to secure exclusive distribution rights in Israel for an advanced aerial firefighting system from a drone components and payload developer.

The Company’s former clinical-stage phage therapy operations have been substantially discontinued. Adaptive Phage Therapeutics, LLC (“APT”), the Company’s wholly-owned subsidiary acquired in March 2024, terminated its lease for premises in Gaithersburg, Maryland effective December 31, 2025. For additional information about these developments, see “Recent Developments” below.

Reverse Stock Split

On November 25, 2025, we filed a Certificate of Amendment to our Certificate of Incorporation to effect a 1-for-19 reverse stock split of the shares of the Company's Common Stock, either issued and outstanding or held by the Company as treasury stock, effective as of 12:01 a.m. (New York time) on November 25, 2025 (the "Reverse Stock Split"), and began trading on a Reverse Stock Split-adjusted basis on the NYSE American on November 25, 2025. All share amounts have been retroactively adjusted for the Reverse Stock Split.

Discontinuation of Drug Candidate BX004

On December 8, 2025, the Company announced its discontinuation of the Company's Phase 2b clinical trial (the "Study") that is designed to test the Company's drug candidate BX004 in treating Cystic Fibrosis ("CF") associated with chronic *Pseudomonas aeruginosa* infections. After evaluating the projected timelines and resources required to proceed with an alternative dosing strategy as was recommended by the independent Data Monitoring Committee, the Company determined that such requirements were beyond the Company's available resources, leading to the decision to discontinue the program. We have also implemented cost-cutting measures, including a significant reduction of our workforce.

Subsidiary Dissolution

On December 11, 2025, following the discontinuation of the Study and in light of the Company's limited financial resources, the board of directors of the Company (the "Board") resolved to approve and authorize the filing of an application to commence insolvency proceedings for the Company's Israeli subsidiary, BiomX Ltd. (the "Israeli Subsidiary"), in accordance with the Israeli Insolvency and Financial Regulation law 5778-2018.

On December 16, 2025, the Israeli Subsidiary filed for insolvency proceedings in Israel. On January 25, 2026, the District Court of Tel-Aviv, Israel, appointed a trustee to oversee the administration of the insolvency proceedings of the Israeli Subsidiary. The trustee is responsible for managing the Israeli Subsidiary's assets, evaluating claims from creditors, and overseeing the orderly wind-down or restructuring of the Israeli Subsidiary's operations in accordance with applicable Israeli insolvency law. As a result of these proceedings, the Company no longer maintains operational control over the Israeli Subsidiary.

Management and Board Transition

In the first quarter of 2026, the Company underwent a complete transition of its management team and Board of Directors. On February 24, 2026, Marina Wolfson resigned as Chief Financial Officer and Dr. Merav Bassan resigned as Chief Development Officer. On February 27, 2026, David Rokach was appointed as Chief Financial Officer, Principal Financial Officer and Principal Accounting Officer. On March 4, 2026, Jonathan Solomon resigned as Chief Executive Officer and as a director, and Dr. Russell Greig resigned as Chairman of the Board. On the same date, Michael Oster was appointed as Chief Executive Officer. During February and March 2026, directors Jonathan Leff, Jesse Goodman, Greg Merrill, Edward Williams and Susan Blum also resigned from the Board, and new directors Liat Bidas, Guy Arieli, Ran Shaked and Amir Shalom were appointed. As of the date of this prospectus, the Board consists of Reuven Yeganeh, Liat Bidas, Guy Arieli and Ran Shaked. On April 29, 2026, Amir Shalom resigned from the Board. Biographical information for the Company's current directors and officers is included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2025 and the Current Reports on Form 8-K filed by the Company on February 13, 2026, March 2, 2026 and March 6, 2026, the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2026, and the Company's definitive proxy statement on Schedule 14A filed on June 8, 2026, each of which is incorporated by reference in this prospectus.

RECENT DEVELOPMENTS

At-the-Market Offering

Separately from the resale of shares offered by this prospectus, we maintain an “at-the-market” offering program under an At-the-Market Offering Agreement, dated December 7, 2023 (the “Sales Agreement”), with H.C. Wainwright & Co., LLC, as sales agent. Sales under the program are made under our effective shelf registration statement on Form S-3 (File No. 333-275935) and a separate prospectus supplement, most recently the prospectus supplement we filed on June 16, 2026. Under the Sales Agreement, we may from time to time offer and sell shares of our common stock for our own account at prevailing market prices, and we pay the sales agent a commission equal to 3.0% of the gross sales price of the shares sold. Because our public float is less than \$75 million, the aggregate amount we may sell under the program in any twelve-month period is limited under General Instruction I.B.6 to Form S-3 to one-third of our public float.

The shares offered by this prospectus are being offered for resale by the selling stockholders and are not part of the at-the-market program. We will receive the net proceeds of any shares we sell under the Sales Agreement, but we will not receive any proceeds from the resale of shares by the selling stockholders. Sales by us under the at-the-market program and resales by the selling stockholders under this prospectus could occur at or about the same time and could affect the prevailing market price of our common stock.

NYSE American Continued Listing Standards

On March 25, 2026, we received a notice from the staff of NYSE Regulation indicating that the Company is not in compliance with certain continued listing standards relating to stockholders’ equity, based on the Company’s reported stockholders’ deficit of \$(1,302,000) as of December 31, 2025 and its losses from continuing operations and/or net losses in its five most recent fiscal years. On April 24, 2026, we submitted a compliance plan to NYSE Regulation. On June 10, 2026, NYSE Regulation notified the Company that it had accepted the Company’s plan and granted the Company a plan period through September 25, 2027 to regain compliance with the applicable continued listing standards. During the plan period, the Company will be subject to periodic review by NYSE Regulation for compliance with the initiatives set forth in its plan, and the Company’s Common Stock will continue to be listed and traded on the NYSE American under the symbol “PHGE,” subject to the Company’s compliance with the plan and the other continued listing standards. There can be no assurance that the Company will be able to regain compliance within the plan period, or maintain compliance with the NYSE American’s other continued listing standards. See “Risk Factors—If we are unable to regain compliance with the continued listing standards of NYSE American, our Common Stock may be delisted.”

The Water IO Acquisition

On April 10, 2026, the Company entered into, and simultaneously closed the transactions contemplated by, the Water IO SPA with Water IO, pursuant to which the Company acquired 100% of the issued and outstanding share capital of Zorronet Ltd., an Israeli company (“Zorronet”), from Water IO.

In consideration for the Zorronet shares, the Company delivered to Water IO at closing: (i) 1,300,000 shares of Common Stock (the “Water IO Share Consideration”); and (ii) a non-convertible promissory note in the principal amount of \$1,250,000, bearing interest at the short-term Applicable Federal Rate, with a maturity date of July 7, 2026 (the “Water IO Note”). In addition, the Company assumed certain obligations of Water IO with respect to the founders and former shareholders of Zorronet, including an earnout payment payable no later than March 31, 2027 in an amount equal to the greater of (x) 125% of Zorronet’s consolidated revenue for fiscal year 2026 and (y) eight (8) times Zorronet’s consolidated EBITDA for fiscal year 2026, and an obligation to retain certain key employees for three (3) years.

The Water IO Share Consideration was issued in reliance upon the exemption from the registration requirements of the Securities Act provided by Section 4(a)(2) of the Securities Act and Regulation D promulgated thereunder. Water IO represented to the Company that it is an “accredited investor” within the meaning of Rule 501(a) of Regulation D and that it was acquiring the Water IO Share Consideration for investment only and not with a view toward, or for resale in connection with, the public sale or distribution thereof.

Water IO Registration Rights

In connection with the Water IO SPA, the Company agreed to file a registration statement with the SEC to register the resale of the Water IO Share Consideration, and to use commercially reasonable efforts to cause such registration statement to be declared effective by the SEC as promptly as practicable. The registration statement of which this prospectus forms a part has been filed to satisfy, in part, such obligation.

The Mandragola Acquisition

On April 13, 2026, the Company entered into, and simultaneously closed the transactions contemplated by, the Mandragola SPA with Mandragola, pursuant to which the Company exercised its option under the Option and Undertaking Agreement between the Company and Mandragola, dated March 31, 2026 (as amended), previously disclosed by the Company on its Current Report on Form 8-K filed with the SEC on April 1, 2026, and acquired from Mandragola 100% of Mandragola's shareholdings in Dr. Frucht Systems Ltd., an Israeli company ("DFSL"), representing 60% of the issued and outstanding voting equity capital of DFSL on a fully-diluted basis.

In consideration for the shares of DFSL acquired from Mandragola, the Company agreed to deliver to Mandragola the following consideration:

- (i) a cash payment of \$750,000;
- (ii) an unsecured convertible promissory note in the principal amount of \$3,000,000, bearing interest at 9% per annum, maturing on April 13, 2029, and convertible, as to principal and accrued interest, solely at our option, into shares of Common Stock at a conversion price of \$12.00 per share, subject to customary adjustments and further subject to a minimum volume-weighted average price of the Common Stock of \$12.00 or more for the 10 trading days preceding the date of conversion (the "Mandragola Note");
- (iii) 923,000 shares of Common Stock;
- (iv) the Pre-Funded Warrants, exercisable for an aggregate of 923,000 shares of Common Stock at an exercise price of \$0.0001 per share; and
- (v) the Five Year Warrant, exercisable for an aggregate of 3,692,000 shares of Common Stock.

In addition, in the event that DFSL records annual revenues of \$25,000,000 or more in any fiscal year on or after fiscal year 2027, Mandragola will be entitled to a bonus payment equal to 5% of such recorded annual revenues, payable at the Company's discretion in restricted shares of Common Stock or cash.

The Mandragola Note, the 923,000 shares of Common Stock, the Pre-Funded Warrants and the Five Year Warrant were issued in reliance upon the exemption from the registration requirements of the Securities Act provided by Section 4(a)(2) of the Securities Act and Regulation D promulgated thereunder. Mandragola represented to the Company that it is an "accredited investor" within the meaning of Rule 501(a) of Regulation D and that it was acquiring such securities for investment only and not with a view toward, or for resale in connection with, the public sale or distribution thereof.

The aggregate number of shares of Common Stock issuable upon conversion of the Mandragola Note and exercise of the Pre-Funded Warrants and the Five Year Warrant is subject to obtaining approval of the Company's stockholders ("Stockholder Approval") as required by the applicable rules and regulations of the NYSE American LLC (the "NYSE American") with respect to the issuance of shares of Common Stock in excess of 19.99% of the outstanding shares of Common Stock as of the date of the Mandragola SPA. The Company agreed to use commercially reasonable efforts to obtain Stockholder Approval within one hundred twenty (120) days following the closing of the Mandragola SPA.

The Mandragola SPA and the transactions contemplated thereby are described in the Mandragola 8-K, which is incorporated herein by reference. The foregoing description of the Mandragola SPA, the Mandragola Note, the Pre-Funded Warrants and the Five Year Warrant does not purport to be complete and is qualified in its entirety by reference to the full text of such documents, copies of which are filed as exhibits to the Mandragola 8-K.

Pre-Funded Warrants

The Pre-Funded Warrants are exercisable at any time after their original issuance at an exercise price of \$0.0001 per share and do not have an expiration date. The exercise price of the Pre-Funded Warrants and the number of shares of Common Stock issuable upon exercise of the Pre-Funded Warrants are subject to customary adjustments for stock dividends, stock splits, reclassifications, stock combinations and the like. The Pre-Funded Warrants may be exercised for cash or, if at the time of exercise there is no effective registration statement available registering the issuance of the shares underlying the Pre-Funded Warrants, on a cashless basis.

A holder of Pre-Funded Warrants may not exercise any portion of the Pre-Funded Warrants to the extent that, immediately after giving effect to such exercise, the holder (together with its affiliates and certain other related parties) would beneficially own more than 4.99% of the outstanding shares of Common Stock (which percentage may be increased, but not in excess of 9.99%, upon not less than 61 days' prior notice from the holder to the Company).

Five Year Warrant

The Five Year Warrant has a per share exercise price of \$12.00 per share of Common Stock, subject to customary adjustments for stock dividends, stock splits, reclassifications, stock combinations and the like, and expires on the fifth anniversary of its date of issuance. The Five Year Warrant may be exercised for cash or, if at the time of exercise there is no effective registration statement available registering the issuance of the shares underlying the Five Year Warrant, on a cashless basis.

Until the Company obtains Stockholder Approval, the Company may not issue any shares of Common Stock upon exercise of the Five Year Warrant or the Pre-Funded Warrants (taken together with any shares of Common Stock issuable upon conversion of the Mandragola Note) to the extent that such issuance would exceed 19.99% of the Company's issued and outstanding shares of Common Stock immediately prior to the closing of the Mandragola SPA, which amount is the aggregate number of shares of Common Stock which the Company may issue pursuant to the Mandragola SPA without Stockholder Approval under the rules and regulations of the NYSE American.

A holder of the Five Year Warrant may not exercise any portion of the Five Year Warrant to the extent that, immediately after giving effect to such exercise, the holder (together with its affiliates and certain other related parties) would beneficially own more than 4.99% of the outstanding shares of Common Stock (which percentage may be increased, but not in excess of 9.99%, upon not less than 61 days' prior notice from the holder to the Company).

Mandragola Registration Rights

In connection with the Mandragola SPA, the Company agreed to file a registration statement with the SEC to register the resale of the 923,000 shares of Common Stock issued to Mandragola, the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants, the shares of Common Stock issuable upon exercise of the Five Year Warrant, and the shares of Common Stock issuable upon conversion of the Mandragola Note, and to use commercially reasonable efforts to cause such registration statement to be declared effective by the SEC as promptly as practicable. The registration statement of which this prospectus forms a part has been filed to satisfy, in part, such obligation.

Implications of Being a Smaller Reporting Company

We are a "smaller reporting company" and accordingly may provide less public disclosure than larger public companies. As a result, the information that we provide to our stockholders may be different than you might receive from other public reporting companies in which you hold equity interests.

Corporate Information

BiomX Inc. is a Delaware corporation. Our corporate headquarters are located at 850 New Burton Road, Suite 201, Dover, Delaware 19904. Our phone number is +972 52 437 4900. Our website address is www.biomx.com. Through our website, we will make available, free of charge, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to those reports, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. Information contained on, or that can be accessed through, our website is not and shall not be deemed to be a part of this prospectus or incorporated by reference hereto.

THE OFFERING

Common Stock to be Offered by the Selling Stockholders

Up to an aggregate of 7,163,000 shares of Common Stock, consisting of (i) 2,223,000 Issued Shares, (ii) 4,615,000 Warrant Shares issuable upon exercise of the Warrants and (iii) up to 325,000 Conversion Shares issuable upon conversion of the Mandragola Note.

Use of Proceeds

We will not receive any proceeds from the sale of the Shares by the selling stockholders. However, we will receive proceeds from the exercise of the Warrants if such Warrants are exercised for cash. We currently intend to use any such proceeds for general corporate purposes. See “Use of Proceeds.”

Plan of Distribution

The selling stockholders named in this prospectus, or their pledgees, donees, transferees, distributees, beneficiaries or other successors-in-interest, may offer or sell the Shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The selling stockholders may also resell the Shares to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions. See “Plan of Distribution” beginning on page 16 of this prospectus for additional information on the methods of sale that may be used by the selling stockholders.

NYSE American Market Symbol

Our Common Stock is listed on the NYSE American under the symbol “PHGE.”

Risk Factors

Investing in our Common Stock involves significant risks. See “Risk Factors” beginning on page 7 of this prospectus and the documents incorporated by reference in this prospectus.

RISK FACTORS

Investing in our securities involves a high degree of risk. In addition to the other information contained in this prospectus and any prospectus supplement and in the documents we incorporate by reference, you should carefully consider the risks discussed below and under the heading “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, as well as any amendment or update to our risk factors reflected in subsequent filings with the SEC, before making a decision about investing in our securities. Our Annual Report on Form 10-K for the fiscal year ended December 31, 2025 was filed prior to the closing of the Water IO SPA and the Mandragola SPA and therefore does not describe risks specific to the businesses we acquired in those transactions; accordingly, this prospectus includes below certain additional risk factors relating to those acquired businesses. The risks and uncertainties discussed below and in the documents incorporated by reference, including without limitation our current report on Form 8-K filed on May 5, 2026, are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of these risks occur, our business, financial condition and operating results could be harmed, the trading price of our Common Stock could decline and you could lose part or all of your investment.

Risks Related to Our Business and Financial Condition

Our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our financial statements for the fiscal year ended December 31, 2025.

The audit opinion for our fiscal year ended December 31, 2025 contained a going concern qualification from our independent registered public accounting firm. Our financial statements include an explanatory paragraph regarding substantial doubt about our ability to continue as a going concern. We have incurred significant operating losses since inception, and we expect to continue to incur losses for the foreseeable future as we execute our new strategy focused on defense, security and critical infrastructure technologies. We will need to raise significant additional capital to fund our operations. There can be no assurance that such financing will be available on acceptable terms, or at all. If we are unable to raise additional capital when needed, we may be required to delay, reduce or eliminate certain of our planned activities, or we may be unable to continue as a going concern. The perception that we may not be able to continue as a going concern may cause third parties, including customers, suppliers and potential partners, to be unwilling to enter into business relationships with us on commercially reasonable terms, if at all.

If we are unable to regain compliance with the continued listing standards of NYSE American, our Common Stock may be delisted.

On March 25, 2026, we received a notice from the staff of NYSE Regulation indicating that we are not in compliance with certain continued listing standards relating to stockholders’ equity. On April 24, 2026, we submitted a compliance plan to NYSE Regulation. On June 10, 2026, NYSE Regulation notified us that it had accepted our plan and granted us a plan period through September 25, 2027 to regain compliance with the applicable continued listing standards. There can be no assurance that we will be able to regain compliance within the plan period or maintain compliance with the other continued listing standards of the NYSE American. If our Common Stock is delisted from NYSE American, it could significantly impair the liquidity and market value of our securities, reduce the ability of our stockholders to purchase or sell shares, limit our ability to raise additional capital through public offerings and adversely affect the perception of our Company among investors, customers and business partners. A delisting could also trigger defaults or acceleration provisions under our outstanding notes and other instruments, which could have a material adverse effect on our financial condition.

Recent Acquisitions and the Businesses We Acquired

We have recently undergone a fundamental transformation of our business, management and strategic direction, and there can be no assurance that our new strategy will be successful.

Beginning in the fourth quarter of 2025 and continuing into the first and second quarters of 2026, we discontinued our legacy phage therapy programs, experienced the commencement of insolvency proceedings by our former Israeli operating subsidiary BiomX Ltd., replaced our entire management team and Board of Directors, and adopted a new strategy focused on building a diversified portfolio of advanced defense, security and critical infrastructure technologies. We have limited operating history in the defense, security and critical infrastructure markets, and our ability to execute our new strategy is unproven. Our new management team, while experienced in corporate strategy, mergers and acquisitions and capital markets, has not previously managed a publicly traded defense or security technology company. There can be no assurance that our strategic pivot will result in successful acquisitions, revenue growth or profitability, and the failure to execute our strategy could have a material adverse effect on our business, financial condition and results of operations.

We may fail to successfully integrate the businesses acquired in the Water IO Acquisition and the Mandragola Acquisition, which could prevent us from realizing the anticipated benefits of these transactions.

We recently completed two significant acquisitions: the Water IO Acquisition, pursuant to which we acquired 100% of Zorronet, and the Mandragola Acquisition, pursuant to which we acquired a 60% equity interest in DFSL on a fully-diluted basis. Both Zorronet and DFSL operate in industries that are materially different from our historical business of developing phage-based therapeutics, and we have limited experience managing businesses of these types. The integration of Zorronet and DFSL involves numerous risks, including: diversion of management attention from our existing operations; difficulty retaining key employees, customers and business relationships of the acquired businesses; unanticipated integration costs, including costs to upgrade, align or consolidate financial reporting, information technology, internal controls and other systems; the assumption of unknown or contingent liabilities, or liabilities in excess of the amounts we anticipated; exposure to regulatory, tax, litigation, environmental or other liabilities that were not identified or adequately accounted for in our due diligence; failure to achieve expected synergies, revenue growth or cost savings; and challenges in operating businesses in geographically separated jurisdictions and differing legal and regulatory environments. If we are unable to successfully integrate Zorronet or DFSL, or if either of those businesses does not perform as we expect, we may fail to realize the anticipated benefits of these acquisitions, which could have a material adverse effect on our business, financial condition and results of operations.

Our recent acquisitions have diversified our business into industries that are materially different from our historical operations, and we may lack the expertise to operate these businesses successfully.

Our historical business has focused on the discovery and development of phage-based therapeutics. Through the Water IO Acquisition and the Mandragola Acquisition, we have entered into materially different businesses, including (i) through Zorronet, artificial intelligence-driven products and services and (ii) through DFSL, LADAR-based detection and perimeter security solutions. These businesses have different customer bases, revenue models, technical requirements, competitive dynamics, regulatory frameworks and capital requirements than our historical operations. We have limited experience operating or overseeing businesses of these types. Our ability to manage these new businesses effectively depends on, among other things, retaining and recruiting personnel with appropriate expertise, implementing appropriate internal controls and governance, and adapting our management practices to a more diverse portfolio of operations. If we fail to do so, we may experience execution failures, diminished profitability, impairment of goodwill or other intangible assets, or reputational harm, any of which could have a material adverse effect on our business, financial condition and results of operations.

We acquired only a 60% equity interest in DFSL, the DFSL acquisition remains subject to the approval of the Israel Innovation Authority, and DFSL's business is highly dependent on its founder, Dr. Yaacov Frucht.

We acquired 60% of the issued and outstanding voting equity capital of DFSL on a fully-diluted basis, with the remaining 40% held by Dr. Yaacov Frucht, DFSL's founder. Our ability to fully control DFSL's operations is subject to the terms of the shareholders' agreement among the Company, DFSL and Dr. Frucht, and applicable Israeli law. As a minority shareholder, Dr. Frucht may have certain protective rights, and disagreements between the Company and Dr. Frucht regarding the direction, management or commercialization of DFSL's business could disrupt operations or delay strategic initiatives. In addition, DFSL has previously received grants from the Israel Innovation Authority (the "IIA") for the development of its anti-drone technology. Under Israel's Encouragement of Research, Development and Technological Innovation in Industry Law, 5744-1984, the change of control of DFSL resulting from the Mandragola SPA requires the approval of the IIA. There can be no assurance that such approval will be obtained, or that the IIA will not impose conditions that materially limit our ability to operate, transfer or commercialize DFSL's technology outside of Israel. Technologies developed with IIA funding are generally subject to restrictions on manufacturing, transfer and licensing outside of Israel, and the IIA may require repayment of grants, payment of additional fees or royalties, or impose other conditions as a prerequisite to approving the change of control. Finally, Dr. Frucht is the principal technical and operational leader of DFSL and possesses critical knowledge of DFSL's proprietary LADAR technology. The loss of Dr. Frucht's services, whether due to death, disability, termination or disagreement, could materially disrupt DFSL's operations and impair our ability to develop, maintain and commercialize DFSL's technology. We do not maintain key person insurance on Dr. Frucht. If IIA approval is not obtained, if Dr. Frucht were to cease providing services to DFSL, or if our relationship with Dr. Frucht were to deteriorate, the anticipated benefits of the Mandragola Acquisition could be materially impaired.

Zorronet's business depends on a small number of key customer relationships and includes classified defense work that may limit our ability to disclose or commercialize certain capabilities.

A substantial portion of Zorronet's current and projected revenues is derived from a limited number of key customer relationships, including ongoing engagements with Elbit Systems Ltd. and approximately three classified projects with Rafael Advanced Defense Systems in the areas of border defense and command center upgrades. The loss of, or a significant reduction in business from, any of these key customers could have a material adverse effect on Zorronet's revenues, financial condition and business prospects. Defense prime contractors typically engage with multiple vendors and may reduce or terminate engagements at any time based on changing requirements, budget constraints or a preference for alternative solutions. In addition, a portion of Zorronet's activities involve classified defense projects that are subject to Israeli Ministry of Defense security requirements. These requirements impose restrictions on our ability to publicly disclose the nature, scope and results of such projects, which may limit our ability to use such projects as references for marketing purposes or to commercialize the underlying technologies in other markets. Any failure to comply with applicable security requirements could result in the loss of existing contracts, disqualification from future classified work and potential legal and regulatory penalties.

Our operations through Zorronet and DFSL may be adversely affected by political, economic and military conditions in Israel and the Middle East.

Zorronet and DFSL are both Israeli companies with operations, employees and facilities in Israel. Political, economic and military conditions in Israel and the Middle East directly affect the operations of these businesses. Since October 7, 2023, the State of Israel has been engaged in a series of armed conflicts on multiple fronts, including with Hamas, Hezbollah and Iran, and with related groups in Yemen, Syria and other jurisdictions. Potential consequences of these conflicts and related tensions for the operations of our Israeli subsidiaries include: the call-up of employees for military reserve duty, which may disrupt ongoing projects and operational continuity; supply chain disruptions, including delays and increased costs arising from restrictions on air and sea transportation to and from Israel; potential temporary evacuation or relocation of facilities or operations due to security threats; limitations imposed by foreign governments on trade with, or exports to, Israeli entities; boycotts, protests and similar actions directed at Israeli companies or products; and volatility in the Israeli shekel or downgrades in Israel's sovereign credit rating. We cannot predict the duration, intensity or ultimate outcome of current or future conflicts involving Israel. Any material or sustained escalation of such conflicts could have a material adverse effect on the operations of Zorronet or DFSL, and in turn on our business, financial condition and results of operations.

The businesses of Zorronet and DFSL may be subject to export controls, defense-industry regulations and government-customer considerations that could constrain their operations.

Depending on the nature of their activities, Zorronet's artificial intelligence and data-driven products and DFSL's LADAR-based detection technologies may be subject to export control and defense-related regulations in Israel, the United States and other jurisdictions, including Israel's Defense Export Control Law, 5767-2007 and related regulations, the U.S. Export Administration Regulations, the International Traffic in Arms Regulations and similar regimes. Products, technologies or services developed or marketed by Zorronet or DFSL may require export licenses, use authorizations or other governmental approvals, and may be subject to restrictions on sale to certain customers or in certain jurisdictions. Changes in applicable export control laws and regulations, or in the diplomatic or trade relations between Israel and other countries, could affect the ability of Zorronet and DFSL to access or retain customers, meet contract delivery schedules, or pursue new business opportunities. Failure to comply with applicable export control regulations could result in civil or criminal penalties, debarment from future government contracting, or reputational harm. In addition, to the extent that Zorronet or DFSL derives revenue from contracts with governmental or defense-industry customers, a reduction in applicable government spending, changes in procurement policy or priorities, or disputes or terminations under specific contracts could have a material adverse effect on their operations and on our business and results of operations.

We have assumed a contingent earnout obligation in connection with the Water IO Acquisition that could require us to make substantial payments in 2027.

In connection with the Water IO SPA, we assumed an obligation, payable no later than March 31, 2027, to make an earnout payment to the founders and former shareholders of Zorronet equal to the greater of (x) 125% of Zorronet's consolidated revenue for fiscal year 2026 and (y) eight (8) times Zorronet's consolidated EBITDA for fiscal year 2026. The ultimate amount of this earnout is dependent on the future financial performance of Zorronet, which is subject to a range of business, operational, market and competitive risks and uncertainties, and cannot be predicted at this time. If Zorronet's revenue or EBITDA for fiscal year 2026 are substantial, the resulting earnout obligation could be correspondingly large and could require us to use a significant portion of our cash resources, raise additional capital on terms that may not be favorable to our existing stockholders, or issue additional securities, any of which could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to this Offering and Our Common Stock

The resale of shares registered under this prospectus may depress the market price of our common stock and reduce the proceeds we are able to raise under our at-the-market offering program.

This prospectus registers a substantial number of shares of our common stock for resale by the selling stockholders, who received these securities as consideration in our recent acquisitions. Once the registration statement of which this prospectus forms a part is declared effective, these shares may be sold into the public market, and the selling stockholders may sell all or a portion of their shares at any time and from time to time. Certain of the underlying securities are exercisable at prices that may be below the prevailing market price of our common stock, which increases the likelihood that the holders will exercise and sell. The sale of a large number of these shares, or the perception that these sales could occur, could cause the market price of our common stock to decline, particularly given the historically limited trading volume of our common stock.

We also maintain an active "at-the-market" offering program with H.C. Wainwright & Co., LLC, under which we may sell shares of our common stock for our own account at prevailing market prices. The proceeds we are able to raise under that program depend on the market price of our common stock and on the size of our public float, which under General Instruction I.B.6 to Form S-3 limits the amount we may sell in any twelve-month period to one-third of our public float. If resales under this prospectus, alone or together with our own sales under the at-the-market program, cause the market price of our common stock to decline, we would receive less for each share we sell under that program and may need to sell more shares to raise the same amount of capital, increasing dilution to our existing stockholders. In addition, any resulting decline in our stock price or public float would further reduce the amount we are able to raise under the program. Because sales under the at-the-market program and resales by the selling stockholders may occur at or about the same time, these effects could be magnified.

The issuance of the shares of Common Stock covered by this prospectus could significantly increase the total number of shares of Common Stock issued and outstanding and thereby cause our existing stockholders to experience substantial dilution.

The Shares being offered pursuant to this prospectus consist of (i) 2,223,000 Issued Shares that have already been issued to the selling stockholders, (ii) 4,615,000 Warrant Shares issuable upon exercise of the Warrants and (iii) up to 325,000 Conversion Shares issuable upon conversion of the Mandragola Note. Immediately prior to the closing of the Water IO SPA on April 10, 2026, there were 6,543,516 shares of Common Stock issued and outstanding. After giving effect to the issuance of the 2,223,000 Issued Shares, there were 8,766,516 shares of Common Stock issued and outstanding (subject to any other issuances of Common Stock between such dates). As of June 2, 2026, there were 11,160,153 shares of Common Stock issued and outstanding. Assuming all of the Warrants are exercised in full and the Mandragola Note is converted in full, and assuming no other issuances of Common Stock, the aggregate 7,163,000 Shares being registered hereunder would represent approximately 52.3% of the shares of Common Stock that would then be issued and outstanding, and would represent an increase of approximately 109.5% over the number of shares of Common Stock that were issued and outstanding immediately prior to the closing of the Water IO SPA. As a result, an existing stockholder's proportionate interest in us will be substantially diluted. The actual number of shares of Common Stock that we issue to the selling stockholders upon exercise of the Warrants and conversion of the Mandragola Note may be less than the aggregate number of Shares covered by this prospectus.

Substantial future sales or other issuances of our Common Stock could depress the market for our Common Stock.

Sales of a substantial number of shares of our Common Stock and any future sales of a substantial number of shares of Common Stock in the public market, including the sale of any of the Shares registered hereunder, or the perception by the market that those sales could occur, could cause the market price of our Common Stock to decline or could make it more difficult for us to raise funds through the sale of equity and equity-related securities in the future at a time and price that our management deems acceptable, or at all. In addition, as opportunities present themselves, we may enter into financing or similar arrangements in the future, including the issuance of debt securities or additional shares of Common Stock, which could also depress the market for our Common Stock. We cannot predict the effect, if any, that market sales of those shares of Common Stock or the availability of those shares for sale will have on the market price of our Common Stock.

You may experience future dilution as a result of future equity offerings and other issuances of our securities.

In order to raise additional capital, we may in the future offer additional shares of Common Stock or other securities convertible into or exchangeable for our Common Stock at prices that may not be the same as the price per share paid by investors in prior offerings. We may not be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in prior offerings, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. Our stockholders will incur dilution upon exercise of any outstanding stock options, warrants or other convertible securities (including the Warrants and the Mandragola Note) or upon the issuance of shares of Common Stock under our stock incentive programs.

Any additional capital raised through the sale of equity or equity-backed securities may dilute our stockholders' ownership percentages and could also result in a decrease in the market value of our equity securities.

The terms of any securities issued by us in future capital transactions may be more favorable to new investors, and may include preferences, superior voting rights and the issuance of warrants or other derivative securities, which may have a further dilutive effect on the holders of any of our securities then outstanding.

In addition, we may incur substantial costs in pursuing future capital financing, including investment banking fees, legal fees, accounting fees, securities law compliance fees, printing and distribution expenses and other costs. We may also be required to recognize non-cash expenses in connection with certain securities we issue, such as convertible notes and warrants, which may adversely impact our financial condition.

Our ability to issue shares of Common Stock upon conversion of the Mandragola Note and exercise of the Warrants is limited by the rules of the NYSE American, and we cannot assure you that we will obtain the required Stockholder Approval on a timely basis or at all.

Under the rules of the NYSE American and the terms of the Mandragola SPA, the Mandragola Note, the Pre-Funded Warrants and the Five Year Warrant, the Company is not permitted to issue, in the aggregate, more than 19.99% of the shares of Common Stock issued and outstanding immediately prior to the closing of the Mandragola SPA upon conversion of the Mandragola Note and exercise of the Pre-Funded Warrants and the Five Year Warrant unless and until the Company has obtained Stockholder Approval. The Company has agreed to use commercially reasonable efforts to obtain Stockholder Approval within 120 days following the closing of the Mandragola SPA. We cannot assure you that our stockholders will approve such issuances on a timely basis or at all. If we do not obtain Stockholder Approval, the Mandragola Note, the Pre-Funded Warrants and the Five Year Warrant will not be convertible or exercisable, as the case may be, in full, which may limit our ability to retire the Mandragola Note, adversely affect the fair value of the Warrants and adversely affect our relationship with Mandragola.

We have issued unsecured indebtedness to Water IO and Mandragola that we may need to repay in cash, which may require the expenditure of a substantial portion of our cash resources.

In connection with the Water IO SPA, the Company issued to Water IO the Water IO Note, a non-convertible promissory note in the principal amount of \$1,250,000, bearing interest at the short-term Applicable Federal Rate, with a maturity date of July 7, 2026. In connection with the Mandragola SPA, the Company issued to Mandragola the Mandragola Note, an unsecured convertible promissory note in the principal amount of \$3,000,000, bearing interest at 9% per annum and maturing on April 13, 2029. Conversion of the Mandragola Note is solely at the option of the Company and is subject to (i) a minimum volume-weighted average price of our Common Stock of \$12.00 or more for the 10 trading days preceding the date of conversion, and (ii) Stockholder Approval, to the extent such conversion would result in the issuance of shares of Common Stock in excess of the 19.99% limitation discussed above. The Water IO Note, by its terms, is not convertible and must be repaid in cash at maturity. If we are unable to convert the Mandragola Note (or if we otherwise determine not to do so), we may be required to repay the Mandragola Note in cash at maturity. If we do not have sufficient cash resources to make these payments, we may need to raise additional equity or debt capital, and we cannot provide any assurance that we will be successful in doing so. If we are unable to raise sufficient capital to meet our payment obligations, we may need to delay, reduce or eliminate certain research and development programs or other operations, sell some or all of our assets or merge with another entity.

We may become obligated to make revenue-based bonus payments to Mandragola, which could adversely affect our results of operations.

Under the Mandragola SPA, if DFSL records annual revenues of \$25,000,000 or more in any fiscal year on or after fiscal year 2027, Mandragola is entitled to a bonus payment equal to 5% of such recorded annual revenues. The Company may elect to pay this bonus in restricted shares of Common Stock or in cash. Any such bonus payments, if and when earned, could adversely affect our results of operations and, if paid in Common Stock, could further dilute our existing stockholders.

Certain of our directors have relationships with the selling stockholders that could create actual or perceived conflicts of interest.

Water IO is an indirect subsidiary of T3 Defense, Inc. (NASDAQ: DFNS). Three relationships between the selling stockholders (and their affiliates) and our directors required consideration by our Board: (i) Reuven Yeganeh, one of our directors, serves concurrently as a director of T3 Defense; (ii) Mr. Yeganeh is also the managing member of Pyu Pyu Capital, LLC, the purchaser under our December 2025 private placement, whose contractual waiver of certain restrictions set forth in the related securities purchase agreement was required to permit the Company's issuance of shares of Common Stock and grant of registration rights to Water IO and Mandragola; and (iii) Menachem Shalom, who has voting and dispositive control over the securities held by Water IO, is the brother of Amir Shalom, a former director. In light of these relationships, each of Mr. Yeganeh and Mr. Amir Shalom recused himself from the deliberations and votes of our Board of Directors with respect to the approval of the Water IO SPA, the Mandragola SPA and the related transactions. Our Board of Directors, with such interested directors abstaining, determined that the terms of the Water IO Acquisition and the Mandragola Acquisition were fair to the Company and were negotiated on an arm's-length basis. Notwithstanding these governance measures, Mr. Yeganeh's continuing dual board membership and role at Pyu Pyu Capital, LLC, and the interests of the respective affiliated parties in Water IO, could create actual or perceived conflicts of interest in connection with future transactions or decisions involving the selling stockholders or their affiliates, including the exercise of Warrants, the conversion of the Mandragola Note, decisions relating to the Stockholder Approval and other matters in which the interests of the Company and the selling stockholders may differ. For additional information regarding these relationships, see "Selling Stockholders."

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference in this prospectus contain “forward-looking statements,” which include information relating to future events, future financial performance, strategies, expectations, competitive environment and regulation. Our use of the words “may,” “will,” “would,” “could,” “should,” “believes,” “estimates,” “projects,” “potential,” “expects,” “plans,” “seeks,” “intends,” “evaluates,” “pursues,” “anticipates,” “continues,” “designs,” “impacts,” “forecasts,” “target,” “outlook,” “initiative,” “objective,” “designed,” “priorities,” “goal” or the negative of those words or other similar expressions is intended to identify forward-looking statements that represent our current judgment about possible future events. Forward-looking statements should not be read as a guarantee of future performance or results and will probably not be accurate indications of when such performance or results will be achieved. All statements included or incorporated by reference in this prospectus, and in related comments by our management, other than statements of historical facts, including without limitation, statements about future events or financial performance, are forward-looking statements that involve certain risks and uncertainties.

These statements are based on certain assumptions and analyses made in light of our experience and perception of historical trends, current conditions and expected future developments as well as other factors that we believe are appropriate in the circumstances. While these statements represent our judgment on what the future may hold, and we believe these judgments are reasonable, these statements are not guarantees of any events or financial results. Whether actual future results and developments will conform with our expectations and predictions is subject to a number of risks and uncertainties, including the risks and uncertainties discussed in this prospectus, any applicable prospectus supplement and the documents incorporated by reference under the captions “Risk Factors” and “Special Note Regarding Forward-Looking Statements” and elsewhere in those documents.

Consequently, all of the forward-looking statements made in this prospectus as well as all of the forward-looking statements incorporated by reference to our filings under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), are qualified by these cautionary statements and there can be no assurance that the actual results or developments that we anticipate will be realized or, even if realized, that they will have the expected consequences to or effects on us and our subsidiaries or our businesses or operations. We caution investors not to place undue reliance on forward-looking statements. We undertake no obligation to update publicly or otherwise revise any forward-looking statements, whether as a result of new information, future events, or other such factors that affect the subject of these statements, except where we are expressly required to do so by law.

USE OF PROCEEDS

All Shares offered by this prospectus are being registered for the accounts of the selling stockholders and we will not receive any proceeds from the sale of these Shares. However, we will receive proceeds from the exercise of the Warrants if the Warrants are exercised for cash. Unless we inform you otherwise in a prospectus supplement or free writing prospectus, we intend to use those proceeds, if any, for general corporate purposes. The holders of the Warrants are not obligated to exercise their Warrants for cash, and we cannot predict whether holders of the Warrants will choose to exercise all or any of their Warrants for cash.

SELLING STOCKHOLDERS

Unless the context otherwise requires, as used in this prospectus, “selling stockholders” includes the selling stockholders listed below and donees, pledgees, transferees or other successors-in-interest selling shares received after the date of this prospectus from the selling stockholders as a gift, pledge or other non-sale related transfer.

We have prepared this prospectus to allow the selling stockholders or their successors, assignees or other permitted transferees to sell or otherwise dispose of, from time to time, up to 7,163,000 Shares.

The Common Stock being offered by the selling stockholders consists of the Issued Shares, the Warrant Shares issuable to the selling stockholders upon exercise of the Warrants and the Conversion Shares issuable to Mandragola upon conversion of the Mandragola Note. For additional information regarding the issuance of the Issued Shares, the Warrants and the Mandragola Note, see “Prospectus Summary—The Water IO Acquisition” and “Prospectus Summary—The Mandragola Acquisition” above. We are registering the Issued Shares, the Warrant Shares and the Conversion Shares in order to permit the selling stockholders to offer the Shares for resale from time to time. The selling stockholders may also sell, transfer or otherwise dispose of all or a portion of their Shares in transactions exempt from the registration requirements of the Securities Act, or pursuant to another effective registration statement covering those Shares.

Information About Selling Stockholders Offering

The table below lists the selling stockholders and other information regarding the beneficial ownership (as determined under Section 13(d) of the Exchange Act and the rules and regulations thereunder) of the shares of Common Stock held by each of the selling stockholders. The second column (titled “Number of Shares of Common Stock Owned Prior to Offering”) lists the number of shares of Common Stock beneficially owned by the selling stockholders, based on their respective ownership of shares of Common Stock, Warrants and the Mandragola Note as of April 15, 2026, assuming exercise of the Warrants and conversion of the Mandragola Note held by each such selling stockholder on that date, but taking account of any limitations on exercise or conversion set forth therein.

The third column (titled “Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus”) lists the Shares being offered by this prospectus by the selling stockholders and does not take into account any limitations on exercise of the Warrants or conversion of the Mandragola Note set forth therein.

The fourth and fifth columns (titled “Number of Shares of Common Stock Owned After Offering” and “Percentage of Common Stock Owned After Offering”) assume the exercise in full of the Warrants, conversion in full of the Mandragola Note and the sale of all of the Shares offered by the selling stockholders pursuant to this prospectus.

The terms of the Registration Rights Agreements entered into in connection with the Water IO SPA and the Mandragola SPA require us to register the Issued Shares, the Warrant Shares issuable upon exercise of the Warrants and the Conversion Shares issuable upon conversion of the Mandragola Note (assuming that any such exercise or conversion shall not take into account any limitations on exercise or conversion set forth in the Warrants or the Mandragola Note).

Under the terms of the Warrants, a selling stockholder may not exercise the Warrants to the extent (but only to the extent) such selling stockholder or any of its affiliates would beneficially own a number of shares of Common Stock which would exceed 4.99% (or, upon election by the holder on not less than 61 days' prior notice, 9.99%) of the outstanding shares of Common Stock. The number of shares in the second column reflects these limitations. The selling stockholders may sell all, some or none of their Shares in this offering. See "Plan of Distribution."

Name of Selling Stockholder	Number of Shares of Common Stock Owned Prior to Offering(1)	Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus	Number of Shares of Common Stock Owned After Offering	Percentage
Water IO Ltd.(2)	1,300,000	1,300,000	0	11.02%
Mandragola Ltd.(3)	5,863,000	5,863,000	0	9.99%

* Less than 1%.

- (1) This table and the information in the notes below are based upon information available to the Company and upon 11,797,449 shares of Common Stock issued and outstanding as of June 22, 2026. Any securities not outstanding which are subject to options, warrants, rights or conversion privileges are deemed to be outstanding for the purpose of computing the percentage of outstanding securities of the class owned by such selling stockholder but are not deemed to be outstanding for the purpose of computing the percentage of the class by any other selling stockholder. Except as expressly noted in the footnotes below, beneficial ownership has been determined in accordance with Rule 13d-3 under the Exchange Act. The amounts set forth in this column reflect the application of various limitations on the issuance of Warrant Shares set forth in the Warrants, including beneficial ownership limitations and limitations under the rules and regulations of the NYSE American.
- (2) Consists of 1,300,000 shares of Common Stock issued to Water IO pursuant to the Water IO SPA. Water IO is an indirect subsidiary of T3 Defense, Inc. Menachem Shalom, as General Manager of Water IO, has voting and dispositive control with respect to the securities held by Water IO. As such, Mr. Shalom may be deemed to be the beneficial owner (as determined under Section 13(d) of the Exchange Act) of the securities held by Water IO. The address of Water IO is 2 Bergman Street, Park Hamada, Rehovot, Israel 7670503.
- (3) Consists of (i) 923,000 shares of Common Stock issued to Mandragola pursuant to the Mandragola SPA, (ii) 923,000 shares of Common Stock issuable upon exercise of the Pre-Funded Warrants held by Mandragola, (iii) 3,692,000 shares of Common Stock issuable upon exercise of the Five Year Warrant held by Mandragola and (iv) up to 325,000 shares of Common Stock issuable upon conversion of the Mandragola Note. The exercise of the warrants and the conversion of the Mandragola Note are also subject to a 9.99% beneficial ownership limitation. Gur Aryeh Segal, as the sole director and manager of Mandragola, has voting and dispositive control with respect to the securities held by Mandragola. As such, Mr. Segal may be deemed to be the beneficial owner (as determined under Section 13(d) of the Exchange Act) of the securities held by Mandragola. The address of Mandragola is Bet Sarel, 8 Gavish Street, 5th Floor, Netanya, Israel.

PLAN OF DISTRIBUTION

We are registering the Issued Shares, the Warrant Shares and the Conversion Shares to permit the resale of such shares by the holders thereof from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the Shares, although we will receive the exercise price of any Warrants that are not exercised on a cashless exercise basis. We will bear all fees and expenses incident to our obligation to register the Shares.

Each selling stockholder of the Shares and any of their pledgees, assignees and successors-in-interest may sell all or a portion of the Shares held by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the Shares are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions. The Shares may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at prices related to prevailing market prices, varying prices determined at the time of sale or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions, pursuant to one or more of the following methods:

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;
- 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;
- short sales made after the date the Registration Statement is declared effective by the SEC;
- broker-dealers may agree with a selling security holder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- 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.

In addition, the selling stockholders may transfer the securities by other means not described in this prospectus. If the selling stockholders effect such transactions by selling securities to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the securities for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the securities or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the securities in the course of hedging in positions they assume. The selling stockholders may also sell securities short and deliver securities covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge securities to broker-dealers that in turn may sell such securities.

The selling stockholders may pledge or grant a security interest in some or all of the securities owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the securities from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the securities in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

To the extent required by the Securities Act and the rules and regulations thereunder, the selling stockholders and any broker-dealer participating in the distribution of the securities may be deemed to be “underwriters” within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of securities is made, a prospectus supplement, if required, will be distributed, which will set forth the aggregate amount of securities being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or re-allowed or paid to broker-dealers.

Under the securities laws of some states, the securities may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the securities may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the securities registered pursuant to the registration statement of which this prospectus forms a part.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act, and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of securities by the selling stockholders and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the securities to engage in market-making activities with respect to such securities. All of the foregoing may affect the marketability of the securities and the ability of any person or entity to engage in market-making activities with respect to the securities.

We will pay all expenses of the registration of the securities pursuant to the Registration Rights Agreements, including, without limitation, SEC filing fees and expenses of compliance with state securities or “blue sky” laws; provided, however, a selling stockholder will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling stockholders against liabilities, including some liabilities under the Securities Act in accordance with the Registration Rights Agreements or the selling stockholders will be entitled to contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus, in accordance with the related Registration Rights Agreements or we may be entitled to contribution.

Once sold under the registration statement of which this prospectus forms a part, the Shares will be freely tradable in the hands of persons other than our affiliates.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon for us by Aboudi Legal Group PLLC, New York, New York.

EXPERTS

The financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2025, have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 1C to the financial statements) of Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The financial statements of Zorronet Ltd. as of and for the year ended December 31, 2025 have been incorporated by reference herein in reliance upon the report of Somekh Chaikin, a member firm of KPMG International, independent auditors, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the December 31, 2025 financial statements contains an explanatory paragraph that states that Zorronet's recurring losses from operations and net capital deficiency raise substantial doubt about the entity's ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of that uncertainty.

The financial statements of Dr. Frucht Systems Ltd. as of December 31, 2025 and 2024 and for the two years then ended, incorporated in this prospectus by reference to the Company's Current Report on Form 8-K/A filed on June 12, 2026, have been so incorporated in reliance on the report of Ziv Haft, Certified Public Accountants (Isr.), a BDO Member Firm, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, filed as part of the registration statement, does not contain all the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us, we refer you to the registration statement and to its exhibits and schedules.

We file annual, quarterly and current reports and other information with the SEC. The SEC maintains an internet website at www.sec.gov that contains periodic and current reports, proxy and information statements, and other information regarding registrants that are filed electronically with the SEC.

These documents are also available, free of charge, through the Investors section of our website, which is located at www.biomx.com. Information contained on our website is not incorporated by reference into this prospectus and you should not consider information on our website to be part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information into this prospectus and any accompanying prospectus supplement, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus and any accompanying prospectus supplement, except for any information superseded by information contained directly in this prospectus, any accompanying prospectus supplement, any subsequently filed document deemed incorporated by reference or a free writing prospectus prepared by or on behalf of us. This prospectus and any accompanying prospectus supplement incorporates by reference the documents set forth below that we have previously filed with the SEC (other than information deemed furnished and not filed in accordance with SEC rules, including Items 2.02 and 7.01 of Form 8-K or certain exhibits furnished pursuant to Item 9.01 of Form 8-K). These documents contain important information about us and our finances.

We incorporate by reference in this prospectus the following documents or information filed with the SEC:

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2025, filed with the SEC on February 19, 2026, as amended by Amendment No. 1 on [Form 10-K/A](#) filed with the SEC on April 30, 2026, including the description of our Common Stock contained therein and including any amendments thereto or reports filed for the purpose of updating such description;
- our Quarterly Report on [Form 10-Q](#) for the quarterly period ended March 31, 2026, filed with the SEC on May 20, 2026;
- our Current Reports on Form 8-K filed with the SEC on [February 13, 2026](#), [February 25, 2026](#), [March 2, 2026](#), [March 6, 2026](#), [March 11, 2026](#), [March 19, 2026](#), [March 27, 2026](#), [April 1, 2026](#), [April 10, 2026](#), [April 13, 2026](#), [April 16, 2026](#), [May 5, 2026](#), [May 28, 2026](#), [June 5, 2026](#), [June 12, 2026](#) (including the Current Report on Form 8-K/A filed [June 12, 2026](#) containing the audited financial statements and unaudited pro forma financial information for the acquisitions of Zorronet Ltd. and Dr. Frucht Systems Ltd.) and [June 18, 2026](#);
- our Definitive Proxy Statements on Schedule 14A filed with the SEC on [March 25, 2026](#) and [June 8, 2026](#), as supplemented by amendment No. 1 filed with the SEC on [June 22, 2026](#); and
- all documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the registration statement of which this prospectus forms a part and prior to effectiveness of such registration statement, and (ii) after the date of this prospectus and any accompanying prospectus supplement and before the termination of the offering shall also be deemed to be incorporated herein by reference.

We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed above or filed in the future, that are not deemed “filed” with the SEC, including our audit and compensation committee reports and performance graph or any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or certain exhibits furnished pursuant to Item 9.01 of Form 8-K.

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. Any statement contained in a document incorporated by reference into this prospectus will be deemed to be modified or superseded for the purposes of this prospectus to the extent that a later statement contained in this prospectus or in any other document incorporated by reference into this prospectus modifies or supersedes the earlier statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.

We will provide without charge to each person to whom a copy of this prospectus is delivered, upon written or oral request, a copy of any or all of the reports or documents that have been incorporated by reference in this prospectus but not delivered with this prospectus (other than an exhibit to these filings, unless we have specifically incorporated that exhibit by reference in this prospectus). Any such request should be addressed to us at:

BiomX Inc. 850 New Burton Road, Suite 201 Dover, DE 19904 +972 52 437 4900

You may also access the documents incorporated by reference in this prospectus through our website at www.biomx.com. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

7,163,000 Shares of Common Stock
(including up to 4,615,000 Warrant Shares)

BiomX Inc.

COMMON STOCK

PROSPECTUS

July 13, 2026
