Filed Pursuant to Rule 424(b)(5)
Registration No. 333-259909

PROSPECTUS SUPPLEMENT
(To Prospectus Dated October 21, 2021)

$6,625,000
Common Stock

This prospectus supplement relates to the offer, issuance and sale from time to time of common stock having an aggregate offering price of up to $6,625,000 through H.C. Wainwright & Co., LLC, or Wainwright, as sales agent. These sales, if any, will be made pursuant to the terms of the at the market offering agreement, or the sales agreement, dated March 24, 2022, between us and Wainwright.

We are subject to General Instruction I.B.6 of Form S-3, which limits the amounts that we may sell under the registration statement of which this prospectus supplement and the accompanying prospectus form a part. The aggregate market value of our common stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3, calculated based on 22,770,013 shares of our outstanding common stock held by non-affiliates on September 27, 2022 at a price of $1.99 per share, the closing price of our common stock on August 2, 2022, was $45,312,326. During the 12 calendar months prior to, and including, the date of this prospectus supplement, we have sold $8,478,451 of common stock pursuant to General Instruction I.B.6 of Form S-3. As a result of the limitations of General Instruction I.B.6, and in accordance with the terms of the sales agreement, we are registering the offer and sale of shares of our common stock having an aggregate offering price of up to $6,625,000 from time to time through Wainwright.

Our common stock is listed on The Nasdaq Capital Market, or Nasdaq, under the symbol "AEMD". On September 27, 2022, the last reported sale price of our common stock as reported on Nasdaq was $0.635 per share.

Sales of our common stock, if any, under this prospectus supplement may be made in sales deemed to be "at the market offerings" as defined in Rule 415(a)(4) under the Securities Act of 1933, as amended, or the Securities Act, including sales made directly on or through Nasdaq, 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. If we and Wainwright agree on any method of distribution other than sales of shares of our common stock on or through Nasdaq or another existing trading market in the United States at market prices, we will file a further prospectus supplement providing all information about such offering as required by Rule 424(b) under the Securities Act. 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. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The compensation to Wainwright for sales of common stock sold pursuant to the sales agreement will be an amount up to 3.0% of the gross proceeds of any shares of common stock sold under the sales 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 will 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 or the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Investing in our common stock involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" beginning on page S-4 of this prospectus supplement and on page 4 of the accompanying prospectus, and under similar headings in the other documents we have filed or that are filed after the date hereof and are incorporated by reference into this prospectus supplement 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 supplement or the accompanying prospectus Any representation to the contrary is a criminal offense.

H.C. Wainwright & Co.

The date of this prospectus supplement is September 29, 2022.

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Prospectus Supplement

Prospectus

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may sell shares of common stock described in this prospectus supplement in one or more offerings up to a total aggregate offering price of $6,625,000. In connection with such offers and when accompanied by the base prospectus included in the registration statement of which this prospectus forms a part, this prospectus will be deemed a prospectus supplement to such base prospectus.

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.

We and the sales agent have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We and the sales agent take no responsibility for, and provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement does not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus 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. The information contained in this prospectus supplement or incorporated by reference herein and in any free writing prospectus that we have authorized for use in connection with this offering is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus or of any sale of our common stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein, and in any free writing prospectus that we have authorized for use in connection with this offering in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus.

For investors outside the United States, we have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus outside of the United States.

Unless the context requires otherwise or unless otherwise noted, all references to "Aethlon" are to Aethlon Medical, Inc., a Nevada corporation, and all references to "we," "us" or "our" are to Aethlon Medical, Inc.

Trademarks, service marks or trade names of any other companies appearing in this prospectus supplement are the property of their respective owners. Use or display by us of trademarks, service marks or trade names owned by others is not intended to and does not imply a relationship between us and, or endorsement or sponsorship by, the owners of the trademarks, service marks or trade names.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the documents incorporated by reference herein and therein contain forward-looking statements within the meaning of Section 27A of the Securities Act, Section 21E of the Exchange Act and the Private Securities Litigation Reform Act of 1995, as amended, that involve substantial risks and uncertainties. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- the initiation, progress, timing, costs and results of preclinical studies and any clinical trials for our Hemopurifier® and any other product candidate;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our ability to further improve our process development capabilities;
- the timing or likelihood of regulatory filings and approvals;
- our plans to explore potential applications of our device platform in other indications in oncology and rare diseases;
- our expectations regarding the clinical effectiveness and safety and tolerability of our product candidate;
- our commercialization, marketing and manufacturing capabilities and strategy;

- the pricing and reimbursement of our product candidate, if approved;
- our expectation regarding the potential market sizes for our product candidate;
- our intellectual property position;
- the potential benefits of our strategic collaborations, our plans with respect to our strategic collaborations and our plans with respect to and our ability to enter into strategic arrangements;
- developments and projections relating to our competitors and our industry;
- the impact of the COVID-19 pandemic on our business and operations; and
- the safety, efficacy and projected development timeline and commercial potential of our Hemopurifier and any other potential product candidate.

In some cases, you can identify forward-looking statements by terms such as "anticipates," "believes," "could," "estimates," "expects," "goal," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would," the negative of these words and words or similar expressions intended to identify forward-looking statements. These statements reflect our views as of the date on which they were made with respect to future events and are based on assumptions and subject to risks and uncertainties. The underlying information and expectations are likely to change over time. Given these uncertainties, you should not place undue reliance on these forward-looking statements as actual events or results may differ materially from those projected in the forward-looking statements due to various factors, including, but not limited to, those set forth under the heading "Risk Factors" in this prospectus supplement, in the accompanying prospectus, and in our filings with the SEC. These forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should understand that our actual future results may be materially different from what we expect. In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date the statements were made, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. Before deciding to purchase shares of our common stock, you should carefully consider the risk factors discussed or incorporated by reference herein, in addition to the other information set forth in this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference herein or therein.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement or incorporated by reference in this prospectus supplement and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus supplement and the accompanying prospectus, and any related free writing prospectus, including the risks of investing in our securities discussed under the heading "Risk Factors" contained in this prospectus supplement and the accompanying prospectus, and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference herein or therein. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus supplement summery is a part.

Company Overview

We are a medical therapeutic company focused on developing products to diagnose and treat cancer and life threatening infectious diseases. The Aethlon Hemopurifier®, or Hemopurifier, is a clinical-stage immunotherapeutic device designed to combat cancer and life-threatening viral infections. In cancer, the Hemopurifier is designed to deplete the presence of circulating tumor-derived exosomes that promote immune suppression, seed the spread of metastasis and inhibit the benefit of leading cancer therapies. The U.S. Food and Drug Administration, or FDA, has designated the Hemopurifier as a "Breakthrough Device" for two independent indications:

- the treatment of individuals with advanced or metastatic cancer who are either unresponsive to or intolerant of standard of care therapy, and with cancer types in which exosomes have been shown to participate in the development or severity of the disease; and
- the treatment of life-threatening viruses that are not addressed with approved therapies.

We believe the Hemopurifier can be a substantial advance in the treatment of patients with advanced and metastatic cancer through the clearance of exosomes that promote the growth and spread of tumors through multiple mechanisms. We are currently conducting a clinical trial in patients with advanced and metastatic head and neck cancer. We are initially focused on the treatment of solid tumors, including head and neck cancer, gastrointestinal cancers and other cancers. As we advance our clinical trials, we are in close contact with our clinical sites to navigate and assess the impact of the global COVID-19 pandemic on our clinical trials and current timelines.

On October 4, 2019, the FDA approved our Investigational Device Exemption, or IDE, application to initiate an Early Feasibility Study, or EFS, of the Hemopurifier in patients with head and neck cancer in combination with standard of care pembrolizumab (Keytruda). The primary endpoint for the EFS, which is designed to enroll 10 to

12 subjects at a single center, is safety, with secondary endpoints including measures of exosome clearance and characterization, as well as response and survival rates. This study, which is being conducted at the UPMC Hillman Cancer Center in Pittsburgh, PA, or UPMC, has treated two patients to date. Due to lack of further patient enrollment, we and UPMC are in the process of terminating this study at UPMC. We are considering adding one or more alternative sites to this trial to accelerate recruitment. We also are in the process of designing other clinical trials in oncology.

We also believe the Hemopurifier can be part of the broad-spectrum treatment of life-threatening highly glycosylated, or carbohydrate coated, viruses that are not addressed with an already approved treatment. In small-scale or early feasibility human studies, the Hemopurifier has been used in the past to treat individuals infected with human immunodeficiency virus, or HIV, hepatitis-C, and Ebola.

Additionally, in-vitro, the Hemopurifier has been demonstrated to capture Zika virus, Lassa virus, MERS-CoV, cytomegalovirus, Epstein-Barr virus, Herpes simplex virus, Chikungunya virus, Dengue virus, West Nile virus, smallpox-related viruses, H1N1 swine flu virus, H5N1 bird flu virus, Monkeypox virus, and the reconstructed Spanish flu virus of 1918. In several cases, these validations were conducted in collaboration with leading government or non-government research institutes.

On June 17, 2020, the FDA approved a supplement to our open IDE for the Hemopurifier in viral disease to allow for the testing of the Hemopurifier in patients with SARS-CoV-2/COVID-19 in a New Feasibility Study. That study is designed to enroll up to 40 subjects at up to 20 centers in the U.S. Subjects will have established laboratory diagnosis of COVID-19, be admitted to an intensive care unit, or ICU, and will have acute lung injury and/or severe or life threatening disease, among other criteria. Endpoints for this study, in addition to safety, will include reduction in circulating virus as well as clinical outcomes (NCT # 04595903). In June 2022, the first patient in this study was enrolled and has completed the Hemopurifier treatment phase of the protocol. Under Single Patient Emergency Use regulations, the Company has also treated two patients with COVID-19 with the Hemopurifier.

In July 2022, the FDA approved an amendment to the protocol of our ongoing clinical trial investigating the Hemopurifier® for patients with severe COVID-19. The newly approved protocol amendment eliminates the inclusion criteria that patients must have a dialysis catheter in place and have tolerated dialysis at the time of screening.

In September 2021, we entered into an agreement with a leading global contract research organization, or CRO, to oversee our U.S. clinical studies investigating the Hemopurifier for critically ill COVID-19 patients. We now have eight fully activated hospitals that are actively screening patients for the trial, including Louisiana State University (LSU) Shreveport, Valley Baptist Medical Center in Texas, Hoag Irvine and Newport Beach in Southern California, University of California Davis, University of Miami Medical Center, Cooper Medical and Thomas Jefferson Medical Center. We are in the site activation process with additional U.S. medical centers.

We also obtained ethics review board approval and entered into a clinical trial agreement with Medanta Medicity Hospital, a multi-specialty hospital in Delhi NCR, India, for a COVID-19 clinical trial at that location. One patient has completed participation in the Indian COVID-19 study.

Successful outcomes of human trials will also be required by the regulatory agencies of certain foreign countries where we plan to sell the Hemopurifier, if successfully developed. Some of our patents may expire before FDA approval or approval in a foreign country, if any, is obtained. However, we believe that certain patent applications and/or other patents issued more recently will help protect the proprietary nature of the Hemopurifier treatment technology.

Corporate Information

On March 10, 1999, Aethlon, Inc., a California corporation, Hemex, Inc., a Delaware corporation and the accounting predecessor to Aethlon, Inc., and Bishop Equities, Inc., a publicly traded Nevada corporation, completed an Agreement and Plan of Reorganization structured to result in Bishop Equities, Inc.'s acquisition of all of the outstanding common stock of Aethlon, Inc. and Hemex, Inc. Under the plan's terms, Bishop Equities, Inc. issued shares of its common stock to the stockholders of Aethlon, Inc. and Hemex, Inc., such that Bishop Equities, Inc. then owned 100% of each company. Upon completion of the transaction, Bishop Equities, Inc. was renamed Aethlon Medical, Inc.

Our Contact Information

Our executive offices are located at 11555 Sorrento Valley Road, Suite 203, San Diego, California 92121. Our telephone number is (619) 941-0360. Our website address is www.aethlonmedical.com. The information on our website is not incorporated by reference into this prospectus supplement and should not be considered to be a part of this prospectus supplement. Our internet address is included in this prospectus supplement as an inactive textual reference only.

THE OFFERING

Common stock offered by us	Shares having an aggregate offering price of up to $6,625,000.
Manner of offering	"At the market offering" in which sales may be made from time to time at prevailing market prices through our sales agent, H.C. Wainwright & Co., LLC. See "Plan of Distribution" beginning on page S-9 of this prospectus supplement.

Common stock to be outstanding after this offering	Up to 33,333,069 shares, assuming a sales price of $0.635 per share, which was the closing price on the Nasdaq Capital Market on September 27, 2022. Actual number of shares issued and outstanding will vary depending on the sales price under this offering.
Use of Proceeds	We intend to use the net proceeds from this offering for working capital and general corporate purposes, which may include research and development expenses, and general and administrative expenses. Please see "Use of Proceeds" on page S-6 of this prospectus supplement.
Nasdaq Capital Market symbol	"AEMD"
Risk Factors	Investing in our securities is highly speculative and involves a high degree of risk. See 'Risk Factors" beginning on page S-4 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement for a discussion of factors that you should read and consider before investing in our securities.

The number of shares of our common stock to be outstanding immediately after this offering is based on 15,993,723 shares of common stock outstanding as of June 30, 2022, plus 6,906,276 shares of common stock issued by us after June 30, 2022 pursuant to sales under the sales agreement, and excludes:

- 1,650,548 shares of common stock issuable upon exercise of outstanding stock options under our equity incentive plans as of June 30, 2022 at a weighted average exercise price of $2.32 per share;
- 119,864 shares of common stock issuable upon the settlement of restricted stock units granted after June 30, 2022;
- 576,738 shares of common stock reserved for issuance under outstanding warrants as of June 30, 2022 with a weighted average exercise price of $11.21 per share; and
- 27,650 additional shares of common stock reserved for future issuance under our equity incentive plan as of June 30, 2022, plus an additional 1,800,000 shares of common stock reserved for future issuance under our equity incentive plan approved by our board of directors on March 24, 2022 and by our stockholders at our 2022 annual meeting of stockholders on September 15, 2022 (of which 119,864 shares were used to grant the restricted stock units described above).

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the outstanding options or warrants described above and no issuance of any shares of common stock issuable upon the settlement of restricted stock units outstanding described above.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should consider carefully the risks and uncertainties described in the section entitled "Risk Factors" contained in this prospectus supplement and the accompanying prospectus, and any related free writing prospectus, and under similar headings in our most recent and any of our subsequent Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, which are incorporated by reference into this prospectus supplement and the accompanying prospectus, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus supplement is a part. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not currently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition, results of operations and cash flow could be materially and adversely affected. In that case, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to this Offering

A substantial number of shares of common stock may be sold in the market following this offering, which may depress the market price for our common stock.

Sales of a substantial number of shares of our common stock in the public market following this offering could cause the market price of our common stock to decline. A substantial majority of the outstanding shares of our common stock are, and the shares of our common stock offered hereby will be, freely tradable without restriction or further registration under the Securities Act.

We have broad discretion to determine how to use the funds raised in this offering, and may use them in ways that may not enhance our operating results or the price of our common stock.

Our management will have broad discretion over the use of proceeds from this offering, and we could spend the proceeds from this offering in ways our stockholders may not agree with or that do not yield a favorable return, if at all. We intend to use the net proceeds of this offering for working capital and general corporate purposes, which may include research and development expenses and general and administrative expenses. However, our use of these proceeds may differ substantially from our current plans. If we do not invest or apply the proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could cause our common stock price to decline.

You may experience dilution as a result of purchasing shares in this offering or may experience future dilution as a result of future equity offerings and other issuances of our common stock or other securities. In addition, this offering and future equity offerings and other issuances of our common stock or other securities may adversely affect the trading price of our common stock.

To the extent the offering price per share exceeds our net tangible book value per share of common stock, purchasers in this offering will suffer immediate dilution in their investment. As of June 30, 2022, our net tangible book value per share was $0.93. Furthermore, if outstanding options or warrants are exercised or shares of common stock are issued in connection with the settlement of outstanding restricted stock units, you could experience further dilution.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for shares of our common stock at prices that may not be the same as the price per share in this offering. We may not be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in 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 securities convertible into shares of our common stock in future transactions may be higher or lower than the price per share in this offering.

In addition, the sale of shares of our common stock in this offering and any future sales of a substantial number of shares of our common stock in the public market, or the perception that such sales may occur, could adversely affect the price of our common stock. We cannot predict the effect, if any, that market sales of those shares of our common stock or the availability of those shares of our common stock for sale will have on the market price of our common stock.

Because we do not intend to pay dividends for the foreseeable future, stockholders must rely on appreciation of the value of our common stock for any return on their investment.

We have never declared or paid any dividends on our common stock and do not intend to pay any dividends in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the operation of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors. As a result, we expect that only appreciation of the price of our common stock, if any, will provide a return to investors in this offering for the foreseeable future.

The 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 in this offering 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 sold, and there is no minimum or maximum sales price. Investors may experience a decline in the value of their shares as a result of share sales made at prices lower than the prices they paid.

The actual number of shares we will issue under the sales agreement, at any one time or in total, is uncertain.

Subject to certain limitations in the sales 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 sales agreement. The number of shares that are sold by Wainwright after delivering a sales notice will fluctuate based on the market price of the common stock during the sales period and limits we set with Wainwright. Because the price per share of each share sold will fluctuate based on the market price of our common stock during the sales period, it is not possible at this stage to predict the number of shares that will be ultimately issued.

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to $6,625,000 from time to time. Because there is no minimum offering amount required as a condition of this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize the sales agreement with Wainwright as a source of financing.

We currently intend to use the net proceeds from this offering primarilyfor working capital and general corporate purposes, which may include research and development expenses and general and administrative expenses. We may also use a portion of the net proceeds to invest in or acquire businesses or product candidates that we believe are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus supplement. Pending these uses, we expect to invest the net proceeds in short-term, interest bearing obligations, certificates of deposit or direct or guaranteed obligations of the United States.

DIVIDEND POLICY

We have never declared or paid any dividends on our Common Stock. We anticipate that we will retain all of our future earnings, if any, for use in the operation and expansion of our business and do not anticipate paying cash dividends in the foreseeable future.

PLAN OF DISTRIBUTION

We entered into a sales agreement with Wainwright, dated March 24, 2022, under which we may issue and sell our common stock, from time to time through Wainwright acting as our sales agent. Upon our delivery of a placement notice to Wainwright pursuant to the sales agreement and subject to the terms of the sales agreement, Wainwright may sell our common stock by any method in sales deemed to be an "at the market" offering as defined in Rule 415 promulgated under the Securities Act, including sales made directly on or through Nasdaq, 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. If we and Wainwright agree on any method of distribution other than sales of shares of our common stock on or through Nasdaq or another existing trading market in the United States at market prices, we will file a further prospectus supplement providing all information about such offering as required by Rule 424(b) under the Securities Act.

Wainwright will offer our common stock at prevailing market prices subject to the terms and conditions of the sales 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 sales agreement, Wainwright will use its commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us. Either Wainwright or we may suspend the offering of our common stock being made under the sales agreement upon proper notice to the other party.

Under the terms of the sales agreement, we may also sell our common stock to Wainwright, as principal for their own account, at a price negotiated at the time of sale.

We will pay commissions to Wainwright for their services in acting as agent in the sale of our common stock at a commission rate of up to 3.0% of the gross sale price per share sold, plus other fees and expenses. In addition, we agreed to reimburse Wainwright for its legal expenses in connection with the sales agreement in an amount up to $50,000.

Settlement for sales of common stock will occur on the second business day following the date on which any sales are made, or on another 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. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sale of the common stock on our behalf, Wainwright will be deemed to be underwriters within the meaning of the Securities Act, and the compensation will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to Wainwright against certain civil liabilities, including liabilities under the Securities Act.

This offering will terminate upon the earlier of (1) the issuance and sale of all shares of our common stock covered by this prospectus supplement and (2) the termination of the sales agreement as permitted therein.

Wainwright and each of its affiliates may in the future provide various investment banking and other financial services for us and our affiliates, for which services they may in the future receive customary fees. 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 supplement. This summary of the material provisions of the sales agreement does not purport to be a complete statement of its terms and conditions. A copy of the sales agreement will be filed as an exhibit to a current report on Form 8-K filed under the Exchange Act and incorporated by reference in this prospectus supplement.

LEGAL MATTERS

The validity of the shares of Common Stock offered pursuant to this prospectus supplement will be passed upon for us by Brownstein Hyatt Farber Schreck, LLP. Ellenoff Grossman & Schole LLP is counsel for Wainwright in connection with this offering.

EXPERTS

The consolidated financial statements of Aethlon Medical, Inc. as of March 31, 2022 and 2021 and for each of the years in the two-year period ended March 31, 2022 incorporated in this prospectus supplement by reference from the Aethlon Medical, Inc. Annual Report on Form 10-K for the year ended March 31, 2022 have been audited by Baker Tilly US, LLP, an independent registered public accounting firm, as stated in their report thereon, incorporated herein by reference, and have been incorporated in this prospectus and Registration Statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and do not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus supplement or the accompanying prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act, 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 http://www.sec.gov.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus supplement and accompanying prospectus. Information in this prospectus supplement supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus supplement, while information that we file later with the SEC will automatically update and supersede the information in this prospectus supplement. We also incorporate by reference into this prospectus supplement the documents listed below and any future filings made by us with the SEC (other than Current Reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items and other portions of documents that are furnished, but not filed, pursuant to applicable rules promulgated by the SEC) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus supplement is a part, and (ii) after the effectiveness of the registration statement but prior to the termination of the offering of the common stock covered by this prospectus:

- Our Annual Report on Form 10-K for the fiscal year ended March 31, 2022, filed with the SEC on June 28, 2022;
- Our Quarterly Reports on Form 10-Q for the quarters ended June 30, 2022, filed with the SEC on August 9, 2022;
- Our Definitive Proxy Statement on Schedule 14A, filed with the SEC on July 27, 2022;
- Our current Reports on Form 8-K filed with the SEC on September 19, 2022 and September 29, 2022; and
- The description of our common stock contained in our registration statement on Form 8-A filed with the SEC on July 8, 2015, including any amendments or reports filed for the purpose of updating such description.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus supplement but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. You should direct any requests for documents by writing us at Aethlon Medical, Inc., 11555 Sorrento Valley Road, Suite 203, San Diego, California 92121, (619) 941-0360.

You should rely only on the information provided in and incorporated by reference into this prospectus supplement and the accompanying prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus supplement and the accompanying prospectus is accurate as of any date other than the date on the front cover of these documents.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

$60,000,000

Common Stock

From time to time, we may offer and sell shares of our common stock with total gross proceeds of up to $60,000,000.

This prospectus provides a general description of the terms that may apply to an offering of our common stock. Each time we offer shares of our common stock, we will provide a supplement to this prospectus that contains specific information about the offering. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference herein and therein, before you invest in our common stock.

Our common stock is listed on The Nasdaq Capital Market under the symbol "AEMD." On September 29, 2021, the last reported sale price for our common stock was $3.87 per share.

INVESTING IN OUR COMMON STOCK INVOLVES RISKS. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES DESCRIBED UNDER THE HEADING "RISK FACTORS" ON PAGE 4 AND CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND ANY RELATED FREE WRITING PROSPECTUS AND UNDER SIMILAR HEADINGS IN THE OTHER DOCUMENTS THAT ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF OUR COMMON STOCK UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

We may sell shares of our common stock directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution"" in this prospectus. If any agents or underwriters are involved in the sale of any shares of our common stock with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such shares and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

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

The date of this prospectus is October 21, 2021.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may sell shares of our common stock in one or more offerings up to a total aggregate offering price of $60,000,000. This prospectus provides you with a general description of our common stock.

Each time we sell shares of our common stock under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading "Incorporation of Certain Information by Reference," before investing in our common stock.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF OUR COMMON STOCK UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

Neither we, nor any agent, underwriter, or dealer has authorized any person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any applicable prospectus supplement, along with the information contained in any free writing prospectus we have authorized for use in connection with a specific offering. We have not authorized anyone to provide you with different or additional information. We are not making an offer to sell or seeking an offer to buy shares of our common stock under this prospectus or any applicable prospectus supplement and any related free writing prospectus in any jurisdiction where the offer or sale is not permitted.

The information appearing in this prospectus, any applicable prospectus supplement or any related free writing prospectus, and the documents incorporated by reference herein and therein, is accurate only as of the date on the front of the document and any information we have incorporated by reference is accurate only as of their respective dates, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

For investors outside the United States, we have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus outside of the United States.

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

This prospectus incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, industry, statistical and market data from our own internal estimates and research as well as from industry and general publications and research, surveys and studies conducted by third parties. Industry publications, studies and surveys generally state that they have been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe that each of these studies and publications is reliable, we have not independently verified statistical, market and industry data from third-party sources. While we believe our internal company research is reliable and the market definitions are appropriate, neither such research nor these definitions have been verified by any independent source.

Unless the context requires otherwise or unless otherwise noted, all references to "Aethlon" are to Aethlon Medical, Inc., a Nevada corporation, and all references to "we," "us" or "our" are to Aethlon Medical, Inc. and its subsidiaries.

Trademarks, service marks or trade names of any other companies appearing in this prospectus are the property of their respective owners. Use or display by us of trademarks, service marks or trade names owned by others is not intended to and does not imply a relationship between us and, or endorsement or sponsorship by, the owners of the trademarks, service marks or trade names.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the documents incorporated by reference herein and therein contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Private Securities Litigation Reform Act of 1995, as amended, that involve substantial risks and uncertainties. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- the initiation, progress, timing, costs and results of preclinical studies and any clinical trials for our Hemopurifier® and any other product candidates;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our ability to further improve our process development capabilities;
- the impact of the COVID-19 pandemic on our business and operations;
- the timing or likelihood of regulatory filings and approvals;
- our plans to explore potential applications of our device platform in other indications in oncology and rare diseases;
- our expectations regarding the clinical effectiveness and safety and tolerability of our product candidates;
- our commercialization, marketing and manufacturing capabilities and strategy;
- the pricing and reimbursement of our product candidates, if approved;
- our expectation regarding the potential market sizes for our product candidates;
- our intellectual property position;

- the potential benefits of our strategic collaborations, our plans with respect to our strategic collaborations and our plans with respect to and our ability to enter into strategic arrangements;
- developments and projections relating to our competitors and our industry; and
- the safety, efficacy and projected development timeline and commercial potential of any product candidates.

In some cases, you can identify forward-looking statements by terms such as "anticipates," "believes," "could," "estimates," "expects," "goal," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would," the negative of these words and words or similar expressions intended to identify forward-looking statements. These statements reflect our views as of the date on which they were made with respect to future events and are based on assumptions and subject to risks and uncertainties. The underlying information and expectations are likely to change over time. Given these uncertainties, you should not place undue reliance on these forward-looking statements as actual events or results may differ materially from those projected in the forward-looking statements due to various factors, including, but not limited to, those set forth under the heading "Risk Factors" in this prospectus supplement, in the accompanying prospectus, and in our filings with the SEC. These forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should understand that our actual future results may be materially different from what we expect. In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date the statements were made, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. Before deciding to purchase shares of our common stock, you should carefully consider the risk factors discussed or incorporated by reference herein, in addition to the other information set forth in this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference.

PROSPECTUS SUMMARY

The following summary highlights selected information contained elsewhere in this prospectus or incorporated by reference in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our common stock discussed under the heading "Risk Factors" contained in this prospectus, the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Company Overview

Aethlon Medical, Inc. is a medical technology company focused on developing products to diagnose and treat life and organ threatening diseases. The Aethlon Hemopurifier is a clinical-stage immunotherapeutic device designed to combat cancer and life-threatening viral infections. In cancer, the Hemopurifier is designed to deplete the presence of circulating tumor-derived exosomes that promote immune suppression, seed the spread of metastasis and inhibit the benefit of leading cancer therapies. The U.S. Food and Drug Administration, or FDA, has designated the Hemopurifier as a "Breakthrough Device" for two independent indications:

- the treatment of individuals with advanced or metastatic cancer who are either unresponsive to or intolerant of standard of care therapy, and with cancer types in which exosomes have been shown to participate in the development or severity of the disease; and
- the treatment of life-threatening viruses that are not addressed with approved therapies.

We believe the Hemopurifier can be a substantial advance in the treatment of patients with advanced and metastatic cancer through the clearance of exosomes that promote the growth and spread of tumors through multiple mechanisms. We are currently conducting a clinical trial in patients with advanced and metastatic head and neck cancer. We are initially focused on the treatment of solid tumors, including head and neck cancer, gastrointestinal cancers and other cancers. As we advance our clinical trials, we are in close contact with our clinical sites to navigate and assess the impact of the COVID-19 global pandemic on our clinical trials and current timelines.

On October 4, 2019, the FDA approved our Investigational Device Exemption, or IDE, application to initiate an Early Feasibility Study, or EFS, of the Hemopurifier in patients with head and neck cancer in combination with standard of care pembrolizumab (Keytruda). The primary endpoint for the EFS, which is designed to enroll 10 to 12 subjects at a single center, is safety, with secondary endpoints including measures of exosome clearance and characterization, as well as response and survival rates. This study, which is being conducted at the UPMC Hillman Cancer Center in Pittsburgh, PA, has treated one patient and is in the process of recruiting additional patients.

We also believe the Hemopurifier can be part of the broad-spectrum treatment of life-threatening highly glycosylated, or carbohydrate coated, viruses that are not addressed with an already approved treatment. In small-scale or early feasibility human studies, the Hemopurifier has been used to treat individuals infected with human immunodeficiency virus, or HIV, hepatitis-C, and Ebola. Additionally, *in vitro,* the Hemopurifier has been demonstrated to capture Zika virus, Lassa virus, MERS-CoV, cytomegalovirus, Epstein-Barr virus, Herpes simplex virus, Chikungunya virus, Dengue virus, West Nile virus, smallpox-related viruses, H1N1 swine flu virus, H5N1 bird flu virus, and the reconstructed Spanish flu virus of 1918. In several cases, these studies were conducted in collaboration with leading government or non-government research institutes.

On June 17, 2020, the FDA approved a supplement to our open IDE for the Hemopurifier in viral disease to allow for the testing of the Hemopurifier in patients with SARS-CoV-2/COVID-19 in a New Feasibility Study. That study is designed to enroll up to 40 subjects at up to 20 centers in the U.S. Subjects will have established laboratory diagnosis of COVID-19, be admitted to an intensive care unit, or ICU, and will have acute lung injury and/or severe or life threatening disease, among other criteria. Endpoints for this study, in addition to safety, will include reduction in circulating virus as well as clinical outcomes (NCT # 04595903). The initial sites for this trial, Hoag Memorial Hospital Presbyterian in Newport Beach, CA, Hoag Hospital – Irvine in Irvine, CA, Loma Linda Hospital in Loma Linda, CA, and Cooper Medical in Camden, NJ, have completed clinical trial agreements, and have received IRB approval in the case of the Hoag hospitals, and are preparing to open for patient enrollment. Under Single Patient Emergency Use regulations, the Company has also treated two patients with COVID-19 with the Hemopurifier.

We are also the majority owner of Exosome Sciences, Inc., or ESI, a company formed to focus on the discovery of exosomal biomarkers to diagnose and monitor life-threatening diseases. We consolidate ESI's activities in our consolidated financial statements.

Successful outcomes of human trials will also be required by the regulatory agencies of certain foreign countries where we plan to sell the Hemopurifier. Some of our patents

may expire before FDA approval or approval in a foreign country, if any, is obtained. However, we believe that certain patent applications and/or other patents issued more recently will help protect the proprietary nature of the Hemopurifier treatment technology.

In addition to the foregoing, we are monitoring closely the impact of the COVID-19 global pandemic on our business and have taken steps designed to protect the health and safety of our employees while continuing our operations. Given the level of uncertainty regarding the duration and impact of the COVID-19 pandemic on capital markets and the U.S. economy, we are unable to assess the impact of the worldwide spread of SARS-CoV-2 and the resulting COVID-19 pandemic on our timelines and future access to capital. We are continuing to monitor the spread of COVID-19 and its potential impact on our operations. The full extent to which the COVID-19 pandemic will impact our business, results of operations, financial condition, clinical trials, and preclinical research will depend on future developments that are highly uncertain, including actions taken to contain or treat COVID-19 and their effectiveness, as well as the economic impact on national and international markets.

Corporate Information

On March 10, 1999, Aethlon, Inc., a California corporation, Hemex, Inc., a Delaware corporation and the accounting predecessor to Aethlon, Inc., and Bishop Equities, Inc., a publicly traded Nevada corporation, completed an Agreement and Plan of Reorganization structured to result in Bishop Equities, Inc.'s acquisition of all of the outstanding common stock of Aethlon, Inc. and Hemex, Inc. Under the plan's terms, Bishop Equities, Inc. issued shares of its common stock to the stockholders of Aethlon, Inc. and Hemex, Inc. such that Bishop Equities, Inc. then owned 100% of each company. Upon completion of the transaction, Bishop Equities, Inc. was renamed Aethlon Medical, Inc. In 2009, we formed ESI, which today is a majority-owned subsidiary of the Company focused on identifying and monitoring neurological conditions and cancer. We commenced operations of ESI in 2013.

Our Contact Information

Our executive offices are located at 11555 Sorrento Valley Road, Suite 203, San Diego, California 92121. Our telephone number is (858) 459-7800. Our website address is www.aethlonmedical.com. The information on our website is not incorporated by reference into this prospectus and should not be considered to be a part of this prospectus. Our internet address is included in this prospectus as an inactive textual reference only.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in our Annual Report on Form 10-K for the fiscal year ended March 31, 2021, as updated by our quarterly, annual and other reports and documents that are incorporated by reference into this prospectus, before deciding whether to purchase any common stock being registered pursuant to the registration statement of which this prospectus is a part. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our common stock, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations.

USE OF PROCEEDS

Except as described in any applicable prospectus supplement, we currently intend to use the net proceeds from the sale of our common stock for general corporate purposes, including for research and development, general administrative expenses, working capital and capital expenditures. In addition, our use of proceeds may include the repayment of debt or refinancing of indebtedness, should any be incurred, or the acquisition of complementary products or companies. However, we have no current commitments or obligations to do so. We may set forth additional information on the use of proceeds from the sale of our common stock we offer under this prospectus in a prospectus supplement relating to the specific offering.

We have not determined the amount of net proceeds to be used specifically for the foregoing purposes. As a result, our management will have broad discretion in the allocation of the net proceeds and investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of our common stock. Pending use of the net proceeds, we intend to invest the proceeds in a variety of capital preservation instruments, including short-term, investment-grade, interest-bearing instruments.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended as a summary only and therefore is not a complete description of our capital stock. This description is based upon, and is qualified in its entirety by reference to, our articles of incorporation, our bylaws and applicable provisions of Nevada corporate law. You should read our articles of incorporation and bylaws, which have been publicly filed with the SEC, for the provisions that are important to you.

Authorized Capital Stock

Our authorized capital consists of 30,000,000 shares of common stock, par value $0.001 per share. As of September 27, 2021, there were 15,386,367 shares of common stock issued and outstanding.

Common Stock

The holders of our common stock are entitled to one vote per share on all matters to be voted on by the stockholders. Holders of common stock are entitled to receive ratably such dividends as may be declared by the Board of Directors out of funds legally available therefor. If we liquidate, dissolve or wind up, holders of common stock are entitled to share ratably in all assets remaining after payment of all debts and other liabilities. Holders of common stock have no preemptive, conversion or subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are, and all shares of common stock to be outstanding upon completion of this offering will be, validly issued, fully paid and nonassessable.

Our bylaws provide that stockholders representing a majority of the voting power of our capital stock, represented in person or by proxy (regardless of whether the proxy has authority to vote on all matters), are necessary to constitute a quorum for the transaction of business at any meeting, but at any time during which shares of our capital stock are listed for trading on The Nasdaq Capital Market, or Nasdaq, stockholders representing not less than 33 1/3% of the voting power of our capital stock, represented in person or by proxy (regardless of whether the proxy has authority to vote on all matters), are necessary to constitute a quorum for the transaction of business at any meeting of stockholders. Except as otherwise required or permitted by Nevada law or our articles of incorporation or bylaws, action by the stockholders entitled to vote on a matter, other than the election of directors, is approved by and is the act of the stockholders if the number of votes cast in favor of the action exceeds the number of votes cast in opposition to the action. If a quorum is present, directors are elected by a plurality of the votes cast.

Options and Warrants Convertible into Common Stock

As of September 27, 2021, there were outstanding stock options entitling the holders to purchase 996,581 shares of our common stock at a weighted average exercise price of $3.25 per share.

As of September 27, 2021, there were outstanding warrants entitling the holders to purchase 583,842 shares of our common stock at a weighted average exercise price of $11.97 per share.

Anti-Takeover Effects of Certain Provisions of Nevada Law and Our Articles of Incorporation and Bylaws

Nevada's "combinations with interested stockholders" statutes, NRS 78.411 through 78.444, inclusive, prohibit specified types of business "combinations" between certain Nevada corporations and any person deemed to be an "interested stockholder" for two years after such person first becomes an "interested stockholder" unless the corporation's board of directors approves the combination (or the transaction by which such person becomes an "interested stockholder") in advance, or unless the combination is approved by the board of directors and sixty percent of the corporation's voting power not beneficially owned by the interested stockholder, its affiliates and associates. Further, in the absence of prior approval certain restrictions may apply even after such two year period. However, these statutes do not apply to any combination of a corporation and an interested stockholder after the expiration of four years after the person first became an interested stockholder. For purposes of these statutes, an "interested stockholder" is any person who is (1) the beneficial owner, directly or indirectly, of ten percent or more of the voting power of the outstanding voting shares of the corporation, or (2) an affiliate or associate of the corporation and at any time within the two previous years was the beneficial owner, directly or indirectly, of ten percent or more of the voting power of the then outstanding shares of the corporation. The definition of the term "combination" is sufficiently broad to cover most significant transactions between a

corporation and an "interested stockholder." These statutes generally apply to Nevada corporations with 200 or more stockholders of record. However, a Nevada corporation may elect in its articles of incorporation not to be governed by these particular laws, but if such election is not made in the corporation's original articles of incorporation, the amendment (1) must be approved by the affirmative vote of the holders of stock representing a majority of the outstanding voting power of the corporation not beneficially owned by interested stockholders or their affiliates and associates, and (2) is not effective until 18 months after the vote approving the amendment and does not apply to any combination with a person who first became an interested stockholder on or before the effective date of the amendment. We did not make such an election in our original articles of incorporation and have not amended our articles of incorporation to so elect.

Nevada's "acquisition of controlling interest" statutes (NRS 78.378 through 78.3793, inclusive) contain provisions governing the acquisition of a controlling interest in certain Nevada corporations. These "control share" laws provide generally that any person that acquires a "controlling interest" in certain Nevada corporations may be denied voting rights, unless a majority of the disinterested stockholders of the corporation elects to restore such voting rights. Our bylaws provide that these statutes do not apply to us or any acquisition of our common stock. Absent such provision in our bylaws, these laws would apply to us as of a particular date if we were to have 200 or more stockholders of record (at least 100 of whom have addresses in Nevada appearing on our stock ledger at all times during the 90 days immediately preceding that date) and do business in the State of Nevada directly or through an affiliated corporation, unless our articles of incorporation or bylaws in effect on the tenth day after the acquisition of a controlling interest provide otherwise. These laws provide that a person acquires a "controlling interest" whenever a person acquires shares of a subject corporation that, but for the application of these provisions of the NRS, would enable that person to exercise (1) one fifth or more, but less than one third, (2) one third or more, but less than a majority or (3) a majority or more, of all of the voting power of the corporation in the election of directors. Once an acquirer crosses one of these thresholds, shares which it acquired in the transaction taking it over the threshold and within the 90 days immediately preceding the date when the acquiring person acquired or offered to acquire a controlling interest become "control shares" to which the voting restrictions described above apply.

NRS 78.139 also provides that directors may resist a change or potential change in control of the corporation if the board of directors determines that the change or potential change is opposed to or not in the best interest of the corporation upon consideration of any relevant facts, circumstances, contingencies or constituencies pursuant to NRS 78.138(4).

In addition, our authorized but unissued shares of common stock are available for our Board of Directors to issue without stockholder approval. We may use these additional shares for a variety of corporate purposes, including future public or private offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of our authorized but unissued shares of common stock could render more difficult or discourage an attempt to obtain control of our company by means of a proxy contest, tender offer, merger or other transaction. Our authorized but unissued shares may be used to delay, defer or prevent a tender offer or takeover attempt that a stockholder might consider in its best interest, including those attempts that might result in a premium over the market price for the shares held by our stockholders. The Board of Directors is also authorized to adopt, amend or repeal our Bylaws, which could delay, defer or prevent a change in control.

Registration Rights

As of September 27, 2021, there were outstanding warrants to purchase 583,842 shares of our common stock at exercise prices ranging from $1.50 to $99.00 per share of common stock issuable upon exercise of the warrants. The warrants have expiration dates ranging from October 17, 2021 through January 22, 2025. Certain holders of these warrants are entitled to require us to register on a registration statement with the SEC the shares of our common stock issuable upon exercise of these warrants, which would enable the holders to trade these shares without restriction under the Securities Act.

Nasdaq Capital Market Listing

Our common stock is listed on The Nasdaq Capital Market under the symbol "AEMD".

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Investor Services. The transfer agent's address is P.O. Box 30170, College Station, TX 77842.

PLAN OF DISTRIBUTION

We may sell shares of our common stock from time to time pursuant to underwritten public offerings, negotiated transactions, block trades (which may involve crosses) or a combination of these methods. We may sell shares of our common stock to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute shares of our common stock from time to time in one or more transactions:

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

- at negotiated prices.

We may also sell shares of our common stock covered by this registration statement in an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act. Such offering may be made into an existing trading market for our common stock in transactions at other than a fixed price, either:

- on or through the facilities of Nasdaq or any other stock exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- other than on Nasdaq or such other stock exchanges or quotation or trading services.

Such at the market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of our common stock, including, to the extent applicable:

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

Only underwriters named in the prospectus supplement are underwriters of the common stock offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the common stock for their own account and may resell the common stock from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the common stock will be subject to the conditions set forth in the applicable underwriting agreement. We may offer our common stock to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions unless otherwise specified in the prospectus supplement, the underwriters will be obligated to purchase all of the common stock offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

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

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase common stock from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to any offering pursuant to this prospectus, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

Any underwriter may engage in over-allotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. This short sales 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' over-allotment option to purchase additional shares in the offering. The underwriters may close out any covered short position either by exercising their over-allotment option or by purchasing shares of our common stock 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 the over-allotment option. Naked short sales are short sales in excess of the over-allotment option. The underwriters must close out any naked short 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. Stabilizing transactions permit bids to purchase the underlying security for the purpose of fixing the price of the security so long as the stabilizing bids do not exceed a specified maximum. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions.

Any underwriters who are qualified market makers on Nasdaq, or any other stock exchange or which our common stock may be listed at the time of sale, may engage in passive market making transactions in our common stock on Nasdaq or such other stock exchange 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 shares of our 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 our common stock; 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.

Similar to other purchase transactions, an underwriter's purchase 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 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 the common stock if it discourages resales of the shares.
Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of the common stock offered by this prospectus. If such transactions are commenced, they may be discontinued without notice at any time.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, certain legal matters in connection with the offering and the validity of our common stock offered by this prospectus, and any supplement thereto, will be passed upon by Brownstein Hyatt Farber Schreck, LLP.

EXPERTS

The consolidated financial statements of Aethlon Medical, Inc. as of March 31, 2021 and 2020 and for each of the years in the two-year period ended March 31, 2021 incorporated in this Prospectus by reference from the Aethlon Medical, Inc. Annual Report on Form 10-K for the year ended March 31, 2021 have been audited by Baker Tilly US, LLP, an independent registered public accounting firm, as stated in their report thereon, incorporated herein by reference, and have been incorporated in this Prospectus and Registration Statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the common stock we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. Neither we nor any agent, underwriter or dealer has authorized any person to provide you with different information. We are not making an offer of our common stock in any jurisdiction where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the common stock offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including Aethlon Medical. The address of the SEC website is www.sec.gov.

We maintain a website at www.aethlonmedical.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We also incorporate by reference into this prospectus the documents listed below and any future filings made by us with the SEC (other than Current Reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items and other portions of documents that are furnished, but not filed, pursuant to applicable rules promulgated by the SEC) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of the registration statement, and (ii) after the effectiveness of the registration statement but prior to the termination of the offering of the common stock covered by this prospectus:

- Our Annual Report on Form 10-K for the fiscal year ended March 31, 2021, filed with the SEC on June 24, 2021;
- Our Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, filed with the SEC on August 9, 2021;
- The information specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended March 31, 2021 from our Definitive Proxy Statement on Schedule 14A (other than information furnished rather than filed), filed with the SEC on July 28, 2021;
- Our current Reports on Form 8-K filed with the SEC on June 11, 2021, July 1, 2021 and September 17, 2021; and
- The description of our common stock contained in our registration statement on Form 8-A filed with the SEC on July 8, 2015, including any amendments or reports filed for the purpose of updating such description.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. You should direct any requests for documents by writing us at Aethlon Medical, Inc., 11555 Sorrento Valley Road, Suite 203, San Diego, California 92121, (858) 459-7800.

You should rely only on the information provided in and incorporated by reference into this prospectus or any prospectus supplement. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus or any prospectus supplement is accurate as of any date other than the date on the front cover of these documents.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

$6,625,000

Common Stock

PROSPECTUS

H.C. Wainwright & Co.

September 29, 2022