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Aethlon Medical Announces Issuance Of Exosome Capture Patent

SAN DIEGO, June 14, 2016 /PRNewswire/ -- Aethlon Medical, Inc. (Nasdaq: AEMD), announced today that U.S. Patent Number 9,364,601 (the "601 Patent"), related to methods for capturing an exosome from a patient, has been issued to the Company by the United States Patent and Trademark Office. The 601 Patent is an important addition to Aethlon's patent portfolio as it protects lectin-based exosome harvesting, diagnostics and therapeutic applications. In recent years, exosomes have emerged to become significant biomarker and therapeutic targets underlying a wide range of disease conditions, including cancer.



The 601 Patent covers methods of capturing exosomes whereby a patient for exosome capture is identified and an exosome from the patient is bound to a surface that comprises a lectin thereby capturing the exosome. The 601 Patent also covers methods of capturing an exosome whereby an exosome from a patient is contacted with an affinity device that comprises an affinity absorbent comprising a lectin thereby capturing the exosome on the affinity absorbent. The claims of the 601 Patent are not limited to the type of lectin, form of bodily fluid, or disease indication.

"Beyond expanding our intellectual property portfolio, the issuance of this patent reinforces our pioneering diagnostic and therapeutic strategies underlying the emerging field of exosome biology," stated Aethlon chairman and CEO, Jim Joyce.

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. Additional information can be found online at www.AethlonMedical.com or you can connect with us on [Twitter](#), [LinkedIn](#), [Facebook](#) and [Google+](#).

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.

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 and West Nile 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.

Aethlon has also demonstrated that the Hemopurifier captures the bacteria toxins lipopolysaccharide (LPS) and lipoteichoic acid (LTA). These studies were conducted under a contract with the Defense Advanced Research Projects Agency (DARPA) related to the treatment of sepsis.

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™) serves as a platform to isolate exosomal biomarkers from a wide-range of bodily fluids. In preliminary studies, ELLSA™ 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™, 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 www.exosomesciences.com for additional details.

Contacts:

Mike Smargiassi/Brad Edwards
Brainerd Communicators, Inc
212-986-6667
smarg@braincomm.com

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