# AETHLON MEDICAL, INC.

#### **BIO INVESTOR FORUM**

NASDAQ: AEMD

TIMOTHY C. RODELL, M.D., CHIEF EXECUTIVE OFFICER

**OCTOBER 23, 2019** 



# 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



# AETHLON MEDICAL, INC.

#### MEDICAL DEVICES FOR CANCER AND VIRAL DISEASES

- HEMOPURIFIER®
- EXOSOME SCIENCES, INC.
  - 80% OWNED SUBSIDIARY
  - DIAGNOSTICS FOR CANCER AND CTE

NASDAQ: AEMD



## THE AETHLON HEMOPURIFIER®

DESIGNATED A "BREAKTHROUGH DEVICE" BY FDA



FDA DESIGNATED "BREAKTHROUGH DEVICE" FOR THE TREATMENT OF BOTH LIFE-THREATENING GLYCOSYLATED VIRUSES AND THE REMOVAL OF CANCER PROMOTING EXOSOMES



# THE AETHLON HEMOPURIFIER®

#### USES ESTABLISHED DIALYSIS INFRASTRUCTURE



SELF-CONTAINED CLOSED SYSTEM UNDER DEVELOPMENT



# THE AETHLON HEMOPURIFIER®

### UNIQUE MECHANISM OF ACTION

#### COMBINATION MECHANISM OF ACTION

- SEPARATION BASED ON SIZE
- EXOSOMES AND VIRUSES ARE OF SIMILAR SIZE

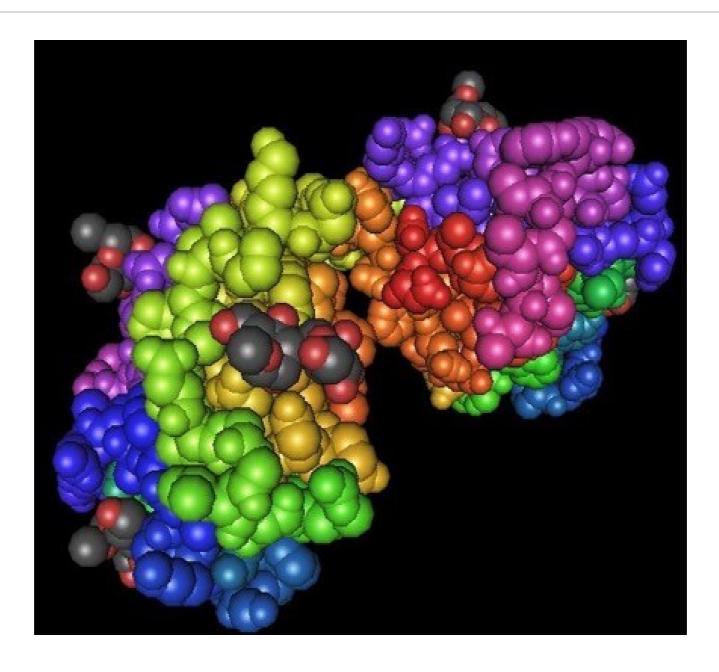
#### LECTIN CAPTURE BASED ON GLYCOSYLATION (SUGARS)

- BOTH EXOSOMES AND MOST VIRUSES DISPLAY SAME SUGAR MOLECULES ON THEIR MEMBRANES
- LECTINS ARE PROTEINS THAT BIND SUGAR
  MOLECULES ON MEMBRANES





# LECTINS BIND MEMBRANE SUGAR MOLECULES



Mannose (sugar) molecules in gray



## HEMOPURIFIER® PROGRAMS

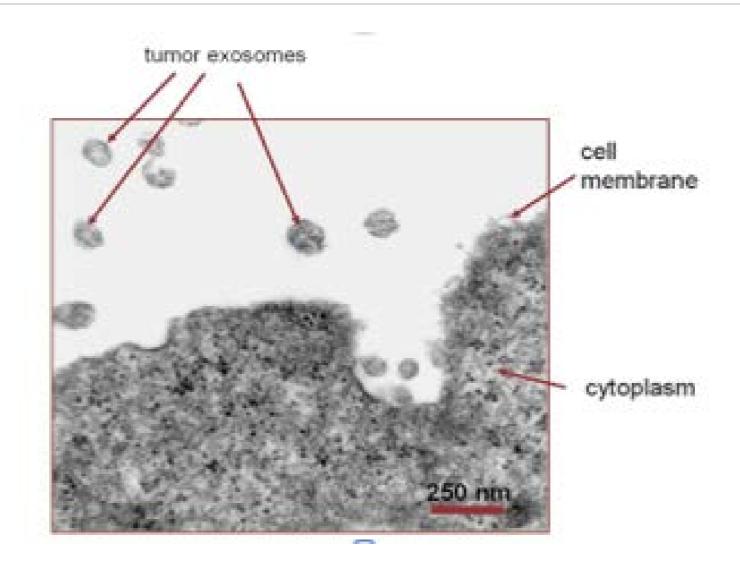
#### **ONCOLOGY**

- CLEARANCE OF CANCER PROMOTING EXOSOMES
- CHEMOTHERAPY RESISTANCE, PROMOTION OF METASTASIS, IMMUNE SUPPRESSION
- SYNERGISTIC WITH CHEMOTHERAPY, IMMUNOTHERAPY, TARGETED AGENTS
- MULTIPLE POTENTIAL CLINICAL TARGETS
  - BREAST, HEAD AND NECK, GASTROINTESTINAL, MELANOMA, ETC.
- Well Characterized Markets, Development Pathways and Endpoints



# TUMOR-DERIVED EXOSOMES (TEX)

#### A SIGNIFICANT UNMET NEED IN CANCER CARE



Exosomes being released by a tumor cell



# NATIONAL CANCER INSTITUTE (NCI) STUDIES

PHASE I CONTRACT FROM NCI - COMPLETED

"DEVICE STRATEGY FOR DIFFERENTIAL ISOLATION OF ONCOSOMES AND NON-MALIGNANT EXOSOMES"

ONGOING NCI SBIR GRANT

"THE HEMOPURIFIER® DEVICE FOR TARGETED REMOVAL OF BREAST CANCER EXOSOMES FROM THE BLOOD CIRCULATION"

SEPTEMBER 2019 – PHASE II NCI SBIR CONTRACT

\$1.8 MILLION OVER 2 YEARS

"Technologies for Differential Isolation of Exosomes and Oncosomes"



## HEMOPURIFIER DEVELOPMENT UPDATE

- MANUFACTURING
  - New CMO qualified
- REGULATORY
  - IDE FOR VIRAL INDICATIONS ACTIVE
    - EXPANDED ACCESS PROTOCOL APPROVED IN U.S. AND CANADA
  - ONCOLOGY IDE APPROVED OCTOBER 2019
- CLINICAL
  - EARLY FEASIBILITY STUDY (EFS) IN HEAD AND NECK CANCER BEING INITIATED



# BREAKTHROUGH DESIGNATION IDE "SPRINT" REVIEW

- FILED SEPTEMBER 5<sup>TH</sup>
- FIRST ROUND OF COMMENTS 3 DAYS LATER
- SIX ADDITIONAL ROUNDS OF COMMENTS
  - SEVEN AMENDMENTS FILED IN 25 DAYS
- APPROVED OCTOBER 4<sup>TH</sup>
  - NOTIFIED @ 4 PM ON LAST DAY OF REVIEW CYCLE



## HEMOPURIFIER® PROGRAMS

#### **ONCOLOGY**

- CLEARANCE OF CANCER PROMOTING EXOSOMES
- SYNERGISTIC WITH CHEMOTHERAPY, IMMUNOTHERAPY, TARGETED AGENTS
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- Well-Characterized Markets, Development Pathways and Endpoints

#### **VIRAL**

- ALL GLYCOSYLATED VIRUSES POTENTIALLY CAN BE CLEARED BY HEMOPURIFIER®
- FDA GRANTED EXPANDED ACCESS FOR EBOLA IN U.S. AND HEALTH CANADA GRANTED EQUIVALENT IN CANADA
- OTHER VIRAL TARGETS



# EXOSOME SCIENCES, INC.

#### DIAGNOSTICS BASED ON EXOSOME DETECTION AND CHARACTERIZATION

- EXOSOMAL TAU PROTEIN CORRELATES WITH EXPOSURE TO TRAUMA IN NFL PLAYERS
   J. Alzheimers Dis. 2016
- CONFIRMATORY STUDY ONGOING AT TGEN
- POTENTIAL DIAGNOSTIC FOR CTE IN LIVING PLAYERS
- ONCOLOGY APPLICATIONS IN DEVELOPMENT
- COLLABORATION WITH HOAG HOSPITAL SYSTEMS SEPTEMBER 2019
  - IDENTIFICATION OF EXOSOMAL MARKERS OF CANCER RISK & PROGRESSION



## SUMMARY

- UNIQUE HEMOPURIFIER® BLOOD PURIFICATION DEVICE
- Two FDA Breakthrough designations
- Multiple therapeutic targets in cancer and viral disease
- Management team with over 100 years healthcare experience
- EXOSOME SCIENCES SUBSIDIARY
  - DIAGNOSTICS IN CANCER AND NEURODEGENERATIVE DISEASE
- NASDAQ: AEMD





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# SEASTAR CROSS LICENSE AGREEMENT

- EXECUTED JULY 2019
- CROSS LICENSE TO SEASTAR CARTRIDGES AND HEMOPURIFIER®
- PROVIDES FOR CO-DEVELOPMENT TO EXPAND TARGET MARKETS
- INITIAL TARGETS ORGAN PRESERVATION AND TRANSPLANT



## **AETHLON LEADERSHIP**

## TIMOTHY C. RODELL, M.D., CHIEF EXECUTIVE OFFICER

PHYSICIAN SCIENTIST WITH > 30 YEARS OF DEVELOPMENT EXPERIENCE IN PUBLIC & PRIVATE COMPANIES, 3 IPOs IN U.S. AND ABROAD, 10 PRODUCTS FROM BENCH THROUGH LATE STAGE CLINICAL TRIALS

## CHARLES J. FISHER, JR., M.D., CHAIRMAN

- ACADEMIC & INDUSTRY THOUGHT LEADER IN SEPSIS & INFLAMMATION
- HEAD OF CRITICAL CARE CLEVELAND CLINIC
- SENIOR EXECUTIVE LILLY, ABBOTT, CARDIOME

## JAMES B. FRAKES, CHIEF FINANCIAL OFFICER

29 YEARS OF PUBLIC COMPANY CFO EXPERIENCE, INVESTMENT BANKING & VC

