

PROSPECTUS

BIOMX INC.



31,775,477 Shares of Common Stock

This prospectus relates to the resale by the selling stockholders named in this prospectus or their permitted transferees (the "Selling Stockholders") of up to 31,775,477 shares of our common stock, par value \$0.0001 per share ("Common Stock"), 14,610,714 of which are issuable upon the exercise of outstanding pre-funded warrants (the "Pre-Funded Warrants"), purchased pursuant to a securities purchase agreement by and among the Company and the purchasers thereto, dated February 22, 2023.

The shares of Common Stock that may be sold by the Selling Stockholders are referred to in this prospectus as the "Offered Securities." We will not receive any of the proceeds from the sale by the Selling Stockholders of the Offered Securities; however, we will receive the exercise price of the Pre-Funded Warrants upon any exercise of the Pre-Funded Warrants by payment of cash, with an exercise price of \$0.001 per share. We will bear all costs, expenses and fees in connection with the registration of the Offered Securities, including with regard to compliance with state securities or "blue sky" laws. The Selling Stockholders will bear all commissions and discounts, if any, attributable to their sale of the Offered Securities, except as otherwise expressly set forth under "Plan of Distribution" beginning on page 9 of this prospectus.

This prospectus describes the general manner in which the Offered Securities may be offered and sold. If necessary, the specific manner in which the Offered Securities may be offered and sold will be described in one or more supplements to this prospectus. Any prospectus supplement may add, update or change information contained in this prospectus. You should carefully read this prospectus, and any applicable prospectus supplement, as well as the documents incorporated by reference herein or therein before you invest in any of our securities.

The Selling Stockholders may offer, sell or distribute Offered Securities publicly or through private transactions. If the Selling Stockholders use underwriters, dealers or agents to sell Offered Securities, we will name them and describe their compensation in a prospectus supplement. The price to the public of those securities and the net proceeds the Selling Stockholders expect to receive from that sale will also be set forth in a prospectus supplement.

Our Common Stock is currently quoted on the NYSE American Stock Market ("NYSE American") under the symbol "PHGE." On June 1, 2023, the last reported sale price of our Common Stock on NYSE American was \$0.38 per share.

We are an "emerging growth company" under applicable federal securities laws and are subject to reduced public company reporting requirements. Investing in our securities involves a high degree of risk.

See "Risk Factors" on page 3 for a discussion of information that should be considered in connection with the ownership of our securities.

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 the prospectus is June 8, 2023.

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You should rely only on the information contained in this prospectus or a supplement to this prospectus, including the information incorporated herein by reference. Neither we nor the selling stockholders have authorized anyone to provide you with different information. This prospectus is not an offer to sell securities, and it is not soliciting an offer to buy securities, in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in this prospectus or any supplement to this prospectus, whether or not incorporated herein by reference, is accurate as of any date other than the date indicated in those documents.

For investors outside of the United States: Neither we nor any of the selling stockholders have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus.

PROSPECTUS SUMMARY

This summary only highlights the more detailed information appearing elsewhere in this prospectus. As this is a summary, it does not contain all of the information that you should consider in making an investment decision. You should read this entire prospectus carefully, as well as any information incorporated herein by reference, including the information under “Risk Factors” and our financial statements and the related notes, before investing.

This prospectus describes the general manner in which the selling stockholders identified in this prospectus, or any of their transferees, may offer from time to time up to 31,775,477 shares of Common Stock, of which 14,610,714 are issuable upon exercise of Pre-Funded Warrants. If necessary, the specific manner in which the shares of Common Stock may be offered and sold will be described in a supplement to this prospectus, which supplement may also add, update or change any of the information contained in this prospectus. To the extent there is a conflict between the information contained in this prospectus and any applicable prospectus supplement, you should rely on the information in the prospectus supplement, provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus or any prospectus supplement—the statement in the document having the later date modifies or supersedes the earlier statement.

Our Company

BiomX Inc. is a clinical stage product discovery company developing products using both natural and engineered phage cocktails designed to target and destroy harmful bacteria associated with chronic diseases, focusing its efforts at this point on cystic fibrosis and to a lesser degree on atopic dermatitis. Bacteriophage or phage are bacterial, species-specific, strain-limited viruses that infect, amplify and kill the target bacteria and are considered inert to mammalian cells. By utilizing proprietary combinations of naturally occurring phage and by creating novel phage using synthetic biology, we develop phage-based therapies intended to address both large-markets and orphan diseases.

In our therapeutic programs, we focus on using phage therapy to target specific strains of pathogenic bacteria that are associated with diseases. Our phage-based product candidates are developed utilizing our proprietary research and development platform named BOLT. The BOLT platform is unique, employing cutting edge methodologies and capabilities across disciplines including computational biology, microbiology, synthetic engineering of phage and their production bacterial hosts, bioanalytical assay development, manufacturing and formulation, to allow agile and efficient development of natural or engineered phage combinations, or cocktails. The cocktail contains phage with complementary features and is optimized for multiple characteristics such as broad target host range, ability to prevent resistance, biofilm penetration, stability and ease of manufacturing.

Our goal is to develop multiple products based on the ability of phage to precisely target harmful bacteria and on our ability to screen, identify and combine different phage, both naturally occurring and created using synthetic engineering, to develop these treatments.

Corporate Information

The mailing address of our principal executive office is 22 Einstein St., Floor 4, Ness Ziona, Israel 7414003 and our telephone number is (+972) 72-394-2377. Our website address is www.biomx.com. The information found on the website is not part of, and is not incorporated into, this prospectus.

ABOUT THIS OFFERING

The Selling Stockholders identified in this prospectus are offering on a resale basis a total of up to 31,775,477 shares of Common Stock.

Common Stock offered by the Selling Stockholders	Up to 31,775,477 shares.
Risk factors	Before investing in our securities, you should carefully read and consider the information set forth in “Risk Factors” on page 3.
Use of proceeds	We will not receive any proceeds from the offering of the Offered Securities by the Selling Stockholders, except for the Pre-Funded Warrants’ exercise price paid for the Common Stock offered hereby and issuable upon the exercise of the Pre-Funded Warrants for \$0.001 per share. See “Use of Proceeds” on page 6.
Trading market and symbol	The Company’s Common Stock trades on the NYSE American under the symbol “PHGE.”

RISK FACTORS

An investment in our securities carries a significant degree of risk. You should carefully consider before you decide to purchase our securities the risks, uncertainties and assumptions discussed under the heading “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, which is incorporated herein by reference, as updated or superseded by the risks and uncertainties described under similar headings in other documents that are filed after the date thereof and incorporated by reference into this prospectus. Any one of these risks and uncertainties has the potential to cause material adverse effects on our business, prospects, financial condition and operating results, which could cause actual results to differ materially from any forward-looking statements expressed by us and a significant decrease in the value of our Common Shares. Refer to “Cautionary Statement Regarding Forward-Looking Statements.”

We may not be successful in preventing the material adverse effects that any of these risks and uncertainties may cause. These potential risks and uncertainties may not be a complete list of the risks and uncertainties facing us. There may be additional risks and uncertainties that we are presently unaware of, or presently consider immaterial, that may become material in the future and have a material adverse effect on us. You could lose all or a significant portion of your investment due to any of these risks and uncertainties.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

The statements contained in this prospectus and the documents we incorporate by reference herein or therein that are not historical facts are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. Such forward-looking statements may be identified by, among other things, the use of forward-looking terminology such as “believes,” “intends,” “plans,” “expects,” “may,” “will,” “should,” “estimates,” or “anticipates” or the negative thereof or other variations thereon or comparable terminology, and similar expressions are intended to identify forward-looking statements.

We remind readers that forward-looking statements are merely predictions and therefore inherently subject to uncertainties and other factors and involve known and unknown risks that could cause the actual results, performance, levels of activity, or our achievements, or industry results, to be materially different from any future results, performance, levels of activity, achievements or industry results, expressed or implied by such forward-looking statements. Such forward-looking statements include, among other statements, statements regarding the following:

- the ability to generate revenues, and raise sufficient financing to meet working capital requirements;
- the unpredictable timing and cost associated with our approach to developing product candidates using phage technology;
- political and economic instability, including, without limitation, due to natural disasters or other catastrophic events, such as the Russian invasion of Ukraine and world sanctions on Russia, Belarus, and related parties, terrorist attacks, hurricanes, fire, floods, pollution and earthquakes;
- political, economic and military instability in the State of Israel, and in particular, the proposed judicial and other legislation by the Israeli government;
- obtaining U.S. Food and Drug Administration, or FDA, acceptance of any non-U.S. clinical trials of product candidates;
- our ability to enroll patients in clinical trials and achieve anticipated development milestones when expected;
- the ability to pursue and effectively develop new product opportunities and acquisitions and to obtain value from such product opportunities and acquisitions;
- penalties and market withdrawal associated with any unanticipated problems with product candidates and failure to comply with labeling and other restrictions;
- expenses associated with compliance with ongoing regulatory obligations and successful continuing regulatory review;
- market acceptance of our product candidates and ability to identify or discover additional product candidates;
- our ability to obtain high titers for specific phage cocktails necessary for preclinical and clinical testing;
- the availability of specialty raw materials and global supply chain challenges;
- the ability of our product candidates to demonstrate requisite safety and efficacy for drug products, or safety, purity and potency for biologics without causing adverse effects;
- the success of expected future advanced clinical trials of our product candidates;
- our ability to obtain required regulatory approvals;

- delays in developing manufacturing processes for our product candidates;
- the continued impact of COVID-19, general economic conditions, our current low stock price and other factors on our operations, the continuity of our business, including our preclinical and clinical trials, and our ability to raise additional capital;
- competition from similar technologies, products that are more effective, safer or more affordable than our product candidates or products that obtain marketing approval before our product candidates;
- the impact of unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives on our ability to sell product candidates or therapies profitably;
- protection of our intellectual property rights and compliance with the terms and conditions of current and future licenses with third parties;
- infringement on the intellectual property rights of third parties and claims for remuneration or royalties for assigned service invention rights;
- our ability to acquire, in-license or use proprietary rights held by third parties necessary to our product candidates or future development candidates;
- ethical, legal and social concerns about synthetic biology and genetic engineering that may adversely affect market acceptance of our product candidates;
- reliance on third-party collaborators;
- our ability to attract and retain key employees or to enforce the terms of noncompetition agreements with employees;

- the failure to comply with applicable laws and regulations other than drug manufacturing compliance;
- potential security breaches, including cybersecurity incidents; and
- other factors described in the documents incorporated by reference in this prospectus.

The factors discussed herein, including those risks described under the heading “Risk Factors” herein and in the documents we incorporate by reference could cause actual results and developments to be materially different from those expressed in or implied by such statements. In addition, historic results of scientific research, clinical and preclinical trials do not guarantee that the conclusions of future research or trials would not suggest different conclusions. Also, historic results referred to this prospectus and the documents we incorporate by reference may be interpreted differently in light of additional research, clinical and preclinical trials results. Except as required by law we undertake no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

USE OF PROCEEDS

All of the shares of Common Stock offered by the Selling Stockholders pursuant to this prospectus will be sold by the Selling Stockholders for their account. We will not receive any of the proceeds from these sales. Out of the 31,775,477 shares of Common Stock offered hereby, 14,610,714 shares of Common Stock are issuable upon the exercise of the Pre-Funded Warrants. Upon exercise of such Pre-Funded Warrants, we will receive the applicable cash exercise price paid by the holders of the Pre-Funded Warrants of \$0.001 per share.

SELLING STOCKHOLDERS

Up to 31,775,477 shares of Common Stock may be offered for resale, from time to time, by the Selling Stockholders identified in the table below, of which 14,610,714 shares of Common Stock are issuable upon the exercise of the Pre-Funded Warrants.

In December 2021, we entered into a Securities Purchase Agreement with the Cystic Fibrosis Foundation (the “CF Securities Purchase Agreement”). Under the terms of the agreement, we were to receive up to \$5.0 million in two tranches. In the first tranche, which closed and was fully received on December 21, 2021, the Cystic Fibrosis Foundation invested \$3.0 million as an initial equity investment based on a share price of \$2.57 and we issued the 1,167,315 shares included in this prospectus. Upon completion of patient dosing in Part 1 of the Company’s Phase 1b/2a study of BX004, the Company had the right to receive the second tranche of \$2.0 million, also as an equity investment. In the event that the average closing price of the Common Stock for the ten trading days prior to the second tranche completion was less than \$2.57, the Company had the right in its sole discretion to waive the second tranche payment and in such event the CF Foundation would not have any right to receive additional shares. Ultimately, in lieu of the second tranche in the CF Securities Purchase Agreement, the CF Foundation decided to participate in the 2023 SPA (as defined below) with an aggregate investment amount of \$2.0 million and the Company waived the right to receive the second tranche of \$2.0 million under the CF Securities Purchase Agreement. Pursuant to the CF Securities Purchase Agreement, we agreed to prepare and file, at our sole expense, the registration statement of which this prospectus forms a part and to use our commercially best efforts to cause such registration statement to be declared effective under the Securities Act as promptly as possible after the filing thereof. In connection with the execution of the 2023 SPA, we and the Cystic Fibrosis Foundation agreed to delay the preparation and filing of the registration statement referenced in the CF Securities Purchase Agreement and instead to prepare and file a registration statement following the second closing of the 2023 SPA that would also include the resale of the additional shares issued pursuant to the 2023 SPA to the Cystic Fibrosis Foundation and additional investors.

On February 22, 2023, we entered into a Securities Purchase Agreement with the Selling Stockholders (the “2023 SPA”), relating to a private placement of an aggregate of 30,608,162 shares of Common Stock, including shares issuable upon the exercise of Pre-Funded Warrants to purchase additional shares of Common Stock, at a purchase price of \$0.245 per share of Common Stock and \$0.244 per Pre-Funded Warrant. Under the terms of the 2023 SPA, our gross proceeds from the 2023 SPA were approximately \$7.5 million, before deducting offering expenses. Pursuant to the Registration Rights Agreement (the “Registration Rights Agreement”) executed in connection with the execution of the 2023 SPA, we agreed to prepare and file, at our sole expense, the registration statement of which this prospectus forms a part and to use our commercially best efforts to cause such registration statement to be declared effective under the Securities Act as promptly as possible after the filing thereof.

To our knowledge, within the past three years, none of the Selling Stockholders has held a position as an officer or a director of ours, nor had any other material relationship of any kind with us or any of our affiliates.

A Selling Stockholder who is an affiliate of a broker-dealer and any participating broker-dealer is deemed to be an “underwriter” within the meaning of the Securities Act of 1933, as amended (the “Securities Act”), and any commissions or discounts given to any such Selling Stockholder or broker-dealer may be regarded as underwriting commissions or discounts under the Securities Act. To our knowledge, the Selling Stockholder is not an affiliate of a broker-dealer and there are no participating broker-dealers.

The term “Selling Stockholder” also includes any transferees, pledgees, donees, or other successors in interest to the Selling Stockholder named in the table below.

The following table sets forth the number of shares of Common Stock (i) known to us to be beneficially owned by each of the Selling Stockholders as of May 30, 2023, (ii) being offered hereby by each of the Selling Stockholders and (iii) beneficially owned by each of the Selling Stockholders after giving effect to the sale by a Selling Stockholder of all of its Offered Securities. The following table also sets forth the percentage of Common Stock beneficially owned by each of the Selling Stockholders before giving effect to the sale by a Selling Stockholder of all Offered Securities, based on 45,979,730 shares of Common Stock outstanding as of May 30, 2023. For purposes of the table below, we have assumed, upon termination of this offering, none of the Offered Securities will be beneficially owned by any of the Selling Stockholders, and we have further assumed that a Selling Stockholder will not acquire beneficial ownership of any additional securities during the offering.

The Selling Stockholders are not making any representation that any shares of Common Stock covered by this prospectus will be offered for sale. Because we do not know how long each of the Selling Stockholders will hold the Pre-Funded Warrants, whether any will exercise the Pre-Funded Warrants and, upon such exercise, how long each such Selling Stockholders will hold the shares of Common Stock before selling them, and because each of the Selling Stockholders may dispose of all, none or some portion of its securities, no estimate can be given as to the number of securities that will be beneficially owned by a Selling Stockholder upon completion of this offering. In addition, each Selling Stockholder may have sold, transferred or otherwise disposed of its securities in transactions exempt from the registration requirements of the Securities Act after the date on which the information in the table is presented.

We may amend or supplement this prospectus from time to time in the future to update or change this Selling Stockholders list and the securities that may be resold.

Number of Shares of Common Stock	Percentage of Outstanding Shares	Number of Shares of	Shares of Common Stock Beneficially Owned After
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Name	Beneficially Owned Before	Beneficially Owned Before	Common Stock Offered	Completion of the Offering	
	this Offering ⁽¹⁾	this Offering ⁽²⁾⁽³⁾	Hereby	Number	Percentage ⁽²⁾
Cystic Fibrosis Foundation ⁽⁴⁾	4,593,375	9.99%	9,330,580	0	0%
OrbiMed Israel Partners Limited Partnership ⁽⁵⁾	4,553,489	9.90%	11,020,408	3,188,489	6.88%
Nimble Ventures, LLC ⁽⁶⁾	4,593,375	9.99%	5,102,041	0	0%
Telmina Limited ⁽⁷⁾	2,839,714	6.17%	2,040,816	798,898	1.74%
Hans W. Schoepflin Trust dated June 9, 1989 ⁽⁸⁾	1,752,256	3.81%	1,020,408	731,848	1.59%
Stichting Administratiekantoor The Invisible Hand at Work ⁽⁹⁾	702,517	1.28%	612,245	90,272	0.20%
Abraham D. Sofaer and Marian Scheuer Sofaer ⁽¹⁰⁾	1,337,599	2.91%	1,020,408	317,191	0.69%
Dr. Norm Gitis ⁽¹¹⁾	1,020,408	2.22%	1,020,408	0	0%
Scheuer-Sofaer Group LLC ⁽¹²⁾	408,163	0.89%	408,163	0	0%
Nancy Carroll Professional Corporation ⁽¹³⁾	300,000	0.65%	200,000	100,000	0.22%

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- (1) Beneficial ownership is determined in accordance with SEC rules and generally includes voting or investment power with respect to securities. Common Stock subject to warrants currently exercisable, or exercisable within 60 days of May 30, 2023, are counted as outstanding for computing the percentage of the selling stockholder holding such warrants but are not counted as outstanding for computing the percentage of any other selling stockholder.
- (2) Applicable percentage of ownership is based on 45,979,730 shares of Common Stock outstanding as of May 30, 2023 (assumes the exercise in full of the Pre-Funded Warrants).
- (3) The percentage gives effect to the 9.99% (9.90% for OrbiMed Israel Partners Limited Partnership) beneficial ownership limitation set forth in the selling stockholder's Pre-Funded Warrants.
- (4) Cystic Fibrosis Foundation ("CFF") is a Delaware nonstock corporation and a non-profit organization under Section 501(c)(3) of the Internal Revenue Code with an address at 4550 Montgomery Ave., Suite 1100N Bethesda, MD 20814. CFF is the owner of 4,552,315 shares of Common Stock and 4,778,265 Pre-Funded Warrants entitling CFF to acquire 4,778,265 shares of Common Stock. The Pre-Funded Warrants contain an issuance limitation that prohibits the holder from exercising the Pre-Funded Warrants to the extent that after giving effect to such issuance after exercise, the holder (together with the holder's affiliates and any other persons acting as a group together with the holder) would beneficially own in excess of 9.99% of the shares of Common Stock outstanding immediately after giving effect to the issuance of the shares of Common Stock issuance upon exercise of the Pre-Funded Warrants.
- (5) OrbiMed Israel Partners Limited Partnership ("OIP LP") is an Israeli limited partnership with an address at 5 Hahoshlim Street, Building B, 8th Floor, Herzliya Pituach Israel. OrbiMed Israel BioFund GP Limited Partnership ("BioFund GP LP") is the general partner of OIP LP, and OrbiMed Israel GP Ltd. ("Israel GP") is the general partner of BioFund GP LP. As a result, Israel GP and BioFund GP LP may be deemed to have shared voting and investment power over the securities held by OIP LP, and both Israel GP and BioFund GP LP may be deemed to directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the shares held by OIP LP. Israel GP exercises this investment power through an investment committee comprised of Carl L. Gordon and Erez Chimovits, each of whom disclaims beneficial ownership of the shares held by OIP LP together with its affiliates and any other person acting as a group together with the holder or any of the holder's affiliates, owns 4,553,489 shares of Common Stock, 500,000 warrants (entitling the holder to acquire up to 375,000 shares of Common Stock) and 9,280,408 Pre-Funded Warrants (entitling the holder to acquire up to 9,280,408 shares of Common Stock). The warrants and the Pre-Funded Warrants contain an issuance limitation that prohibits the holder from exercising the Pre-Funded Warrants to the extent that after giving effect to such issuance after exercise, the holder (together with the holder's affiliates and any other persons acting as a group together with the holder or any of the holder's affiliates, including BioFund GP LP, Carl L. Gordon and Erez Chimovits) would beneficially own in excess of 9.90% of the shares of Common Stock outstanding immediately after giving effect to the issuance of the shares of Common Stock issuance upon exercise of the Pre-Funded Warrants.
- (6) Nimble Ventures, LLC ("Nimble") is a Delaware limited liability company with an address at 122 W Dilido Drive, Miami Beach, FL, 33139. The natural controlling person having ultimate control is John H. Burbank III. Nimble is the owner of 4,550,000 shares of Common Stock and 552,041 Pre-Funded Warrants entitling Nimble to acquire 552,041 shares of Common Stock. The Pre-Funded Warrants contain an issuance limitation that prohibits the holder from exercising the Pre-Funded Warrants to the extent that after giving effect to such issuance after exercise, the holder (together with the holder's affiliates and any other persons acting as a group together with the holder) would beneficially own in excess of 9.99% of the shares of Common Stock outstanding immediately after giving effect to the issuance of the shares of Common Stock issuance upon exercise of the Pre-Funded Warrants.
- (7) Telmina Limited is a BVI company with an address at C/O Geneva Trust Company (GTC) S.A., 34 Rue de l'athenee, PO Box 393, 1211 Geneva 12, Switzerland, whose shares are registered through its parent, treasury, company Centaurus Investments Limited. The natural controlling person having ultimate control over the trust structure that Telmina is part of is Rodney Hodges. Telmina Limited is the owner of 2,839,714 shares of Common Stock.
- (8) Hans W. Schoepflin Trust dated June 9, 1989 is a California Revocable trust, with an address at Bardos LLC, 7979 Ivanhoe Ave., Suite 460 La Jolla, CA 92037. The natural controlling person having ultimate control over the trust is Hans W. Schoepflin. Hans W. Schoepflin Trust dated June 9, 1989 is the owner of 1,752,256 shares of Common Stock.
- (9) Stichting Administratiekantoor The Invisible Hand at Work is a Dutch foundation with an address at Hoge Weidelaan 20 2275 TL Voorburg, The Netherlands. The natural controlling person having ultimate control over the foundation is Mr. Hendrik Brulleman. Stichting Administratiekantoor The Invisible Hand at Work is the owner of 702,517 shares of Common Stock.
- (10) Abraham D. Sofaer and Marian Scheuer Sofaer are natural persons with an address at 1200 Bryant St., Palo Alto CA 94301. Abraham D. Sofaer and Marian Scheuer Sofaer are the owners of 1,337,599 shares of Common Stock.
- (11) Dr. Norm Gitis is a natural person with an address at 838 Port Walk Place Redwood City, CA 94065, and is the owner of 1,020,408 shares of Common Stock.
- (12) Scheuer-Sofaer Group LLC is a New York State limited liability company with an address at 1200 Bryant St., Palo Alto CA 94301, managed by Abraham D. Sofaer. The Scheuer-Sofaer Group LLC is the owner of 408,163 shares of Common Stock.
- (13) Nancy Carroll Professional Corporation is incorporated under the laws of the Province of Ontario, Canada, with an address at 22 Vesta Drive, Toronto, Ontario, Canada, M5P2Z5. Nancy Joan Carroll has control over this entity. Nancy Carroll Professional Corporation is the owner of 300,000 shares of Common Stock.

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PLAN OF DISTRIBUTION

Each Selling Stockholder of the securities 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 the 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. A Selling Stockholder may use any one or more of the following methods when selling securities:

- in market transactions, including transactions on a national securities exchange or quotations service or over-the-counter market;

- in privately negotiated transactions;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- in a block trade in which a broker-dealer will attempt to sell a block of securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- through the settlement of short sales (including short sales “against the box”), in each case subject to compliance with the Securities Act and other applicable securities laws;
- through one or more underwriters in a public offering on a firm commitment or best-efforts basis;
- an exchange distribution in accordance with the rules of the applicable exchange, if any;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- broker-dealers may agree with the Selling Stockholder to sell a specified number of such securities at a stipulated price per security;
- directly to one or more purchasers;
- in other ways not involving market makers or established trading markets;
- by pledge to secure debts and other obligations;
- through agents; or
- in any combination of the above or by any other legally available means.

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

In connection with the sale of our 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 our securities in the course of hedging the positions they assume. The Selling Stockholders may also sell their securities short and deliver these securities to close out its short positions, or loan or pledge such 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 the creation of one or more derivative securities which require the delivery to such broker-dealers or other financial institutions of securities offered by this prospectus, which securities such broker-dealers or other financial institutions may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The aggregate proceeds to each Selling Stockholder from the sale of the securities offered by it will be the purchase price of the security less discounts or commissions, if any. Each Selling Stockholder reserves the right to accept and, together with its agents from time to time, to reject, in whole or in part, any proposed purchase of its securities to be made directly or through agents. We will not receive any of the proceeds from the resale of securities being offered by each of the Selling Stockholders named herein.

Each Selling Stockholder also may resell all or a portion of its securities in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule.

The Selling Stockholders and any broker-dealers that act in connection with the sale of securities might be deemed to be “underwriters” within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by such broker-dealers and any profit on the resale of the securities sold by them while acting as principals might be deemed to be underwriting discounts or commissions under the Securities Act.

To the extent required, the securities to be sold, the names of the Selling Stockholders, the respective purchase prices and public offering prices, the names of any agent, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

LEGAL MATTERS

Sullivan & Worcester LLP, Boston, Massachusetts, passed upon the validity of the securities offered hereby.

EXPERTS

The financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2022 have been so incorporated in reliance on the report of Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited (PwC), given upon the authority of said firm as experts in accounting and auditing.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We are “incorporating by reference” certain documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information in the documents incorporated by reference is considered to be part of this prospectus. Statements contained in documents that we file with the SEC and that are incorporated by reference in this prospectus will automatically update and supersede information contained in this prospectus, including information in previously filed documents or reports that have been incorporated by reference in this prospectus, to the extent the new information differs from or is inconsistent with the old information.

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2022 filed with the SEC on March 29, 2023;
- Our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2023 filed with the SEC on May 15, 2023;
- Our Current Reports on Form 8-K filed with the SEC on [January 6, 2023](#), [February 22, 2023](#) (other than Item 7.01 and Exhibit 99.1 furnished therewith), [February 27, 2023](#), [March 29, 2023](#) (Item 5.08 only), [April 25, 2023](#), [May 5, 2023](#), [May 15, 2023](#) (Item 5.02 only) and [June 8, 2023](#); and
- The descriptions of our common stock, warrants and units contained in the Registration Statement on [Form 8-A](#) filed on December 13, 2018, under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), including any amendment or report filed or to be filed for the purpose of updating such descriptions.

All documents filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act until all of the securities to which this prospectus relates has been sold or the offering is otherwise terminated, except in each case for information contained in any such filing where we indicate that such information is being furnished and is not to be considered “filed” under the Exchange Act, will be deemed to be incorporated by reference in this prospectus and any accompanying prospectus supplement and to be a part hereof from the date of filing of such documents.

We will provide a copy of the documents we incorporate by reference, at no cost, to any person who receives this prospectus. To request a copy of any or all of these documents, you should write or telephone us at 22 Einstein St., Floor 4, Ness Ziona, 7414003, Israel, Attention: Ms. Marina Wolfson, or +972 723942377.

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WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC’s website at www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at www.biomx.com. Our website is not a part of this prospectus and is not incorporated by reference in this prospectus. These reference to websites are inactive textual references only, and are not hyperlinks.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information on us and our consolidated subsidiary and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements. You can obtain a copy of the registration statement from the SEC’s website.

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31,775,477 Shares

The logo for BiomX, featuring the word "Biom" in a bold, dark blue sans-serif font, followed by a large "X" in a teal color.

Common Stock

PROSPECTUS

Dated June 8, 2023
