

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

Pre-Effective Amendment No. 1 to
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

BIOMX INC.
(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

82-3364020
(I.R.S. Employer
Identification No.)

22 Einstein St., Floor 4
Ness Ziona, Israel
Telephone: (+972) 72-394-2377
(address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Avraham Gabay
BiomX Inc.
22 Einstein St., Floor 4
Ness Ziona, Israel
Telephone: (+972) 72-394-2377
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Howard E. Berkenblit
Sullivan & Worcester LLP
One Post Office Square
Boston, Massachusetts 02109
(617) 338-2800

Approximate date of commencement of proposed sale to the public: **From time to time after the effective date of this registration statement, as determined by market and other conditions.**

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

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

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

EXPLANATORY NOTE

This registration statement contains:

- A base prospectus, which covers the offering, issuance and sales by us of up to \$150,000,000 in the aggregate of the securities identified above from time to time in one or more offerings; and
- A offering agreement prospectus covering the offering, issuance and sale by us of up to a maximum aggregate offering price of up to \$7,500,000 of our common stock that may be issued and sold from time to time under an at the market offering agreement, or the offering agreement, with H.C. Wainwright & Co., or Wainwright.

The base prospectus immediately follows this explanatory note. The specific terms of any securities to be offered pursuant to the base prospectus will be specified in a prospectus supplement to the base prospectus.

The offering agreement prospectus immediately follows the base prospectus. The \$7,500,000 of common stock that may be offered, issued and sold under the offering agreement prospectus is included in the \$150,000,000 of securities that may be offered, issued and sold by us under the base prospectus. Upon termination of the offering agreement, any portion of the \$7,500,000 included in the offering agreement prospectus that is not sold pursuant to the offering agreement will be available for sale in other offerings pursuant to the base prospectus, and if no shares are sold under the offering agreement, the full \$7,500,000 of securities may be sold in other offerings pursuant to the base prospectus.

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

PROSPECTUS

Subject to completion, December 28, 2023



**\$150,000,000
Common Stock
Preferred Stock
Debt Securities
Warrants
Units**

We may from time to time sell common stock, preferred stock, debt securities, warrants to purchase common stock, and units of two or more of such securities, in one or more offerings for an aggregate initial offering price of \$150,000,000. We refer to the common stock, the preferred stock, the debt securities, the warrants to purchase common stock and the units collectively as the securities. This prospectus describes the general manner in which our securities may be offered using this prospectus. Other than in connection with the exercise of certain outstanding warrants, we will specify in an accompanying prospectus supplement the terms of the securities to be offered and sold. You should carefully read this prospectus and any accompanying supplements before you decide to invest in any of these securities.

We may, from time to time, offer to sell the securities, through public or private transactions, directly or through underwriters, agents or dealers, on or off the NYSE American Stock Market, or the NYSE American, at prevailing market prices or at privately negotiated prices. If any underwriters, agents or dealers are involved in the sale of any of these securities, the applicable prospectus supplement will set forth the names of the underwriter, agent or dealer and any applicable fees, commissions or discounts.

Our common stock is traded on the NYSE American, under the symbol "PHGE". On December 27, 2023, the last reported sale price of our common stock on NYSE American was \$0.31 per share.

As of December 26, 2023, the aggregate market value worldwide of our outstanding voting and non-voting common equity held by non-affiliates, as calculated pursuant to the rules of the Securities and Exchange Commission, was approximately \$28,155,047, based on 45,929,930 shares of common stock outstanding held by non-affiliates at a per share of common stock price of \$0.61 based on the closing sale price of our common stock on the NYSE American on November 24, 2023. As of the date hereof, we have sold or offered 200 shares of common stock for a total of approximately \$124 pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date hereof. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on this registration statement of which any prospectus supplement forms a part in a public primary offering with a value exceeding one-third of our outstanding voting and nonvoting common equity held by non-affiliates (the "public float") in any 12-month period so long as our public float remains below \$75 million.

Investing in our securities involves risks. See "Risk Factors" on page 2 of this prospectus. Additional risks will be described in the related prospectus supplements under the heading "Risk Factors". You should review that section of the related prospectus supplements for a discussion of matters that investors in our securities should consider.

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

The date of this prospectus is _____, 2023.

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You should rely only on the information contained in this prospectus, any prospectus supplement and the documents incorporated by reference herein or therein, or to which we have referred you. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus and any prospectus supplement do not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus and any prospectus supplement in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. You should not assume that the information contained in this prospectus, any prospectus supplement or any document incorporated by reference is accurate as of any date other than the date indicated in the applicable document.

Neither the delivery of this prospectus nor any distribution of securities pursuant to this prospectus shall, under any circumstances, create any implication that there has been no change in the information set forth or incorporated by reference into this prospectus or in our affairs since the date of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

Our name and logo and the names of our products are our trademarks or registered trademarks. Unless the context otherwise requires, references in this prospectus to “BiomX,” “we,” “us,” and “our” refer to BiomX Inc. and its wholly-owned Israeli subsidiary, BiomX Ltd., and RondinX Ltd., an Israeli company and wholly-owned subsidiary of BiomX Ltd.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the SEC using a “shelf” registration process. Under this shelf registration process, we may, from time to time, sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$150,000,000. This prospectus describes the securities we may offer and the general manner in which our securities may be offered by this prospectus. Each time we sell securities (other than in connection with the exercise of certain outstanding warrants), we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also add, update or change in the prospectus supplement any of the information contained in this prospectus. To the extent there is a conflict between the information contained in this prospectus and the 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

We are a clinical stage product discovery company developing products using both natural and engineered phage technologies designed to target and kill specific harmful bacteria associated with chronic diseases, such as cystic fibrosis, or CF. 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-market 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

We were incorporated as a Delaware corporation in 2017. We have a wholly owned subsidiary in Israel called BiomX Ltd. Our executive offices are located at 22 Einstein St., Floor 4, Ness Ziona, Israel, our telephone number is +972 723 942 377 and our website address is www.biomx.com. This reference to our website is an inactive textual reference only and is not a hyperlink. The information on our website is not incorporated by reference in this prospectus and should not be considered to be part of this prospectus. You should not consider the contents of our website in making an investment decision with respect to the securities.

RISK FACTORS

An investment in our securities involves significant risks. You should carefully consider the risk factors below as well as risk factors contained in any prospectus supplement and in our filings with the SEC, including our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2022, and our quarterly report on [Form 10-Q](#) for the quarter ended September 30, 2023, as well as all of the information contained in this prospectus, any prospectus supplement and the other documents incorporated by reference herein or therein, before you decide to invest in our securities. Our business, prospects, financial condition and results of operations may be materially and adversely affected as a result of any of such risks. The value of our securities could decline as a result of any of these risks. You could lose all or part of your investment in our securities. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business, prospects, financial condition and results of operations.

We conduct our operations in Israel. Conditions in Israel, including the recent attack by Hamas and other terrorist organizations and Israel's war against them, may affect our operations.

Our headquarters and principal offices and most of our operations are located in the State of Israel. In addition, all of our key employees and officers are residents of Israel. Accordingly, political, economic and military conditions in Israel and the surrounding region may directly affect our business.

Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners, or a significant downturn in the economic or financial condition of Israel, could affect adversely our operations. Ongoing and revived hostilities or other Israeli political or economic factors could harm our operations, product development and results of operations.

On October 7, 2023, an unprecedented attack was launched against Israel by terrorists from the Hamas terrorist organization that infiltrated Israel's southern border from the Gaza Strip and in other areas within the state of Israel attacking civilians and military targets while simultaneously launching extensive rocket attacks on the Israeli population. These attacks resulted in extensive deaths, injuries and kidnapping of civilians and soldiers. In response, the Security Cabinet of the State of Israel declared war against Hamas and a military campaign against these terrorist organizations commenced in parallel to their continued rocket and terror attacks. To date, the State of Israel continues to be at war with Hamas.

Since the war broke out on October 7, 2023, our operations have not been adversely affected by this situation. However, at this time, it is not possible to predict the intensity or duration of the war, nor can we predict how this war will ultimately affect Israel's economy in general and we continue to monitor the situation closely and examine the potential disruptions that could adversely affect our operations.

In connection with the Israeli security cabinet's declaration of war against Hamas and possible hostilities with other organizations, several hundred thousand Israeli military reservists were drafted to perform immediate military service. As of December 26, 2023, only 5 out of our 69 current employees in Israel, none of whom are management or key employees, have been called to active military duty, though we rely on service providers located in Israel and have entered into certain agreements with Israeli counterparties. Employees of such service providers or contractual counterparties may be called for service in the current or future wars or other armed conflicts with Hamas and such persons may be absent from their positions for a period of time. As of December 26, 2023, we have not been impacted by any absences of personnel at our service providers or counterparties located in Israel. However, military service call ups that result in absences of personnel from us, our service providers or contractual counterparties in Israel may disrupt our operations and absences for an extended period of time may materially and adversely affect our business, prospects, financial condition and results of operations.

Following the attack by Hamas on Israel's southern border, Hezbollah, a terrorist organization in Lebanon has also launched missile, rocket, and shooting attacks against Israeli military sites, troops, and Israeli towns in northern Israel. In response to these attacks, the Israeli army has carried out a number of targeted strikes on sites belonging to Hezbollah in southern Lebanon. It is possible that other terrorist organizations, including Palestinian military organizations in the West Bank, as well as other hostile countries, such as Iran, will join the hostilities. Such hostilities may include terror and missile attacks. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its trading partners could adversely affect our operations and results of operations. Our insurance policies do not cover losses that may occur as a result of events associated with war and terrorism. Although the Israeli government currently covers the reinstatement value of direct damages that are caused by terrorist attacks or acts of war, we cannot assure you that this government coverage will be maintained or that it will sufficiently cover our potential damages. Any losses or damages incurred by us could have a material adverse effect on our business. Any armed conflicts or political instability in the region would likely negatively affect business conditions and could harm our results of operations.

Several countries, principally in the Middle East, still restrict doing business with Israel and Israeli companies, and additional countries may impose restrictions on doing business with Israel and Israeli companies, whether as a result of hostilities in the region or otherwise. In addition, there have been increased efforts by activists to cause companies, research institutions and consumers to boycott Israeli goods and cooperation with Israeli-related entities based on Israeli government policies. Such actions, particularly if they become more widespread, may adversely impact our ability to cooperate with research institutions and collaborate with other third parties. Any hostilities involving Israel, any interruption or curtailment of trade or scientific cooperation between Israel and its present partners, or a significant downturn in the economic or financial condition of Israel could adversely affect our business, financial condition and results of operations. We may also be targeted by cyber terrorists specifically because we are an Israeli-related company.

Prior to the Hamas attack in October 2023, the Israeli government pursued extensive changes to Israel's judicial system. In response to the foregoing developments, individuals, organizations and institutions, both within and outside of Israel, have voiced concerns that the proposed changes may negatively impact the business environment in Israel including due to reluctance of foreign investors to invest or transact business in Israel as well as to increased currency fluctuations, downgrades in credit rating, increased interest rates, increased volatility in securities markets, and other changes in macroeconomic conditions. The risk of such negative developments has increased in light of the recent Hamas attacks and the war against Hamas declared by Israel, regardless of the proposed changes to the judicial system and the related debate. To the extent that any of these negative developments do occur, they may have an adverse effect on our business, our results of operations and our ability to raise additional funds, if deemed necessary by our management and board of directors.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This prospectus, any prospectus supplement and the documents we incorporate by reference herein or therein include “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and other securities laws. The statements contained herein that are not purely historical, are forward-looking statements. Forward-looking statements include statements about our expectations, beliefs, plans, objectives, intentions, assumptions and other statements that are not historical facts. Words or phrases such as “anticipate,” “believe,” “continue,” “estimate,” “expect,” “intend,” “may,” “ongoing,” “plan,” “potential,” “predict,” “project,” “will” or similar words or phrases, or the negatives of those words or phrases, may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward-looking. For example, we are making forward-looking statements when we discuss our business strategy and plans, our clinical and pre-clinical development program, including timing, milestones and the design thereof, including acceptance of regulatory agencies of such design, the potential opportunities for and benefits of the Bacteriophage Lead to Treatment, or BOLT, platform, the potential of our product candidates and the sufficiency of financial resources and financial needs and ability to continue as a going concern. However, you should understand that these statements are not guarantees of performance or results, and there are a number of risks, uncertainties and other important factors that could cause our actual results to differ materially from those expressed in the forward-looking statements, including, among others:

- the ability to generate revenues, and raise sufficient financing to meet working capital requirements;
- our ability to continue as a going concern absent access to sources of liquidity;
- the unpredictable timing and cost associated with our approach to developing product candidates using phage technology;
- military, political and economic instability in the state of Israel, and in particular, the war situation in Israel that was declared by the security cabinet of the state of Israel;
- 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;
- obtaining U.S. Food 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 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;
- expected benefits from FDA fast track designation for our BX004 product candidate;
- 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 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;
- other factors described in the documents incorporated by reference in this prospectus and any prospectus supplement.

The factors discussed herein, including those risks described under the heading “Risk Factors” herein, in any prospectus supplement 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 in this prospectus, any prospectus supplement 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

Unless we otherwise indicate in an applicable prospectus supplement, we currently intend to use the net proceeds from the sale of the securities for research and product development activities, clinical trial activities, manufacturing for clinical trials and for preparing our product candidates for commercialization, marketing and business development, investment in capital equipment and infrastructure, repayment of our debt (including under our Loan and Security Agreement, dated August 16, 2021, with Hercules Capital, Inc., the terms of which are described in the documents incorporated herein by reference) and for working capital and other general corporate purposes.

We may set forth additional information on the use of net proceeds from the sale of securities we offer under this prospectus in a prospectus supplement relating to the specific offering. Pending the application of the net proceeds, we intend to invest the net proceeds in money market funds and investment securities consisting of U.S. Treasury notes, or high quality, marketable debt instruments of corporations and government sponsored enterprises subject to any investment policies our investment committee may determine from time to time.

THE SECURITIES WE MAY OFFER

The descriptions of the securities contained in this prospectus, together with any applicable prospectus supplement, summarize the material terms and provisions of the various types of securities that we may offer. We will describe in any applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If we so indicate in any applicable prospectus supplement, the terms of the securities may differ from the terms we have summarized below. We may also include in any prospectus supplement information, where applicable, about material U.S. federal income tax consequences relating to the securities, and the securities exchange or market, if any, on which the securities will be listed.

We may sell from time to time, in one or more offerings, one or more of the following securities:

- common stock;
- preferred stock;
- debt securities
- warrants to purchase common stock; and
- units of two or more of the securities mentioned above.

The total initial offering price of all securities that we may issue in these offerings will not exceed \$150,000,000.

DESCRIPTION OF CAPITAL STOCK

The following summary is a description of the material terms of our share capital. We encourage you to read our Amended and Restated Certificate of Incorporation, as amended, or our Certificate of Incorporation, and Amended and Restated By-laws, or our Bylaws, which have been filed with the SEC, as well as the applicable provisions of the General Corporation Law of the State of Delaware, or the DGCL, for more information.

As of December 26, 2023, our authorized capital stock consists of 120,000,000 shares of common stock, of which there were 45,979,930 shares outstanding as of December 26, 2023, and 1,000,000 shares of preferred stock, none of which are outstanding. The following statements set forth the material terms of our capital stock; however, reference is made to the more detailed provisions of, and these statements are qualified in their entirety by reference to, our Certificate of Incorporation and Bylaws, copies of which are referenced as exhibits herein, and the provisions of the DGCL.

Common Stock

Our holders of record of our common stock are entitled to one vote for each share held on all matters to be voted on by stockholders. Our stockholders have no conversion, preemptive or other subscription rights and there are no sinking fund or redemption provisions applicable to the shares of common stock. There is no cumulative voting with respect to the election of directors. Our stockholders are entitled to receive ratable dividends when, as and if declared by our Board of Directors out of funds legally available therefor.

We have not paid any cash dividends on our common stock to date and do not intend to pay cash dividends in the foreseeable future. The payment of cash dividends in the future will be dependent upon our revenues and earnings, if any, capital requirements and general financial condition. The payment of any cash dividends will be within the discretion of our Board of Directors at such time.

Preferred Stock

There are no shares of preferred stock outstanding. Our Certificate of Incorporation authorizes the issuance of 1,000,000 shares of preferred stock with such designation, rights and preferences as may be determined from time to time by our Board of Directors. Accordingly, our Board of Directors is empowered, without stockholder approval, to issue preferred stock with dividend, liquidation, conversion, voting or other rights which could adversely affect the voting power or other rights of the holders of common stock. In addition, the preferred stock could be utilized as a method of discouraging, delaying or preventing a change in control of us. Although we do not currently intend to issue any shares of preferred stock, we reserve the right to do so in the future. No shares of preferred stock are being issued or registered hereunder.

Transfer Agent

The transfer agent for our shares of common stock is Continental Stock Transfer & Trust Company, 1 State Street 30th Floor New York, NY 10004-156117.

Certain Anti-Takeover Provisions of Delaware Law and our Certificate of Incorporation and Bylaws

The provisions of DGCL, our Certificate of Incorporation and Bylaws described below may have the effect of delaying, deferring or discouraging another party from acquiring control of us.

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. This statute prevents certain Delaware corporations, under certain circumstances, from engaging in a “business combination” with:

- a stockholder who owns 10% or more of our outstanding voting stock (otherwise known as an “interested stockholder”);
- an affiliate of an interested stockholder; or
- an associate of an interested stockholder, for three years following the date that the stockholder became an interested stockholder.

A “business combination” includes a merger or sale of more than 10% of our assets. However, the above provisions of Section 203 do not apply if:

- our Board of Directors approves the transaction that made the stockholder an “interested stockholder,” prior to the date of the transaction;
- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or
- on or subsequent to the date of the transaction, the business combination is approved by our Board of Directors and authorized at a meeting of our stockholders, and not by written consent, by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

Special meeting of stockholders

Our Bylaws provide that special meetings of our stockholders may be called only by a majority vote of our Board of Directors, or by our chief executive officer.

Classified Board of Directors

Our Board of Directors is divided into three classes, each of which will generally serve for a term of three years with only one class of directors being elected in each year. This system of electing Directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the Directors.

Advance notice requirements for stockholder proposals and director nominations

Our Bylaws provide that stockholders seeking to bring business before our annual meeting of stockholders, or to nominate candidates for election as directors at our annual meeting of stockholders must provide timely notice of their intent in writing. To be timely, a stockholder’s notice to bring matters before our annual meeting of stockholders needs to be delivered to our principal executive offices not later than the close of business on the 90th day nor earlier than the opening of business on the 120th day prior to the scheduled date of the annual meeting of stockholders, and a stockholder’s notice to nominate candidates for election as directors needs to be delivered to us not less than 120 days prior to any meeting of stockholders called for the election of directors. Our Bylaws also specify certain requirements as to the form and content of a stockholders’ notice. These provisions may preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the debt securities we may offer under this prospectus. While the terms summarized below will apply generally to any debt securities that we may offer, we will describe the particular terms of any series of debt securities in more detail in the applicable prospectus supplement. If we so indicate in a prospectus supplement, the terms of any debt securities offered under that prospectus supplement may differ from the terms we describe below.

We may issue debt securities either separately, or together with, or upon the conversion or exercise of or in exchange for, other securities described in this prospectus. Debt securities may be our senior, senior subordinated or subordinated obligations and, unless otherwise specified in a supplement to this prospectus, the debt securities will be our direct, unsecured obligations and may be issued in one or more series.

The debt securities will be issued under an indenture between us and a trustee to be named in the applicable indenture, or the indenture. We have summarized select portions of the indenture below. The summary is not complete. The form of the indenture has been filed as an exhibit to the registration statement of which this prospectus forms a part and you should read the indenture for provisions that may be important to you. Capitalized terms used in the summary and not defined herein have the meanings specified in the indenture.

As of December 26, 2023, we have no outstanding registered debt securities.

As used in this section only, “BiomX,” “we,” “our” or “us” refer to BiomX Inc., excluding our subsidiaries, unless expressly stated or the context otherwise requires.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our Board of Directors and set forth or determined in the manner provided in a resolution of our Board of Directors, by a supplemental indenture or an Officer’s Certificate. The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series (including any pricing supplement or term sheet).

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will set forth in a prospectus supplement (including any pricing supplement or term sheet) relating to any series of debt securities being offered, the aggregate principal amount and the following terms of such debt securities, if applicable:

- the title and ranking of the debt securities of such series (including the terms of any subordination provisions);
- the price or prices (expressed as a percentage of the principal amount) at which we will issue the debt securities of such series;
- any limit on the aggregate principal amount of the debt securities of such series;
- the date or dates on which the principal of the debt securities of such series is payable;
- the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities of such series will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;
- the place or places where principal of, and interest, if any, on the debt securities of such series will be payable (and the method of such payment), where the debt securities of such series may be surrendered for registration of transfer or exchange, and where notices and demands to us in respect of the debt securities of such series may be delivered;
- the period or periods within which, the price or prices at which and the terms and conditions upon which we may redeem, in whole or in part, the debt securities of such series;
- any obligation we have to redeem or purchase the debt securities of such series pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities and the period or periods within which, the price or prices at which and in the terms and conditions upon which the debt securities of such series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;
- the dates on which and the price or prices at which we will repurchase debt securities of such series at the option of the holders of such debt securities and other detailed terms and provisions of these repurchase obligations;
- the denominations in which the debt securities of such series will be issued, if other than denominations of \$1,000 and any integral multiple thereof;
- whether the debt securities of such series will be issued in the form of certificated debt securities or global debt securities;
- the portion of principal amount of the debt securities of such series payable upon declaration of acceleration of the maturity date, if other than the principal amount;
- the currency of denomination of the debt securities of such series, which may be Dollars or any Foreign Currency, and if such currency of denomination is a composite currency, the agency or organization, if any, responsible for overseeing such composite currency;
- the designation of the currency, currencies or currency units in which payment of principal of, premium and interest on the debt securities of such series will be made;

- if payments of principal of, premium or interest on the debt securities of such series will be made in one or more currencies or currency units other than that or those in which such debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;
- the manner in which the amounts of payment of principal of, premium, if any, or interest on the debt securities of such series will be determined, if these amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;
- any provisions relating to any security provided for the debt securities of such series;
- any addition to, deletion of or change in the Events of Default described in this prospectus or in the indenture with respect to the debt securities of such series and any change in the acceleration provisions described in this prospectus or in the indenture with respect to such debt securities;
- any addition to, deletion of or change in the covenants described in this prospectus or in the indenture with respect to the debt securities of such series;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities of such series;
- the provisions, if any, relating to conversion or exchange of any debt securities of such series, including if applicable, the conversion or exchange price and period, provisions as to whether conversion or exchange will be mandatory, at the option of holders or at our option, the events requiring an adjustment of the conversion or exchange price and provisions affecting conversion or exchange;
- any other terms of the debt securities of such series, which may supplement, modify or delete any provision of the indenture as it applies to that series, including any terms that may be required under applicable law or regulations or advisable in connection with the marketing of such debt securities; and
- whether any of our direct or indirect subsidiaries will guarantee the debt securities of that series, including the terms of subordination, if any, of such guarantees.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Transfer and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, or the Depository, or a nominee of the Depository (we will refer to any debt security represented by a global debt security as a “book-entry debt security”), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a “certificated debt security”) as set forth in the applicable prospectus supplement. Except as set forth under the heading “Global Debt Securities” below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities. You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may effect the transfer of certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder.

Global Debt Securities and Book-Entry System. Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the Depositary, and registered in the name of the Depositary or a nominee of the Depositary. Please see “Global Debt Securities.”

Covenants

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities.

No Protection in the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) which could adversely affect holders of debt securities.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to any person (a “successor person”) unless:

- we are the surviving corporation or the successor person (if other than BiomX) is a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes our obligations on the debt securities and under the indenture; and
- immediately after giving effect to the transaction, no Default or Event of Default, shall have occurred and be continuing.

Notwithstanding the above, any of our subsidiaries may consolidate with, merge into or transfer all or part of its properties to us.

Events of Default

“Event of Default” means with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of such default for a period of 30 days;
- default in the payment of principal or premium, if any, of any debt security of that series at its maturity;

- default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after we receive written notice from the trustee or we and the trustee receive written notice from the holders of not less than a majority in principal amount of the outstanding debt securities of that series as provided in the indenture;
- certain voluntary or involuntary events of bankruptcy, insolvency or reorganization of us; and
- any other Event of Default provided with respect to debt securities of that series that is described in the applicable prospectus supplement.

No Event of Default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) will necessarily constitute an Event of Default with respect to any other series of debt securities. The occurrence of certain Events of Default or an acceleration under the indenture may constitute an event of default under certain indebtedness of ours or our subsidiaries outstanding from time to time.

We will provide the trustee written notice of any Default or Event of Default within 30 days of becoming aware of the occurrence of such Default or Event of Default, which notice will describe in reasonable detail the status of such Default or Event of Default and what action we are taking or propose to take in respect thereof.

If an Event of Default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than a majority in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal of (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an Event of Default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all Events of Default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an Event of Default.

The indenture provides that the trustee may refuse to perform any duty or exercise any of its rights or powers under the indenture unless the trustee receives indemnity satisfactory to it against any cost, liability or expense which might be incurred by it in performing such duty or exercising such right or power. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing Event of Default with respect to debt securities of that series; and
- the holders of not less than a majority in principal amount of the outstanding debt securities of that series have made written request, and offered indemnity or security satisfactory to the trustee, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of not less than a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding any other provision in the indenture, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. If a Default or Event of Default occurs and is continuing with respect to the securities of any series and if it is known to a responsible officer of the trustee, the trustee shall mail to each Securityholder of the securities of that series notice of a Default or Event of Default within 90 days after it occurs or, if later, after a responsible officer of the trustee has knowledge of such Default or Event of Default. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any Default or Event of Default (except in payment on any debt securities of that series) with respect to debt securities of that series if the trustee determines in good faith that withholding notice is in the interest of the holders of those debt securities.

Modification and Waiver

We and the trustee may modify, amend or supplement the indenture or the debt securities of any series without the consent of any holder of any debt security:

- to cure any ambiguity, defect or inconsistency;
- to comply with covenants in the indenture described above under the heading “Consolidation, Merger and Sale of Assets”;
- to provide for uncertificated securities in addition to or in place of certificated securities;
- to add guarantees with respect to debt securities of any series or secure debt securities of any series;
- to surrender any of our rights or powers under the indenture;
- to add covenants or events of default for the benefit of the holders of debt securities of any series;
- to comply with the applicable procedures of the applicable depository;
- to make any change that does not adversely affect the rights of any holder of debt securities;
- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture;
- to effect the appointment of a successor trustee with respect to the debt securities of any series and to add to or change any of the provisions of the indenture to provide for or facilitate administration by more than one trustee; or
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act.

We may also modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement or waiver;
- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
- reduce the principal of or premium on or change the fixed maturity of any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;
- reduce the principal amount of discount securities payable upon acceleration of maturity;
- waive a default in the payment of the principal of, premium or interest on any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);
- make the principal of or premium or interest on any debt security payable in currency other than that stated in the debt security;
- make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, premium and interest on those debt securities and to institute suit for the enforcement of any such payment and to waivers or amendments; or
- waive a redemption payment with respect to any debt security.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, we may be discharged from any and all obligations in respect of the debt securities of any series (subject to certain exceptions). We will be so discharged upon the irrevocable deposit with the trustee, in trust, of money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money or U.S. government obligations in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, upon compliance with certain conditions:

- we may omit to comply with the covenant described under the heading “Consolidation, Merger and Sale of Assets” and certain other covenants set forth in the indenture, as well as any additional covenants which may be set forth in the applicable prospectus supplement; and
- any omission to comply with those covenants will not constitute a Default or an Event of Default with respect to the debt securities of that series (“covenant defeasance”).

The conditions include:

- depositing with the trustee money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. Dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and
- delivering to the trustee an opinion of counsel to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

No Personal Liability of Directors, Officers, Employees or Securityholders

None of our past, present or future Directors, officers, employees or securityholders, as such, will have any liability for any of our obligations under the debt securities or the indenture or for any claim based on, or in respect or by reason of, such obligations or their creation. By accepting a debt security, each holder waives and releases all such liability. This waiver and release is part of the consideration for the issue of the debt securities. However, this waiver and release may not be effective to waive liabilities under U.S. federal securities laws, and it is the view of the SEC that such a waiver is against public policy.

Global Debt Securities

We may issue the debt securities of a series in whole or in part in the form of one or more registered global securities that we will deposit with a depository or with an nominee for a depository identified in the applicable prospectus supplement and registered in the name of such depository or nominee. In such case, we will issue one or more registered global securities denominated in an amount equal to the aggregate principal amount of all of the debt securities of the series to be issued and represented by such registered global security or securities.

Unless and until it is exchanged in whole or in part for debt securities in definitive registered form, a registered global security may not be transferred except as a whole:

- by the depositary for such registered global security to its nominee;
- by a nominee of the depositary to the depositary or another nominee of the depositary; or
- by the depositary or its nominee to a successor of the depositary or a nominee of the successor.

The prospectus supplement relating to a series of debt securities will describe the specific terms of the depositary arrangement with respect to any portion of such series represented by a registered global security. We currently anticipate that the following provisions will apply to all depositary arrangements for debt securities:

- ownership of beneficial interests in a registered global security will be limited to persons that have accounts with the depositary for the registered global security, those persons being referred to as “participants,” or persons that may hold interests through participants;
- upon the issuance of a registered global security, the depositary for the registered global security will credit, on its book-entry registration and transfer system, the participants’ accounts with the respective principal amounts of the debt securities represented by the registered global security beneficially owned by the participants;
- any dealers, underwriters or agents participating in the distribution of the debt securities will designate the accounts to be credited; and
- ownership of any beneficial interest in the registered global security will be shown on, and the transfer of any ownership interest will be effected only through, records maintained by the depositary for the registered global security (with respect to interests of participants) and on the records of participants (with respect to interests of persons holding through participants).

The laws of some states may require that certain purchasers of securities take physical delivery of the securities in definitive form. These laws may limit the ability of those persons to own, transfer or pledge beneficial interests in registered global securities.

So long as the depositary for a registered global security, or its nominee, is the registered owner of the registered global security, the depositary, or the nominee, as the case may be, will be considered the sole owner or holder of the debt securities represented by the registered global security for all purposes under the applicable indenture. Except as set forth below, owners of beneficial interests in a registered global security:

- will not be entitled to have the debt securities represented by a registered global security registered in their names;
- will not receive or be entitled to receive physical delivery of the debt securities in the definitive form; and
- will not be considered the owners or holders of the debt securities under the applicable indenture.

Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depositary or the registered global security and, if the person is not a participant, on the procedures of a participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture.

We understand that under currently existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under an indenture, the depositary for the registered global security would authorize the participants holding the relevant beneficial interests to give or take the action, and those participants would authorize beneficial owners owning through those participants to give or take the action or would otherwise act upon the instructions of beneficial owners holding through them.

We will make payments of principal of and premium, if any, and interest, if any, on debt securities represented by a registered global security registered in the name of a depository or its nominee to the depository or its nominee, as the case may be, as the registered owners of the registered global security. Neither we nor any trustee or any other agent of us or a trustee will be responsible or liable for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to the beneficial ownership interests.

We expect that the depository for any debt securities represented by a registered global security, upon receipt of any payments of principal and premium, if any, and interest, if any, in respect of the registered global security, will immediately credit participants' accounts with payments in amounts proportionate to their respective beneficial interests in the registered global security as shown on the records of the depository. We also expect that standing customer instructions and customary practices will govern payments by participants to owners of beneficial interests in the registered global security held through the participants, as is now the case with the securities held for the accounts of customers in bearer form or registered in "street name." We also expect that any of these payments will be the responsibility of the participants.

No registered global security may be exchanged in whole or in part for debt securities registered, and no transfer of a registered global security in whole or in part may be registered, in the name of any person other than the depository for such registered global security, unless (1) such depository notifies us that it is unwilling or unable to continue as depository for such registered global security or has ceased to be a clearing agency registered under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and we fail to appoint an eligible successor depository within 90 days, (2) an event of default shall have occurred and be continuing with respect to such debt securities, or (3) circumstances, if any, exist in addition to or in lieu of the foregoing as have been specified for that purpose in an applicable prospectus supplement. In any such case, the affected registered global security may be exchanged in whole or in part for debt securities in definitive form and the applicable trustee will register any such debt securities in such name or names as such depository directs.

We currently anticipate that certain registered global securities will be deposited with, or on behalf of, The Depository Trust Company, New York, New York, or DTC, and will be registered in the name of Cede & Co., as the nominee of DTC. DTC has advised us that DTC is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code and a "clearing agency" registered pursuant to the provisions of Section 17A of the Exchange Act. DTC holds securities that its participants, or direct participants, deposit with DTC. DTC also facilitates the post-trade settlement among direct participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between direct participants' accounts. This eliminates the need for physical movement of securities certificates. Direct participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. DTC is a wholly owned subsidiary of The Depository Trust & Clearing Corporation, or DTCC. DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies and clearing corporations that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly.

The rules applicable to DTC and its direct participants are on file with the SEC. The information in this paragraph concerning DTC and DTC's book-entry system has been obtained from sources that we believe to be reliable, but we take no responsibility for the accuracy thereof. In the event registered global securities are deposited with, or on behalf of, a depository other than DTC, we will describe additional or differing terms of the depository arrangements in the applicable prospectus supplement relating to that particular series of debt securities.

We may also issue bearer debt securities of a series in the form of one or more global securities, referred to as “bearer global securities.” We currently anticipate that we will deposit these bearer global securities with a common depository for Euroclear Bank S.A./N.V. and Clearstream Banking, société anonyme, or with a nominee for the depository identified in the prospectus supplement relating to that series. The prospectus supplement relating to a series of debt securities represented by a bearer global security will describe the specific terms and procedures, including the specific terms of the depository arrangement and any specific procedures for the issuance of debt securities in definitive form in exchange for a bearer global security, with respect to the portion of the series represented by a bearer global security.

Neither we nor any trustee assumes any responsibility for the performance by DTC or any other depository or its participants of their respective obligations, including obligations that they have under the rules and procedures that govern their operations.

Governing Law

The indenture and the debt securities, including any claim or controversy arising out of or relating to the indenture or the securities, will be governed by the laws of the State of New York.

The indenture will provide that we, the trustee and the holders of the debt securities (by their acceptance of the debt securities) irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to the indenture, the debt securities or the transactions contemplated thereby.

The indenture will provide that any legal suit, action or proceeding arising out of or based upon the indenture or the transactions contemplated thereby may be instituted in the federal courts of the United States of America located in the City of New York or the courts of the State of New York in each case located in the City of New York, and we, the trustee and the holder of the debt securities (by their acceptance of the debt securities) irrevocably submit to the non-exclusive jurisdiction of such courts in any such suit, action or proceeding. The indenture will further provide that service of any process, summons, notice or document by mail (to the extent allowed under any applicable statute or rule of court) to such party’s address set forth in the indenture will be effective service of process for any suit, action or other proceeding brought in any such court. The indenture will further provide that we, the trustee and the holders of the debt securities (by their acceptance of the debt securities) irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the courts specified above and irrevocably and unconditionally waive and agree not to plead or claim any such suit, action or other proceeding has been brought in an inconvenient forum.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants (and any securities issuable upon exercise of such warrants) in more detail in the applicable prospectus supplement. If we so indicate in a prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms we describe below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement.

General

We may issue warrants for the purchase of common stock in one or more series. We may issue warrants independently or together with common stock, and the warrants may be attached to or separate from the common stock. As of December 26, 2023, we have an aggregate of 13,652,974 warrants outstanding to purchase an aggregate of up to 9,215,475 shares of common stock with a weighted average exercise price of \$9.51, certain of which are included in our outstanding units, certain of which were issued in private placements and certain of which are traded on the over-the-counter market under the symbol “PHGEW,” or the Outstanding Warrants. However, unless set forth in the applicable prospectus supplement, any warrants offered pursuant to this prospectus will be of a separate class and have different terms from the Outstanding Warrants.

We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement or by warrant agreements that we will enter into directly with the purchasers of the warrants. If we evidence warrants by warrant certificates, we will enter into a warrant agreement with a warrant agent. We will indicate the name and address of the warrant agent, if any, in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased or exercised;
- if applicable, the terms of the common stock with which the warrants are issued and the number of warrants issued with such common stock;
- if applicable, the date on and after which the warrants and the related common stock will be separately transferable;
- the number of shares of common stock or other securities purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the manner in which the warrants may be exercised, which may include by cashless exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of shares of common stock issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;
- the material United States federal income tax consequences of holding or exercising the warrants;
- the terms of the common stock issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the common stock purchasable upon such exercise, including the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the number of shares of common stock that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5:00 P.M., Eastern U.S. time, on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering to the warrant agent or us the warrant certificate or warrant agreement representing the warrants to be exercised together with specified information, and by paying the required amount to the warrant agent or us in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate or in the warrant agreement and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent or us in connection with such exercise.

Upon receipt of the required payment and the warrant certificate or the warrant agreement, as applicable, properly completed and duly executed at the corporate trust office of the warrant agent, if any, at our offices or at any other office indicated in the applicable prospectus supplement, we will issue and deliver the common stock or other securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate or warrant agreement are exercised, then we will issue a new warrant certificate or warrant agreement for the remaining amount of warrants.

Enforceability of Rights by Holders of Warrants

If we appoint a warrant agent, any warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

Outstanding Warrants

The shares of common stock registered under the registration statement of which this prospectus is a part include up to 2,812,501 shares of common stock issuable upon exercise of warrants that were issued under our registration statement on Form S-3 declared effective on December 11, 2020 (Registration No. 333-235151). Such warrants were issued on July 28, 2021, have an exercise price of \$5.00 per share and expire on January 28, 2027.

No prospectus supplement will be delivered in connection with the issuance of these shares of common stock pursuant to the exercise of such warrants.

DESCRIPTION OF UNITS

We may issue, in one or more series, units consisting of common stock, preferred stock, debt securities and/or warrants for the purchase of common stock and/or preferred stock, in any combination. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below. As of December 26, 2023, 221,081 units are outstanding, each consisting of one share of common stock and one Outstanding Warrant, or the Outstanding Units. However, unless set forth in the applicable prospectus supplement, any units offered pursuant to this prospectus will be of a separate class and have different terms from the Outstanding Units.

We will file as exhibits to a prospectus supplement, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplement related to the particular series of units that we may offer under this prospectus and the complete unit agreement and any supplemental agreements that contain the terms of the units.

Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

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

- the designation and terms of the units, including whether and under what circumstances the securities comprising the units may be held or transferred separately; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock”, “Description of Debt Securities” and “Description of Warrants” will apply to each unit and to any common stock, preferred stock, debt security or warrant included in each unit, respectively.

We may issue units in such amounts and in such distinct series as we determine.

PLAN OF DISTRIBUTION

We may sell the securities being offered hereby in one or more of the following ways from time to time:

- through agents to the public or to investors;
- to one or more underwriters or distributors for resale to the public or to investors;
- in “at the market offerings,” within the meaning of Rule 415(a)(4) of the Securities Act;
- directly to investors in privately negotiated transactions;
- directly to a purchaser pursuant to what is known as an “equity line of credit” as described below;
- through a combination of these methods of sale; or
- upon exercise of outstanding warrants.

The securities that we distribute by any of these methods may be sold, in one or more transactions, at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to prevailing market prices; or
- negotiated prices.

The accompanying prospectus supplement will describe the terms of the offering of our securities, including:

- the name or names of any agents or underwriters;
- any securities exchange or market on which the common stock may be listed;
- the purchase price and commission, if any, to be paid in connection with the sale of the securities being offered and the proceeds we will receive from the sale;
- any over-allotment options pursuant to which underwriters may purchase additional securities from us;
- any underwriting discounts or agency fees and other items constituting underwriters’ or agents’ compensation;
- any public offering price; and
- any discounts or concessions allowed or reallocated or paid to dealers.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of the sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all the securities offered by the prospectus supplement. We may change from time to time the public offering price and any discounts or concessions allowed or reallocated or paid to dealers.

If we use a dealer in the sale of the securities being offered pursuant to this prospectus or any prospectus supplement, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. The names of the dealers and the terms of the transaction will be specified in a prospectus supplement.

We may sell the securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, any agent will act on a best-efforts basis for the period of its appointment.

To the extent that we make sales to or through one or more underwriters or agents in at-the-market offerings, we will do so pursuant to the terms of a distribution agreement between us and the underwriters or agents. If we engage in at-the-market sales pursuant to a distribution agreement, we will sell any of our listed securities to or through one or more underwriters or agents, which may act on an agency basis or on a principal basis. During the term of any such agreement, we may sell any of our listed securities on a daily basis in exchange transactions or otherwise as we agree with the underwriters or agents. The distribution agreement will provide that any of our listed securities which are sold will be sold at prices related to the then prevailing market prices for our listed securities. Therefore, exact figures regarding proceeds that will be raised or commissions to be paid cannot be determined at this time and will be described in a prospectus supplement. Pursuant to the terms of the distribution agreement, we also may agree to sell, and the relevant underwriters or agents may agree to solicit offers to purchase, blocks of our listed securities. The terms of each such distribution agreement will be set forth in more detail in a prospectus supplement to this prospectus.

We may also sell securities pursuant to an “equity line of credit”. In such event, we will enter into a common stock purchase agreement with the purchaser to be named therein, which will be described in a Current Report on Form 8-K that we will file with the SEC. In that Form 8-K, we will describe the total amount of securities that we may require the purchaser to purchase under the purchase agreement and the other terms of purchase, and any rights that the purchaser is granted to purchase securities from us. In addition to our issuance of shares of common stock to the equity line purchaser pursuant to the purchase agreement, this prospectus (and the applicable prospectus supplement or post-effective amendment) also covers the resale of those shares from time to time by the equity line purchaser to the public. The equity line purchaser will be considered an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act. Its resales may be effected through a number of methods, including without limitation, ordinary brokerage transactions and transactions in which the broker solicits purchasers and block trades in which the broker or dealer so engaged will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction. The equity line purchaser will be bound by various anti-manipulation rules of the SEC and may not, for example, engage in any stabilization activity in connection with its resales of our securities and may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities other than as permitted under the Exchange Act.

We may provide underwriters and agents with indemnification against civil liabilities related to offerings pursuant to this prospectus, including liabilities under the Securities Act, or contribution with respect to payments that the underwriters or agents may make with respect to these liabilities. Underwriters and agents may engage in transactions with, or perform services for, us in the ordinary course of business. We will describe such relationships in the prospectus supplement naming the underwriter or agent and the nature of any such relationship.

Rules of the SEC may limit the ability of any underwriters to bid for or purchase securities before the distribution of the shares of common stock is completed. However, underwriters may engage in the following activities in accordance with the rules:

- *Stabilizing transactions* — Underwriters may make bids or purchases for the purpose of pegging, fixing or maintaining the price of the shares, so long as stabilizing bids do not exceed a specified maximum.
- *Options to purchase additional stock and syndicate covering transactions* — Underwriters may sell more shares of our common stock than the number of shares that they have committed to purchase in any underwritten offering. This creates a short position for the underwriters. This short position may involve either “covered” short sales or “naked” short sales. Covered short sales are short sales made in an amount not greater than the underwriters’ option to purchase additional shares in any underwritten offering. The underwriters may close out any covered short position either by exercising their option or by purchasing shares in the open market. To determine how they will close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market, as compared to the price at which they may purchase shares through their option. Naked short sales are short sales in excess of the option. The underwriters must close out any naked position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that, in the open market after pricing, there may be downward pressure on the price of the shares that could adversely affect investors who purchase shares in the offering.
- *Penalty bids* — If underwriters purchase shares in the open market in a stabilizing transaction or syndicate covering transaction, they may reclaim a selling concession from other underwriters and selling group members who sold those shares as part of the offering.

Similar to other purchase transactions, an underwriter’s purchases to cover the syndicate short sales or to stabilize the market price of our common stock may have the effect of raising or maintaining the market price of our common stock or preventing or mitigating a decline in the market price of our common stock. As a result, the price of the shares of our common stock may be higher than the price that might otherwise exist in the open market. The imposition of a penalty bid might also have an effect on the price of shares if it discourages resales of the shares.

If commenced, the underwriters may discontinue any of these activities at any time.

Our common stock is traded on NYSE American. One or more underwriters may make a market in our common stock, but the underwriters will not be obligated to do so and may discontinue market making at any time without notice. We cannot give any assurance as to liquidity of the trading market for our common stock.

Any underwriters who are qualified market makers on NYSE American may engage in passive market making transactions in that market in the common stock in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded.

LEGAL MATTERS

Sullivan & Worcester LLP, Boston, Massachusetts, passed upon the validity of the securities offered hereby. Additional legal matters may be passed upon for any underwriters, dealers or agents by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The financial statements incorporated in this prospectus by reference to the Current Report on Form 8-K dated December 7, 2023 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 (PwC), 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 a registration statement on Form S-3 under the Securities Act with the SEC with respect to the shares of our common stock, preferred stock, debt securities, warrants and units offered through this prospectus. This prospectus is filed as a part of that registration statement and does not contain all of the information contained in the registration statement and exhibits. We refer you to our registration statement and each exhibit attached to it for a more complete description of matters involving us, and the statements we have made in this prospectus are qualified in their entirety by reference to these additional materials.

We are subject to the reporting and information requirements of the Exchange Act and as a result file periodic reports and other information with the SEC. You can review our SEC filings and the registration statement by accessing the SEC's internet site at www.sec.gov. We maintain a corporate website at www.biomx.com. Information contained on, or that can be accessed through, our website does not constitute a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

INCORPORATION OF DOCUMENTS 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.

We have filed or may file the following documents with the SEC. These documents are incorporated herein by reference as of their respective dates of filing:

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2022 filed with the SEC on March 29, 2023;
- Our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2023](#), [June 30, 2023](#) and [September 30, 2023](#), as filed with the SEC on May 15, 2023, August 9, 2023 and November 14, 2023, respectively;
- 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), [June 8, 2023](#), [June 20, 2023](#), [August 29, 2023](#), [October 18, 2023](#), [October 31, 2023](#), [November 29, 2023](#) (other than Item 7.01 and Exhibit 99.1 furnished therewith) and [December 7, 2023](#);
- The information identified as incorporated by references under Items 10, 11, 12, 13 and 14 of Part III of our Annual Report on [Form 10-K](#) for the year ended December 31, 2022 from our [definitive Proxy Statement](#) for our 2023 Annual Meeting of Shareholders dated July 28, 2023; and
- The description of our common stock, warrants and units contained in the Registration Statement on [Form 8-A](#) filed on December 13, 2018, under the Exchange Act, including any amendment or report filed or to be filed for the purpose of updating such description.

All documents filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (1) after the date of the filing of the registration statement of which this prospectus forms a part and prior to its effectiveness and (2) 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, Israel, Attention: Mr. Avraham Gabay, Interim Chief Financial Officer, or +972 723942377, respectively.

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

PROSPECTUS

Subject to Completion, dated December 28, 2023



Up to \$7,500,000

Common Stock

We have entered into an At the Market Offering Agreement, or offering agreement, with H.C. Wainwright & Co., LLC, or Wainwright, dated December 7, 2023, relating to the sale of shares of our common stock offered by this prospectus and the accompanying prospectus. In accordance with the terms of the offering agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$7,500,000 from time to time through Wainwright acting as sales agent, at our discretion.

As of December 26, 2023, the aggregate market value worldwide of our outstanding voting and non-voting common equity held by non-affiliates, as calculated pursuant to the rules of the Securities and Exchange Commission, was approximately \$28,155,047, based on 45,929,930 shares of common stock outstanding held by non-affiliates at a per share of common stock price of \$0.61 based on the closing sale price of our common stock on the NYSE American on November 24, 2023. As of the date hereof, we have sold or offered 200 shares of common stock for a total of approximately \$124 pursuant to General Instruction I.B.5 of Form S-3 during the prior 12 calendar month period that ends on and includes the date hereof. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on this registration statement of which any prospectus supplement forms a part in a public primary offering with a value exceeding one-third of our outstanding voting and nonvoting common equity held by non-affiliates (the “public float”) in any 12-month period so long as our public float remains below \$75 million.. As a result of these limitations and the current public float of our common stock, and in accordance with the terms of the offering agreement, we currently plan to offer and sell common stock having an aggregate offering price of up to \$7,500,000 from time to time through Wainwright under the offering agreement. If our public float increases such that we may sell additional amounts under the offering agreement and the registration statement of which this prospectus is a part, we will file a prospectus supplement prior to making additional sales.

Our common stock is listed on the NYSE American Stock Market, NYSE American, under the symbol “PHGE”. On December 27, 2023, the last reported sale price of our common stock on the NYSE American was \$0.31 per share.

Sales of our common stock, if any, under this prospectus will be made by any method permitted that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or the Securities Act, including sales made directly on or through NYSE American, or any other existing trading market in the United States for our common stock, sales made to or through a market maker other than on an exchange or otherwise, directly to Wainwright as principal, in negotiated transactions at market prices prevailing at the time of sale or at prices related to such prevailing market prices and/or in any other method permitted by law. Wainwright is not required to sell any specific number or dollar amount of securities but will act as a sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between Wainwright and us. Our common stock to which this prospectus relates will be sold through Wainwright on any given day. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Wainwright will be entitled to compensation at a commission rate equal to 3.0% of the gross sales price of any shares of common stock sold under the offering agreement. In connection with the sale of the common stock on our behalf, Wainwright will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Wainwright may be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Wainwright with respect to certain liabilities, including liabilities under the Securities Act. See “Plan of Distribution” beginning on page 12 regarding the compensation to be paid to Wainwright.

Investing in our securities involves significant risks. Please read the information contained in or incorporated by reference under the heading “Risk Factors” beginning on page 7 of this prospectus, and under similar headings in other documents filed with the Securities and Exchange Commission and incorporated by reference into this prospectus and the accompanying prospectus.

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

H.C. Wainwright & Co.

The date of this prospectus is _____, 2023.

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ABOUT THIS PROSPECTUS

This prospectus relates to the offering of our common stock. Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus, together with the accompanying base prospectus and the information incorporated by reference as described under the headings “Where You Can Find More Information” and “Incorporation of Certain Information by Reference” in this prospectus, and any free writing prospectus, if eligible, or prospectus that we have authorized for use in connection with this offering. These documents contain important information that you should consider when making your investment decision.

This prospectus describes the terms of this offering of common stock and also adds to and updates information contained in the documents incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference into this prospectus that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. 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 into this prospectus — the statement in the document having the later date modifies or supersedes the earlier statement.

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 herein 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.

You should rely only on the information contained in or incorporated by reference into this prospectus and the accompanying prospectus. We have not, and Wainwright has not, authorized anyone to provide you with information that is different than or inconsistent with the information contained in or incorporated by reference into this prospectus or in any free writing prospectus that we have authorized for use in connection with this offering. This prospectus is not an offer to sell or solicitation of an offer to buy our securities in any circumstances under which the offer or solicitation is unlawful. We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. You should not assume that the information we have included in this prospectus or the accompanying prospectus is accurate as of any date other than the date of this prospectus or the accompanying prospectus, respectively, or that any information we have incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or of any of our securities. Our business, financial condition, results of operations and prospects may have changed since those dates.

In this prospectus and the accompanying prospectus, unless otherwise indicated, the terms “BiomX,” “we,” “us” and “our” mean BiomX Inc. and its wholly-owned Israeli subsidiary, BiomX Ltd. and RondinX Ltd., an Israeli company and wholly-owned subsidiary of BiomX Ltd.

WHERE YOU CAN FIND MORE 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 and the accompanying prospectus omit 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 and the accompanying 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.

INCORPORATION OF CERTAIN DOCUMENTS 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.

We have filed or may file the following documents with the SEC. These documents are incorporated herein by reference as of their respective dates of filing:

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2022 filed with the SEC on March 29, 2023;
- Our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2023](#), [June 30, 2023](#) and [September 30, 2023](#), as filed with the SEC on May 15, 2023, August 9, 2023 and November 14, 2023, respectively;
- The information identified as incorporated by references under Items 10, 11, 12, 13 and 14 of Part III of our Annual Report on [Form 10-K](#) for the year ended December 31, 2022 from our [definitive Proxy Statement](#) for our 2023 Annual Meeting of Shareholders dated July 28, 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), [June 8, 2023](#), [June 20, 2023](#), [August 29, 2023](#), [October 18, 2023](#), [October 31, 2023](#), [November 29, 2023](#) (other than Item 7.01 and Exhibit 99.1 furnished therewith) and [December 7, 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 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 (1) after the date of the filing of the registration statement of which this prospectus forms a part and prior to its effectiveness and (2) 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, Israel, Attention: Mr. Avraham Gabay, Interim Chief Financial Officer, or +972 723942377, respectively.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This prospectus, the accompanying base 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, Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and other securities laws. The statements contained herein that are not purely historical, are forward-looking statements. Forward-looking statements include statements about our expectations, beliefs, plans, objectives, intentions, assumptions and other statements that are not historical facts. Words or phrases such as “anticipate,” “believe,” “continue,” “estimate,” “expect,” “intend,” “may,” “ongoing,” “plan,” “potential,” “predict,” “project,” “will” or similar words or phrases, or the negatives of those words or phrases, may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward-looking. For example, we are making forward-looking statements when we discuss our business strategy and plans, our clinical and pre-clinical development program, including timing, milestones and the design thereof, including acceptance of regulatory agencies of such design, the potential opportunities for and benefits of the Bacteriophage Lead to Treatment, or BOLT, platform, the potential of our product candidates and the sufficiency of financial resources and financial needs and ability to continue as a going concern. However, you should understand that these statements are not guarantees of performance or results, and there are a number of risks, uncertainties and other important factors that could cause our actual results to differ materially from those expressed in the forward-looking statements, including, among others:

- the ability to generate revenues, and raise sufficient financing to meet working capital requirements;
- our ability to continue as a going concern absent access to sources of liquidity;
- the unpredictable timing and cost associated with our approach to developing product candidates using phage technology;
- military, political and economic instability in the state of Israel, and in particular, the war situation in Israel that was declared by the security cabinet of the state of Israel;
- 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;
- obtaining U.S. Food 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 ability of our product candidates to demonstrate safety and efficacy for drug products, or safety, purity and potency for biologics without causing adverse effects;
- expected benefits from FDA fast track designation for our BX004 product candidate;
- 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 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;
- other factors described in the documents incorporated by reference in this prospectus and any prospectus supplement.

The factors discussed herein, including those risks described under the heading “Risk Factors” herein, in the accompanying prospectus 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 in this prospectus, the accompanying 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.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere or incorporated by reference into this prospectus and the accompanying prospectus. This summary does not contain all of the information that you should consider before investing in our securities. You should carefully read the entire prospectus and the accompanying prospectus, including the "Risk Factors" sections, starting on page 7 of this prospectus, page 2 of the accompanying prospectus, and in our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2022 and our Quarterly Report on [Form 10-Q](#) for the quarter ended September 30, 2023, as well as the financial statements and the other information incorporated by reference herein, before making an investment decision.

Our Company

We are a clinical stage product discovery company developing products using both natural and engineered phage technologies designed to target and kill specific harmful bacteria associated with chronic diseases, such as cystic fibrosis, or CF. 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-market 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

We were incorporated as a Delaware corporation in 2017. We have a wholly owned subsidiary in Israel called BiomX Ltd. Our executive offices are located at 22 Einstein St., Floor 4, Ness Ziona, Israel, our telephone number is +972 723 942 377 and our website address is www.biomx.com. This reference to our website is an inactive textual reference only and is not a hyperlink. The information on our website is not incorporated by reference in this prospectus and should not be considered to be part of this prospectus. You should not consider the contents of our website in making an investment decision with respect to the securities.

THE OFFERING

Common stock to be offered by us	Shares of common stock, par value \$0.0001 per share, having an aggregate offering price of up to \$7,500,000.
Common stock to be outstanding after this offering	Up to 71,647,081 shares, assuming sales at a price of \$0.2922 per share, which was the closing price of our common stock on the NYSE American on December 26, 2023. The actual number of shares issued will vary depending on the sales price under this offering.
Manner of offering	“At the market offering” as defined in Rule 415(a)(4) under the Securities Act, that may be made from time to time on the NYSE American, the existing trading market for our common stock, through Wainwright, as agent or principal. See “Plan of Distribution” on page 12 of this prospectus.
Use of Proceeds	We expect to use the net proceeds of this offering, if any, for research and product development activities, clinical trial activities, manufacturing for clinical trials and for preparing our product candidates for commercialization, marketing and business development, investment in capital equipment and infrastructure, repayment of our debt and for working capital and other general corporate purposes. See “Use of Proceeds” on page 10.
Risk Factors	Investing in our common stock involves significant risks. See “Risk Factors” beginning on page 7 of this prospectus and page 2 of the accompanying prospectus and under similar headings in other documents filed after the date hereof and incorporated by reference into this prospectus and the accompanying prospectus for a discussion of the risks you should carefully consider before deciding to invest in our securities.
NYSE American and TASE symbols	“PHGE”

The number of shares of common stock that will be outstanding after this offering as shown above is based on 45,979,730 shares of common stock outstanding as of September 30, 2023 and assumes no exercise of outstanding options or warrants to purchase additional shares and excludes as of such date:

- 5,910,336 shares of common stock issuable upon the exercise of outstanding stock options as of September 30, 2023 at a weighted-average exercise price of \$2.22 per share;
- 1,145,044 shares of common stock reserved for future issuances under our stock option plans;
- 9,215,475 shares of common stock issuable upon the exercise of outstanding warrants as of September 30, 2023 at a weighted-average exercise price of \$9.51, per share with exercise prices ranging from zero to \$11.50;
- up to an aggregate 4,000,000 shares of common stock issuable in 2024 and 2026 to certain of our stockholders who were stockholders when we entered into a business combination in 2017 if certain conditions with respect to the price of our common stock are met; and
- 14,610,714 shares of common stock issuable upon the exercise of outstanding pre-funded warrants as of September 30, 2023 at an exercise price of \$0.001 per share.

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

RISK FACTORS

An investment in our common stock involves significant risks. You should carefully consider the risk factors described below and the risk factors incorporated by reference to our most recent Annual Report on Form 10-K and our most recent Quarterly Report on Form 10-Q and any subsequent Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q or Current Reports on Form 8-K we file after the date of this prospectus, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act, before acquiring any of such securities. Our business, prospects, financial condition and results of operations may be materially and adversely affected as a result of any of such risks. Some of our statements in sections entitled "Risk Factors" are forward-looking statements. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business, prospects, financial condition and results of operations.

Risks Related to this Offering

Sales of our common stock in this offering, or the perception that such sales may occur, could cause a drop in the market price of our common stock.

We may issue and sell shares of our common stock for aggregate gross proceeds of up to \$7,500,000 from time to time in connection with this offering. The issuance and sale from time to time of these new shares of common stock, or our ability to issue these new shares of common stock in this offering could have the effect of depressing the market price of our common stock.

Our management will have broad discretion over the use of the net proceeds from this offering, you may not agree with how we use the proceeds, and the proceeds may not be invested successfully.

Our management will have broad discretion as to the use of the net proceeds from any offering by us and could use them for purposes other than those contemplated at the time of this offering. Accordingly, you will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for us. If we do not invest or apply the net proceeds from this offering in ways that enhance shareholder value, we may fail to achieve expected financial results, which could cause our stock price to decline. In addition, our failure to effectively apply the net proceeds from this offering could have a material adverse effect on our business, results of operations, financial condition and prospects.

You may experience immediate and substantial dilution in the book value per share of the common stock you purchase in the offering.

The offering price per share in this offering may exceed the pro forma net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 25,667,351 shares of our common stock are sold at a price of \$0.2922 per share, the last reported sale price of our common stock on the NYSE American on December 26, 2023, for aggregate gross proceeds of up to approximately \$7,500,000, and after deducting commissions and estimated aggregate offering expenses payable by us, you will experience immediate dilution of \$0.08 per share, representing the difference between our pro forma as adjusted net tangible book value per share as of September 30, 2023 after giving effect to this offering and the assumed offering price. The exercise of outstanding stock options and warrants will result in further dilution of your investment. See the section below entitled "Dilution" for a more detailed illustration of the dilution you would incur if you participate in this offering.

We may sell additional shares of our common stock to fund our operations, which sales may occur during or immediately after sales pursuant to this offering are commenced, which would result in dilution to our stockholders.

In order to raise additional funds to support our operations, we may sell additional shares of our common stock, which would result in dilution to all of our stockholders that may adversely impact our business. See “Dilution.” In particular, at any time, including during the pendency of this offering, we may sell additional shares of our common stock, other than pursuant to this offering, in amounts that may be material to us, which may be in amounts that are equal to or greater than the size of this offering, including, without limitation, through underwritten public offerings, privately negotiated transactions, block trades, or any combination of the above, subject, in certain circumstances, to the consent of Wainwright. We cannot assure you that we will 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 this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering.

The shares of common stock offered hereby will be sold in “at-the-market” offerings, and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares of common stock under this prospectus supplement at different times will likely pay different prices, and so may experience different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares of common stock sold, and there is no minimum or maximum sales price. Investors may experience a decline in the value of their shares of common stock as a result of sales made at prices lower than the prices they paid.

The actual number of shares of common stock we will issue under the offering agreement in this offering, at any one time or in total, is uncertain and the resulting gross proceeds is uncertain.

Subject to certain limitations in the offering agreement and compliance with applicable law, we have the discretion to deliver a sales notice to Wainwright at any time throughout the term of the offering under this prospectus. The number of shares of common stock that are sold by Wainwright after the delivery of a sales notice will fluctuate based on the market price of the shares of common stock during the sales period and limits we set with Wainwright. Because the price per share of each share of common stock sold will fluctuate based on the market price of our shares during the sales period, it is not possible at this stage to predict the number of shares of common stock that will be ultimately issued or the gross proceeds to be raised in connection with those issuances.

We conduct our operations in Israel. Conditions in Israel, including the recent attack by Hamas and other terrorist organizations and Israel’s war against them, may affect our operations.

Our headquarters and principal offices and most of our operations are located in the State of Israel. In addition, all of our key employees and officers are residents of Israel. Accordingly, political, economic and military conditions in Israel and the surrounding region may directly affect our business.

Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners, or a significant downturn in the economic or financial condition of Israel, could affect adversely our operations. Ongoing and revived hostilities or other Israeli political or economic factors could harm our operations, product development and results of operations.

On October 7, 2023, an unprecedented attack was launched against Israel by terrorists from the Hamas terrorist organization that infiltrated Israel's southern border from the Gaza Strip and in other areas within the state of Israel attacking civilians and military targets while simultaneously launching extensive rocket attacks on the Israeli population. These attacks resulted in extensive deaths, injuries and kidnapping of civilians and soldiers. In response, the Security Cabinet of the State of Israel declared war against Hamas and a military campaign against these terrorist organizations commenced in parallel to their continued rocket and terror attacks. To date, the State of Israel continues to be at war with Hamas.

Since the war broke out on October 7, 2023, our operations have not been adversely affected by this situation and we are not expecting this situation to have a material impact on our ability to continue our business, including preclinical and clinical trials, and our ability to raise additional capital. However, at this time, it is not possible to predict the intensity or duration of the war, nor can we predict how this war will ultimately affect Israel's economy in general and we continue to monitor the situation closely and examine the potential disruptions that could adversely affect our operations.

In connection with the Israeli security cabinet's declaration of war against Hamas and possible hostilities with other organizations, several hundred thousand Israeli military reservists were drafted to perform immediate military service. As of December 26, 2023, only 5 out of our 69 current employees in Israel, none of whom are management or key employees, have been called to active military duty, though we rely on service providers located in Israel and have entered into certain agreements with Israeli counterparties, including a collaboration agreement related to research and development activities. Employees of such service providers or contractual counterparties may be called for service in the current or future wars or other armed conflicts with Hamas and such persons may be absent from their positions for a period of time. As of December 26, 2023, we have not been impacted by any absences of personnel at our service providers or counterparties located in Israel. However, military service call ups that result in absences of personnel from us, our service providers or contractual counterparties in Israel may disrupt our operations and absences for an extended period of time may materially and adversely affect our business, prospects, financial condition and results of operations.

Following the attack by Hamas on Israel's southern border, Hezbollah in Lebanon has also launched missile, rocket, and shooting attacks against Israeli military sites, troops, and Israeli towns in northern Israel. In response to these attacks, the Israeli army has carried out a number of targeted strikes on sites belonging to Hezbollah in southern Lebanon. It is possible that other terrorist organizations, including Palestinian military organizations in the West Bank, as well as other hostile countries, such as Iran, will join the hostilities. Such hostilities may include terror and missile attacks. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its trading partners could adversely affect our operations and results of operations. Our insurance policies do not cover losses that may occur as a result of events associated with war and terrorism. Although the Israeli government currently covers the reinstatement value of direct damages that are caused by terrorist attacks or acts of war, we cannot assure you that this government coverage will be maintained or that it will sufficiently cover our potential damages. Any losses or damages incurred by us could have a material adverse effect on our business. Any armed conflicts or political instability in the region would likely negatively affect business conditions and could harm our results of operations.

Several countries, principally in the Middle East, still restrict doing business with Israel and Israeli companies, and additional countries may impose restrictions on doing business with Israel and Israeli companies, whether as a result of hostilities in the region or otherwise. In addition, there have been increased efforts by activists to cause companies, research institutions and consumers to boycott Israeli goods and cooperation with Israeli-related entities based on Israeli government policies. Such actions, particularly if they become more widespread, may adversely impact our ability to cooperate with research institutions and collaborate with other third parties. Any hostilities involving Israel, any interruption or curtailment of trade or scientific cooperation between Israel and its present partners, or a significant downturn in the economic or financial condition of Israel could adversely affect our business, financial condition and results of operations. We may also be targeted by cyber terrorists specifically because we are an Israeli-related company.

Prior to the Hamas attack in October 2023, the Israeli government pursued extensive changes to Israel's judicial system. In response to the foregoing developments, individuals, organizations and institutions, both within and outside of Israel, have voiced concerns that the proposed changes may negatively impact the business environment in Israel including due to reluctance of foreign investors to invest or transact business in Israel as well as to increased currency fluctuations, downgrades in credit rating, increased interest rates, increased volatility in securities markets, and other changes in macroeconomic conditions. The risk of such negative developments has increased in light of the recent Hamas attacks and the war against Hamas declared by Israel, regardless of the proposed changes to the judicial system and the related debate. To the extent that any of these negative developments do occur, they may have an adverse effect on our business, our results of operations and our ability to raise additional funds, if deemed necessary by our management and board of directors.

USE OF PROCEEDS

We currently intend to use the net proceeds from this offering, if any, for research and product development activities, clinical trial activities, manufacturing for clinical trials and for preparing our product candidates for commercialization, marketing and business development, investment in capital equipment and infrastructure, repayment of our debt (including under our Loan and Security Agreement, dated August 16, 2021, with Hercules Capital, Inc., the terms of which are described in the documents incorporated herein by reference) and for working capital and other general corporate purposes.

Pending the application of the net proceeds, we intend to invest the net proceeds in money market funds and investment securities consisting of U.S. Treasury notes, or high quality, marketable debt instruments of corporations and government sponsored enterprises, subject to any investment policies our investment committee may determine from time to time. We have not yet determined the amount of net proceeds to be used specifically for any of the foregoing purposes. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds from this offering.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock. We intend to retain any future earnings to finance the growth and development of our business and do not anticipate paying any cash dividends in the foreseeable future. Any dividends paid will be solely at the discretion of our board of directors.

DILUTION

If you purchase shares of our common stock in this offering, your interest will be diluted to the extent of the difference between the public offering price per share and the net tangible book value per share of our common stock after this offering. Our net tangible book value as of September 30, 2023 was approximately \$8.2 million, or approximately \$0.18 per share. Net tangible book value per share is equal to total tangible assets minus the sum of total tangible liabilities divided by the total number of shares outstanding.

After giving effect to the sale of our common stock during the term of the offering agreement with Wainwright in the aggregate amount of \$7,500,000 at an assumed offering price of \$0.2922 per share, the last reported sale price of our common stock on the NYSE American on December 26, 2023, and after deducting commissions and estimated aggregate offering expenses payable by us, our net tangible book value as of September 30, 2023 would have been \$15.3 million, or \$0.21 per share of our common stock. This amount represents an immediate increase in net tangible book value to existing stockholders of \$0.03 per share and an immediate dilution in net tangible book value of \$0.08 per share to purchasers of our shares of common stock in this offering, as illustrated in the following table:

Assumed public offering price per share		\$ 0.29
Net tangible book value per share as of September 30, 2023	\$ 0.18	
Increase in net tangible book value per share after giving effect to this offering	<u>\$ 0.03</u>	
Pro forma net tangible book value per share as of September 30, 2023		<u>\$ 0.21</u>
Dilution in net tangible book value per share to new investors		<u>\$ 0.08</u>

The table above assumes for illustrative purposes that an aggregate of 25,667,351 shares of our common stock are sold during the term of the offering agreement with Wainwright at a price of \$0.2922 per share, the last reported sale price of our common stock on the NYSE American on December 26, 2023, for aggregate gross proceeds of \$7,500,000. In fact, the shares subject to the offering agreement with Wainwright will be sold, if at all, from time to time at prices that may vary. An increase of \$0.10 per share in the price at which the shares are sold from the assumed offering price of \$0.3922 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$7,500,000 during the term of the offering agreement with Wainwright is sold at that price, would increase our adjusted net tangible book value per share after the offering to \$0.23 per share and would increase the dilution in net tangible book value per share to new investors in this offering to \$0.16 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$0.10 per share in the price at which the shares are sold from the assumed offering price of \$0.1922 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$7,500,000 during the term of the offering agreement with Wainwright is sold at that price, would decrease our adjusted net tangible book value per share after the offering to \$0.18 per share and would decrease the dilution in net tangible book value per share to new investors in this offering to \$0.01 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only.

The number of shares of common stock that will be outstanding after this offering as shown above is based on 45,979,730 shares of common stock outstanding as of September 30, 2023 and assumes no exercise of outstanding options or warrants to purchase additional shares and excludes as of such date:

- 5,910,336 shares of common stock issuable upon the exercise of outstanding stock options as of September 30, 2023 at a weighted-average exercise price of \$2.22 per share;¹
- 1,145,044 shares of common stock reserved for future issuances under our stock option plans;
- 9,215,475 shares of common stock issuable upon the exercise of outstanding warrants as of September 30, 2023 at a weighted-average exercise price of \$9.51, per share with exercise prices ranging from zero to \$11.50;
- up to an aggregate 4,000,000 shares of common stock issuable in 2024 and 2026 to certain of our stockholders who were stockholders when we entered into a business combination in 2017 if certain conditions with respect to the price of our common stock are met; and
- 14,610,714 shares of common stock issuable upon the exercise of outstanding pre-funded warrants as of September 30, 2023 at an average exercise price of \$0.001 per share.

The table above assumes no exercise of outstanding options or warrants prior to this offering or issued but unvested restricted stock units. To the extent that options or warrants are exercised, there will be further dilution to new investors.

To the extent that outstanding options or warrants outstanding as of September 30, 2023 have been or may be exercised or unvested restricted stock units have been or may be issued, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

¹ On December 11, 2023, we completed a tender offer with respect to an exchange of options under one of our stock option plans such that as of December 26, 2023, we have 5,287,273 shares of common stock issuable upon the exercise of outstanding stock options at a weighted-average exercise price of \$0.55 per share and 1,768,103 shares of common stock reserved for future issuances under our stock option plans.

PLAN OF DISTRIBUTION

We have entered into an offering agreement with Wainwright, under which we may issue and sell, from time to time shares of our common stock having an aggregate offering price of up to \$7,500,000 from time to time through Wainwright acting as agent. Sales of our shares of common stock, if any, under this prospectus will be made by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415 promulgated under the Securities Act.

Wainwright will offer shares of our common stock at prevailing market prices subject to the terms and conditions of the offering agreement as agreed upon by us and Wainwright. We will designate the number of shares which we desire to sell, the time period during which sales are requested to be made, any limitation on the number of shares that may be sold in one day and any minimum price below which sales may not be made. Subject to the terms and conditions of the offering agreement, Wainwright will use its commercially reasonable efforts consistent with its normal trading and sales practices to sell on our behalf all of the shares requested to be sold by us. We or Wainwright may suspend the offering of the shares of common stock being made through Wainwright under the offering agreement upon proper notice to the other party.

Settlement for sales of common stock will occur on the second trading day or such shorter settlement cycle as may be in effect under Exchange Act from time to time, following the date on which any sales are made, or on some other date that is agreed upon by us and Wainwright in connection with a particular transaction, in return for payment of the net proceeds to us. Sales of our shares of our common stock as contemplated in this prospectus will be settled through the facilities of The Depository Trust Company or by such other means as we and Wainwright may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Wainwright in cash, upon each sale of shares of our common stock pursuant to the sales shares, a commission of 3.0% of the gross proceeds from each sale of shares. Because there is no minimum offering amount required as a condition to this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. Pursuant to the terms of the offering agreement, we agreed to reimburse Wainwright for the documented fees and costs of its legal counsel reasonably incurred in connection with entering into the transactions contemplated by the offering agreement in an amount not to exceed \$50,000 in the aggregate. In addition, we have agreed to reimburse Wainwright for the fees and disbursements of its legal counsel in connection with Wainwright’s ongoing diligence, drafting and other filing requirements arising from this offering in an amount not to exceed \$2,500 in the aggregate per calendar quarter. We estimate that the total expenses for the offering, excluding compensation and reimbursements payable to Wainwright under the terms of the offering agreement, will be approximately \$180,000.

We will report at least quarterly the number of shares of our common stock sold through Wainwright under the offering agreement, the net proceeds to us and the compensation paid by us to Wainwright in connection with the sales of shares of our common stock.

In connection with the sales of shares of our common stock on our behalf, Wainwright will be deemed an “underwriter” within the meaning of the Securities Act, and the compensation paid to Wainwright constitutes underwriting commissions or discounts. We have agreed in the offering agreement to provide indemnification and contribution to Wainwright against certain liabilities, including liabilities under the Securities Act.

The offering of our shares of our common stock pursuant to the offering agreement will terminate upon the earlier of the sale of all of the shares of our common stock provided for in this prospectus or termination of the offering agreement as permitted therein.

To the extent required by Regulation M, Wainwright will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus

From time to time, Wainwright may provide in the future various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which they may receive customary fees and commissions. However, we have no present arrangements with Wainwright for any further services. In addition, in the ordinary course of its various business activities, Wainwright and its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. Wainwright or its affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

This summary of the material provisions of the offering agreement does not purport to be a complete statement of its terms and conditions. We filed a copy of the offering agreement with the SEC on a Current Report on Form 8-K on December 7, 2023.

This prospectus in electronic format may be made available on a website maintained by Wainwright and Wainwright may distribute this prospectus electronically.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Sullivan & Worcester LLP, Boston, Massachusetts, and certain legal matters with respect to Israeli law will be passed upon for us by Gornitzky & Co., Tel Aviv, Israel. H.C. Wainwright & Co., LLC is being represented in connection with this offering by Greenberg Traurig, P.A., Tel Aviv, Israel with respect to U.S. law.

EXPERTS

The financial statements incorporated in this prospectus by reference to the Current Report on Form 8-K dated December 7, 2023 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 (PwC), an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.



Up to \$7,500,000

Common Stock

PROSPECTUS

H.C. Wainwright & Co.

, 2023

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the various expenses to be incurred by BiomX Inc., or we, us or our, in connection with the registration of the securities being registered hereby, all of which will be borne by the registrant. All amounts shown are estimates except the Securities and Exchange Commission registration fee and FINRA filing fee.

	Amount
SEC registration fee	\$ 22,140
FINRA filing fee	\$ 23,000
Legal fees and expenses	\$ 80,000
Accountant's fees and expenses	\$ 46,500
Miscellaneous, printing and transfer agent fees and expenses	\$ 8,360
Total	<u>\$ 180,000</u>

* These fees are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers.

Our Amended and Restated Certificate of Incorporation, or our Certificate of Incorporation, provides that all our Directors, officers, employees and agents shall be entitled to be indemnified by us to the fullest extent permitted by Section 145 of the Delaware General Corporation Law, or the DGCL.

Section 145 of the Delaware General Corporation Law concerning indemnification of officers, directors, employees and agents is set forth below.

“Section 145. Indemnification of officers, directors, employees and agents; insurance.

- (a) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person's conduct was unlawful.

- (b) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.
- (c) To the extent that a present or former director or officer of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.
- (d) Any indemnification under subsections (a) and (b) of this section (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the present or former director, officer, employee or agent is proper in the circumstances because the person has met the applicable standard of conduct set forth in subsections (a) and (b) of this section. Such determination shall be made, with respect to a person who is a director or officer at the time of such determination, (1) by a majority vote of the directors who are not parties to such action, suit or proceeding, even though less than a quorum, or (2) by a committee of such directors designated by majority vote of such directors, even though less than a quorum, or (3) if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion, or (4) by the stockholders.
- (e) Expenses (including attorneys' fees) incurred by an officer or director in defending any civil, criminal, administrative or investigative action, suit or proceeding may be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the corporation as authorized in this section. Such expenses (including attorneys' fees) incurred by former officers and directors or other employees and agents may be so paid upon such terms and conditions, if any, as the corporation deems appropriate.
- (f) The indemnification and advancement of expenses provided by, or granted pursuant to, the other subsections of this section shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office. A right to indemnification or to advancement of expenses arising under a provision of the certificate of incorporation or a bylaw shall not be eliminated or impaired by an amendment to such provision after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought, unless the provision in effect at the time of such act or omission explicitly authorizes such elimination or impairment after such action or omission has occurred.

- (g) A corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under this section.
- (h) For purposes of this section, references to "the corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under this section with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued.
- (i) For purposes of this section, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to any employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this section.
- (j) The indemnification and advancement of expenses provided by, or granted pursuant to, this section shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.
- (k) The Court of Chancery is hereby vested with exclusive jurisdiction to hear and determine all actions for advancement of expenses or indemnification brought under this section or under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise. The Court of Chancery may summarily determine a corporation's obligation to advance expenses (including attorneys' fees)."

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our Directors, officers, and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment of expenses incurred or paid by a director, officer or controlling person in a successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to the court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

In accordance with Section 102(b)(7) of the DGCL, our Certificate of Incorporation provides that no director shall be personally liable to us or any of our stockholders for monetary damages resulting from breaches of their fiduciary duty as directors, except to the extent such limitation on or exemption from liability is not permitted under the DGCL unless they violated their duty of loyalty to us or our stockholders, acted in bad faith, knowingly or intentionally violated the law, authorized unlawful payments of dividends, unlawful stock purchases or unlawful redemptions, or derived improper personal benefit from their actions as directors. The effect of this provision of our certificate of incorporation is to eliminate our rights and those of our stockholders (through stockholders' derivative suits on its behalf) to recover monetary damages against a director for breach of the fiduciary duty of care as a director, including breaches resulting from negligent or grossly negligent behavior, except, as restricted by Section 102(b)(7) of the DGCL. However, this provision does not limit or eliminate our rights or the rights of any stockholder to seek non-monetary relief, such as an injunction or rescission, in the event of a breach of a director's duty of care.

If the DGCL is amended to authorize corporate action further eliminating or limiting the liability of directors, then, in accordance with our Certificate of Incorporation, the liability of our Directors to us or our stockholders will be eliminated or limited to the fullest extent authorized by the DGCL, as so amended. Any repeal or amendment of provisions of the our Certificate of Incorporation limiting or eliminating the liability of Directors, whether by our stockholders or by changes in law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to further limit or eliminate the liability of directors on a retroactive basis.

Our Certificate of Incorporation also provides that we will, to the fullest extent authorized or permitted by applicable law, indemnify our current and former officers and Directors, as well as those persons who, while Directors or officers of our corporation, are or were serving as directors, officers, employees or agents of another entity, trust or other enterprise, including service with respect to an employee benefit plan, in connection with any threatened, pending or completed proceeding, whether civil, criminal, administrative or investigative, against all expense, liability and loss (including, without limitation, attorney's fees, judgments, fines, ERISA excise taxes and penalties and amounts paid in settlement) reasonably incurred or suffered by any such person in connection with any such proceeding. Notwithstanding the foregoing, a person eligible for indemnification pursuant to our Certificate of Incorporation will be indemnified by us in connection with a proceeding initiated by such person only if such proceeding was authorized by our Board of Directors, except for proceedings to enforce rights to indemnification.

The right to indemnification conferred by our Certificate of Incorporation is a contract right that includes the right to be paid by us the expenses incurred in defending or otherwise participating in any proceeding referenced above in advance of its final disposition, provided, however, that if the DGCL requires, an advancement of expenses incurred by our officer or director (solely in the capacity as our officer or director) will be made only upon delivery to us of an undertaking, by or on behalf of such officer or director, to repay all amounts so advanced if it is ultimately determined that such person is not entitled to be indemnified for such expenses under our certificate of incorporation or otherwise.

The rights to indemnification and advancement of expenses will not be deemed exclusive of any other rights which any person covered by our certificate of incorporation may have or hereafter acquire under law, our Certificate of Incorporation, our Amended and Restated Bylaws, or our Bylaws, an agreement, vote of stockholders or disinterested Directors, or otherwise.

Any repeal or amendment of provisions of our Certificate of Incorporation affecting indemnification rights, whether by our stockholders or by changes in law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to provide broader indemnification rights on a retroactive basis, and will not in any way diminish or adversely affect any right or protection existing at the time of such repeal or amendment or adoption of such inconsistent provision with respect to any act or omission occurring prior to such repeal or amendment or adoption of such inconsistent provision. Our Certificate of Incorporation will also permit us, to the extent and in the manner authorized or permitted by law, to indemnify and to advance expenses to persons other than those specifically covered by our certificate of incorporation.

Our Bylaws include the provisions relating to advancement of expenses and indemnification rights consistent with those set forth in our certificate of incorporation. In addition, our Bylaws provide for a right of indemnity to bring a suit in the event a claim for indemnification or advancement of expenses is not paid in full by us within a specified period of time. Our Bylaws also permit us to purchase and maintain insurance, at our expense, to protect ourselves and/or any of our director, officer, employee or agent or another entity, trust or other enterprise against any expense, liability or loss, whether or not we would have the power to indemnify such person against such expense, liability or loss under the DGCL.

Any repeal or amendment of provisions of our Bylaws affecting indemnification rights, whether by our Board of Directors, stockholders or by changes in applicable law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to provide broader indemnification rights on a retroactive basis, and will not in any way diminish or adversely affect any right or protection existing thereunder with respect to any act or omission occurring prior to such repeal or amendment or adoption of such inconsistent provision.

In addition, we are party to indemnification agreements with each of our Directors and executive officers. These agreements require us to indemnify these individuals to the fullest extent permitted by the DGCL against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. We maintain standard policies of insurance that provide coverage (1) to our directors and officers against loss arising from claims made by reason of breach of duty or other wrongful act and (2) to us with respect to indemnification payments that we may make to such directors and officers.

Item 16. Exhibits and Financial Statement Schedules.

The exhibits to this Registration Statement are listed in the Exhibit Index following the signature page of this Registration Statement.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

Provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for the purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(h) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

(j) To file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Securities and Exchange Commission under Section 305(b)(2) of the Trust Indenture Act.

EXHIBIT INDEX

1.1**	Form of Underwriting Agreement in connection with the offering of any securities
1.2+	At the Market Offering Agreement, dated December 7, 2023, between the Company and H.C. Wainwright & Co., LLC
4.1	Composite Copy of Amended and Restated Certificate of Incorporation of the Company, effective on December 11, 2018, as amended to date (Incorporated by reference to Exhibit 3.1 to the registrant's Periodic Report on Form 10-Q filed by the registrant on November 9, 2022)
4.2	Amended and Restated Bylaws of BiomX Inc. (incorporated by reference to Exhibit 3.3 of BiomX Inc.'s Current Report on Form 8-K filed with the SEC on November 1, 2019)
4.3	Specimen Common Stock Certificate (Incorporated by reference to Exhibit 4.2 to BiomX Inc.'s Registration Statement on Form S-1/A filed with the SEC on December 4, 2018)
4.4**	Specimen Preferred Stock Certificate and Form of Certificate of Designation of Preferred Stock
4.5	Form of Indenture (incorporated by reference to Exhibit 4.5 to BiomX's Inc.'s Registration Statement on Form S-3 filed with the SEC on December 4, 2020)
4.6**	Form of Note
4.7**	Form of Warrant Agreement, including form of Warrant
4.8**	Form of Unit Agreement
5.1+	Opinion of Sullivan & Worcester LLP
23.1*	Consent of Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited
23.2+	Consent of Sullivan & Worcester LLP (contained in Exhibit 5.1)
24.1+	Powers of Attorney (included in the signature pages hereto)
25.1***	Statement of Eligibility on Form T-1 under the Trust Indenture Act of 1939 of Debt Trustee (to be filed prior to any issuance of Debt Securities)
107+	Filing Fee Table

* Filed herewith.

** To be filed by amendment or incorporated by reference in connection with the offering of any securities, as appropriate.

*** To be filed pursuant to Section 305(b)(2) of the Trust Indenture Act of 1939.

+ Previously filed.

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Ness Ziona, Israel, on this 28th day of December, 2023.

BIOMX INC.

By /s/ Jonathan Solomon
Jonathan Solomon
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
* <u>Dr. Russell Greig</u>	Chairman of the Board of Directors	December 28, 2023
* <u>Jonathan Solomon</u>	Chief Executive Officer (Principal Executive Officer) and Director	December 28, 2023
<u>/s/ Avraham Gabay</u> Avraham Gabay	Interim Chief Financial Officer	December 28, 2023
* <u>Michael E. Dambach</u>	Director	December 28, 2023
* <u>Jason M. Marks</u>	Director	December 28, 2023
* <u>Dr. Alan C. Moses</u>	Director	December 28, 2023
* <u>Lynne Sullivan</u>	Director	December 28, 2023
* <u>Eddie Williams</u>	Director	December 28, 2023

* The undersigned does hereby sign this pre-effective Amendment No. 1 to the Registration Statement on behalf of each of the above indicated directors and officers of BiomX, Inc. pursuant to a power of attorney executed by each such director and officer.

By: /s/ Avraham Gabay.
Name: Avraham Gabay
Title: *Interim Chief Financial Officer*

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Amendment No.1 to the Registration Statement on Form S-3 of BiomX Inc. of our report dated March 29, 2023 except with respect to the matters that raise substantial doubt about the Company's ability to continue as a going concern discussed in Note 1c, as to which the date is December 7, 2023 relating to the financial statements, which appears in BiomX Inc.'s Current Report on Form 8-K dated December 7, 2023. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

Tel-Aviv, Israel
December 28, 2023

/s/ Kesselman & Kesselman
Certified Public Accountants (Isr.)
A member firm of PricewaterhouseCoopers International Limited
