

# Zacks Small-Cap Research

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## Aethlon Medical

(AEMD-NASDAQ)

### Strong balance sheet, expanded management team & new CRO relationship expected to facilitate clinical efforts

Key takeaways regarding initiatives AEMD has implemented to move the Hemopurifier forward include expanding the senior management team and medical expertise, improving the cash position to support growth initiatives and clinical trials and securing a well-regarded CRO to facilitate clinical studies, among others. AEMD finished fiscal 2Q 2022 with about \$23 million in cash following a June 2021 capital raise and no debt. The funds enhance the company's financial flexibility to advance clinical trials and move the Hemopurifier towards potential regulatory approval and commercial launch.

### OUTLOOK

AEMD has two clinical studies underway and recently entered into an agreement with PPD, a leading CRO that has extensive experience, to oversee the company's clinical studies investigating the Hemopurifier for infectious disease indications and manage the study of the Hemopurifier treating patients who are critically ill with COVID-19. AEMD is optimistic that PPD will move the study forward in an efficient and expedient way. Working with PPD, the company continues to advance site readiness at medical centers participating in the COVID-19 study. AEMD also recently provided a refresher training session at the University of Pittsburgh and expects the study of the Hemopurifier in patients with head and neck cancer to move forward, as well, and is also exploring opportunities to study the Hemopurifier for other cancers.

Current Price (11/11/21) \$2.96  
Valuation \$8.00

### SUMMARY DATA

52-Week High \$12.49  
52-Week Low \$1.43  
One-Year Return (%) 93.5  
Beta 0.64  
Average Daily Volume (sh) 1,934,726

Shares Outstanding (mil) 15  
Market Capitalization (\$mil) \$46  
Short Interest Ratio (days) N/A  
Institutional Ownership (%) 4  
Insider Ownership (%) 1

Annual Cash Dividend \$0.00  
Dividend Yield (%) 0.00

#### 5-Yr. Historical Growth Rates

Sales (%) N/A  
Earnings Per Share (%) N/A  
Dividend (%) N/A

P/E using TTM EPS N/A

P/E using 2022 Estimate N/A

P/E using 2023 Estimate N/A

Zacks Rank N/A

#### Risk Level

Type of Stock  
Industry

High,  
Small-Blend  
Med Products

### ZACKS ESTIMATES

#### Revenue

(in '000 of \$)

|      | Q1<br>(Jun) | Q2<br>(Sep) | Q3<br>(Dec) | Q4<br>(Mar) | Year<br>(Mar) |
|------|-------------|-------------|-------------|-------------|---------------|
| 2019 | 0.1 A       | 0.0 A       | 0.0 A       | 0.1 A       | 0.2 A         |
| 2020 | 0.0 A       | 0.0 A       | 0.4 A       | 0.2 A       | 0.7 A         |
| 2021 | 0.0 A       | 0.0 A       | 0.6 A       | 0.0 A       | 0.7 A         |
| 2022 | 0.1 A       | 0.1 A       | 0.1 E       | 0.0 E       | 0.4 E         |

#### Earnings per Share

|      | Q1<br>(Jun) | Q2<br>(Sep) | Q3<br>(Dec) | Q4<br>(Mar) | Year<br>(Mar) |
|------|-------------|-------------|-------------|-------------|---------------|
| 2019 | -\$0.90 A   | -\$1.17 A   | -\$1.67 A   | -\$1.39 A   | -\$5.13 A     |
| 2020 | -\$1.63 A   | -\$1.29 A   | -\$0.28 A   | -\$0.57 A   | -\$1.87 A     |
| 2021 | -\$0.15 A   | -\$0.15 A   | -\$0.20 A   | -\$0.16 A   | -\$0.65 A     |
| 2022 | -\$0.16 A   | -\$0.13 A   | -\$0.13 E   | -\$0.14 E   | -\$0.56 E     |

Quarters might not add to annual reflecting rounding

Disclosures on page 11

## KEY POINTS: What's New? 2Q FY 2022 Results & Business Update

- Expanded management team to support growth
- Strong balance sheet
- New CRO relationship expected to facilitate and possibly accelerate COVID EFS
- Oncology study moving forward

Aethlon Medical (NASDAQ: AEMD) announced results for 2Q FY 2022 (fiscal year ends March) and provided a business update. AEMD generated total revenue of about \$132k. Of this, \$114.8k was from government contracts related to AEMD's phase 2 melanoma cancer contract. In addition, the company recorded revenue of about \$17,000 related to the cost reimbursable sub-award arrangement that AEMD has with the University of Pittsburgh associated with an NIH contract. This revenue stream is expected to be recurring over the next several quarters. These metrics compare to no revenue in 2Q FY21.

Primarily as a result of expanding its senior executive team to support its growth opportunities, operating expenses increased from \$1.8 million in 2Q FY 2021 to \$2.1 million. This reflects higher payroll and general and administrative expenses, offset partially by slightly lower professional fees. R&D expense was \$478,201 compared to \$508,897. The net loss was \$2.0 million for 2Q FY22, or (\$0.13) per share, compared to about \$1.8 million in 2Q FY21 or (\$0.15) per share.

Given that the company's lead asset, the hemopurifier, essentially is pre-revenue at this early stage, our key takeaways regard initiatives the company has implemented to move the device forward. These include expanding the senior management team and broadening its healthcare expertise, improving the cash position to support growth measures and clinical trials, and securing a well-regarded CRO to facilitate clinical studies, among other initiatives. We highlight these initiatives below.

### Expanded senior management team adds industry and medical expertise

Over the past several quarters, Aethlon has expanded its executive team in order to support the many opportunities the company expects to leverage. For instance, in October 2020, AEMD appointed Charles J. Fisher, Jr., M.D. as CEO. He has extensive experience in developing and commercializing new assets. AEMD also hired a new Chief Business Officer and new Chief Medical Officer who together have a combined nearly 40 years of industry experience.

Following the appointment of Dr. Fisher, Jr., AEMD further expanded its executive team, hiring two key executives. Guy Cipriani was named SVP and Chief Business Officer. He is responsible for business development and partnerships and involved in fundraising and corporate development.

Steven LaRosa, M.D., has become AEMD's Chief Medical Officer, with responsibility for the clinical development of the Hemopurifier®. Both executives have significant industry experience. In the aggregate, this management team has more than a century of healthcare experience.

The company also recently hired a consultant physician who has substantial experience managing critically ill patients and has treated myriads of critically COVID-19 patients in the ICU and a critical care nurse who also has extensive experience treating severe COVID-19 cases.

### Balance sheet: improved cash position to support growth initiatives and clinical trials

AEMD finished 2Q of fiscal 2022 with a strong balance sheet. The company had about \$23.2 million in cash and no debt. In June 2021, AEMD raised an aggregate roughly \$17.5 million, consisting of about \$5 million through sales under its ATM agreement and over \$11 million in a registered direct financing, plus the exercise of warrants. The funds enhance the company's financial flexibility to advance clinical trials and move the Hemopurifier towards potential regulatory approval and commercial launch, in our view.

AEMD also has been adept at leveraging National Cancer Institute (NCI) and government funding for research studies, as noted above. The combination of cash on hand and government grants and awards is expected to help AEMD continue to advance and build inventory of the Hemopurifier for the two studies that are currently ongoing, although we expect the company's cash burn rate to increase as it moves clinical studies forward.

## New CRO to facilitate clinical studies

AEMD recently finalized its selection of a CRO (Contract Research Organization) to supervise clinical trials. A CRO helps supervise the planning, logistics and daily operation and management of clinical trials, including data collection. In September, AEMD entered into an agreement with [PPD](#), a publicly-traded, leading CRO that has extensive experience and a global footprint. PPD is overseeing the company's clinical studies investigating the Hemopurifier for infectious disease indications and will manage the study of the Hemopurifier for patients who are critically ill with COVID-19 and potentially additional studies.

Reflecting PPD's substantial experience and prior work history with some members of AEMD senior management over the years, AEMD is optimistic that PPD will move the study forward in an efficient and expedient way. Working with PPD, which the company believes has assembled a strong team to facilitate the U.S. COVID-19 study, AEMD continues to advance *site readiness* at medical centers participating in the study.

## Cancer study and potential expansions

AEMD recently provided a refresher training session at the University of Pittsburgh Medical Center (UPMC), as it moves the cancer study forward and enrolls patients from UPMC and affiliated institutions. AEMD is also exploring other tumor types for opportunities to study the potential benefits of the hemopurifier in the broader cancer space, given the Hemopurifier's demonstrated ability to remove exosomes.

| Indication      |                    | Pre-Clinical                      | Early Feasibility Study | Pivotal Study |
|-----------------|--------------------|-----------------------------------|-------------------------|---------------|
| Oncology        | HNSCC              | IDE Protocol – Tx Before Keytruda |                         |               |
|                 | Other Solid Tumors | TBD                               |                         |               |
| Viral Infection | Covid-19           | Emergency Use & IDE Protocol      |                         |               |
|                 | Ebola              | Emergency Use                     |                         |               |
|                 | HCV                | Safety Testing                    |                         |               |
|                 | HIV                | Emergency Use & IDE Protocol      |                         |               |
|                 | Other              | TBD                               |                         |               |

Source: Company investor [presentation](#)

## CLINICAL STUDIES: BACKGROUND

### *Growing Database Supporting Hemopurifier's Positive Treatment of COVID-19 & Potentially Other Glycosylated Viruses*

The company has two active clinical studies, as noted: one to study the impact of the Hemopurifier on patients with head and neck cancer and another to study the benefits of the device in severe cases of COVID-19. Regarding the latter study, the Hemopurifier has demonstrated clearance of many different viruses in vitro, including HIV, dengue, West Nile, influenza, Ebola, herpes and MERS. Through extensive studies and practical applications over the years, AEMD has demonstrated that the Hemopurifier binds and removes glycosylated –

or sugar coated – viruses. The Hemopurifier captures enveloped viral pathogens and exosomes in the circulating bloodstream, based on size and glycosylation, and removes them. The company believes the Hemopurifier can be applied to COVID-19 and a range of other conditions.

## COVID EFS

The safety and feasibility of the Aethlon Hemopurifier® is being evaluated in an active Early Feasibility Study (EFS) that will enroll up to 40 COVID-19 ICU patients. The EFS is for the treatment of the SARS-CoV-2 virus (COVID-19) in humans using the Hemopurifier. COVID-19 could represent another opportunity and path to approval for the Hemopurifier, with the FDA having approved a supplement to AEMD's IDE for the Hemopurifier in viral disease to permit the testing of the device in patients with SARS-CoV-2/COVID-19 in another new feasibility study.

The COVID study is extremely timely, given the increase in the number of COVID cases. In 1Q FY 2022, New Jersey-based Cooper Medical Center joined the trial. Cooper Medical Center is one of the leading academic health systems in South New Jersey. AEMD is also in advanced discussions with other key U.S. and international medical centers to potentially join the clinical trial.

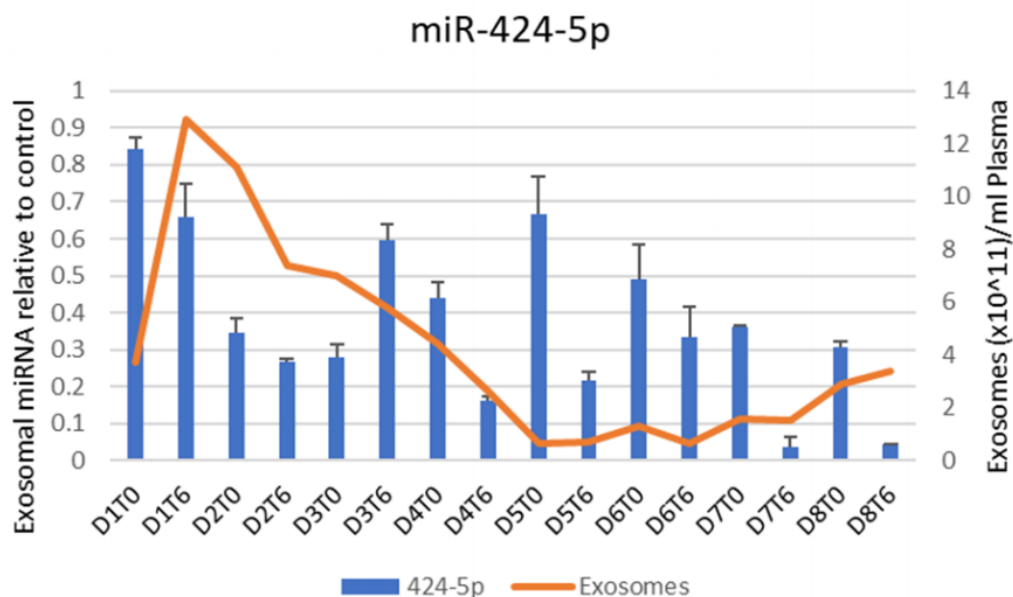
Separately, outside of the study, as noted in previous updates, the Hemopurifier showed positive results in two recent cases in which the patients had severe COVID-19 issues. Neither patient was expected to survive. Doctors were able to use the Hemopurifier because there were no other options. The Hemopurifier produced positive results in both cases and in one case, the patient's health improvement was so strong that she was discharged from the hospital.

## Case #1

Case #1 involved a 59-year-old female patient with a medical history of obesity, hypertension, hyperlipidemia, alcohol abuse, and heart valve replacement. She was admitted to the hospital in July 2020 with COVID-19 pneumonia for treatment with oxygen and other therapies. Her respiratory failure worsened. She developed acute respiratory distress syndrome (ARDS) and was transferred to the ICU for intubation. Her oxygenation did not improve after intubation, mechanical ventilation and prone positioning.

After about three weeks, her doctors requested Hemopurifier treatment. She received daily Hemopurifier treatment for four days (hospital days 22-25). Importantly, she tolerated the procedure well, with no evidence of allergic reaction, thrombotic complications or hemolysis.

Following Hemopurifier treatment, the patient was observed without demonstrable COVID-19 viremia. The presence of viremia – or the active virus circulating in the blood – has been associated with disease severity and the development of multi-organ failure.



Source: Company reports

Following the initial four treatments, she showed improvement in COVID-19-associated coagulopathy<sup>1</sup> (CAC), lung injury, inflammation, and tissue injury. AEMD believes that the improvements reflected the Hemopurifier's removal of exosomes with noxious microRNA cargo and that the removal of exosomes contributed to the patient's recovery. MicroRNAs are involved in mRNA degradation and inhibition of protein translation.

There were observed decreases in total exosomal concentration in the patient compared to prior to the Hemopurifier treatment from days 2-to-7 of treatment. The concentration of exosomal miR-16 dropped over the first four Hemopurifier treatments and then remained at low levels, while the patient's acute lung injury improved. At the beginning of Hemopurifier treatment, the total exosome concentration increased on the first day. Concentration also increased on the eighth day of treatment, which requires further study.

The patient received eight Hemopurifier treatments without complications and eventually was weaned from a ventilator and discharged from the hospital. The findings suggest that benefits from the Hemopurifier in COVID-19 may extend beyond viral removal and might also reflect the elimination of exosomes. Just as the Hemopurifier is being evaluated for the ability to remove exosomes to treat cancer patients (see below), treatment in Case #1 demonstrates that exosomes are also involved in the cell to cell spread of COVID-19 infection and its associated inflammation, coagulopathy and complement activation.

## Case #2

The second patient was a 67-year-old man with a history of coronary artery disease and newly diagnosed diabetes, among other disorders, who also had acute kidney injury. The case is notable for the first-ever demonstration of *in vivo* removal of SARS-CoV-2 virus from the blood stream of an infected patient. The patient completed a six hour Hemopurifier® treatment without complications and was placed on Continuous Renal Replacement Therapy (CRRT). Although the patient ultimately died after CRRT because his disease was at an advanced stage, the Hemopurifier treatment showed that it could be beneficial.

The patient received 6 hours and 15 minutes of Aethlon Hemopurifier treatment in series with CRRT. The patient had fluctuations in his oxygenation and blood pressure during the completed HP session. The patient was disconnected from the Hemopurifier without incident.

In summary, the two case studies indicate that the Hemopurifier® successfully cleared SARS-CoV-2 virus and associated exosomes from the blood stream. This resulted in a potential benefit for one of the critical COVID-19 patients that were treated. The two patients tolerated a total of nine 6-hour Hemopurifier treatments without side effects. For the first time, AEMD demonstrated the removal of COVID-19 from a viremic patient by the Hemopurifier. Additionally, total exosome concentrations and noxious exosomal microRNAs associated with coagulopathy and acute lung injury decreased with Hemopurifier treatments was associated with clinical improvement in one patient. The peer-reviewed journal *Frontiers in Medicine* recently published the results of these two cases in an [article](#) titled "*Removal of COVID-19 spike protein, whole virus, exosomes and exosomal microRNAs by the Hemopurifier® lectin-affinity cartridge in critically ill patients with COVID-19 infection.*"

### Hemopurifier® benefits

- Successfully cleared SARS-CoV-2 virus from the blood stream of an infected patient.
- Successfully cleared associated exosomes from the blood stream of an infected patient.
- Patients tolerated Hemopurifier treatment without side effects
- Lowered noxious exosomal microRNAs associated with coagulopathy and acute lung injury

Separately, AEMD recently entered into a clinical trial agreement with Medanta Medicity Hospital in Delhi, India for a COVID-19 clinical trial at that location. The company expects the trial will add to the supportive data that it will eventually submit to the FDA, along with our U.S. clinical data and the data from the two patients noted above

We believe the company continues to build its database of positive outcomes using the Hemopurifier. The growing database is expected to, in turn, contribute to potential FDA regulatory approval. Moreover, the several beneficial outcomes noted with the two COVID-19 patients also point to the potential versatility of the Hemopurifier, which could also imply a growing commercial opportunity.

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<sup>1</sup> Coagulopathy is a condition where blood clotting is impaired.

### Head and Neck cancer study

The other clinical trial is an important study of patients with head and neck cancer exploring the impact of clinical depletion of exosomes using the Aethlon Hemopurifier along with standard of care treatment, Keytruda®. The company continues to work closely with the University of Pittsburgh Human Cancer Center, its principal investigator in the head and neck program, to continue enrolling patients in the EFS trial.

If the clinical study indicates that the depletion of exosomes using the Hemopurifier can boost the percentage of patients who respond favorably to Keytruda it could have significant implications. Keytruda improves the outcome in about 30% to 35% of head and neck cancer patients, but unfortunately the treatment does not produce positive outcomes in the majority of treated patients.

AEMD believes that lowering the presence of immune suppressive exosomes from the patient's circulatory system prior to Keytruda treatment could improve patient outcomes. Thus, if clearance of exosomes using the Hemopurifier prior to the patient receiving Keytruda treatment can boost the number of patients who respond positively to the Keytruda treatment, it could open the door to the Hemopurifier as a standard of care treatment for cancer patients along with Keytruda.

The primary endpoint of the study is safety. The secondary endpoint is exosome depletion. If the study indicates that the Hemopurifier can 1) successfully clear exosomes in the clinical trial; and 2) that exosome depletion appears to have a positive impact on the ability to boost the percent of patients that respond positively to Keytruda, that has significant consequences, we believe, for the Hemopurifier and for Aethlon Medical. The field of cancer needs novel breakthrough treatment therapies to improve patient outcomes, which we believe is illustrated by how commercially successful Keytruda has been.

***Keytruda, which has been used to treat 25+ different types of cancer, illustrates the potential to use the Hemopurifier to treat a range of cancers***

The revenue trajectory of Keytruda shows the potential that a successful therapeutic treatment might have and there are also other diseases that are exosome dependent that could benefit from the Hemopurifier. Keytruda generated \$11.1 billion in revenue in 2019, up about 55% from \$7.2 billion in 2018, and is Merck's most important product. Analysts are predicting that it could reach over \$22 billion in revenue by 2025 and become the best-selling drug of all time.

Moreover, depending on the results of the EFS, AEMD's opportunities could multiply. Again, Keytruda provides an important illustration of the potential use of the hemopurifier if the data of the ongoing EFS supports further research. Keytruda has been successfully used to treat more than 25 different types of cancer, has regulatory approval in more than 22 oncological indications (including non-small cell lung cancer, head and neck cancer, melanoma, cervical cancer and many more) and has been used in over 1,000 clinical trials.<sup>2</sup> In fact, Keytruda recently received endorsement for expanded approval in the EU to treat certain patients with relapsed or refractory Classical Hodgkin lymphoma.

As such, cancer not only represents a potentially enormous commercial market but the (unfortunate) terminality and incidence of metastatic disease means that development-related opportunities (potentially including non-dilutive funding, partnerships, clinical trials, regulatory-related resources, etc...) are likely more abundant than those available to study and commercialize other diseases. In addition, the finality of terminal diseases means that demonstration of 'effectiveness' (as well as 'acceptable safety') may be comparably less onerous than in less serious conditions or those with currently available treatment options. Moreover, as side effects of some cancer drugs can be particularly challenging to manage and cope with, 'effectiveness' might also be defined (for example) as an improvement to quality of life.

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<sup>2</sup> BioSpace, Oct 4, 2019. Alex Keown



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## VALUATION

Historically, we have valued AEMD shares based on estimated fair value of the Hemopurifier in cancer, virus, pathogen and other applications at about \$90 million. Additionally, we value AEMD's majority position in Exosome Sciences, Inc. (ESI) at about \$30 million. ESI is focused on the discovery of exosomal biomarkers to diagnose and monitor life-threatening diseases, including in patients who are at risk or have been diagnosed with a range of cancers.

We believe there could be upside to the valuation, based on management's view and early discussions regarding the potential benefits of the Hemopurifier in other types of cancers. Given the unfortunate prevalence of cancer and lack of truly effective therapies, we think that there is reason to believe that a cancer indication for the Hemopurifier is an eventual realistic outcome. Clinical evidence supports the role of exosomes in the progression of cancer and, similarly, that removing tumor-derived exosomes from circulation might inhibit tumor growth and/or potentially improve the effectiveness of immunotherapies. As this describes the basis for Aethlon's pursuit of the Hemopurifier in a potential cancer indication, we think a growing database of evidence could have important consequences, including potentially influencing key opinion leaders and regulators alike.

Additionally, the ongoing COVID-19 outbreak could represent a new opportunity in this space for AEMD to generate data that offers proof-of-concept of the Hemopurifier's efficacy. As more is learned about the disease, answers to key questions related to the possibility of even testing the Hemopurifier against the virus should become more apparent. So, while COVID-19 potentially represents a new opportunity to validate Hemopurifier against another deadly disease, we believe it might also present a nearer-term revenue opportunity for the company than we originally forecast, depending on the success of the EFS testing the Hemopurifier against the virus.

Our sum-of-the-parts analysis therefore values AEMD at approximately \$120 million, or over \$8 per share on a fully diluted basis at this stage. We reiterate that our valuation is based on the company's current preliminary development state and could change with achievement of certain milestones. Moreover, we believe that there could be a more meaningful revenue opportunity associated with treating COVID-19 patients with the Hemopurifier than we originally expected.

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## RECENT NEWS

- On November 9, 2021, Aethlon reported 2Q FY22 results.
- On October 12, 2021, AEMD announced the peer-reviewed publication of two case studies of critically ill COVID-19 patients who were treated with the Hemopurifier®.
- Aethlon Medical Announces Contracting with PPD to Advance Hemopurifier Clinical Programs on September 30, 2021.
- On August 9, 2021, Aethlon reported 1Q FY22 results.
- On June 3, 2021, Aethlon published case studies of two critically ill COVID-19 patients who were treated with the Hemopurifier®.
- Aethlon expanded its leadership team with the appointment of two key positions on January 6, 2021.
- On December 16, 2020, Aethlon announced the first patient treated in its first-in-human clinical trial of the Hemopurifier in head and neck cancer.
- AMED appointed Charles J. Fisher, Jr., M.D. as CEO on November 3, 2020.
- Aethlon Medical announced a collaboration with the University of Pittsburgh on an NIH grant for head and neck cancer on August 6, 2020.

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## RISKS

Risks to Aethlon achieving its objectives, and to our valuation, include the following.

- AEMD might need to raise additional capital earlier than expected.
- COVID-19 might delay the company's clinical and subsequent commercialization timelines.
- The clinical trials might not produce the results that management anticipates.
- Despite receiving two FDA Breakthrough Device designations, the FDA approval might take longer than expected or might not come at all.
- The company might not be able to advance the Hemopurifier in various programs.
- Companies exploring other therapies might advance at a faster pace and impact the need for the hemopurifier.



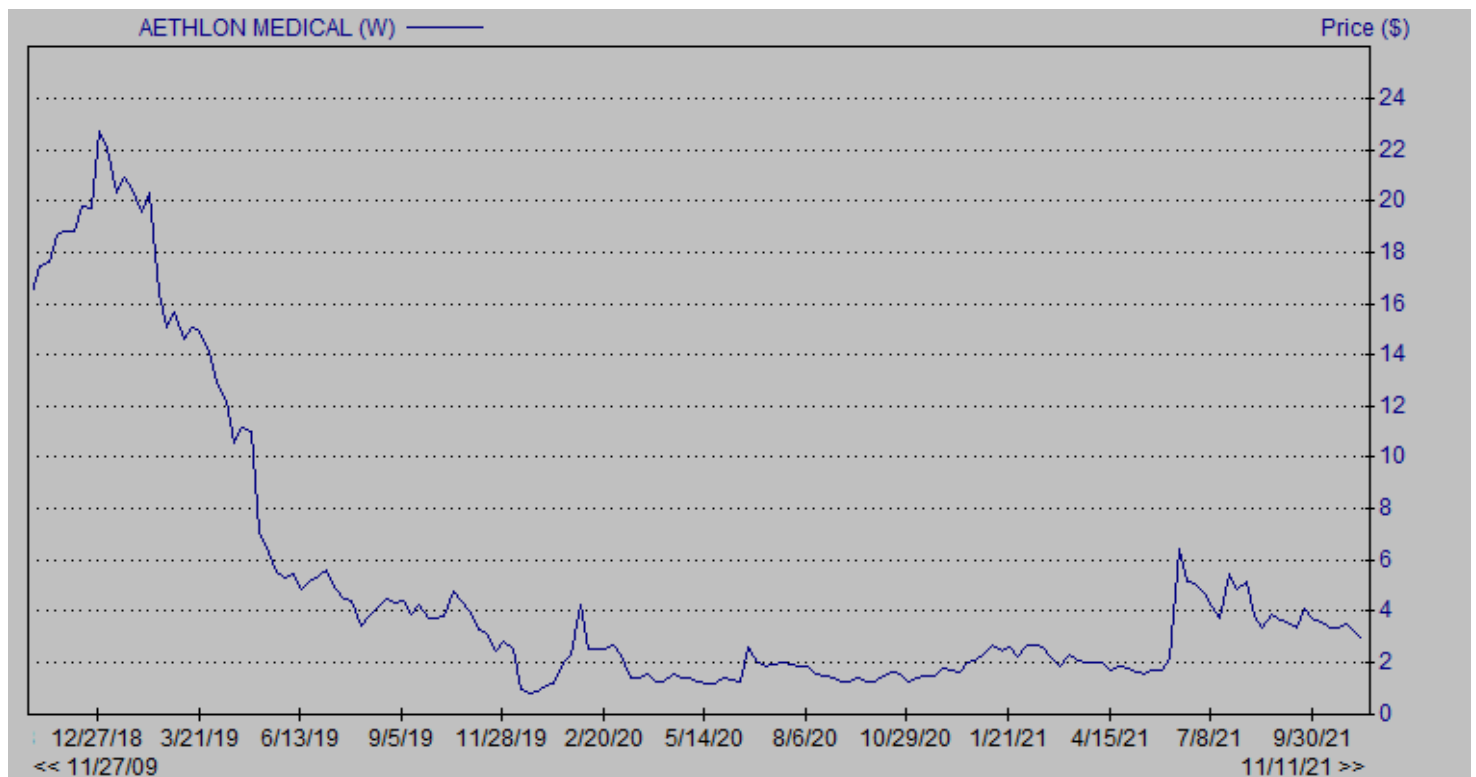
# FINANCIAL MODEL

## Aethlon Medical Inc.

| AEMD (\$000s)                  | 2018 A      | 2019 A      | 2020 A      | 1Q21 A      | 2Q21 A      | 3Q21 A      | 4Q21 A      | 2021 A      | 1Q22 A      | 2Q22 A      | 3Q22 E      | 4Q22 E      | 2022 E      |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <i>Year ends March 31</i>      |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Revenue                        | \$149.6     | \$229.6     | \$650.2     | \$0.0       | \$0.0       | \$624.9     | \$34.2      | \$659.1     | \$132.0     | \$132.0     | \$112.2     | \$37.6      | \$413.7     |
| <i>YOY Growth</i>              |             | 53.5%       | 183.2%      | -100.0%     | -100.0%     | 51.8%       | -83.5%      | 14%         | NM          | NM          | -82.0%      | 10.0%       | -37.2%      |
| Cost of Goods Sold             | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       |
| Gross Income                   | \$149.6     | \$229.6     | \$650.2     | \$0.0       | \$0.0       | \$624.9     | \$34.2      | \$659.1     | \$132.0     | \$132.0     | \$112.2     | \$37.6      | \$413.7     |
| <i>Gross Margin</i>            | 100.0%      | 100.0%      | 100.0%      | NM          | NM          | NM          | NM          | NM          | NM          | NM          | NM          | NM          | NM          |
| OpEx                           | \$4,394.7   | \$5,332.6   | \$5,653.2   | \$1,033.3   | \$1,262.5   | \$2,607.3   | \$1,574.0   | \$6,477.02  | \$1,642.59  | \$1,662.6   | \$1,679.2   | \$1,696.0   | \$6,680.3   |
| <i>SG&amp;A %of Prod Sales</i> | NM          | NM          | NM          | NM          | NM          | NM          | NM          | NM          | NM          | NM          | NM          | NM          | NM          |
| R&D                            | \$586.0     | \$896.0     | \$927.0     | \$377.2     | \$508.9     | \$461.2     | \$724.8     | \$2,072.0   | \$587.7     | \$478.2     | \$483.0     | \$487.8     | \$2,036.7   |
| <i>R&amp;D %Tot Sales</i>      | 391.7%      | 390.2%      | 142.6%      | NM          | NM          | 73.8%       | 2118.9%     | 314.4%      | 445.3%      | 362.4%      | 430.6%      | 1296.5%     | 492.3%      |
| Operating Income               | (\$4,831.1) | (\$5,999.0) | (\$5,930.0) | (\$1,410.4) | (\$1,771.4) | (\$2,443.6) | (\$2,264.6) | (\$7,889.9) | (\$2,098.3) | (\$2,008.8) | (\$2,050.0) | (\$2,146.2) | (\$8,303.3) |
| <i>Operating Margin</i>        | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           |
| Total Other Expense            | \$868.7     | \$220.5     | \$450.1     | \$0.7       | \$0.0       | \$0.8       | \$0.1       | \$1.6       | \$0.1       | \$0.0       | \$0.0       | \$0.8       | \$0.9       |
| Pre-Tax Income                 | (\$5,699.8) | (\$6,219.5) | (\$6,380.1) | (\$1,411.1) | (\$1,771.4) | (\$2,444.4) | (\$2,264.6) | (\$7,891.5) | (\$2,098.4) | (\$2,008.8) | (\$2,050.0) | (\$2,147.0) | (\$8,304.2) |
| Taxes (benefit)                | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       | \$0.0       |
| <i>Tax Rate</i>                | 0.0%        | 0.0%        | 0.0%        | 0.0%        | 0.0%        | 0.0%        | 0.0%        | 0.0%        | 100.0%      | 200.0%      | 300.0%      | 400.0%      | 0.0%        |
| Minority interest              | (\$20.3)    | (\$24.8)    | (\$6.1)     | (\$0.9)     | (\$0.8)     | (\$1.5)     | (\$1.6)     | (\$4.8)     | \$1.1       | (\$0.8)     | (\$2.0)     | (\$2.0)     | (\$3.7)     |
| Net Income                     | (\$5,679.6) | (\$6,194.8) | (\$6,374.0) | (\$1,410.3) | (\$1,770.6) | (\$2,442.9) | (\$2,263.0) | (\$7,886.7) | (\$2,099.6) | (\$2,008.0) | (\$2,048.0) | (\$2,145.0) | (\$8,300.5) |
| <i>Net Margin</i>              | -           | -           | -980.3%     | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           |
| EPS                            | (\$6.92)    | (\$5.13)    | (\$1.87)    | (\$0.15)    | (\$0.15)    | (\$0.20)    | (\$0.16)    | (\$0.65)    | (\$0.16)    | (\$0.13)    | (\$0.13)    | (\$0.14)    | (\$0.56)    |
| Diluted Shares O/S             | 821         | 1,208       | 3,415       | 9,633       | 12,071      | 12,093      | 14,567      | 12,091      | 12,829      | 15,386      | 15,436      | 15,486      | 14,785      |

Source: Zacks Pro forma for 10/2019 reverse stock split

## HISTORICAL STOCK PRICE



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