

# Aethlon Medical Achieves DARPA Milestones, Including Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Validation

SAN DIEGO, Oct. 13, 2016 /PRNewswire/ -- Aethlon Medical, Inc. (Nasdaq: AEMD), announced today that it has completed multiple milestone achievements under a contract with the Defense Advanced Research Projects Agency (DARPA), including a milestone validation that the Aethlon Hemopurifier® is able to capture the Middle East Respiratory Syndrome Coronavirus (MERS-CoV). The Hemopurifier® is a first-in-class medical device designed to rapidly eliminate viral pathogens from the circulatory system of infected individuals. The MERS-CoV milestone was predicated on demonstrating the capture of the virus with small-scale versions of the Aethlon Hemopurifier.

According to the Centers for Disease Control and Prevention (CDC), Middle East Respiratory Syndrome (MERS) is an illness caused by MERS-CoV infection. The virus was first reported in Saudi Arabia in 2012 and has since spread to several other countries, including the United States. Most people identified as infected with MERS-CoV develop severe acute respiratory illness, including fever, cough and shortness of breath. The World Health Organization (WHO) has reported 1,806 laboratory-confirmed cases of MERS-CoV infection, resulting in 643 deaths. There is no vaccine or antiviral drug to treat MERS-CoV.

The Hemopurifier is currently being advanced in FDA approved studies as a broad-spectrum treatment countermeasure against infectious viral pathogens. Unlike disease-specific drugs or vaccines, the Hemopurifier has been demonstrated to capture different strains, species and families of viral pathogens through human and in vitro validation studies. The Company plans to continue studies of high-threat viruses not yet validated as a means to fulfill the broad-spectrum medical countermeasure goal of the 2015 U.S. Department of Health and Human Services (HHS) Public Health Emergency Medical Countermeasure Enterprise (PHEMCE) Strategy and Implementation Plan. See below for additional information on PHEMCE.

"The accomplishment of this this and other DARPA milestones further reinforces our belief that the Hemopurifier is the most advanced broad-spectrum candidate to treat the many life-threatening viruses that are not addressed with antiviral drugs," stated Jim Joyce, Chairman and CEO of Aethlon Medical.

Beyond the MERS-CoV milestone, Aethlon reported that it achieved all 29 milestone opportunities that were provided to the Company through DARPA's Dialysis-Like Therapeutics (DLT) program, resulting in earned revenues of \$5,935,996 over the 5-year program. The milestones contributed to enhance Hemopurifier manufacturing processes

and capabilities, expanded the broad-spectrum virus capture validations of the Hemopurifier, including the simultaneous capture of multiple viral pathogens; and demonstrated the ability of the Hemopurifier to capture bacterial toxins, which could potentially expand therapeutic market opportunities to include the treatment of virulent and drug resistant bacterial infections.

Aethlon continues to operate under a systems integrator contract that was also awarded under the DARPA DLT program and the Company further disclosed that it has responded to two new U.S. Department of Defense (DOD) contract solicitation opportunities. A goal of the DLT program has been to develop a portable device that removes "dirty" blood from the body, separates harmful agents, and returns "clean" blood to the body in a manner similar to dialysis treatment of kidney failure. The resulting device could decrease the morbidity and mortality of sepsis, thereby saving thousands of lives and billions of dollars in the United States annually. Aethlon has yet to disclose its strategic plan related to the potential treatment of sepsis.

## About The PHEMCE

The Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) coordinates Federal efforts to enhance chemical, biological, radiological and nuclear threats (CBRN) and emerging infectious diseases (EID) preparedness from a medical countermeasure (MCM) perspective. The PHEMCE is led by the HHS Office of the Assistant Secretary for Preparedness and Response (ASPR) and includes three primary HHS internal agency partners: the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA) and the National Institutes of Health (NIH), as well as several interagency partners: the Department of Defense (DoD), the U.S. Department of Veterans Affairs (VA), the Department of Homeland Security (DHS) and the U.S. Department of Agriculture (USDA).

## **About Aethlon Medical**

Aethlon Medical (Nasdaq: AEMD) is a leading developer of immunotherapeutic technologies to combat infectious disease and cancer. To augment the body's natural immune defenses, the Aethlon Hemopurifier® eliminates life-threatening disease targets that are often shielded from the immune system and not well addressed by traditional drug therapies. The technology captures circulating viruses, bacterial toxins and cancer promoting exosomes through affinity attachment to a unique structure that cloaks these targets from immune detection. At present, the Hemopurifier® is being advanced under an FDA approved clinical study. Aethlon is also the majority owner of Exosome Sciences, Inc., a company focused on the discovery of exosomal biomarkers to diagnose and monitor life-threatening diseases. Aethlon is part of the Russell Microcap® Index. Additional information can be found online at <u>www.AethlonMedical.com</u> or you can connect with us on Twitter, LinkedIn, Facebook and Google+.

## The Hemopurifier® in Infectious Disease

Emerging pathogens pose a significant threat to mankind. Of the hundreds of viral pathogens known to be infectious to man, only a few are addressed with proven antiviral drug or vaccine therapies. Beyond the looming threat of bioterrorism, a proliferation of international travel, urban crowding and global warming is expected to accelerate the

emergence of future pandemics. In response, the U.S. Department of Health and Human Services (HHS) has established an initiative to support platform technology medical countermeasures with broad-spectrum capabilities. Based on preclinical studies and human treatment experiences, the Aethlon Hemopurifier® defines this initiative.

To date, Hemopurifier therapy has been administered to individuals infected with Ebola virus, Hepatitis C virus (HCV) and the Human Immunodeficiency virus (HIV). In the case of Ebola, a remarkable response to a single administration of Hemopurifier therapy (comatose physician with multiple organ failure at the time), led to Time Magazine naming the Hemopurifier to be one of the "Top 25 Inventions" as well as one of the "Eleven Most Remarkable Advances in Healthcare."

Beyond human treatment experiences, pre-clinical Hemopurifier studies have validated the broad-spectrum capture of numerous viral threats. These include: Chikungunya, Dengue, West Nile and Zika virus, as well as Vaccinia and Monkey pox, which serve as models for human Smallpox infection. Specific to pandemic influenza threats, Aethlon has validated the capture of H5N1 avian flu, H1N1 swine flu, and the reconstructed 1918 influenza virus, which represents a model for the strain of influenza that killed an estimated 50 million victims in 1918 and 1919. *In vitro* studies of other viral threats are ongoing.

#### The Hemopurifier® in Cancer

Upwards of ninety percent of all cancer-related deaths are attributed to metastasis; the spread of cancer from a primary site of origin to other organs or areas of the body. The mechanism of how tumors metastasize to distant sites in the body has long been one of cancer's greatest mysteries. That mystery was recently solved when circulating particles known as tumor-derived exosomes were discovered to be the seeds that promote the spread and growth of cancer metastasis.

Aethlon initiated its tumor-derived exosome research at a time when the medical community believed exosomes were merely cellular debris with no biological function. Today, a therapeutic to address tumor-derived exosomes represents a significant unmet need in cancer care. Aethlon has demonstrated that the affinity mechanism of the Hemopurifier® can capture tumor-derived exosomes underlying several forms of cancer, including breast, ovarian and metastatic melanoma.

Beyond their role in metastasis, researchers have also published mounting evidence that tumor-derived exosomes contribute to tumorigenesis (the formation of cancer), cancer progression, angiogenesis (creation of blood vessels to fuel tumor growth), immune evasion, and resistance to radiation and chemotherapeutic drugs. Recent discoveries also reveal that exosomes may contribute to bacterial and viral pathogenesis, the progression of Alzheimer and Parkinson's diseases, the spread of prion proteins, and numerous inflammatory conditions.

#### **About Exosome Sciences**

Exosome Sciences, Inc., in collaboration with majority shareholder Aethlon Medical (Nasdaq: AEMD), is focused on the discovery of exosomal biomarker candidates to diagnose and monitor life-threatening diseases. The proprietary Enzyme-Linked Lectin-Specific Assay (ELLSA<sup>™</sup>) serves as a platform to isolate exosomal biomarkers from a wide-

range of bodily fluids. In preliminary studies, ELLSA<sup>™</sup> demonstrated the ability to isolate exosomes from urine, which resulted in high-sensitivity detection of HIV-infection. Specific to neurological disorders, Exosome Sciences discovered TauSome<sup>™</sup>, an exosomal biomarker that may be the first non-invasive candidate to detect Chronic Traumatic Encephalopathy (CTE) in living individuals. In a study of former National Football League (NFL) players, TauSome levels were found to be significantly higher as compared to athlete control subjects who participated in non-contact sports. TauSome levels also correlated with cognitive decline based standardized tests of memory and psychomotor speed. Visit <u>www.exosomesciences.com</u> for additional details.

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," 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. Factors that may contribute to such differences include, without limitation, the Company's ability to maintain its listing on the Nasdag Capital Market, or any other national securities exchange, that the Company or its subsidiary will not be able to commercialize its products, that the FDA will not approve the initiation or continuation of the Company's clinical programs or provide market clearance of the Company's products, including any products relating to the Zika or MERS-CoV viruses, the Company's ability to raise capital when needed, the Company's ability to complete the development of its planned products, the Company's ability to manufacture its products either internally or through outside companies, the impact of government regulations, patent protection on the Company's proprietary technology, the ability of the Company to meet the milestones contemplated in its contract with DARPA, product liability exposure, uncertainty of market acceptance, competition, technological change, and other risk factors. 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, 2016, and in the Company's other filings with the Securities and Exchange Commission. 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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