aethlon MEDICAL, INC.

**NASDAQ: AEMD**

# H.C. Wainwright 22nd Annual Global Investment Conference
# September 2020

**Timothy C. Rodell, M.D., CEO**
**Charles J. Fisher, Jr., M.D., Chairman**
**James B. Frakes, CFO**

# 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, delays in our clinical trials, and other risks detailed in our SEC filings, which are accessible at www.sec.gov or on our website: www.AethlonMedical.com**

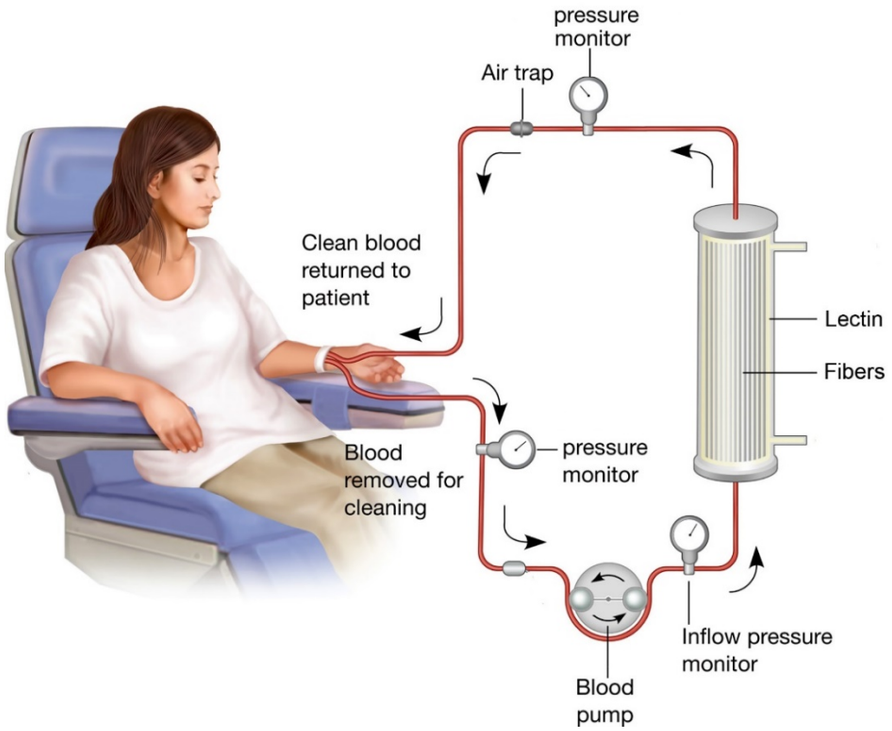
# Aethlon Medical

- Hemopurifier for oncology and viral diseases
- Experienced management team
- Strong cash position
- Non-dilutive NCI funding for multiple programs
- Exosome Sciences subsidiary
  - Diagnostics for cancer and CTE / neurogenerative disease
- Based in San Diego

# The Aethlon Hemopurifier®


- Two FDA "Breakthrough Device" designations
  - Safety in over 120 patient treatments
  - Proprietary mechanism of action
  - Clears life-threatening glycosylated viruses
  - Clears cancer promoting exosomes

# Hemopurifier® Design




- Hollow-fiber plasma separator filled with proprietary affinity resin in the extra-capillary space outside of cartridge fibers
- Captures enveloped viral pathogens and exosomes in circulating blood based on size and glycosylation



- Used with either dialysis or CRRT machine. Proprietary pump closed system being evaluated
- Capture of glycosylated particles contrasts with clearance of inflammatory mediators by other extracorporeal cartridges

# Pipeline

| Indication | Pre-Clinical | Early Feasibility | Pivotal | Approved |
|---|---|---|---|---|
| **Oncology** | | | | |
| Head & Neck | → | → | | |
| Other Solid Tumors | → | | | |
| **Viral Infection** | | | | |
| COVID-19 | | → | | |
| HCV | | → | → | |
| HIV | | → | | |
| Ebola | | → | | |
| Other | → | | | |

# Hemopurifier® Programs

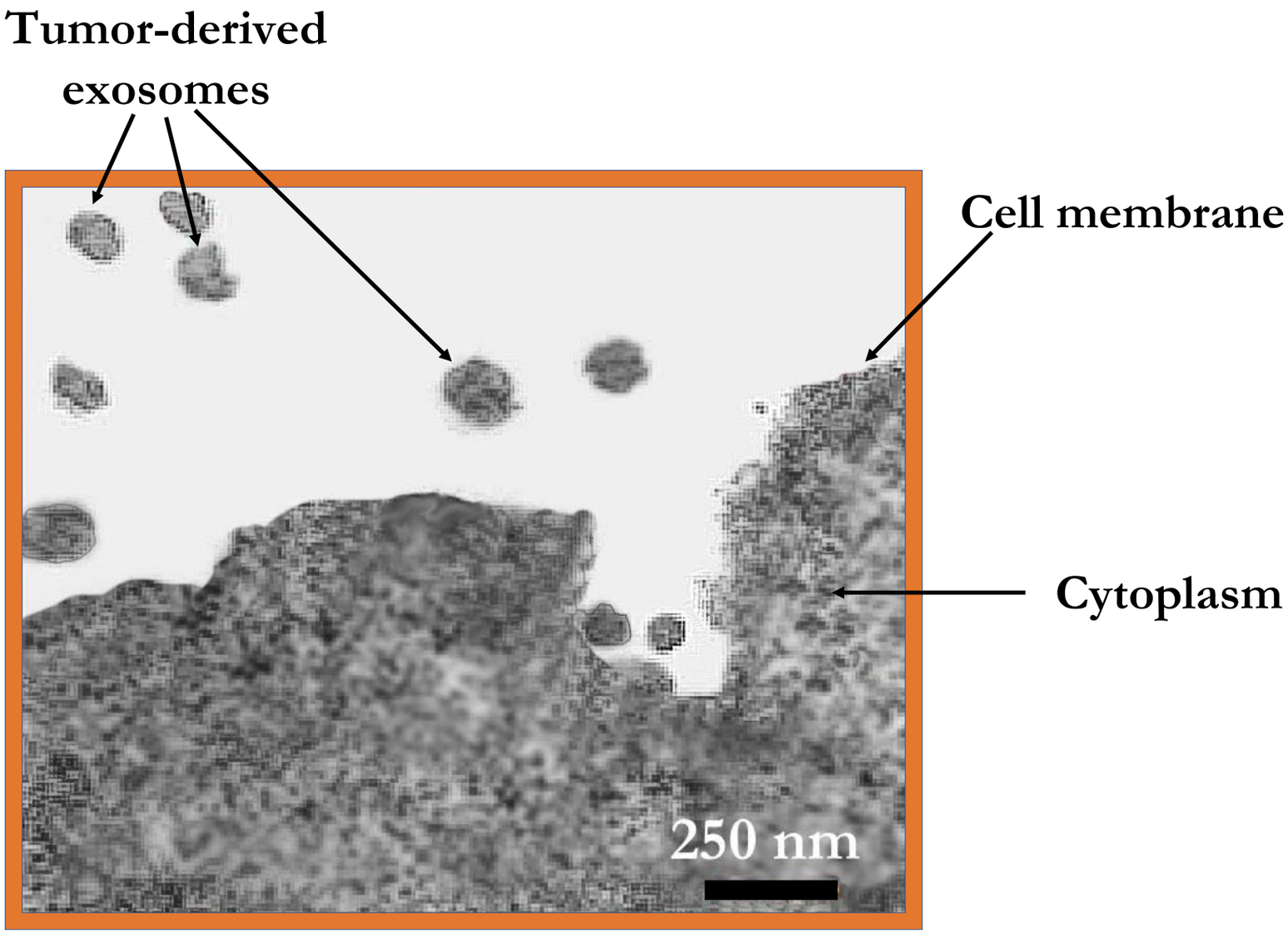
## Oncology

- Clearance of cancer promoting exosomes
- Potentially synergistic with chemotherapy, immunotherapy, targeted agents
- Multiple potential clinical targets
  - Breast, head and neck, gastrointestinal, melanoma, other solid tumors
- Well characterized markets, development pathways & endpoints
- Early feasibility study (EFS) in head and neck cancer being initiated

# What are Exosomes?

- Extra-cellular particles shed from both normal and malignant cells
- Primary means of intra-cellular communication
- Tumor derived exosomes (TEX)—released by tumor cells that promote
  - Metastasis, chemotherapy/targeted therapy resistance, immune suppression
  - Major mechanism of resistance to immuno-oncology CPIs
- No existing treatment for depleting tumor-derived exosomes
- Also involved in viral disease – inflammation, coagulopathy
- Hemopurifier® may represent first candidate capable of clearing exosomes

# Tumor-derived Exosomes (TEX)




**Exosomes being released by a tumor cell**

# National Cancer Institute 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"*

- **Phase II NCI SBIR Contract — September 2019**
  - **$1.8 million over 2 years**

  *"Technologies for Differential Isolation of Exosomes and Oncosomes"*

- **NIDCR RO1 — July 2020**
  - **Collaboration with University of Pittsburgh, MGH, UHawaii**
  - **$3.5 million over 5 years**

  *"Depleting exosomes to improve responses to immune therapy in head and neck squamous cell carcinoma"*

# EFS in Head and Neck Carcinoma

- NCT #04453046
- University of Pittsburgh Hillman Cancer Center
- 10-12 subjects with advanced or metastatic HNSSC
- Combination with SoC pembrolizumab (Keytruda®)
  - Keytruda approved June 2019 in frontline setting
- 4-hour Hemopurifier treatment immediately prior to Keytruda
- Endpoints: Safety, exosome clearance and characterization
  - ORR, PFS, OS
- IRB approved—start up in progress

# Hemopurifier® Treatment of Viral Infections

- Demonstrated clearance of multiple different viruses *in vitro*
    - HIV, dengue, West Nile, influenza, Ebola, herpes, MERS
- Safety and viral clearance in four human clinical trials in HCV
- Over 120 successful applications in humans with HCV with no safety issues
- Single patient treatments in Ebola and HIV
    - Open protocol for emergency use in US and Canada for Ebola
    - IDE Supplement for COVID-19 approved June 2020

# Hemopurifier® Treatment of SARS-CoV-2/COVID-19

- Circulating virus correlates with cytokine levels and poor outcome
- Hemopurifier has been shown to clear MERS, another coronavirus
- Clears SARS-CoV-2/COVID-19 glycoproteins
- IDE supplement for COVID-19 approved June 17, 2020
- New Feasibility Study starting
- Approved for 20 sites—40 patients in total
- ICU patients with severe or life-threatening symptoms and central IV access
- Patients already being treated under Single Patient Emergency Use regulations

# Aethlon Leadership

**Timothy C. Rodell, M.D., FCCP, Chief Executive Officer**

- Physician scientist with over 30 years development experience in public and private companies
- 10 products from bench through late stage clinical trials

**Charles J. Fisher, Jr., M.D., FACP, FCCP, FCCM, Chairman**

- Academic & Industry thought leader in sepsis & inflammation
- Head of critical care—Cleveland Clinic
- 35 years industry development experience
- Senior executive—Lilly, Abbott, Cardiome

**James B. Frakes, Chief Financial Officer**

- 29 years public company CFO experience
- Investment banking & venture capital

**Thomas L. Taccini, VP Manufacturing & Product Development**

- Over 35 years experience in engineering
- Product development and quality systems

# Strong Cash Position

- June 30, 2020 Company's cash balance was approximately $15.7 million
- No debt
- NASDAQ: AEMD ~12 million shares outstanding

# Upcoming News 2020-2021

## Aethlon Hemopurifier®

- IDE supplement approved for SARS-CoV-2/COVID-19 ✓
- Emergency treatment of SARS-CoV-2/COVID-19 patients ✓
- EFS initiated for head and neck cancer
- Initiation of SARS-CoV-2 trial
- Early clinical data from EFS trials
- Proof of concept for other solid tumors

# 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

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