

Image of Ebola viruses exiting host cells - Courtesy of NIAID

JIM JOYCE - FOUNDER & CEO

NASDAQ - AEMD

COORS FIELD - APRIL 24, 2014



FORWARD LOOKING STATEMENTS

The following presentation may contain predictions, estimates, and other forward looking statements that involve risks and uncertainties, including whether and when our products are successfully developed and introduced; market acceptance of the Aethlon Hemopurifier® and other product offerings; regulatory delays, manufacturing delays, and other risks detailed in our SEC filings, which are accessible at www.sec.gov or on our website: www.AethlonMedical.com

TO ADDRESS UNMET NEEDS IN GLOBAL HEALTH & BIODEFENSE

MISSION

TO SAVE LIVES

OUR LEAD THERAPEUTIC CANDIDATE



A FIRST-IN-CLASS THERAPEUTIC TECHNOLOGY

THE HEMOPURIFIER®

A BROAD-SPECTRUM VIRUS TREATMENT CANDIDATE

DESIGNED FOR THE SINGLE-USE REMOVAL OF INFECTIOUS VIRUSES FROM BLOOD



THE AETHLON HEMOPURIFIER®

An FDA Designated “Breakthrough Device”

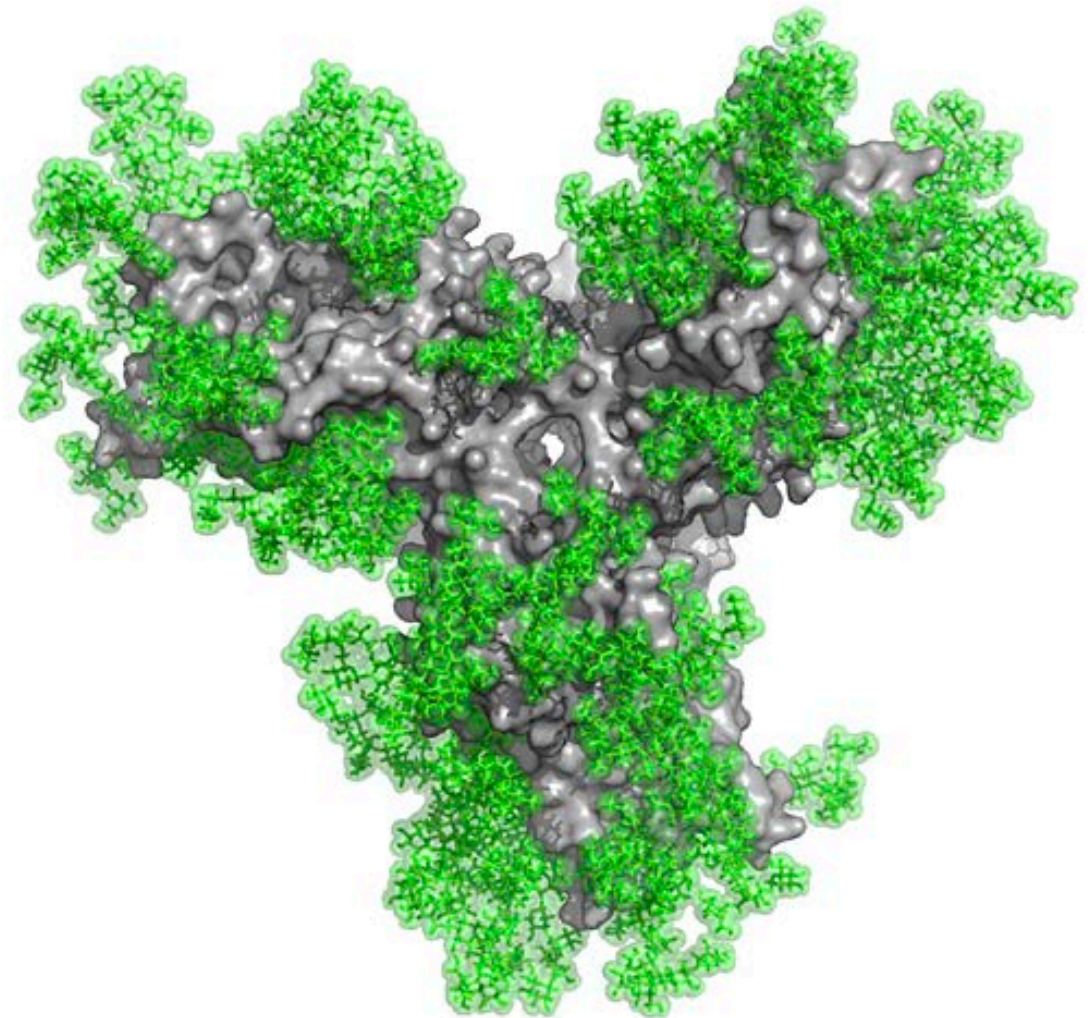


THE UNITED STATES FOOD AND DRUG ADMINISTRATION (FDA) HAS DESIGNATED THE AETHLON HEMOPURIFIER® TO THE “BREAKTHROUGH DEVICE” PROGRAM ESTABLISHED THROUGH THE 21ST CENTURY CURES ACT

HEMOPURIFIER® ATTRIBUTES

RETHINKING THE TREATMENT OF VIRAL PATHOGENS

- STRUCTURE-SPECIFIC NOT DISEASE-SPECIFIC MECHANISM OF ACTION
- GLYCAN SHIELD (THE IMMUNE CLOAK) CAPTURE MECHANISM
- REAL-TIME ELIMINATION OF VIRUSES FROM THE ENTIRE CIRCULATORY SYSTEM
- COMPANION ASSAY REINFORCES MECHANISM PERFORMANCE
- DEPLOYED ON AN ESTABLISHED GLOBAL INSTRUMENT NETWORK



*Image of HIV glycan shield in green
Courtesy of Oxford University*

THE AETHLON HEMOPURIFIER®

FROM THEORETICAL CONCEPT TO CLINICAL REALITY



- FOUR INVESTIGATIONAL HUMAN STUDIES (OUTSIDE U.S.)
 - TREATED HIV, HCV AND EBOLA
 - >16 HIGH-THREAT *IN VITRO* VIRUS CAPTURE VALIDATIONS
- IDE CLEARANCE FROM FDA TO INITIATE U.S. FEASIBILITY STUDY (2013)
- EUA TO TREAT EBOLA BY FDA & HEALTH CANADA (2015)
- CONCLUSION OF FDA HUMAN FEASIBILITY STUDY (2017)
- EXPEDITED ACCESS PATHWAY (EAP) DESIGNATION FROM FDA (2017)
- BREAKTHROUGH DEVICE DESIGNATION FROM FDA (2017)



UNDER THE “BREAKTHROUGH DEVICE” DESIGNATION, THE FDA PERMITTED THE PROPOSED INDICATION FOR USE TO INCLUDE: ***"THE HEMOPURIFIER IS A SINGLE-USE DEVICE INDICATED FOR THE TREATMENT OF LIFE-THREATENING HIGHLY GLYCOSYLATED VIRUSES THAT ARE NOT ADDRESSED WITH AN APPROVED TREATMENT."***



NIAID CLASSIFIES 42 VIRUSES TO BE LIFE-THREATENING CATEGORY A, B OR C PATHOGEN THREATS IN THE UNITED STATES. OF THESE, 40 ARE GLYCOSYLATED, AND OF THOSE 40 VIRUSES, ONLY TWO ARE ADDRESSED WITH AN APPROVED POST-EXPOSURE THERAPY

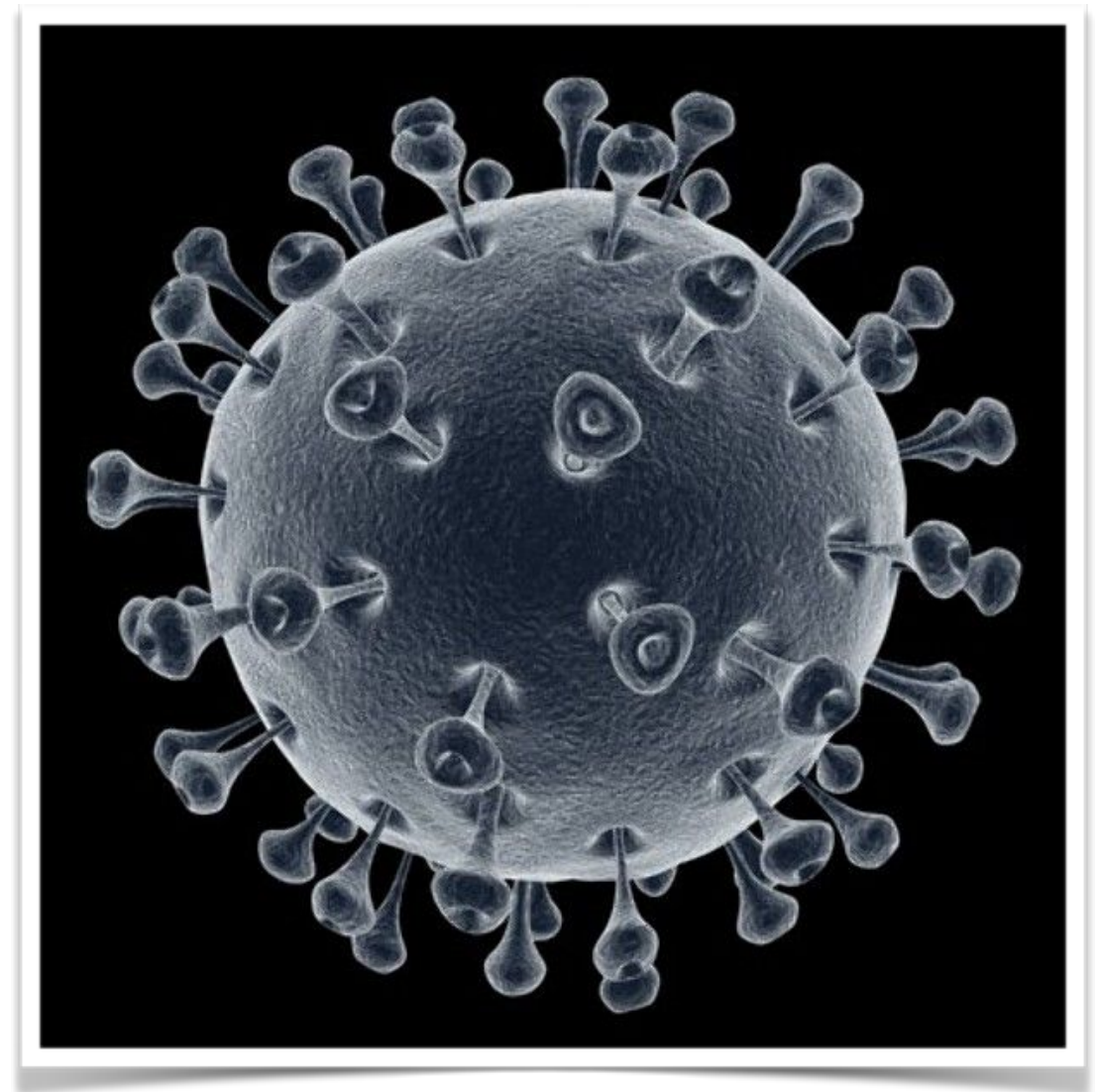
HEMOPURIFIER®

IN VITRO CAPTURE VALIDATIONS

Hemopurifier® in vitro capture validations

Chronic & Latent Viruses

- ☑ Human Immunodeficiency Virus (Aethlon Research Team & Sigma New Life Hospital)
- ☑ Hepatitis C Virus (Aethlon Research Team & Apollo, Fortis, Medicity and Davita Medical Center)
- ☑ Cytomegalovirus (DOD-DARPA)
- ☑ Epstein-Barr Virus (DOD-DARPA)
- ☑ Herpes Simplex Virus-1 (DOD-DARPA)



Hemopurifier® in vitro capture validations

Mosquito-Borne Viruses

- ☑ Chikungunya (National Institute of Virology)
- ☑ Dengue (National Institute of Virology & DARPA)
- ☑ West Nile (Battelle Memorial Research Institute)
- ☑ Zika (Aethlon Research Team)

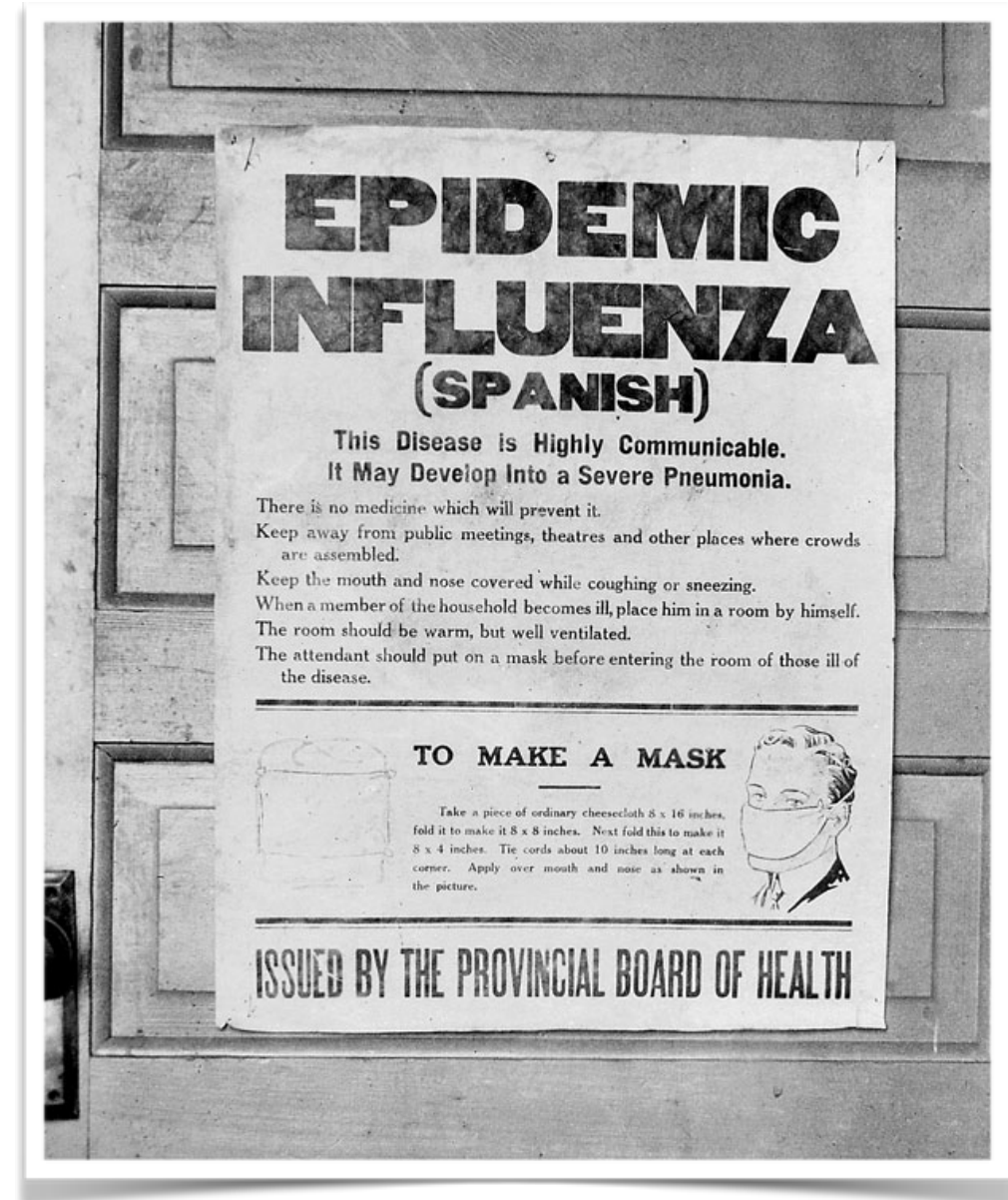


Hemopurifier® in vitro capture validations

Pandemic Influenza Viruses

- ☑ H1N1 Swine Flu (Aethlon Research Team)
- ☑ H5N1 Bird Flu (Battelle Memorial Research Institute)
- ☑ Spanish Flu of 1918-R (Battelle MRI)

Actual Spanish Flu of 1918 pandemic resulted in approximately 50 million deaths worldwide.

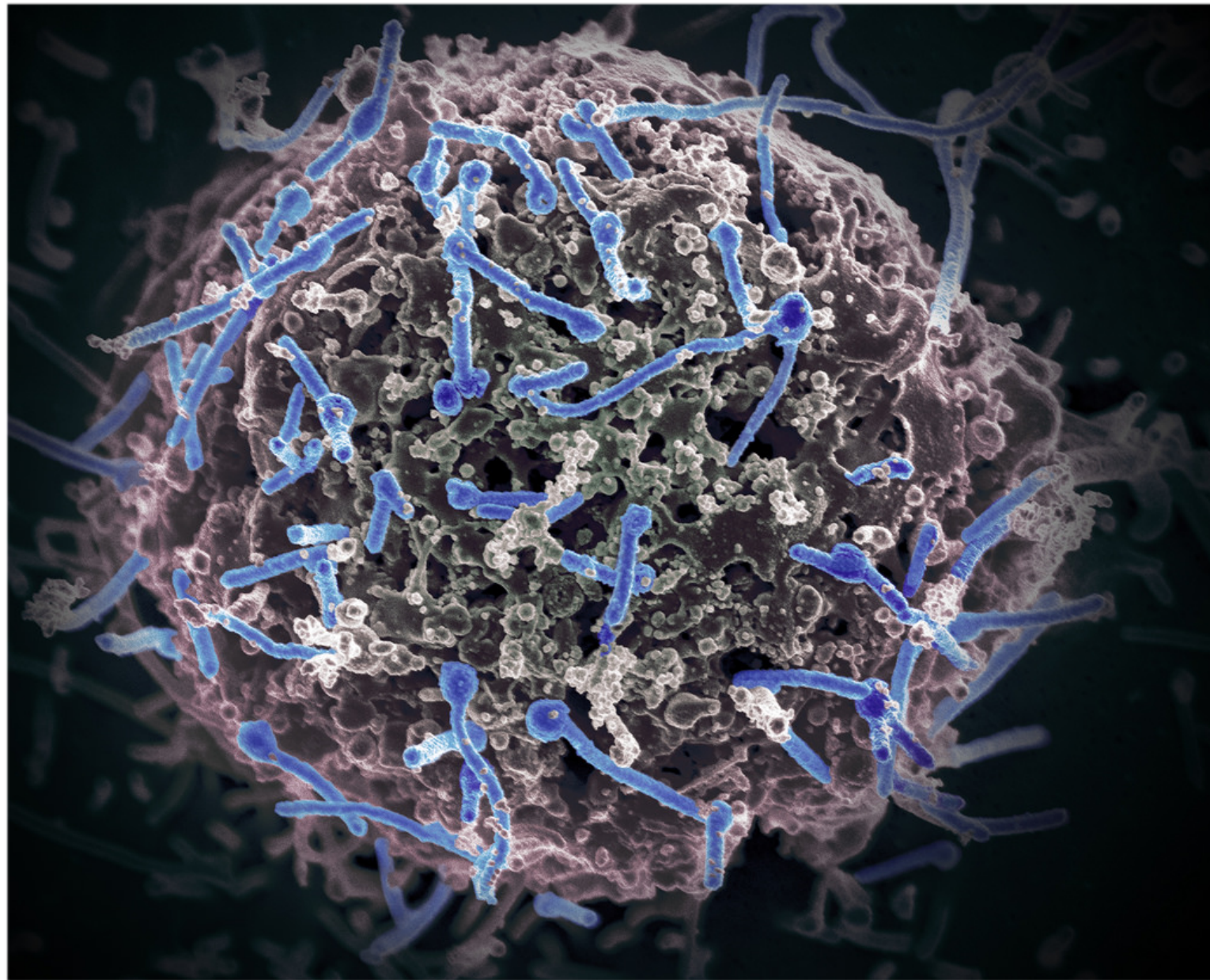


Hemopurifier® in vitro capture validations

Bioterror & Pandemic Threat Viruses

- ☑ Lassa (Southwest Foundation for Biomedical Research)
- ☑ MERS-CoV (Goethe University Research Institute)
- ☑ Smallpox (Battelle Memorial Research Institute)
(based on Monkeypox & Vaccinia models)
- ☑ Ebola (CDC, USAMRIID & Frankfurt University Hospital)





Ebola Image Courtesy of NIAID

THE TREATMENT OF EBOLA VIRUS

A HEMOPURIFIER[®] CASE STUDY



Frankfurt University Hospital



EMERGENCY-USE APPROVAL FROM GERMANY'S FEDERAL INSTITUTE FOR DRUGS AND MEDICAL DEVICES (BfArM) TO ADMINISTER HEMOPURIFIER[®] THERAPY TO AN EBOLA-INFECTED PHYSICIAN AT FRANKFURT UNIVERSITY HOSPITAL.

THE TREATMENT OF EBOLA VIRUS



A SINGLE 6.5-HOUR ADMINISTRATION OF HEMOPURIFIER® THERAPY WAS DELIVERED TO THE PATIENT, WHO WAS COMATOSE WITH MULTIPLE ORGAN FAILURE.

EBOLA TREATMENT RESULTS

PRESENTED AT THE AMERICAN SOCIETY OF NEPHROLOGY ANNUAL MEETING BY
HELMUT GEIGER, M.D., CHIEF OF NEPHROLOGY AT FRANKFURT UNIVERSITY HOSPITAL

- HEMOPURIFIER® THERAPY WAS WELL TOLERATED WITH NO ADVERSE EVENTS
- PRE-TREATMENT VIRAL LOAD PRIOR WAS MEASURED TO BE 400,000 COPIES/ML
- POST-TREATMENT VIRAL LOAD WAS MEASURED AT 1,000 COPIES/ML
- PATIENT MADE A FULL RECOVERY

THE TREATMENT OF EBOLA VIRUS

DR. STEFAN BÜTTNER HOLDING THE
HEMOPURIFIER® AFTER TREATMENT



VIRUS CAPTURE ASSAY RESULT

242 MILLION COPIES OF EBOLA
VIRUS CAPTURED WITHIN THE
HEMOPURIFIER® DURING THE 6.5
HOUR TREATMENT



Analysis: BSL4 Lab
Philipps University Marburg
(O. Dolnik/M. Eickmann/S. Becker)

Blood Purification

Extracorporeal Virus Elimination for the Treatment of Severe Ebola Virus Disease - First Experience with Lectin Affinity Plasmapheresis

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[February 2015](#)

[Abstract](#)

Therapeutic options for Ebola virus disease (EVD) are currently limited to (1) best supportive care, and (2) evolving virus-specific therapies, resulting from decades of analyzing one of the world's deadliest diseases. Supportive care ranges from oral or intravenous rehydration therapy and anti-emetics in developing countries to much more extensive life-support interventions in resource-rich countries. Current EVD-specific therapies attempt to either interfere with the earliest steps of viral replication or to elicit a strong immune response against the virus. An entirely new approach is the extracorporeal elimination of viruses and viral glycoproteins by lectin affinity plasmapheresis. Herein, we report for the first time the successful and safe use of lectin affinity plasmapheresis in a patient with severe Ebola virus disease.

TIME

"TOP 25 BEST INVENTIONS"

"ONE OF THE 11 MOST REMARKABLE ADVANCES IN HEALTHCARE"

THE HEMOPURIFIER® ALIGNS WITH CURRENT U.S. GOVERNMENT INITIATIVES TO PROTECT CITIZENS FROM HIGH-THREAT PATHOGENS



2017-18 Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) Strategy and Implementation Plan



THE AETHLON HEMOPURIFIER®

ALIGNING WITH PHEMCE

- **PHEMCE seeks broad-spectrum Medical Countermeasures that address high-priority threats and also have commercial viability in other medical applications**
 - A broad-spectrum strategy to address known and emerging unknown (or engineered) viral threats
 - An adjunct strategy to augment antivirals or address drug resistance in mainstream viral indications
 - A device strategy to address at-risk children, pregnant women and older adults for whom first line treatment countermeasures may not be recommended
 - Therapeutic application in cancer is being advanced under an NCI contract related to the clearance of circulating tumor-derived exosomes
 - Tumor-derived exosomes represent a significant unmet need in cancer care



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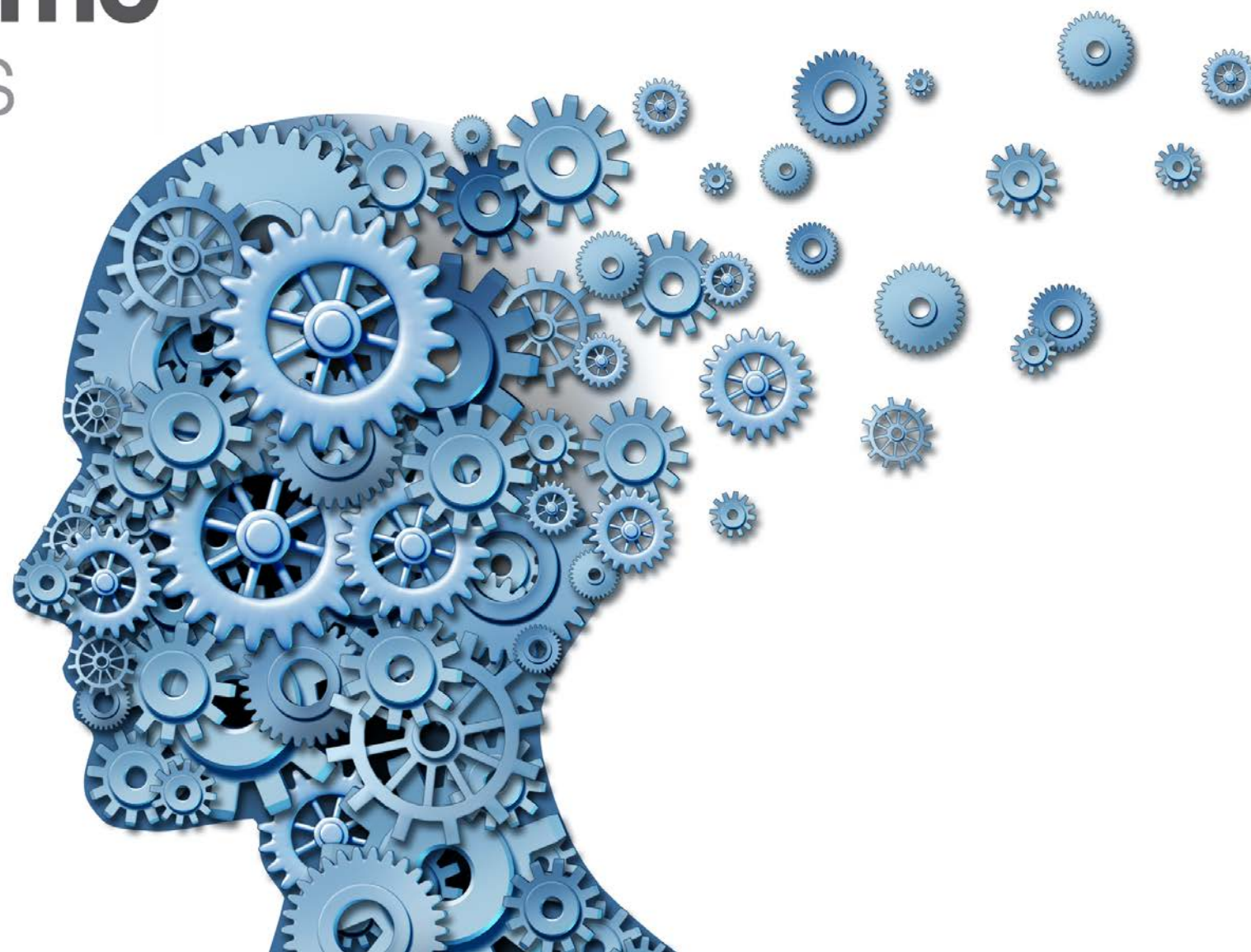


COLLABORATE WITH FDA TO DETERMINE THE
COMMERCIALIZATION PATHWAY UNDERLYING OUR BROAD-
SPECTRUM “BREAKTHROUGH DEVICE” DESIGNATION

AND ADVANCE THE ENDEAVORS OUR OUR
DIAGNOSTIC SUBSIDIARY

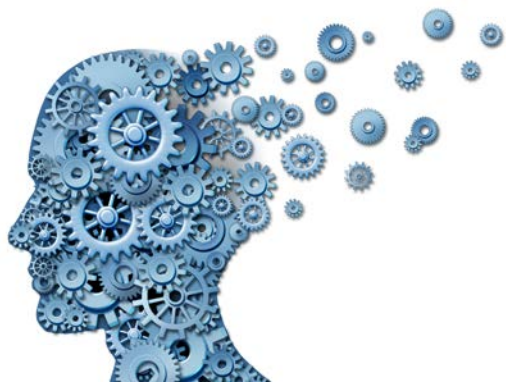


Biomarker discovery
company focused on
diseases that are candidate
therapeutic targets for
Aethlon Medical



80% Owned by Aethlon Medical

A Candidate to Diagnose & Monitor Chronic Traumatic Encephalopathy (CTE) in the Living



CTE RELATED STUDIES

- Our ESI team discovered a biomarker candidate (TauSome) to diagnose CTE (and potentially other tauopathies) in the living
- The TauSome marker was tested in first NIH funded CTE study
 - 9x higher in former NFL players (78 players) as compared to control subjects
 - Alzheimer's group (33 subjects) were 10x higher than control subjects
 - TauSome levels correlated with cognitive decline
 - Published in the Journal Alzheimer's Disease
- Formal launch of a follow-on multi-site study in March 2018
 - Will enroll up to 200 former NFL players
 - Evaluating TauSome levels in blood, urine and saliva
 - Enrollment initiated at first site - Translational Genomics Research Institute (TGEN)

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