
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): **June 12, 2015**

AETHLON MEDICAL, INC.

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction of incorporation)

000-21846

(Commission File Number)

13-3632859

(I.R.S. Employer Identification No.)

9635 Granite Ridge Drive, Suite 100

San Diego, California

(Address of principal executive offices)

92123

(Zip Code)

Registrant's telephone number, including area code: **(858) 459-7800**

Not Applicable

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- ☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - ☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - ☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 7.01 Regulation FD Disclosure

The Registrant disclosed that on Friday, June 12, 2015, it made a presentation at the 33rd Vicenza Course – Critical Care Nephrology Conference in Vicenza, Italy. A copy of the industry presentation materials are being furnished as an exhibit to this report and are incorporated by reference into this Item 7.01. Also, the Registrant posted the investor presentation materials to its website (www.aethlonmedical.com) today, June 16, 2015.

Item 9.01 Financial Statements and Exhibits.

- (d) Exhibits. The following exhibit is being furnished pursuant to Item 7.01 above.

Exhibit No.	Description
99.1	Aethlon - 33rd Vicenza Course – Critical Care Nephrology 06-12-15

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

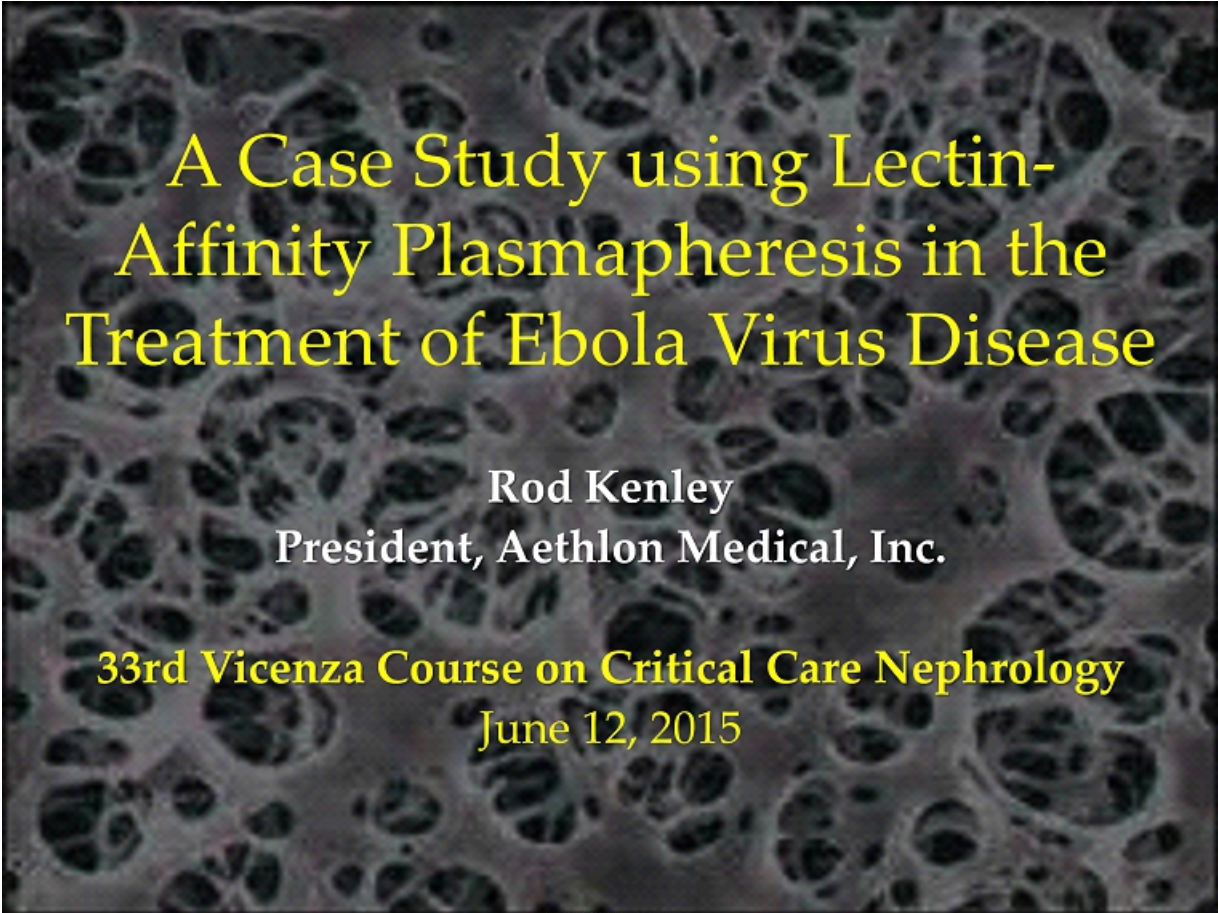
AETHLON MEDICAL, INC.
(Registrant)

Date: June 16, 2015

By: /s/ James B. Frakes
James B. Frakes
Chief Financial Officer

EXHIBIT INDEX

Exhibit No.	Description
99.1	Presentation Materials

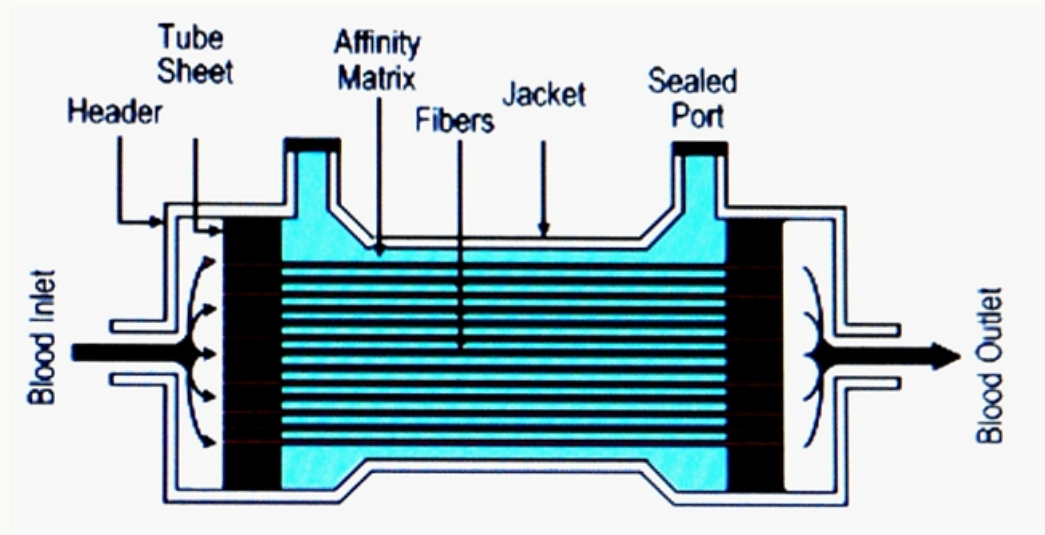
A microscopic image showing a dense field of cells, likely kidney cells, with prominent nuclei and some vacuolar structures. The image is in grayscale with a slightly textured appearance.

A Case Study using Lectin-Affinity Plasmapheresis in the Treatment of Ebola Virus Disease

Rod Kenley
President, Aethlon Medical, Inc.

33rd Vicenza Course on Critical Care Nephrology
June 12, 2015

Affinity Plasmapheresis Device Design



Aethlon Hemopurifier



Table of the Major Lectins

Lectin Symbol	Lectin name	Source	Ligand
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Mannose Binding Lectins

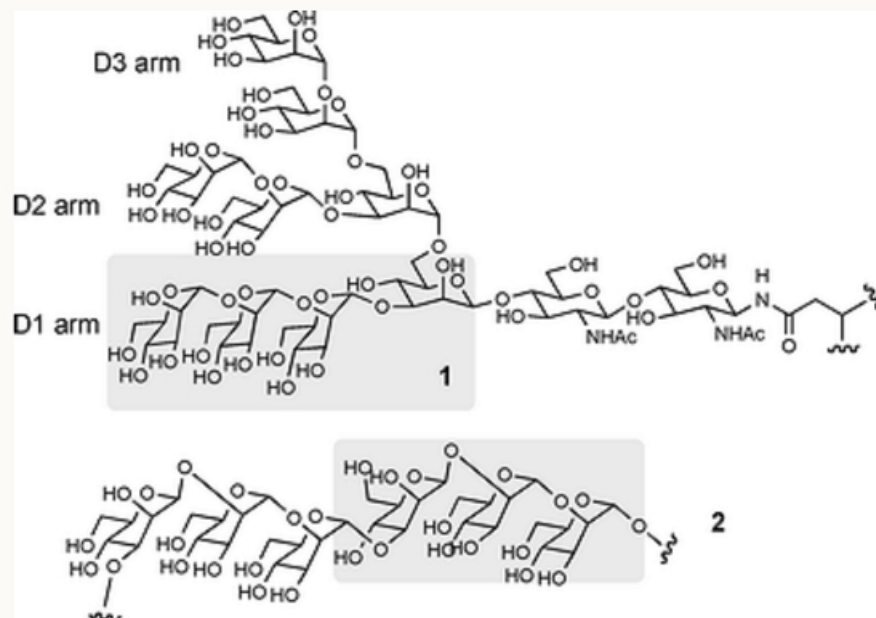
ConA	Concanavalin A	<i>Canavalia ensiformis</i>	α -D-mannosyl and α -D-glucosyl residues branched α -mannosidic structures (high α -mannose type, or hybrid type and biantennary complex type N-Glycans)
LCH	Lentil lectin	<i>Lens culinaris</i>	Fucosylated core region of bi- and triantennary complex type N-Glycans
GNA	Snowdrop lectin	<i>Galanthus nivalis</i>	α 1-3 and α 1-6 linked high mannose structures

Galactose Binding Lectins

RCA	Ricin	<i>Ricinus communis</i>	Gal β 1-4GlcNAc β 1-R
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HIV Glycoprotein GP120

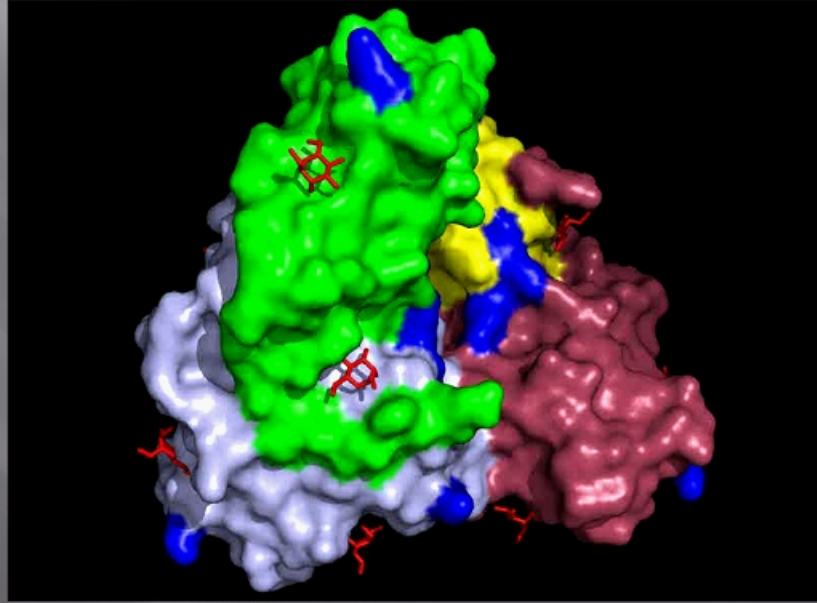
Branched-chain Mannose



Galanthus Nivalis Lectin (GNA)

GNA forms a tetramer of four identical subunits each with 3 sugar binding sites each for a total of 12 sites

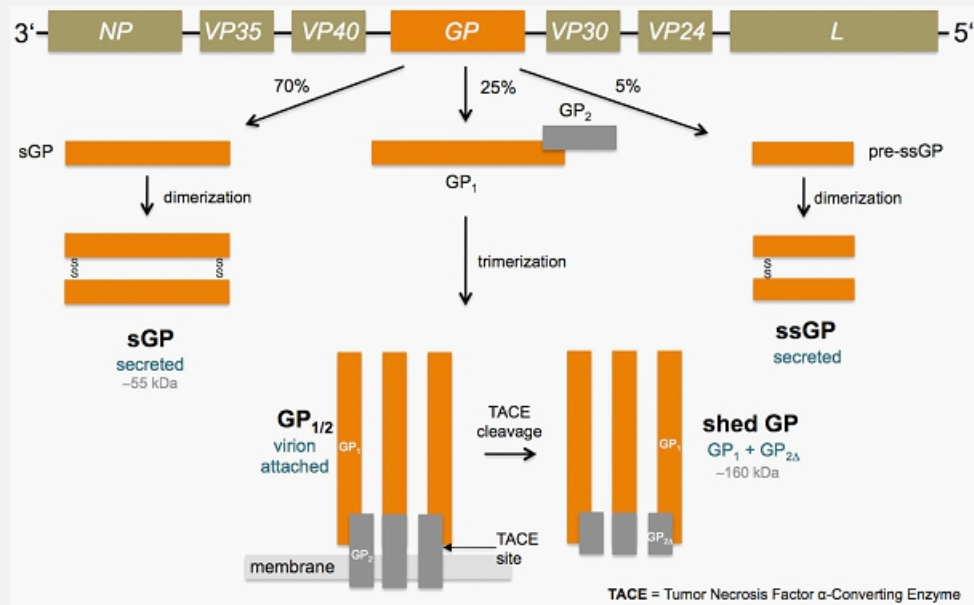
- Bound sugars are shown in red
- Primary amines (lysines) are shown in blue. These are used to chemically attach GNA to the silica matrix.



Dual Benefit of Action

- Clearance of infectious viral pathogens
- Clearance of shed glycoproteins

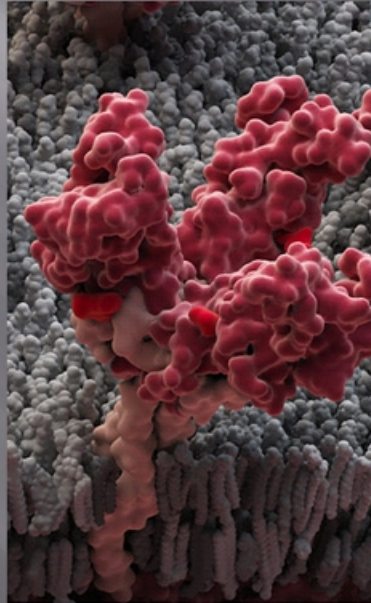
EBOV Glycoprotein: Multifaceted Pathogenesis



modified after Cook *et al.* and Dolnik *et al.*

Ebola Virus Glycoprotein Embedded in Envelope

GP1/2

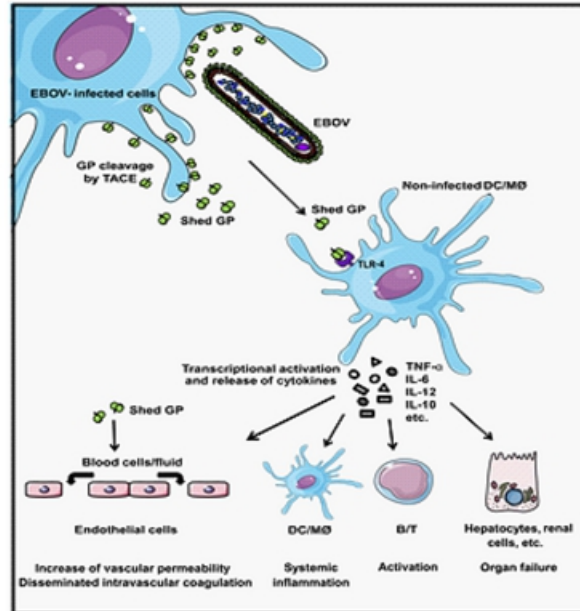


© visual-science.ru

Shed GP of Ebola Virus Triggers Immune Activation and Increased Vascular Permeability

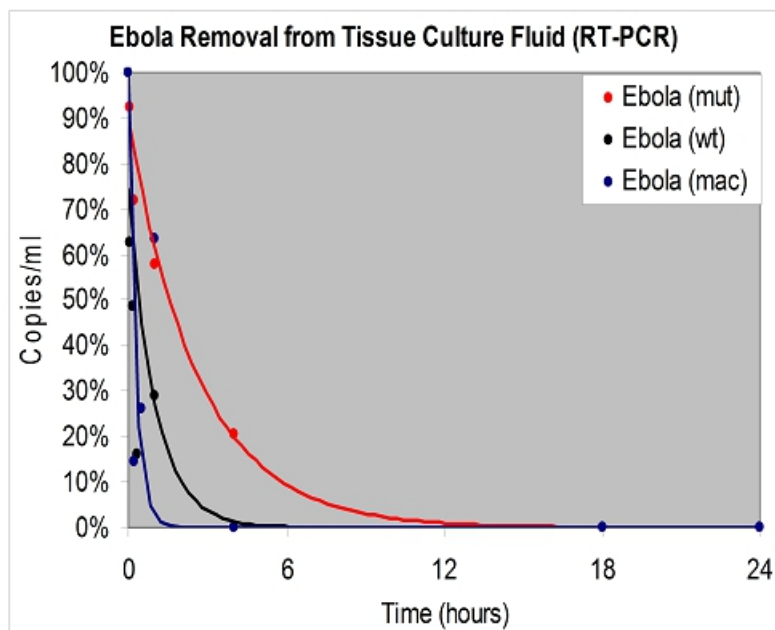
Beatriz Escudero-Pérez, Valentina A. Volchkova, Olga Dolnik, Philip Lawrence, Viktor E. Volchkov*

Molecular Basis of Viral Pathogenicity, CIRI, INSERM U1111- CNRS UMR5308, Université de Lyon, Université Claude Bernard Lyon 1, Ecole Normale Supérieure de Lyon, Lyon, France



Capture of Ebola Virus by LAPD

Studies were performed at CDC and USAMRIID



Ebola (mut) – Ebola Zaire strain mutant; Ebola (wt) – Ebola Zaire strain Wild Type;
Ebola (mac) – Ebola Zaire strain cultivated in Macrophages

Clearance of sGP by LAPD

Studies were performed at CDC and USAMRIID

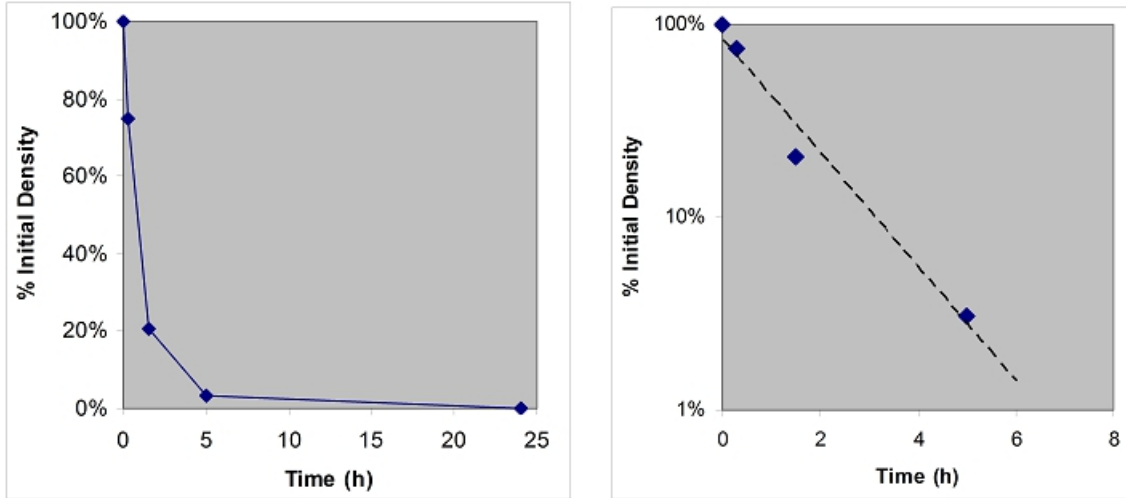
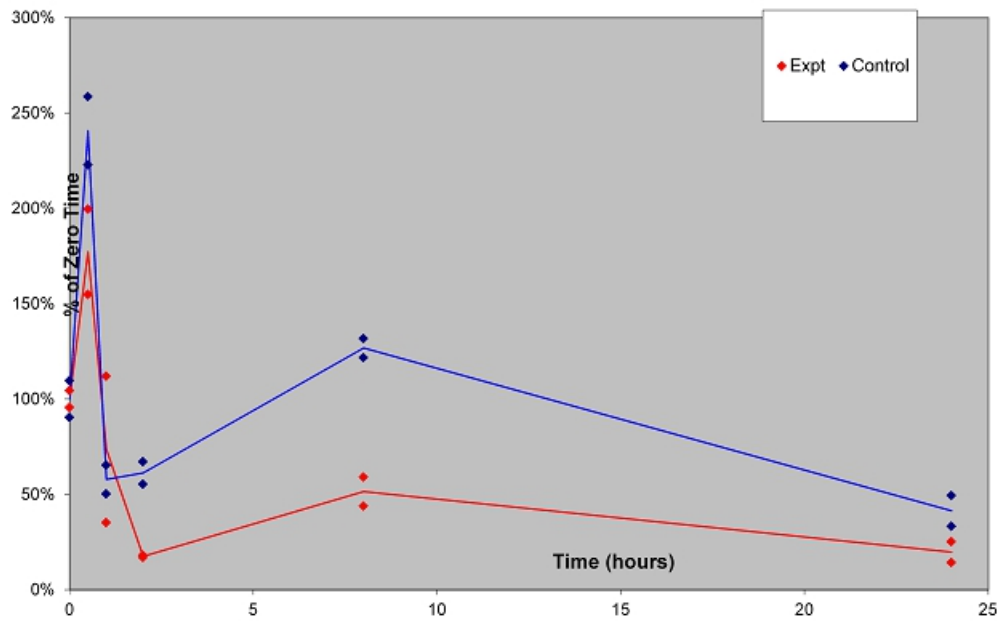


Figure 2. Clearance of sGP by GNA Microkros from Reduced SDS/12% Nupage Western Blot.

EBOVZ cell culture supernatant 5ml passaged over GNA Microkros Hemopurifier at 1ml.min. Detection via mouse anti sGP monoclonal (1:100) and goat anti mouse IgG (1:100) in blocking buffer visualized with TMB. Photographed with Eagle Eye System II and analyzed using ImageJ.

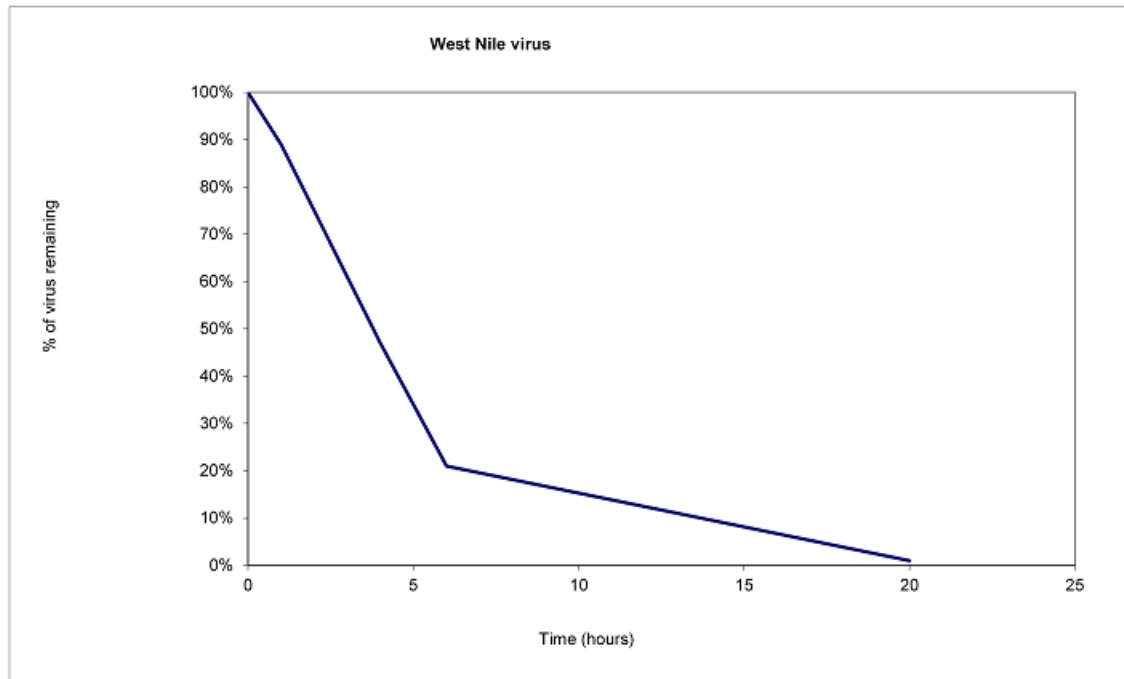
Ebola removal from monkey plasma

Studies were performed at CDC and USAMRIID



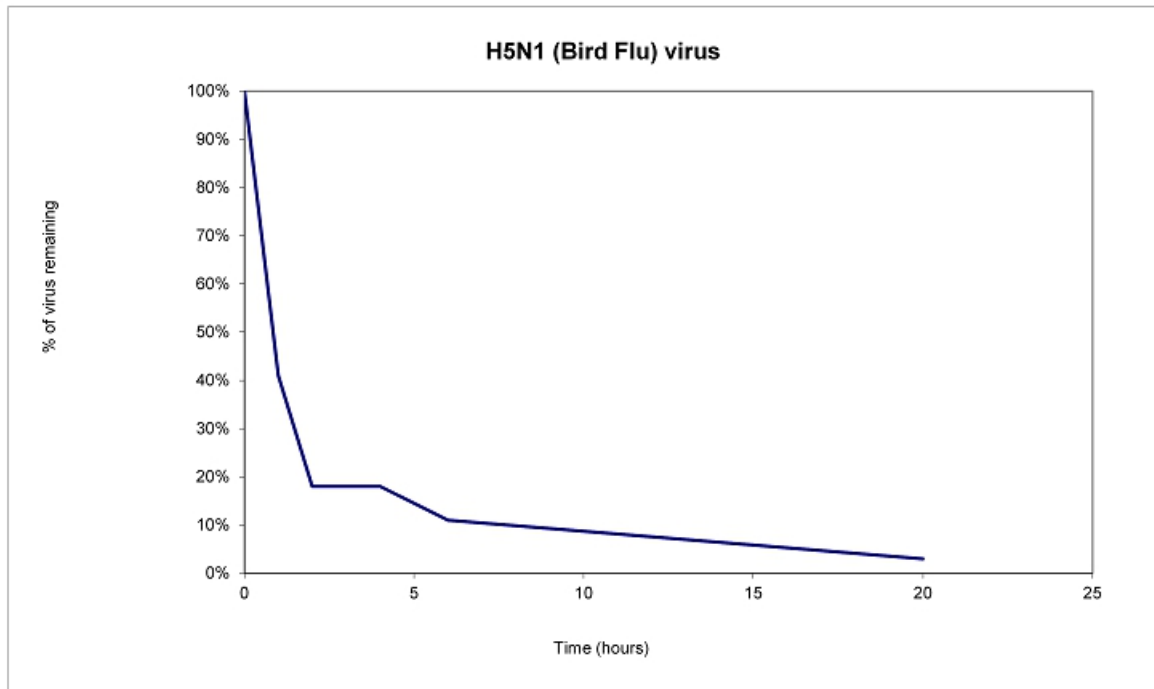
Capture of West Nile virus on LAPD

Studies performed at Battelle Memorial Institute



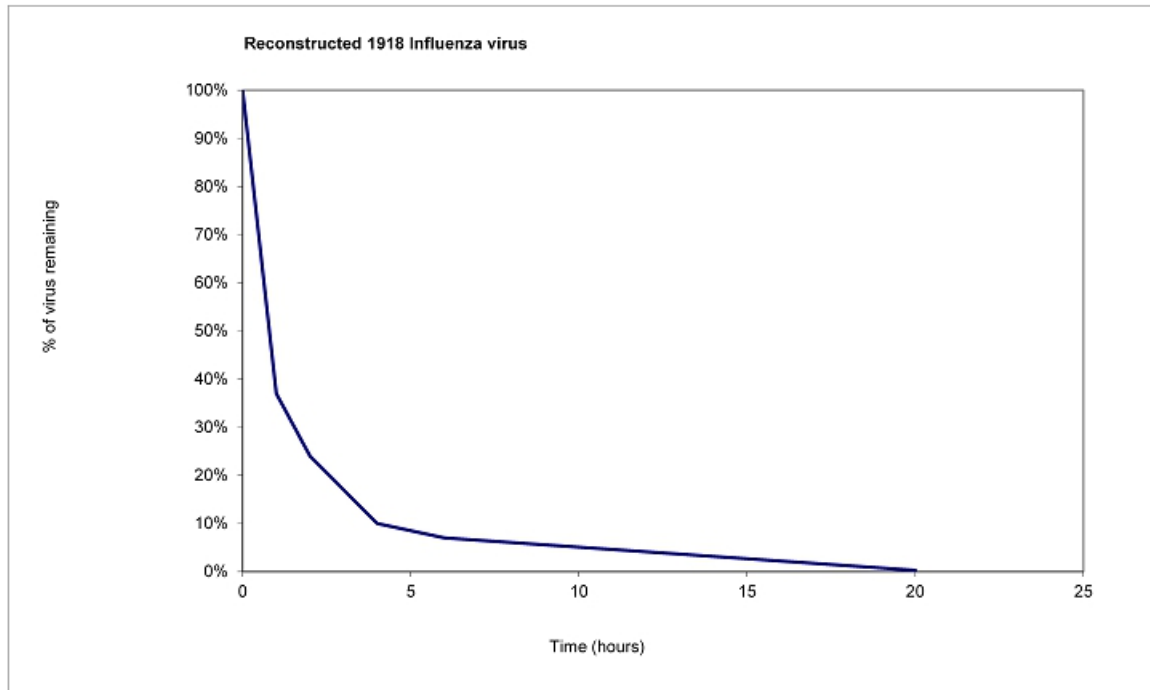
Capture of H5N1 virus by LAPD

Studies performed at Battelle Memorial Institute



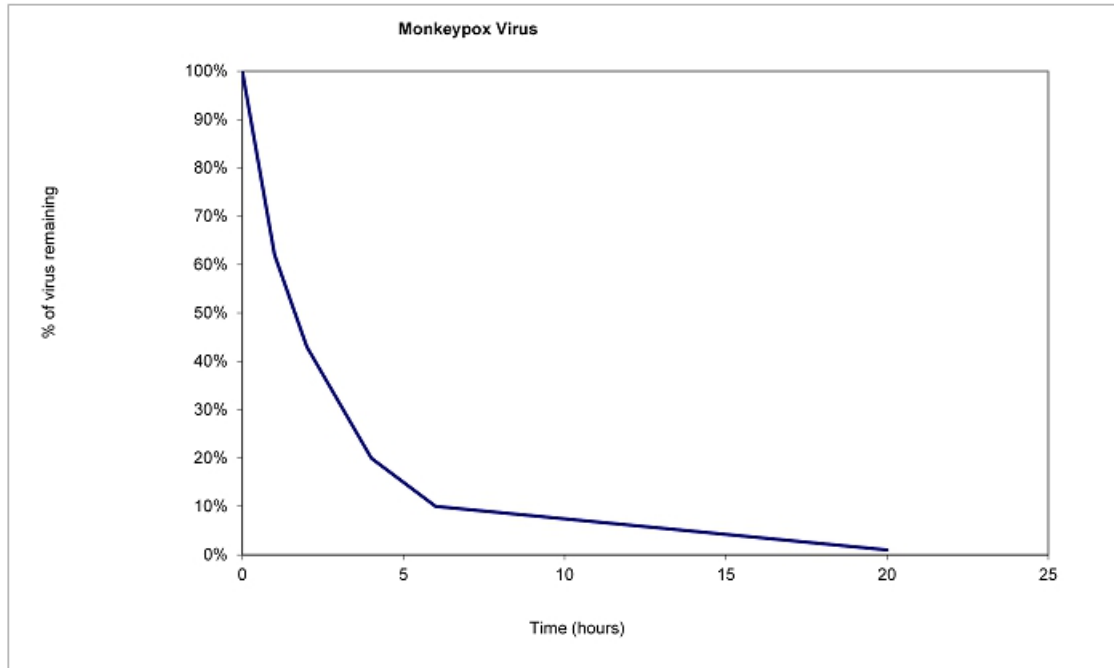
Capture of 1918 Flu virus by LAPD

Studies performed at Battelle Memorial Institute

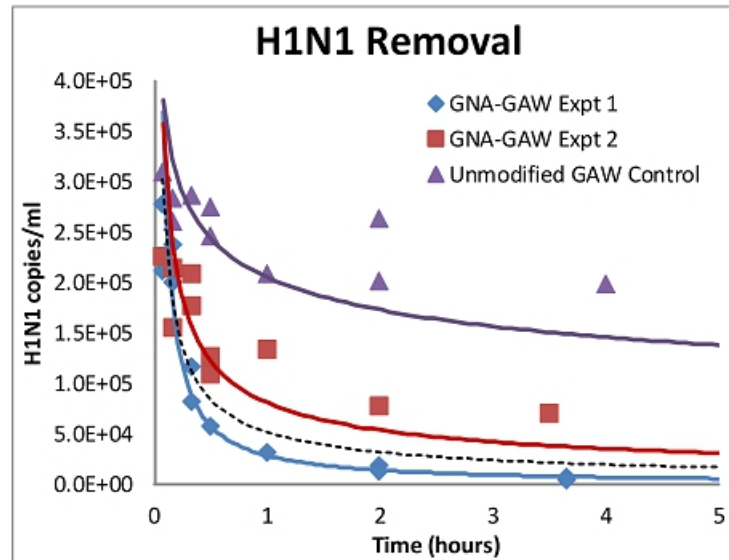


Capture of Monkeypox virus by LAPD

Studies performed at Battelle Memorial Institute



Clearance of H1N1 from Human Plasma



GNA-GAW $T_{1/2} = 26.4$ min

Control GAW $T_{1/2} = 192.7$ min

Results: Pandemic H1N1/09 influenza virus was successfully removed from human plasma by the GNA-GAW lectin cartridge with a calculated half-time of 26.4 minutes. The control, in this case the regenerated cartridge re-filled with unmodified GAW 60-80 showed significantly slower removal.



Lakka Children's Hospital,
Sierra Leone

- Dr. M., 38 yrs, Chief of Ebola therapy at Lakka Children's Hospital
- 09/28/2014: **Day 1:** Fever; EBOV-PCR+ ; Self-administered Amiodarone
- 9/29/2014 – 10/3/2014: **Day 2-4:** Increasing vomiting, nausea, myalgia and malaise.
- 10/03/2014 = **Day 5:** MedEvac to Frankfurt

- **German Treatment Network for Highly Contagious and Life Threatening Diseases.**
- **50 isolation unit beds (7 centers)**
- **6 beds in Frankfurt (2 ICU)**



Level A transport.



Therapeutic Options

Conventional

- Unchanged since the 1967 VHF German outbreak:
- Best supportive care: **Hydration, electrolyte balance, intensive care, convalescent serum.**
- Organ failure support: Mechanical Respiration, TPN, CRRT.

Experimental

- Drug: e.g. ZMAPP, FX-06, faviripavir.
- Device: Extracorporeal virus and viral glycoprotein elimination by **Lectin Affinity Plasmapheresis.**

Patient's Ebola-specific Medications

- **Amiodarone: EBOV d1-d5**

Inhibition of Ebola- and Marburg virus cell entry.

Gehring et al., J Antimicrob Chemother. 2014 Aug;69(8):2123-31.

- **T-705 (Faviripavir): EBOV d6**

Ebola RNA polymerase inhibition (broad spectrum antiviral activity)

Smither et al. Antiviral Res. 2014 Apr;104:153-5.

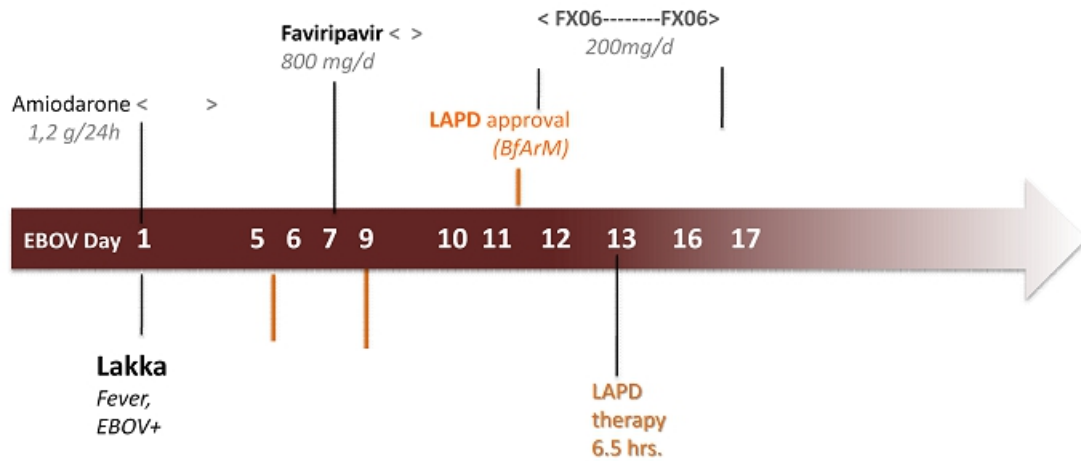
Oestereich et al., Antiviral Res. 2014 May;105:17-21.

- **FX06 (Peptide Beta (15-42)): EBOV d10-d13**

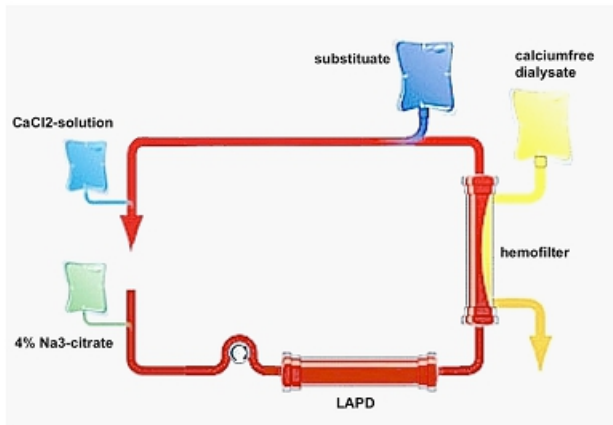
Reduces vascular leak and mortality in animal models for Dengue shock syndrome.

Gröger et al. PLoS One. 2009;4(4):e5391.

The Frankfurt Patient - Timeline



Extracorporeal Treatment



- 1) MultiFiltrate-CiCa®
- 2) CiCa-CVVHDF: postdilution, Ultraflux dialyzer, RCA
- 3) LAPD: Upstream of the dialyzer

Machine set-up



Initiating Treatment of EBOV Patient in Frankfurt 9-10-14



CRRT Rx settings



- Blood flow rate 100 ml/min
- Dialysate flow 2500 ml/h
- Substitution flow 1000 ml/h (postdilution)
- Calcium-dose 3 mmol/l dialysat flow
- Citrate-dose 5 mmol/l blood flow

ionized Ca^{2+} :

- pre-filter: > 1.0mmol/l
- post-filter: < 0.3mmol/l

There was no change to the prescribed dialysis dose or mode

LAPD Easily Extracted from Extracorporeal Circuit



Stefan Büttner, MD

Phillips University BSL-4 Facility Marburg Germany



Phillips University BSL-4 Facility Marburg Germany



EBOV - Binding to LAPD

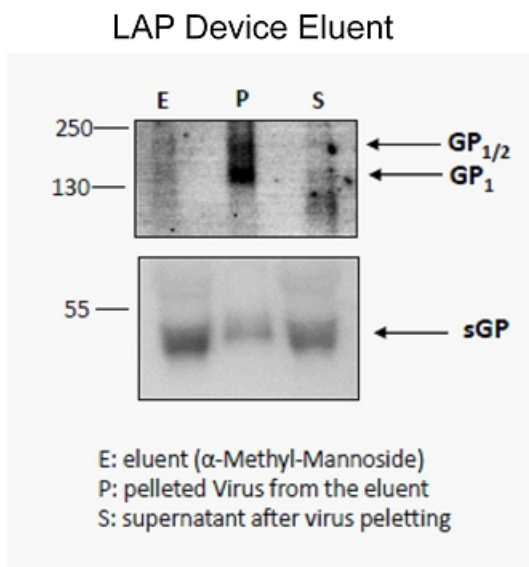
Buffer	CT-value	Copies/ml	
PBS 1	27.89	9.63E+04	
PBS 2	27.67	1.12E+05	
PBS 3	27.74	1.07E+05	1.05E+05
aMM 1	28.15	7.96E+04	
aMM 2	28.44	6.51E+04	
aMM 3	28.54	6.03E+04	6.83E+04
AVL 1	24.72	8.90E+05	
AVL 2	24.3	1.19E+06	
AVL 3	24.52	1.03E+06	1.04E+06

6.5 hrs: removal of 253,000,000 Ebola copies

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

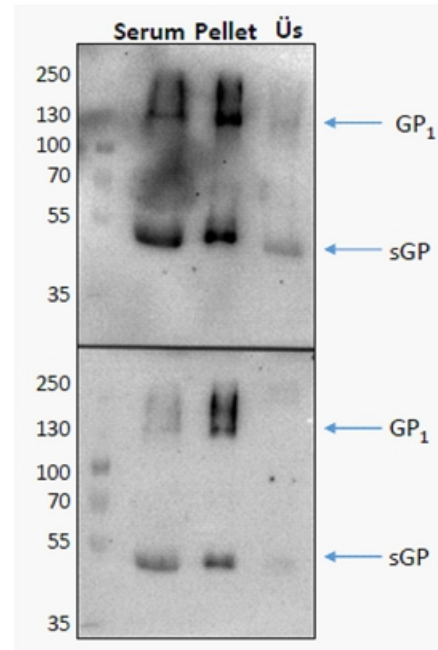
Glycoprotein-Elimination by LAP

in vivo



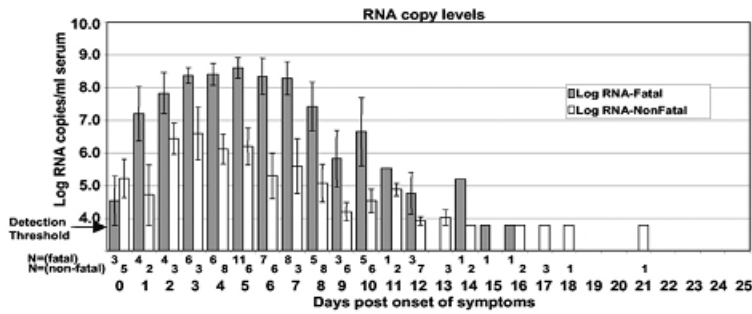
Before LAP

After LAP



Viral Load as a Predictor of Outcome

RNA copy levels of EVOD cases with fatal and nonfatal outcomes.



Towner et al. *J. Virol.* 2004;78:4330-4341

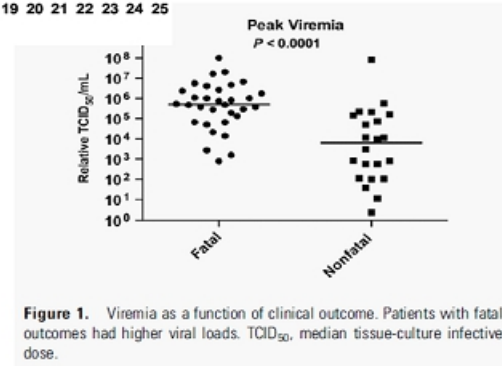
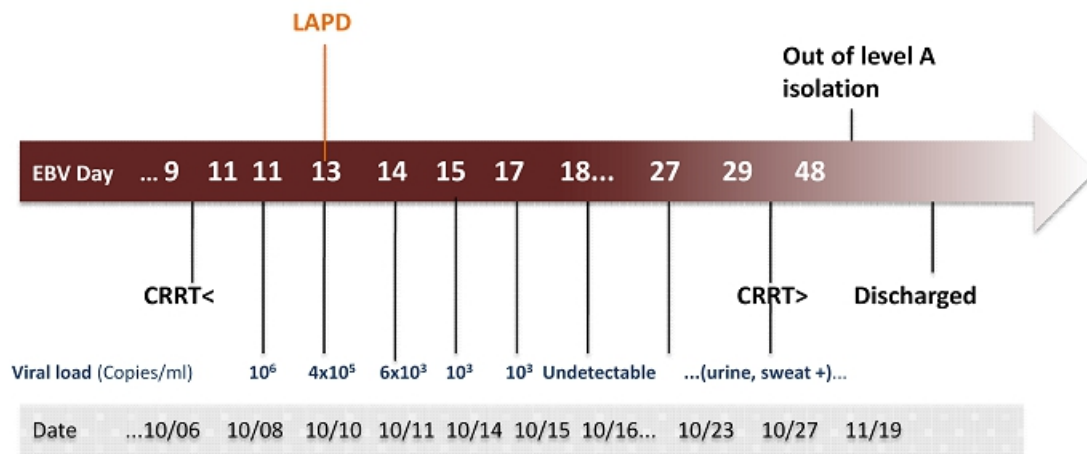


Figure 1. Viremia as a function of clinical outcome. Patients with fatal outcomes had higher viral loads. TCID₅₀, median tissue-culture infective dose.

McElroy et al., *J Infect Dis.* 2014;210:558-66.

The Frankfurt Patient - Timeline 2



pre-treatment 378,000 copies/ml
 intra-treatment 76,000 copies/ml
 next day 6,080 copies/ml

Safety of the Treatment

- **No signs of hemolysis**
(low blood flow)
- **No clogging or clotting**
(regional citrate anticoagulation)
- **No allergic reaction**
- **No adverse event during 6.5 hrs of treatment**

Conclusions

➤ Lectin Affinity Plasmapheresis:

- is safe and feasible
- promising new supportive tool for severe Ebola infection

➤ Hypotheses to explain therapeutic effect:

- Reducing viral & glycoprotein load below “fatality threshold” reduces damage - buys time for supportive care/host defenses.
- Reducing viral titer enhances antiviral drug bioavailability, enhancing effect while reducing toxicity and cost.

Acknowledgements



Benjamin Koch



Stefan Büttner



Helmut Geiger



Olga Dolnik
(Marburg)



Markus Eickmann
(Marburg)

