H.C. Wainwright 25th Annual Global Investment Conference

September 2023

Nasdaq: AEMD

www.AethlonMedical.com

FORWARD LOOKING STATEMENTS

This investor presentation contains forward-looking statements, as that term is defined in the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact contained in this presentation are forward-looking statements, including, without limitation, statements regarding: our ability to enroll patients in our ongoing and planned clinical trials; our ability to successfully complete our clinical trials and achieve the endpoints for the trials, or any future clinical trials with our Hemopurifier or to successfully develop and commercialize the Hemopurifier; our ability to demonstrate the removal of exosomes with the Hemopurifier; the potential synergistic use of the Hemopurifier with chemotherapy, immunotherapy and targeted agents; the ability to demonstrate the removal of SARS-CoV-2/COVID-19 or other viral glycoproteins with the Hemopurifier; our ability to successfully demonstrate the benefit of our Hemopurifier in the organ transplant setting; and our ability to raise additional capital and to maintain our listing on Nasdaq; and our ability to establish and maintain collaborations. These forward looking statements are subject to a number of risks, uncertainties and assumptions, including, but not limited to: the timing and success of our clinical trials and preclinical research with the Hemopurifier in the organ transplant setting; our ability to enroll patients in our ongoing and planned clinical trials on a timely basis, or at all; our dependence on our CRO and other third parties; our ability to manufacture our Hemopurifiers for our clinical trials; our ability to obtain regulatory approvals within the timeframes expected, or at all; complications associated with product development and commercialization activities; the size and growth of the market(s) for the Hemopurifier and the rate and degree of market acceptance thereof; our ability to raise additional capital; our ability to remain on Nasdaq; and our ability to attract and retain key management, and members of our board of directors. In light of these risks and uncertainties, and other risks and uncertainties that are described in the Risk Factors section of Aethlon's Form 10-K filed with the SEC on June 28, 2023, subsequent filings with the SEC on Forms 10-Q and 8-K, and other filings that Aethlon makes with the Securities and Exchange Commission from time to time (which are available at http://www.sec.gov), the events and circumstances discussed in such forward-looking statements may not occur, and Aethlon's actual results could differ materially and adversely from those anticipated or implied thereby. Any forward-looking statements speak only as of the date of this presentation and are based on information available to Aethlon as of the date of this presentation.

Investment Highlights

- Focused on combating cancer, infectious diseases and organ transplantation with development of first-in-class immunotherapeutic technology
- Led by seasoned industry executives with extensive development and commercialization experience
- The Aethlon Hemopurifier® has demonstrated the capture of disease promoting extracellular vesicles (EVs), including exosomes, and circulating viruses in clinical trials and emergency use
- Hemopurifier designated as a "Breakthrough Device" by U.S. Food and Drug Administration for two indications
- Solid cash position and no debt

Key Financial Highlights

- Approximately $12.9 million in cash as of June 30, 2023
- No debt on balance sheet
- Approximately 24.8 million shares outstanding
- Market capitalization of $7.2 million, as of August 21, 2023
- Trading on Nasdaq under the ticker AEMD

Senior Management Team Has Extensive Experience With Both Medical Devices And Therapeutics

Charles J. Fisher, Jr., MD, FACP, FCCP, FCCM, Chief Executive Officer

- Academic & Industry thought leader in sepsis & inflammation
- Head of critical care—Cleveland Clinic
- 35 years industry development experience
- Senior executive—Lilly, Abbott, Cardiome
- US Army Special Operations, Colonel (retired)

James B. Frakes, MBA, Senior VP & Chief Financial Officer

- Over 30 years public company CFO experience
- Investment banking & venture capital

Steven P. LaRosa, MD, Chief Medical Officer

- 25 years Clinical and Research experience in Infectious Diseases, Critical Care, Coagulation, Inflammation, and Extracorporeal Devices

Guy Cipriani, MBA, Senior VP & Chief Business Officer

- 20 years transactional and operational experience with public and private biotech & device companies

Lee Arnold, PhD, Chief Scientific Officer

- Over 30 years experience in molecularly-targeted drug discovery
- 94 published patents and applications, and more than 39 peer-reviewed publications

Companies

Abbott

Lilly

Johnson & Johnson

TORAY
Innovation by Chemistry

CARDIOME
inspiring science

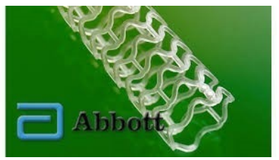
ENTASIS THERAPEUTICS

CASCADIAN THERAPEUTICS

EXTHERA MEDICAL

Example Products

HUMIRA®
adalimumab

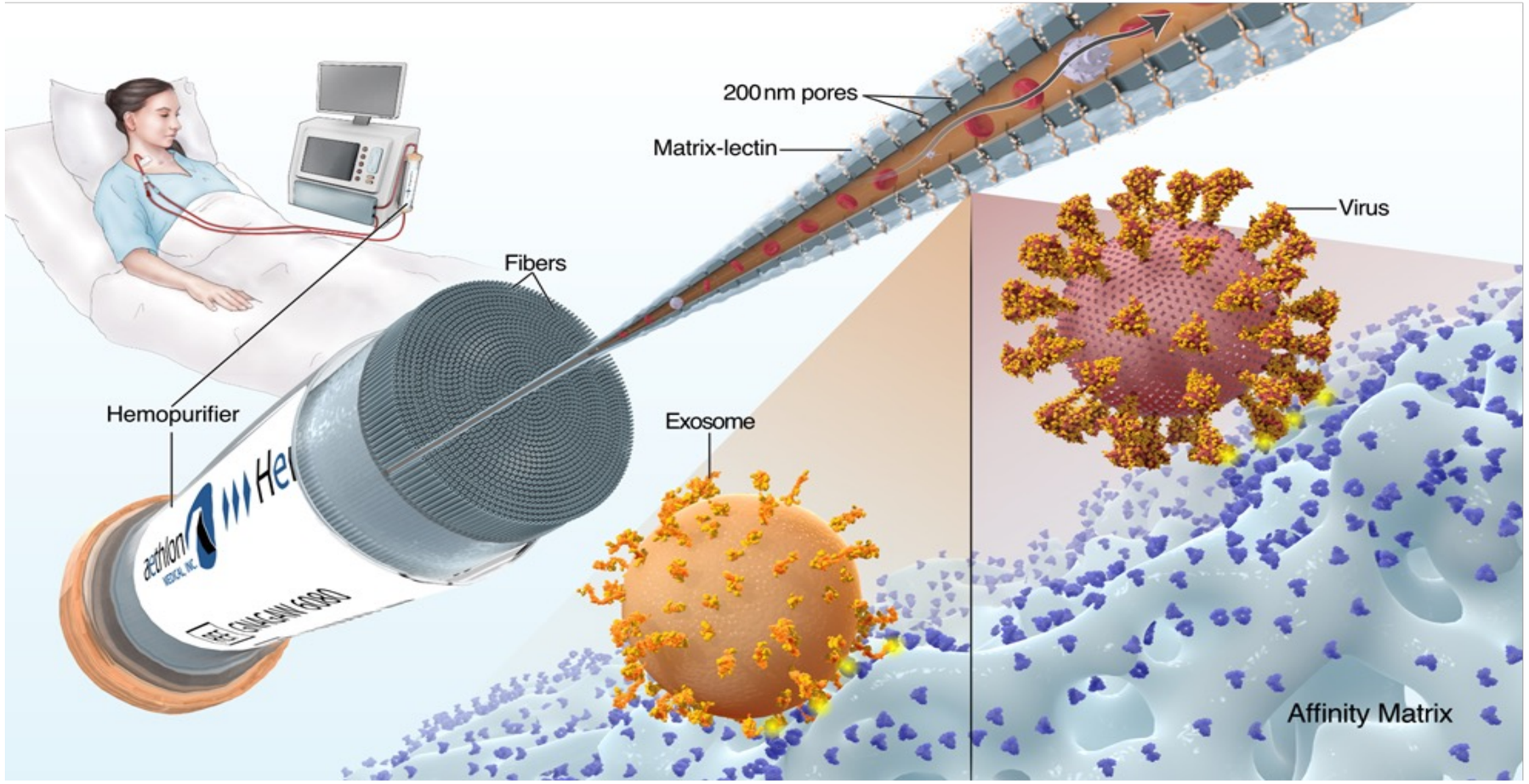


The Aethlon Hemopurifier®

FDA Designated “Breakthrough Device” In Viral And Oncology Indications

- Safely administered in 156 Hemopurifier sessions in 36 patients
- Proprietary, patented technology
- Clears life-threatening viruses
- Designed to clear tumor-derived EVs (Oncology)

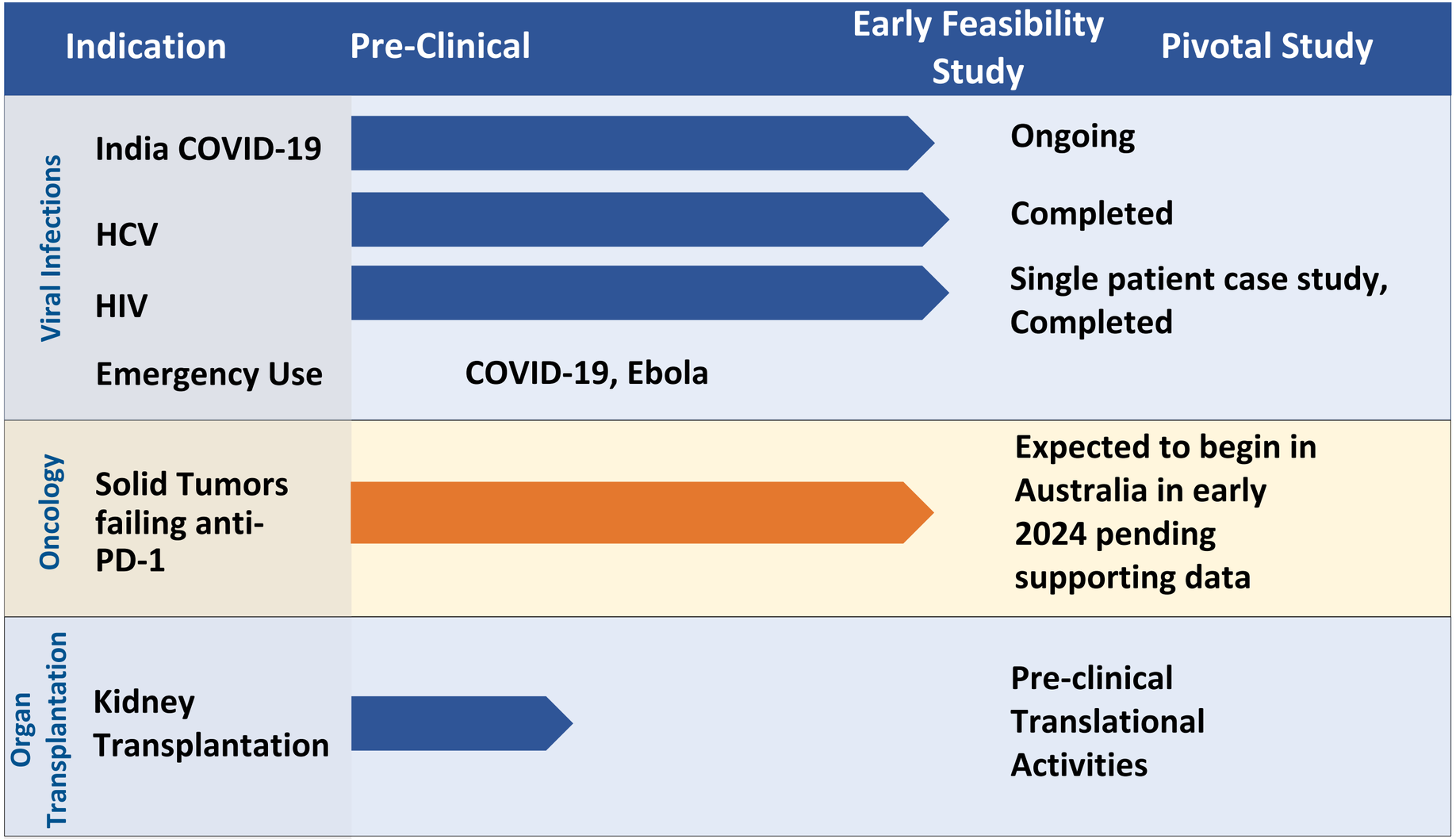
The Hemopurifier Captures Viruses And Extracellular Vesicles From A Patient's Blood Via Extracorporeal Circuit



Potential Therapeutic Applications:

- Cancer
- Life-threatening viral infections
- Organ Transplantation

Pipeline Targeting Multiple Indications



Rationale Exists For The Removal Of Tumor-derived Extracellular Vesicles (EVs) By Aethlon's Hemopurifier To Treat Cancer

Exosomes are 50-150nm extracellular vesicles (EVs) that are released by all cell types, including tumor cells

Specifically, EVs:

- Have been shown to contribute to the spread of cancer (metastases)
- Play a role in immune system evasion by the tumor
- Facilitate chemotherapy resistance
- Interfere with antibody-based treatments (e.g., PD-1 antibody therapies such as Keytruda)

Removal of harmful EVs may enhance existing cancer treatments

Aethlon's Hemopurifier has demonstrated EV clearance in vitro and in patients

In Vitro Removal Of Cancer-Derived EVs Has Been Demonstrated

- A scaled down version of the Hemopurifier was operated by recirculating samples of cancer patients' plasma through the hollow fiber filters
- The EVs remaining in plasma were quantified
- The scaled down Hemopurifier was effective for clearing **92-99%** of EVs
- Demonstrated capture from diverse tumor types including **head and neck** cancer, **melanoma**, **ovarian** cancer, **esophageal** cancer and **breast** cancer

Aethlon is exploring the therapeutic potential of removing tumor-derived EVs in cancer patients with the Hemopurifier

Marleau AM, et al.; Cancer Res 2020;80(16 Suppl):Abstract nr 4509.

Clinical Development Plans Underway In Oncology

- A new clinical trial in oncology is planned to include multiple tumor types, as well as dosing intervals, to help direct the development of Aethlon's Hemopurifier as a treatment option in oncology

- Aethlon has contracted with NAMSA, a major global CRO, to direct the planned oncology study in Australia and the U.S.

- Exploring oncology trial in India

Recent Scientific & Clinical Literature Provide A Rationale For Hemopurifier Treatment In Severe COVID –19 Infections

- COVID viremia is detected in **~34% of patients** and is associated with severity, requirement for ICU stay, development of multi-organ failure and poor outcomes
- Direct viral injury to non-pulmonary organs has been noted in a COVID post-mortem study
- **Viremia** in COVID is associated with **immune dysregulation**, **endothelial injury**, **coagulopathy** and **complement activation**
- **EVs** and exosomal miRNAs may play a role in the **spread of infection** as well as ongoing **inflammation**, development of **coagulopathy** and **lung injury**
- Aethlon's proprietary Affinity Resin has been shown to bind multiple **clinically relevant SARS-CoV-2 variants**

Demonstrated removal of SARS-CoV-2, EVs and exosomal miRNAs in patients treated with the Hemopurifier

In Vitro Removal of clinically relevant SARS-CoV-2 variants by an affinity resin containing *Galanthus nivalis* agglutinin (GNA)

- **Columns packed with 1gm of GNA affinity resin**
- **5ml of COVID variant in PBS buffer at a concentration of 1 X 10^4 PFU/ml= 5X10^4 PFU challenge**
- **Viral suspension passed over the column 3X**
- **Viral removal calculated and compared to control**

Table 2. Average Column Capture Efficiency for SARS-CoV-2 Variants

Variant ID	Capture Efficiency (%)
NR 54009 (South Africa)	69.3 ± 11.4
NR 54000 (UK)	69.8 ± 4.7
NR 54982 (Brazil)	89.0 ± 3.7
NR 55672 (B.1.672 Delta)	78.8 ± 1.9
NR 55657 (Lambda)	70.5 ± 3.6
NR 55691 (AY.1 Delta)	53.2 ± 11.6
NR 56461 (Omicron)	89.9 ± 2.1

PLoS One. 2022; 17(7): e0272377.

In Vivo Removal of SARS-CoV-2 in an Emergency Use Patient

Viremic patient in the ICU with critical disease

- Request received from Hoag Newport Beach Hospital (Usman Shah, M.D.) on 14 Jan 2021
- 67-year-old male with PMH of Tetralogy of Fallot, CAD and DM admitted on 6 JAN 2021 with hypoxia and SOB
- Confirmed diagnosis of COVID-19 by PCR
- Progressed to multi-organ system failure (CV, Respiratory and Kidney) despite Remdesivir, Dexamethasone, Convalescent plasma, Baricitinib and full dose anticoagulation
- Required two vasopressors to maintain blood pressure
- On mechanical ventilation in the prone position with FIO2 of 90% and PEEP on 8
- On CRRT for renal replacement therapy
- SOFA score 13-Predicted risk of mortality ~80%

Decrease in COVID-19 viral load following Hemopurifier treatment; Hemopurifier treatment was well tolerated

Evidence of SARS-CoV-2 Capture and Clearance by Hemopurifier

- Independent Physician Assessment confirmed request for emergency use 14 JAN 2021
- IRB approval and Signed Inform Consent obtained (14 JAN 2021)
- Patient underwent 6-hour 15minute Hemopurifier session between (0645-1300 hours)
- **No cartridge evidence of hemolysis or thrombosis**
- Patient had fluctuating BP and required increased O2 during session
- **Patient Removed from Hemopurifier without incident**
- Blood pressure noted to start dropping after new CRRT circuit placed with precipitous drop in Oxygenation and BP at 1400 hours
- Patient developed refractory shock and hypoxia ad expired due to a PEA arrest at 1549

ESTIMATE HEMOPURIFIER CAPTURE

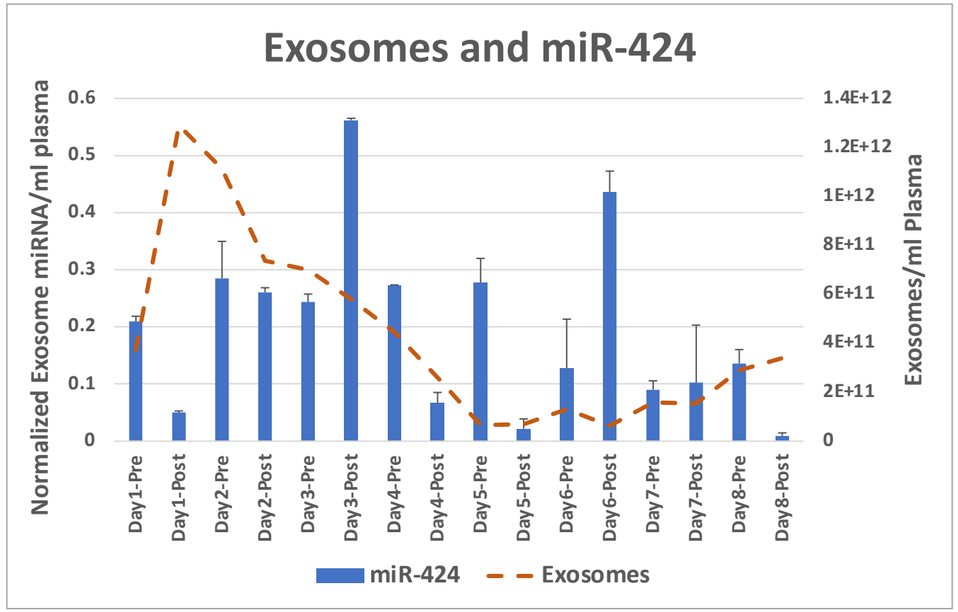
	1 PCR Rxn	Total RNA	Total Trizol	**Total Hemopurifier**
	5µl/rxn		200/1ml	**Elute Copies**
HP-P2Eluent	242.1		x200	**5.8E+5**

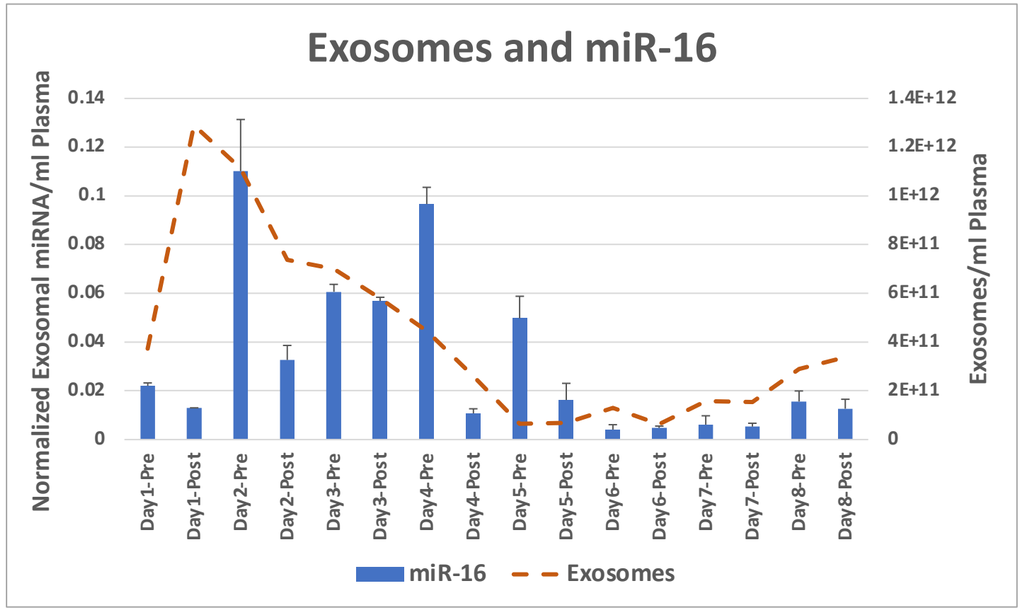
PLASMA VIRAL COPIES NORMALIZED TO RNASEP

	1 Rxn	Total RNA	Plasma	RNAseP	**Plasma**
	5µl	45/5µl	1/0.14ml	Normalization	**Copies/ml**
Pre-plasma	24.3	x9	x7.14	x1	**1558.6**
Post-plasma	29.5	x9	x7.14	x0.34	**648.1**

Demonstrated Reduction Of Total EVs And Harmful Cargo In An Emergency Use COVID-19 Patient Treated With Hemopurifier

Total EV's and Exosomal miRNA over time:





miR-424 is associated with COVID-associated coagulopathy (excessive blood clotting)

miR-16 is associated with acute lung injury

*COVID-19 plasma viral load was undetectable at onset of Hemopurifier treatment

Amundson DE, et al. Front Med (Lausanne) 2021;8:744141

COVID-19 India Trial Update: Treatment Of SARS-CoV-2 Infection In Humans With Hemopurifier Device

- Regulatory agency in India has approved the use of Hemopurifier devices for clinical trial use
- Studying ICU patients with severe or life-threatening disease
- Designed to include up to 15 patients at up to three centers
- One patient enrolled and treated
- Trial remains open for enrollment
- Recently received Ethics Board Approval for a second hospital site in India

Hemopurifier Clinical Development Summary

Oncology

- Safety, feasibility and dose finding study in solid tumors failing anti-PD-1 antibodies
- To be initiated first in Australia and then in the United States

Viral Infections

- Clinical trial of Hemopurifier in severe COVID-19 infection
- Currently underway in India

Organ Transplantation: Viral Therapeutic Targets

- **Human viruses:**
  - CMV
  - EBV
  - HBV
  - HCV
  - HIV
  - HSV
  - VZV
  - HHV 6,7, 8
  - SARS-CoV2 Spike Protein
  - SARS-CoV2
- **Porcine Viruses (Xenotransplant):**
  - Porcine Endogenous Retroviruses (PERVs) A, B, C
  - Porcine CMV (pCMV)
  - Porcine Lymphotrophic Herpes Virus (pLHV)

Extracellular Vesicles are Implicated in Ischemia Reperfusion Injury and Impact Delayed Graft Function (DGF)

- Delayed Graft Function is the need for dialysis in the 1st week post kidney transplant
- DGF occurs in 23-34% of patients getting kidneys from deceased donors
- Gremmels and Van Balkom noted a difference in 10 kidney perfusate extracellular vesicle (KP-EV) miRNAs in delayed graft function vs those with immediate function. RNA within KP-EVs from living donors not detectable (Transplant Direct 2019;5 (9):e484.)
- Woud et al. found increasing KP-EV concentrations during the course of normothermic machine perfusion (NMP). KP-EV subsets correlated with donor age, cold ischemia time and renal blood flow (positive correlation with CD31+EVs) (Transplantation 2022;13:784374.)
- Rutman et al. found KP-EVs:
  - Were < 400nm
  - Had donor HLA markers
  - KP EVs in patients with DGF increased Th17/T reg ratios in PBMCs compared with KP-Evs from IF
  - Mir-218-5p is increased in KP-EVs with DGF
  - EVs enriched with miR-218 were associated with delayed graft function. miR-218 leads to increase Th17/T reg ratio suggesting a role in creating a pro-inflammatory state (Front Immunol 2022;13:784374.)

Extracellular Vesicles are Implicated in Acute Organ Rejection

- Leading hypothesis is that EVs from organ donors carrying MHC molecules are implicated in acute rejection
- Kumar and colleagues have demonstrated that donor EVs containing mismatched HLA and Tissue ags were implicated in Lung transplant rejection (Am J Transpl 2017;17 (2):474-478.)
- In a mouse skin transplant model- allograft –derived EVs bearing intact MHC molecules (CD63+ and CD9+CD81+) are able to cross-decorate and activate alloreactive recipient B cells (Sci Transl Med. 2021; 13(585): eabb0122.)

Pre-Clinical Translational Activities in Transplantation

Examining:

- The compatibility of machine perfusion solution with Hemopurifier
- Removal of Hepatitis C virus from viremic organs by Hemopurifier
- Removal of EVs and exosomal cargo in organ perfusates by Hemopurifier
- The downstream effect of exosomal cargo removal on inflammatory state and organ function

Investment Summary

- Developing novel, patented Hemopurifier blood purification device
  - Early clinical trials have demonstrated virus and EV clearance both in vitro and in patients
- Granted two FDA “Breakthrough Device” designations
- Focused on multiple therapeutic targets in cancer, viral disease and organ transplantation
  - Solid tumors failing anti-PD1
  - COVID-19
  - Translational studies underway in organ transplantation
- Ongoing and planned U.S. and international clinical trials (India, Australia)
- Experienced management team and solid cash position

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www.AethlonMedical.com

This 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