

PROSPECTUS



\$7,495,000
Common Stock

This prospectus relates to the offer, issuance and sale from time to time of common stock having an aggregate offering price of up to \$7,495,000 through H.C. Wainwright & Co., LLC, or Wainwright, as sales agent. These sales, if any, will be made pursuant to the terms of a common stock sales agreement, as amended, or the sales agreement, dated June 28, 2016, between us and Wainwright.

Our common stock is listed on The Nasdaq Capital Market, or Nasdaq, under the symbol "AEMD". On March 16, 2020, the last reported sale price of our common stock as reported on Nasdaq was \$1.23 per share.

Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our common stock in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long our public float remains below \$75,000,000. Calculated in accordance with General Instruction I.B.6 of Form S-3, as of March 16, 2020, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was approximately \$40.5 million based upon 9,321,442 shares of our outstanding stock held by non-affiliates at the per share price of \$4.34, the closing sale price of our common stock on January 31, 2020. One-third of our public float, calculated in accordance with General Instruction I.B.6 of Form S-3 as March 16, 2020, is equal to approximately \$13.5 million. As of the date of this prospectus supplement, we have offered an aggregate market value of \$4.7 million of securities 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 of this prospectus.

Sales of our common stock, if any, under this prospectus 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 equal 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 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 and under similar headings in the other documents that are incorporated by reference into this 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. Any representation to the contrary is a criminal offense.

H.C. Wainwright & Co.
The date of this prospectus is March 30, 2020.

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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 SEC utilizing a “shelf” registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total aggregate offering price of \$7,495,000. The \$7,495,000 of Common Stock that may be offered, issued and sold under this prospectus is included in the \$25,000,000 of securities that may be offered, issued and sold by us pursuant to our shelf registration statement. 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 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 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, 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. and its subsidiary.

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 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 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

This 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 need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities 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. and its subsidiary is a medical device technology company focused on developing products to diagnose and treat life and organ threatening diseases. The Aethlon Hemopurifier® is a clinical-stage 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 preparing for the initiation of clinical trials in patients with advanced and metastatic cancers. We are initially focused on the treatment of solid tumors, including head and neck cancer, gastrointestinal cancers and other cancers.

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 will enroll 10-12 subjects at a single center, will be safety, with secondary endpoints including measures of exosome clearance and characterization, as well as response and survival rates.

We also believe the Hemopurifier can be a 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 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.

We are also the majority owner of Exosome Sciences, Inc., or ESI, a company focused on the discovery of exosomal biomarkers to diagnose and monitor life-threatening diseases. Included among ESI’s activities is the advancement of a TauSome™ biomarker candidate to diagnose chronic traumatic encephalopathy, or CTE, in the living. ESI previously documented TauSome levels in former NFL players to be nine times higher than same age-group control subjects. Through ESI, we are also developing exosome based biomarkers in patients with, or at risk for, a number of cancers. 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.

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 9635 Granite Ridge Drive, Suite 100, San Diego, California 92123. 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.

THE OFFERING

| | |
|---|---|
| Common stock offered by us | Shares having an aggregate offering price of up to \$7,495,000 |
| 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-7 of this prospectus supplement. |
| Common stock to be outstanding after this offering | Up to 15,458,280 shares, assuming a sales price of \$1.23 per share, which was the closing price on the Nasdaq Capital Market on March 16, 2020. 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-5 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 9,364,784 shares of common stock outstanding as of March 16, 2020, and excludes:

- 51,124 shares of common stock issuable upon exercise of outstanding stock options under our stock incentive plans as of March 16, 2020 at a weighted average exercise price of \$44.12 per share;
- 2,021,368 shares of common stock reserved for issuance under outstanding warrants as of March 16, 2020 with a weighted average exercise price of \$5.21 per share; and
- 3,075 additional shares of common stock reserved for future issuance under our stock incentive plans as of March 16, 2020

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the outstanding options or warrants 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 the applicable prospectus supplement 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, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus 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

Purchasers of shares of our common stock in this offering will experience immediate and substantial dilution in the book value of their investment.

The offering price per share of common stock in this offering is substantially higher than the net tangible book value per share of our common stock before giving effect to this offering. Accordingly, if you purchase shares of common stock in this offering, you will incur immediate substantial dilution of approximately \$0.52 per share, representing the difference between the offering price per share, and our as adjusted net tangible book value as of March 16, 2020. Furthermore, if outstanding options or warrants are exercised, you could experience further dilution. For a further description of the dilution that you will experience immediately after this offering, see the section in this prospectus supplement entitled "Dilution."

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, 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 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.

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 \$7,495,000 from time to time. Because there is no minimum offering amount required as a condition to close 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 primarily for working capital and general corporate purposes, which may include research and development expenses, 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. 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.

DILUTION

If you purchase shares of our common stock in this offering, you will experience dilution to the extent of the difference between the price per share you pay in this offering and the net tangible book value per share of our common stock immediately after this offering. Our net tangible book value as of December 31, 2019 was approximately \$3.7 million, or approximately \$0.40 per share. Net tangible book value per share represents our total tangible assets less total tangible liabilities as of December 31, 2019, divided by the number of shares of common stock outstanding as of March 16, 2020.

After giving effect to the assumed sale by us of \$7,495,000 of our common stock in this offering at an assumed public offering price of \$1.23 per share of our common stock (the last reported sale price of our common stock on the Nasdaq Capital Market on March 16, 2020), and after deducting the estimated fees and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of March 16, 2020 would have been approximately \$0.71 or approximately \$0.71 per share of common stock. This represents an immediate increase in net tangible book value of approximately \$0.31 per share to existing shareholders and an immediate dilution of approximately \$0.52 per share to new investors. The following table illustrates this per share dilution:

| | | |
|--|----|-------------|
| Assumed public offering price per share | \$ | 1.23 |
| Net tangible book value per share as of December 31, 2019 | \$ | 0.40 |
| Increase in net tangible book value per share attributable to new investors | \$ | <u>0.31</u> |
| As adjusted net tangible book value per share as of March 16, 2020, after giving effect to this offering | \$ | <u>0.71</u> |
| Dilution per share to new investors in the offering | \$ | <u>0.52</u> |

The table above assumes for illustrative purposes that an aggregate of 6,093,496 shares of our common stock are sold at a price of \$1.23 per share, the last reported sale price of our common stock on the Nasdaq Capital Market on March 16, 2020, for aggregate gross proceeds of \$7,495,000. The shares, if any, sold in this offering will be sold from time to time at various prices. An increase of \$0.50 per share in the price at which the shares are sold from the assumed offering price of \$1.23 per share shown in the table above, assuming we sell the same aggregate 6,093,496 shares, would increase our adjusted net tangible book value per share after this offering to \$0.90 per share and would increase the dilution in net tangible book value per share to new investors in this offering to \$0.83 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$0.50 per share in the price at which the shares are sold from the assumed offering price of \$1.23 per share shown in the table above, assuming we sell the same aggregate 6,093,496 shares, would decrease our adjusted net tangible book value per share after this offering to \$0.51 per share and would decrease the dilution in net tangible book value per share to new investors in this offering to \$0.22 per share, after deducting commissions and estimated aggregate offering expenses payable by us.

The number of shares of our common stock to be outstanding immediately after this offering is based on 9,364,784 shares of common stock outstanding as of March 16, 2020, and excludes:

- 51,124 shares of common stock issuable upon exercise of outstanding stock options under our stock incentive plans as of March 16, 2020 at a weighted average exercise price of \$44.12 per share;
- 2,021,368 shares of common stock reserved for issuance under outstanding warrants as of March 16, 2020 with a weighted average exercise price of \$5.21 per share; and
- 3,075 additional shares of common stock reserved for future issuance under our stock incentive plans as of March 16, 2020

PLAN OF DISTRIBUTION

We entered into a sales agreement with Wainwright, dated June 28, 2016, as amended, under which we may issue and sell from time to time up to \$12,500,000 of our common stock through Wainwright 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.

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 equal to 3.0% of the gross sale price per share sold, plus other fees and expenses. In addition, we will reimburse Wainwright for its legal expenses in connection with the sales agreement.

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.

LEGAL MATTERS

The validity of the shares of Common Stock offered pursuant to this prospectus will be passed upon for us by Brownstein Hyatt Farber Schreck, LLP. Unless otherwise indicated in the applicable prospectus supplement, certain legal matters in connection with the offering and the enforceability of debt securities or warrants offered by this prospectus, and any supplement thereto, will be passed upon by Cooley 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, 2019 and 2018 and for each of the years in the two-year period ended March 31, 2019 incorporated in this prospectus supplement by reference from the Aethlon Medical, Inc. Annual Report on Form 10-K for the year ended March 31, 2019 have been audited by Squar Milner LLP, an independent registered public accounting firm, as stated in their report thereon, incorporated herein by reference, and have been incorporated in this prospectus 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. 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, 2019, filed with the SEC on July 1, 2019;

Our Quarterly Reports on Form 10-Q for the quarters ended [June 30, 2019](#), [September 30, 2019](#), and [December 31, 2019](#), filed with the SEC on August 14, 2019, November 1, 2019, and February 10, 2020, respectively;

Our [Definitive Proxy Statement](#) on Schedule 14A, filed with the SEC on September 20, 2019;

Our current Reports on Form 8-K filed with the SEC on [April 17, 2019](#), [May 8, 2019](#), [July 11, 2019](#), [August 12, 2019](#), [September 12, 2019](#), [September 16, 2019](#), [September 24, 2019](#), [October 3, 2019](#), [October 15, 2019](#), [December 19, 2019](#), [January 17, 2020](#), [January 22, 2020](#), [February 21, 2020](#) and [March 23, 2020](#); 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., 9635 Granite Ridge Drive, Suite 100, San Diego, California 92123, (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.



\$7,495,000

Common Stock

PROSPECTUS

H.C. Wainwright & Co.

March 30, 2020
