H.C. Wainwright 24th Annual Global Investment Conference Presentation

September 2022

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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 the Early Feasibility Studies; the ability to successfully complete the Early Feasibility Studies and achieve the endpoints for the studies, or any future studies with the Hemopurifier or to successfully develop and commercialize the Hemopurifier; the 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 glycoproteins with the Hemopurifier; the potential initiation of a SARS-CoV-2 clinical trial; the ability to establish collaborations and to raise capital; and financial strength and guidance. These statements are subject to a number of risks, uncertainties and assumptions, including, but not limited to: the risks associated with Covid-19 and other pandemic risks; the timing and success of Aethlon's studies and trials; our ability to enroll patients in our studies and trials on a timely basis, or at all; the Early Feasibility Studies and potential safety and other complications thereof; the ability to obtain regulatory approval within the timeframe expected, or at all; complications associated with product development and commercialization activities; the scope, progress and expansion of developing Aethlon's product candidates; the size and growth of the market(s) therefor and the rate and degree of market acceptance thereof vis-à-vis alternative therapies; and Aethlon's ability to attract or retain key management, members of the board of directors and personnel. In light of these risks and uncertainties, and other risks and uncertainties that are described in the Risk Factors section of Aethlon's Annual Report on Form 10-K filed with the SEC on June 28, 2022, subsequent Quarterly Report on Form 10-Q filings, and other filings that Aethlon makes with the SEC 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.

Aethlon Medical, Inc.

- Headquartered in San Diego, CA (Nasdaq: AEMD)

- Focused on combating cancer and infectious diseases with immunotherapeutic technologies

- Hemopurifier® has demonstrated the capture of disease promoting exosomes, circulating viruses in clinical trials and emergency use, through affinity attachment of a plant lectin to mannose on exosomes and viruses

Aethlon's 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 and Chief Scientific Officer

- 24 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

Thomas L. Taccini, VP Manufacturing & Product Development

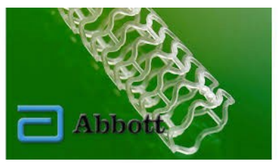
- Over 35 years experience in engineering
- Product development and quality systems

Companies

Abbott, Lilly, Johnson & Johnson, Toray Innovation by Chemistry, Cardiome inspiring science, Entasis Therapeutics, Cascadian Therapeutics, ExThera Medical

Example Products

HUMIRA® adalimumab

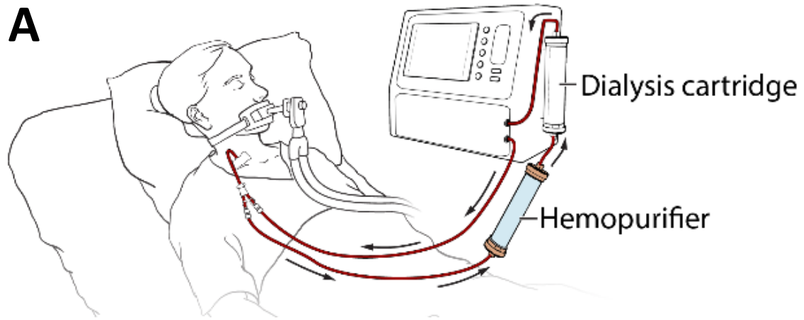


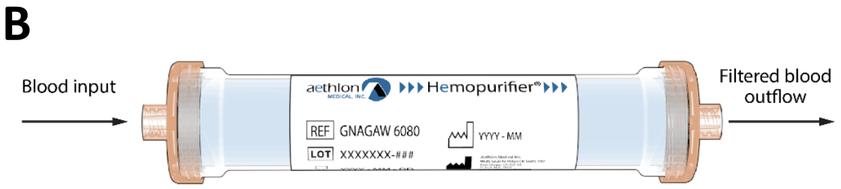
The Aethlon Hemopurifier®

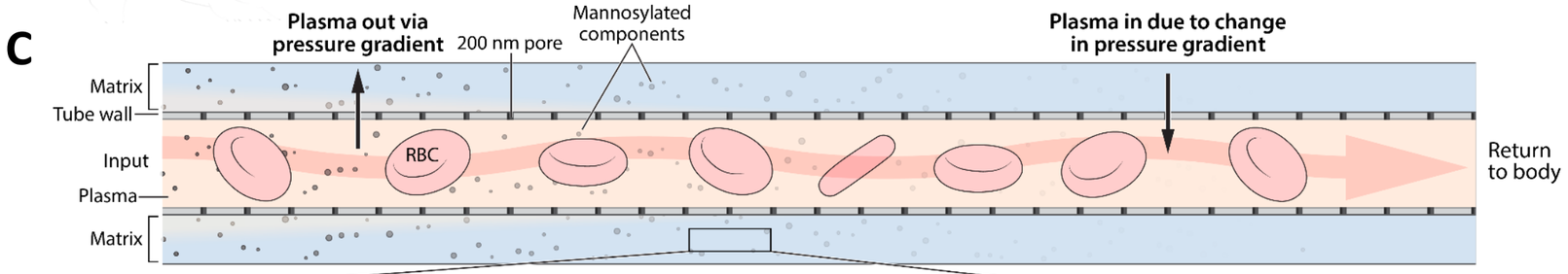
FDA designated “Breakthrough Device”

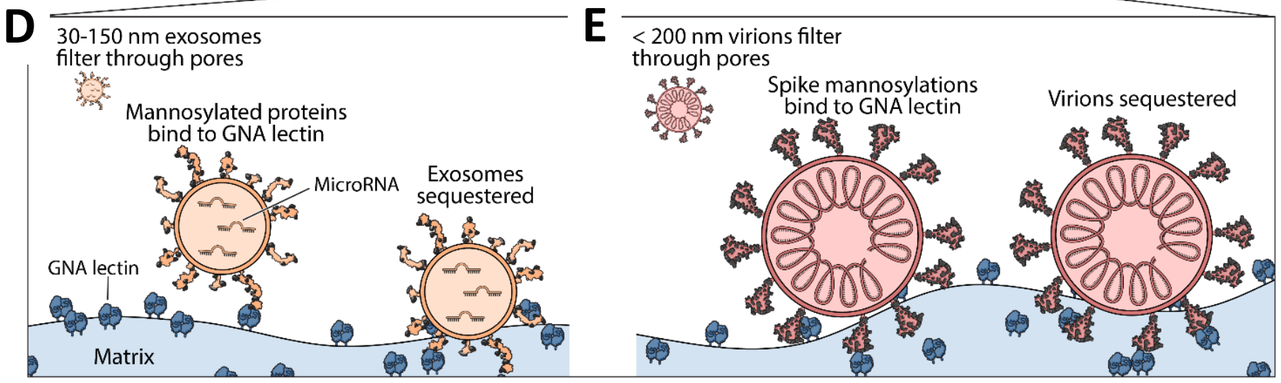
- Safely administered in 160 Hemopurifier sessions in 37 patients
- Proprietary mechanism of action
- Clears life-threatening glycosylated viruses
- Designed to clear cancer- promoting exosomes

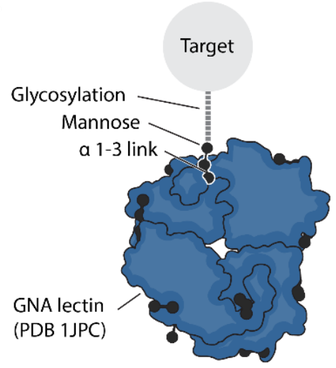
The Hemopurifier®'s unique mechanism of action captures virus and exosomes from a patient's blood via extracorporeal circuit











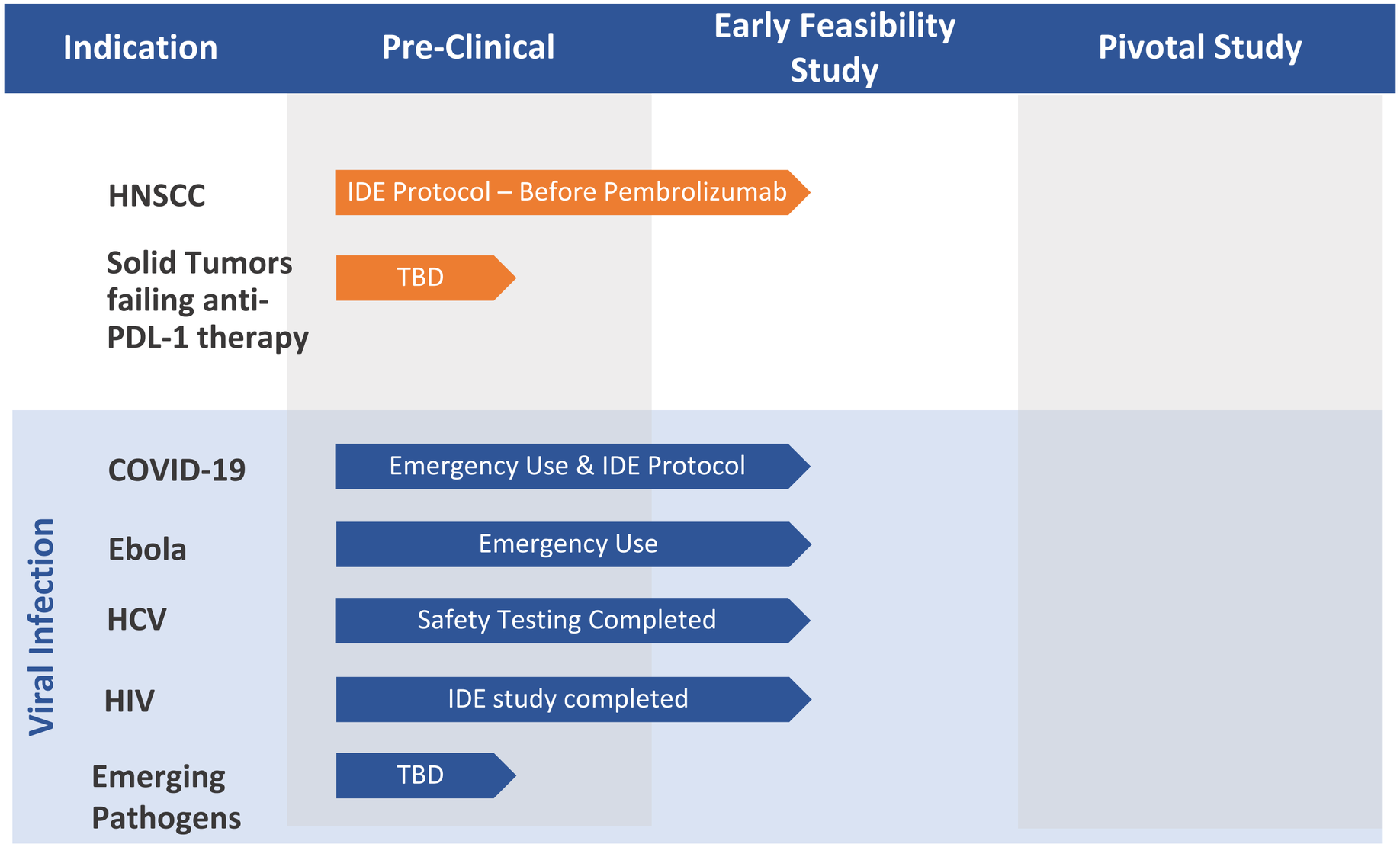
The Hemopurifier captures enveloped viral pathogens and exosomes in circulating blood

- Hollow-fiber plasma separator filled with proprietary "affinity resin" **[figures B, C]**
- Size restriction: < 200nm diameter to access "affinity resin" [figure C]
- Affinity resin captures mannosylated nano particles (e.g., enveloped virus, exosomes) **[figure D, E]**
- Compatible with existing dialysis or CRRT infrastructure **[figure A]**

Potential Therapeutic Applications:

- Life-threatening viral infections
- Cancer

Hemopurifier® Pipeline



Oncology

Rationale for exosome removal in cancer

- **Exosomes 50-150nm extracellular vesicles that are released by all cell types including tumor cells**
- **Communicate with other cells to modulate local and distant microenvironment**
- **Allow tumor growth and tissue invasion**
- **Promote Metastasis by establishing pre-metastatic niches**
- **Promote Angiogenesis**
- **Chemotherapy Resistance (example is drug expulsion)**
- **Suppression of cytotoxic T cell tumor killing**
- **Interference/ Binding to Immunotherapeutic Agents**
- **Hemopurifier® has demonstrated exosome clearance in patients[1]**

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

National Cancer Institute studies underway or completed

- **Phase I contract from NCI — Completed**
  - “Device Strategy for Differential Isolation of Oncosomes* and Non-Malignant Exosomes”
- **NCI SBIR Grant — Completed**
  - “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 3 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 for the overall project paid to the University of Pittsburgh as prime contractor
  - “Depleting exosomes to improve responses to immune therapy in head and neck squamous cell carcinoma”

*Oncosomes are exosomes from tumor cells

Early Feasibility Study in Head and Neck Cancer

- **NCT #04453046**
- **University of Pittsburgh Hillman Cancer Center**
- **10-12 subjects with advanced or metastatic HNSSC**
- **Combination with pembrolizumab (Keytruda®)**
  - Keytruda approved June 2019 in front line setting
- **4-hour Hemopurifier treatment immediately prior to Keytruda**
- **Endpoints: Safety, exosome clearance and characterization**

Early Feasibility Study in Head and Neck Cancer: Update

- **2 patients have been enrolled to date**
- **Protocol supplement application submitted to the FDA July 28, 2022**
- **Supplement will allow for inclusion of patients who have failed Platinum chemotherapy**
- **This was not an indication for Pembrolizumab when the study was initiated**

Safety, Feasibility and Dose-Finding “Basket” Trial in Solid Tumors Failing anti-PD-1 therapy

- **Currently being designed with academic investigators**
- **Will examine the effects of the Hemopurifier in multiple solid tumor types**
- **Hemopurifier treatment will follow a run-in period Checkpoint Inhibitor alone- each patient surviving as own control**
- **Questions to be examined:**
  - The safety and feasibility of different dosing intervals with the Hemopurifier- 3+3 safety study
  - The kinetics of exosome removal by the Hemopurifier
  - The downstream effects on the immune response following Hemopurifier Treatment
- **Plan is to submit this study to the FDA as a supplement to the Oncology IDE in next 1-2 months**

COVID-19 and Other Viral Infections

Hemopurifier data in Single Patient Emergency Use COVID-19 Cases

Exosomal Removal with Hemopurifier Treatment of Patient with COVID-19

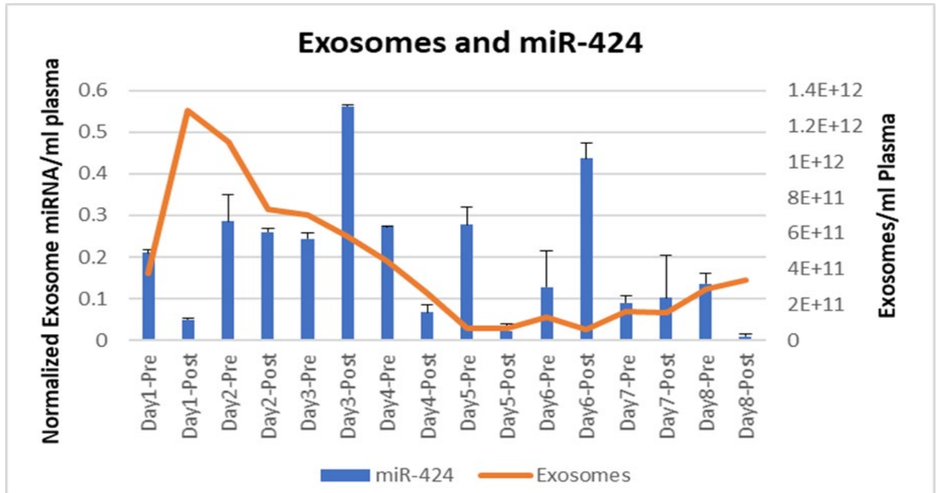
Laboratory values over time:

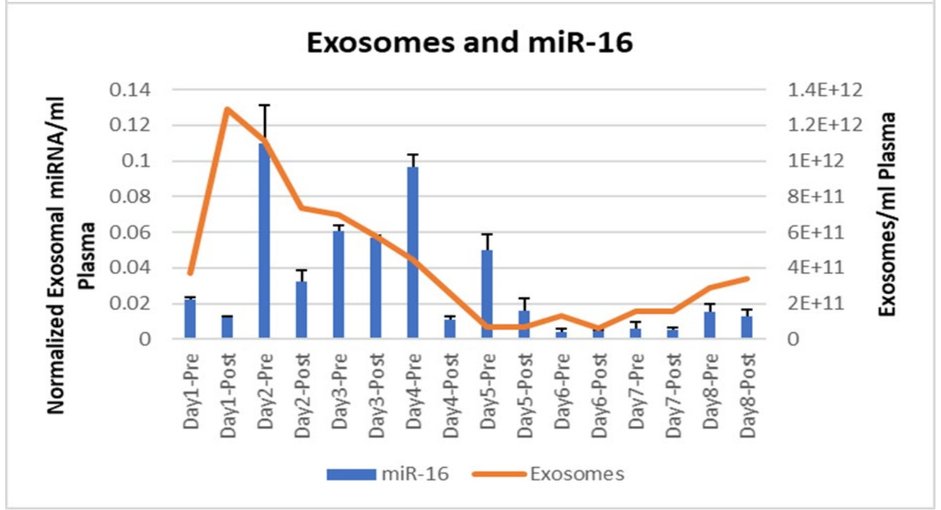
Date	D-dimer (ng/ml)	Platelet (cells/mcl)	PT/INR	Ferritin (ng/ml)	Lactate (mmol/l)	PaO2 /FIO2 ratio	ALC (absolute lymphocyte count) (cells/mcl)	LDH (U/L)
7/30/20 (8 days prior to therapy)				3599.5 (systemic inflammation)				2370 (tissue injury)
8/1 (6 days prior to therapy)	>7650							
8/3 (4 days prior to therapy)		115,000			3.6 (tissue hypoxia)			
8/7 (Day 1 therapy)			1.2 (13.6sec, prolonged)			93	780 (lymphopenia)	
8/8 (Day 2 therapy)					2.3	98		
8/9 (Day 3 therapy)						75.5		
8/10 (Day 4 therapy)						88.57		
8/12 (Day 5 of therapy)	3703	162,000	1.0 (11.3sec, improved)	622.4	0.8 (normal)	136.25	1180	978 (improved)
8/13 - 8/15 (Days 6 - 8 of therapy)						>117		
8/20/20 (5 Days after completion of therapy)						175		

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

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

Total Exosomes and Exosomal miRNA over time:





miR-424 is associated with COVID-associated coagulopathy (CAC)

miR-16 is associated with acute lung injury

Evidence of SARS-CoV-2 Capture and Clearance by Hemopurifier® in a patient with COVID-19

- Independent Physician Assessment confirmed request for emergency use 14JAN2021
- IRB approval and Signed Inform Consent obtained (14JAN2021)
- Patient underwent 6-hour and 15 minute Hemopurifier® session between (0645-1300 hours)
- **No cartridge evidence of hemolysis or thrombosis**
- Patient had fluctuating blood pressure (BP) and required increased supplemental oxygen 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 pulseless electric activity (PEA) arrest at 1549

ESTIMATE HEMOPURIFIER CAPTURE

	1 PCR Rxn	Total RNA	Total Trizol	**Total Hemopurifier**
	5ul/rxn	60/5ul	200/1ml	**Eluted Copies**
HP-P2Eluent	242.1	x12	x200	**5.8E+5**

PLASMA VIRAL COPIES NORMALIZED TO RNASEP [15]

	1 Rxn	Total RNA	Plasma	RNAseP	**Plasma**
	5ul	45/5ul	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**

Amundson DE, et al. Front Med (Lausanne) 2021;8744141

COVID-19 Clinical Trials

Treatment of SARS-CoV-2 Virus Disease (COVID-19) in Humans With Hemopurifier® Device- US IDE Study update (1)

- **ICU patients with severe or life-threatening disease**
- **Approved for up to 40 patients at up to 20 sites**
- **8 hospitals now open and actively screening**
  - Hoag Newport Beach and Irvine
  - UC Davis
  - Cooper Medical
  - LSU Shreveport
  - Univ of Miami
  - Thomas Jefferson University Center
- **3 additional sites expected to be activated in next 1-2 months**
- **1 patient has been enrolled and has completed the study**

Treatment of SARS-CoV-2 Virus Disease (COVID-19) in Humans With Hemopurifier® Device- US IDE Study update (2)

- **Versions 1-5 of the Protocol required that patients enrolled in the study:**
  - Already have a dialysis catheter in place
  - Have previously tolerated Hemodialysis
- **This language relegated the eligible population to COVID -19 patients already requiring kidney replacement therapy (KRT) as a result of acute kidney injury (AKI) or End Stage Renal Disease (ESRD)**
- **Conference presentations and the literature indicate that the increased use of non-invasive mechanical ventilation and improved fluid management over the last 2+ years has decreased the population of COVID-19 patients requiring KRT to less than 10%**
- **Action: Aethlon Medical submitted a protocol supplement to the FDA to safely allow entry of patients without a dialysis catheter in place and not already on KRT into the study**
- **Protocol supplement was approved by the FDA on 6 JUL 2022**
- **One clinical site has already received IRB approval for this supplement**
- **4 additional sites have submitted the supplement to the IRB and could have approval in the near future**
- **This protocol supplement should improve the feasibility of the study**

Treatment of SARS-CoV-2 Virus Disease (COVID-19) in Humans With Hemopurifier® Device- India Trial

- ICU patients with severe or life-threatening disease
- The study is approved for up to 15 patients at up to 3 centers
- Medanta Medicity Hospital is active and screening.
- 1 patient enrolled and treated
- CRO is currently assessing feasibility in 2 additional sites

In Vitro Removal of COVID-19 Variants by *Galanthus nivalis* agglutinin affinity resin

•Published: July 28, 2022
•https://doi.org/10.1371/journal.pone.0272377

Removal of clinically relevant SARS-CoV-2 variants by an affinity resin containing *Galanthus nivalis* agglutinin

•Melanie Gooldy,
•Christelle M. Roux,
•Steven P. LaRosa ,
•Nicole Spaulding,
•Charles J. Fisher Jr.

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**

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 55654 (Lambda)	70.5 ± 3.6
NR 55691 (AY.1 Delta)	53.2 ± 11.6
NR 56461 (Omicron)	89.9 ± 2.1

Monkeypox (MPXV)

Monkeypox (MPXV) Outbreak: Aethlon's Preparation

- ~ 43,000 Global Cases and > 15,000 US Cases
- No drugs specifically approved for Monkeypox
- Severe cases associated with involvement of eyes, genitalia, rectum and in very young, pregnant and immunocompromised population
- Viremia associated in patients in past and current outbreak
- Declared an Emergency by DHHS Secretary
- Emergency Use Authorization (EUA) in place for vaccines and diagnostics
- 2008 In Vitro data by Battelle Memorial Labs in a miniature version of our Hemopurifier removed 44% of monkeypox virus in the first hour of testing, 82% after six hours, and 98% after 20 hours
- Aethlon has been in contact with the FDA and confirmed the process in the event of a Single Patient Emergency Use request
- Aethlon is commissioning a follow-up in vitro removal study utilizing a clinical isolate from the current MPXV outbreak

Strong Cash Position

- **June 30, 2022 Company's cash balance was approximately $14.9 million with an additional $8.3 million raised in July and August 2022.**

- **No debt**

- **Nasdaq: AEMD ~22.9 million shares outstanding as of August 24, 2022**

Summary

- Unique Hemopurifier® blood purification device
- Two FDA Breakthrough Therapy Designations
- Activities underway to improve the feasibility of current clinical trials in COVID-19 and Head and Neck Cancer
- In vitro data indicate that Hemopurifier does not need to be modified for developing COVID-19 variants
- Development of Clinical Study in Multiple Tumor Types underway
- Aethlon is staying vigilant regarding potential use in Monkeypox and other emerging viral infections

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