May 14, 2025

Aethlon Medical Announces Publication of Preclinical Data Showing Ability of the Hemopurifier® to Remove Platelet-Derived Extracellular Vesicles from Plasma

Results Reinforce the Current Australian Oncology Clinical Trial and Support Investigation of the Hemopurifier Across Multiple Indications

SAN DIEGO, May 14, 2025 /PRNewswire/ -- Aethlon Medical, Inc. (Nasdaq: AEMD), a medical therapeutic company focused on developing products to treat cancer and life-threatening infectious diseases, today announced the publication (https://www.biorxiv.org/cgi/content/short/2025.05.09.652772v1) of a pre-clinical ex vivo study in pre-print vehicle bioRxiv, entitled, "Ex Vivo Removal of CD41 positive platelet microparticles from Plasma by a Medical Device containing a Galanthus nivalis agglutinin (GNA) affinity resin."

Aethlon Medical's Hemopurifier® is a therapeutic blood filtration system designed to bind and remove harmful extracellular vesicles (EVs or exosomes) and life-threatening viruses from blood and other biological fluids, properties that support its evaluation not only in oncology and infectious diseases, but also in the organ transplantation and other areas of significant unmet medical need.

Platelet-derived extracellular vesicles (PD-EVs) are the most numerous EV population in the body and are released by platelets in response to a variety of stimuli. The cargo contained within these EVs have been noted to participate in damage to blood vessels, activation of immune cells, and spread of tumor cells. Excessive levels of PD-EVs have been implicated in a myriad of diseases, including cancer, lupus, systemic sclerosis, multiple sclerosis, Alzheimer's disease, sepsis, acute and Long COVID.

An independent research team had demonstrated that PD-EVs in Alzheimer's patients bound to the plant lectin *Galanthus nivalis agglutinin* (GNA). We hypothesized that the Aethlon Hemopurifier, which contains a proprietary GNA affinity resin would remove platelet derived EVs from plasma. In this experiment two hundred milliliters of donated healthy human plasma were circulated over the Aethlon Hemoupurifier (HP) to simulate a clinical HP session. The study results indicated a 98.5% removal of platelet -derived EVs at a timepoint equivalent to a 4-hour HP treatment.

"The data from this ex vivo study is exciting because it demonstrated for the first time that our device removes Platelet-derived EV's. This data is also supportive of our ongoing Oncology clinical trial in Australia as PD-EVs participate in the spread of cancers. We will be specifically looking at PD-EV removal in our subjects enrolled in the clinical trial," said

Steven P. LaRosa, MD, Chief Medical Officer at Aethlon Medical and senior author on the paper.

"Beyond Oncology we could envision many indications where removal of PD-EVs by the Hemopurifier could be a therapeutic strategy. The findings from this study raise the possibility of a "pipeline within a device," said James Frakes, Chief Executive Officer at Aethlon.

Next steps will be to submit the findings of this study to a peer-review medical journal and specifically study PD-EV removal and their cargo from plasma samples from diseases of interest.

About Aethlon and the Hemopurifier®
Aethlon Medical is a medical therapeutic company focused on developing the Hemopurifier, a clinical stage immunotherapeutic device which is designed to combat cancer and life-threatening viral infections and for use in organ transplantation. In human studies, the Hemopurifier has demonstrated the removal of life-threatening viruses and in pre-clinical studies, the Hemopurifier has demonstrated the removal of harmful EVs from biological fluids, utilizing its proprietary lectin-based technology. This action has potential applications in cancer, where EVs may promote immune suppression and metastasis, and in life-threatening infectious diseases. The Hemopurifier is a U.S. Food and Drug Administration (FDA) designated Breakthrough Device indicated for 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 EVs have been shown to participate in the development or severity of the disease. The Hemopurifier also holds an FDA Breakthrough Device designation and an open Investigational Device Exemption (IDE) application related to the treatment of life-threatening viruses that are not addressed with approved therapies.

Additional information can be found at www.AethlonMedical.com.

Forward-Looking Statements
This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 that involve risks and uncertainties. Statements containing words such as "may," "believe," "anticipate," "expect," "intend," "plan," "project," "will," "projections," "estimate," "potentially" or similar expressions constitute forward-looking statements. Such forward-looking statements are subject to significant risks and uncertainties and actual results may differ materially from the results anticipated in the forward-looking statements. These forward-looking statements are based upon Aethlon's current expectations and involve assumptions that may never materialize or may prove to be incorrect. Factors that may contribute to such differences include, without limitation, the Company's ability to raise additional capital and to successfully complete development of the Hemopurifier; the Company's ability to successfully demonstrate the utility of the Hemopurifier in cancer and infectious diseases and in the transplant setting; the ability of the Hemopurifier to continue to show removal of platelet -derived EVs at a timepoint equivalent to a 4-hour HP treatment; *the Company's ability to achieve and realize the anticipated benefits from potential milestones; the Company's ability to submit applications to and obtain approval from the additional Ethics Committees in Australia and India, including on the timing expected by the Company; the Company's ability to initiate and continue its planned oncology clinical trials in Australia and*

India, including on the timing expected by the Company; the Company's ability to manage and successfully complete its clinical trials, if initiated; the potential impact of Hemopurifier on the H5N1 Avian Influenza (H5N1 HPAI) virus in dairy cattle; the Company's ability to successfully manufacture the Hemopurifier in sufficient quantities for its clinical trials, and other potential risks. The foregoing list of risks and uncertainties is illustrative, but is not exhaustive. Additional factors that could cause results to differ materially from those anticipated in forward-looking statements can be found under the caption "Risk Factors" in the Company's Annual Report on Form 10-K for the year ended March 31, 2024, and in the Company's other filings with the Securities and Exchange Commission, including its quarterly Reports on Form 10-Q. All forward-looking statements contained in this press release speak only as of the date on which they were made. Except as may be required by law, the Company does not intend, nor does it undertake any duty, to update this information to reflect future events or circumstances.

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