

# SPIKE-DETOX-PROTOCOL

*Analysis of key disease pathways and rationale for use of protocol in the management of Long Hauler COVID/Post-Vaccine Injury*

Terrain Health

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Dr. Robin Rose

# SPIKE-DETOX-PROTOCOL

- Persistent Spike Proteins in organs are fueling the progression of disease
- The ability to degrade spike is impaired, therefore it stays in the organism
- Spike Detox is the essential baseline treatment!



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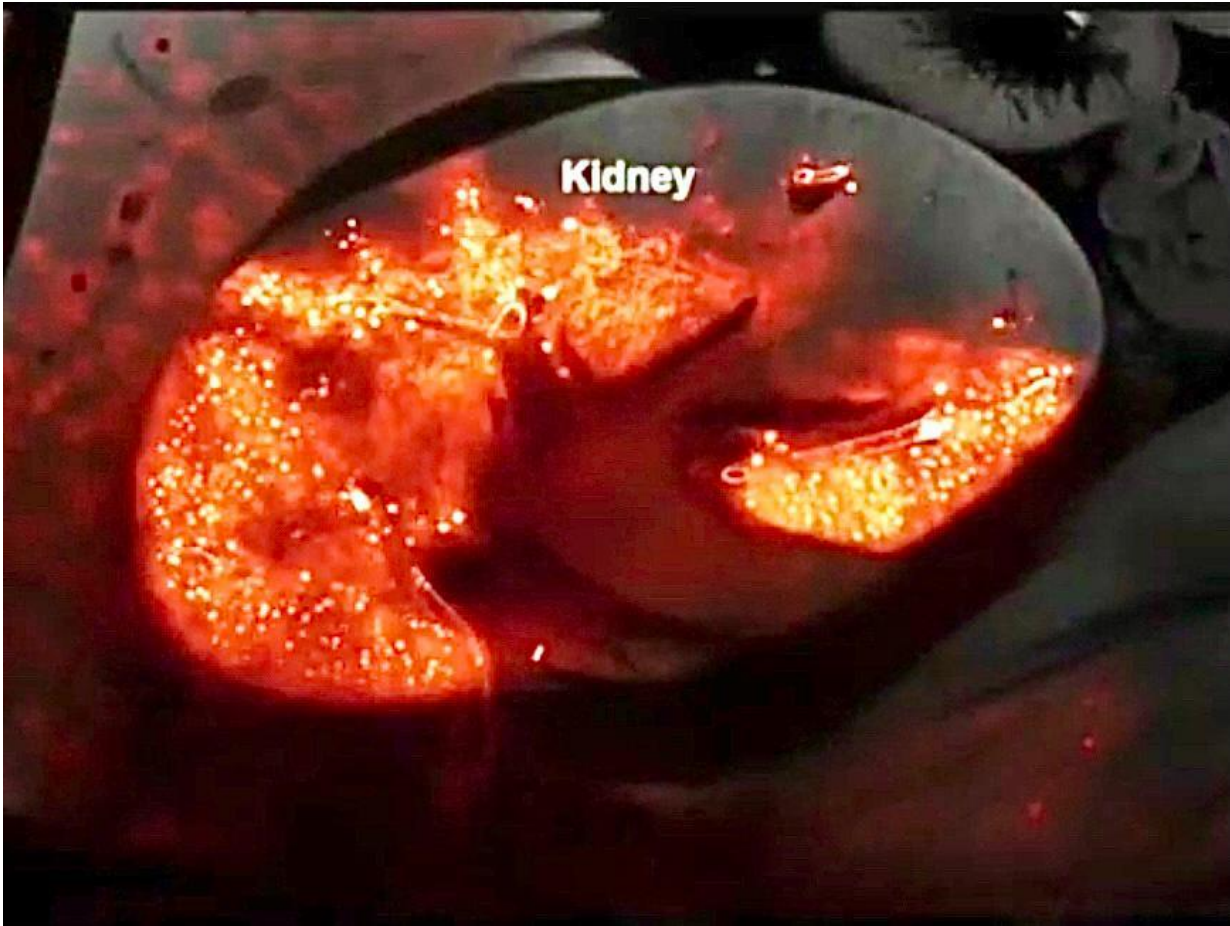
New Results

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**SARS-CoV-2 Spike Protein  
Accumulation in the Skull-Meninges-  
Brain Axis: Potential Implications for  
Long-Term Neurological  
Complications in post-COVID-19**

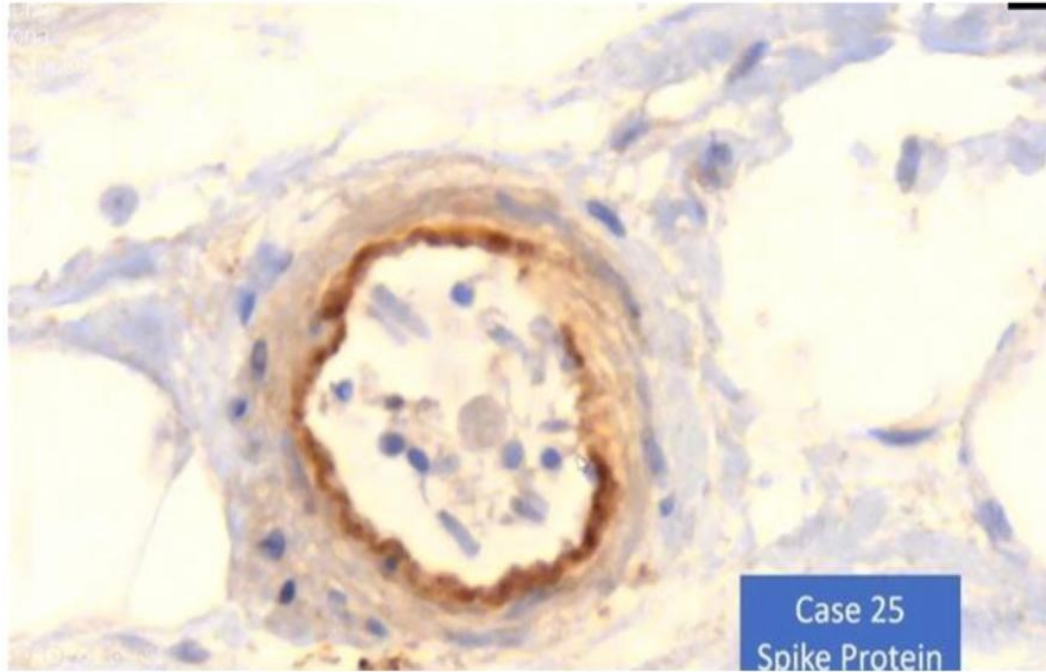
Zhouyi Rong, Hongcheng Mai, Saketh Kapoor,  
Victor G. Puelles, Jan Czogalla, Julia Schädler,

# SARS-CoV-2 Spike Protein trafficking from CNS borders into the brain parenchyma





# Synthetic Spike Protein in Arterioles:



Ausschuss

Reutlinger Autopsie/Histologie-Studie  
Impfnebenwirkungen und -Todesfälle

8 Kooperierende Pathologen/ Biologen international  
25 Todesfälle / 3 Proben von Lebenden

- 15 Fälle ausgewertet Stufe1: Routine Histologie

- 1 Fall Stufe 2: Spezialmethoden

7 Männer, 8 Frauen; 28 bis 95 Jahre alt

Tod 7 Tage bis 6 Monate nach letzter Injektion

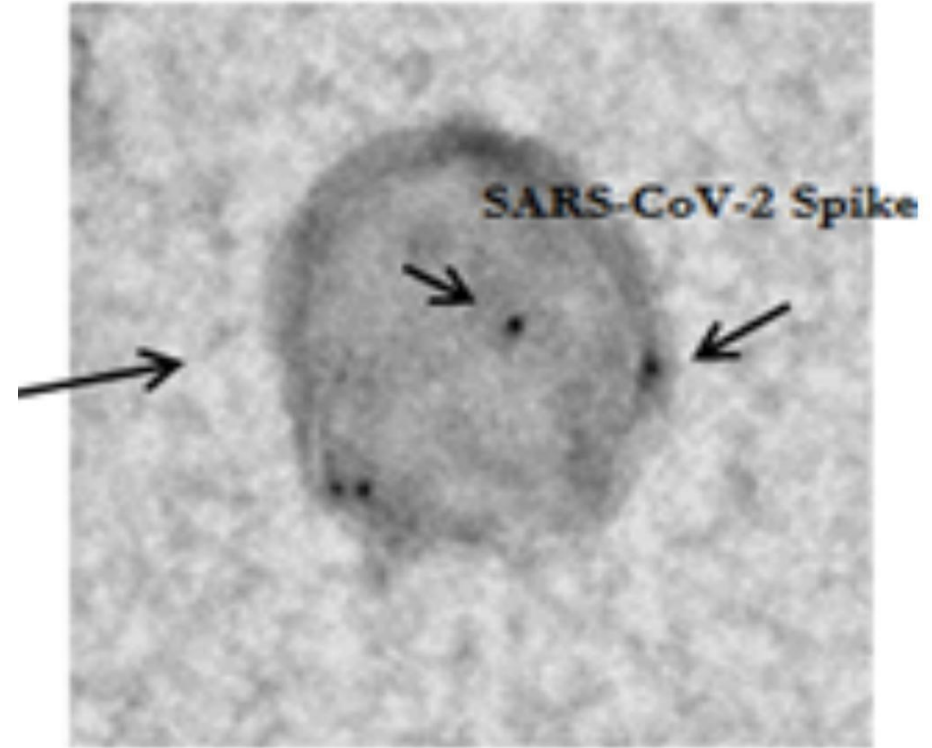
Impfstoffe:

Comirnaty/Pfizer-BioNTech 8, Moderna 2, Janssen 1, Astra-Zeneca 2, unbekannt 2

- Spike Protein is not only found in the capillaries but also in the small arterioles.
- Case 25 Spike Protein shows a clear positive reaction and an interruption in the inner vessel wall layers. It also shows a sloughed off endothelial and single inflammatory cells.

# Cutting Edge: Circulating Exosomes with COVID Spike Protein Are Induced by BNT162b2 (Pfizer–BioNTech) Vaccination prior to Development of Antibodies: A Novel Mechanism for Immune Activation by mRNA Vaccines ✓

Sandhya Bansal  ; Sudhir Perincheri; Timothy Fleming  ;  
Christin Poulson  ; Brian Tiffany  ; Ross M. Bremner;  
Thalachallour Mohanakumar  



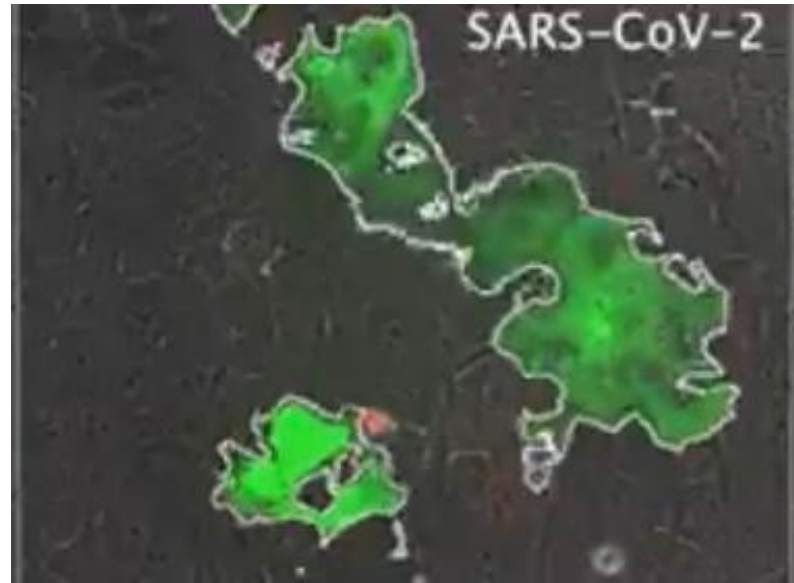
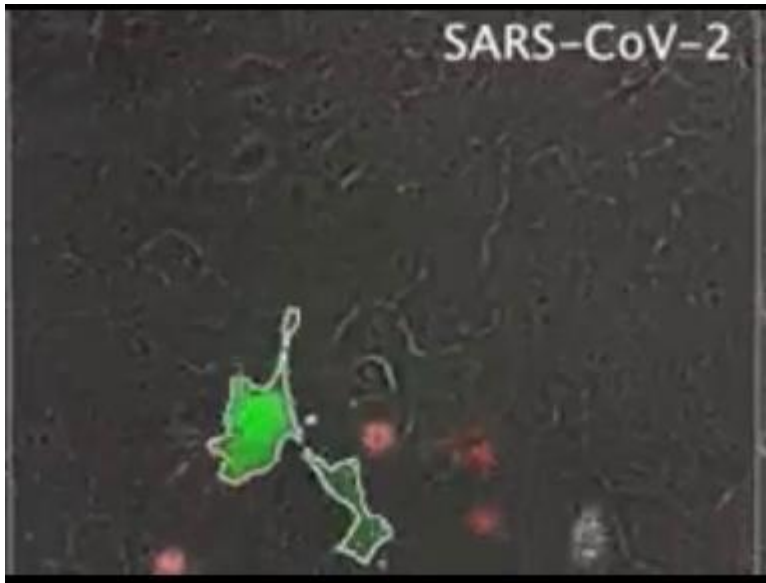
- Transmission electron microscopy images of SARS-CoV-2 Spike AG on exosomes.
- Exosomes originating from controls and vaccinated individuals.
- Arrows indicate SARS-CoV-2 spike positive exosomes.

- Aside from externalized phosphatidylserine (ePS) putting off a universal “eat me” signal, it can also convey “fuse me” cues to host phagocytes that can contribute to the unintended consequences of pathological syncytia formation [10].
- The lipid nanoparticles (LNP) component, cholesterol, is also a promoter of pathological cell to cell fusion as it can alter the asymmetry of cell membranes [50].
- Cell to cell fusion leads to premature cellular senescence and iatrogenic immunosuppression, it may partly explain the immune dysfunction documented in some vaccinated individuals.

# Do Messenger RNA Vaccines Induce Pathological Syncytia?

Adonis Sfera, MD<sup>1,2\*</sup>, Karina G Thomas<sup>1</sup>,  
DAN O Sfera<sup>1</sup>, Jonathan J Anton<sup>3</sup>,  
Christina V Andronescu<sup>4</sup>, Nyla Jafri<sup>1</sup>,  
Sarvin Sasannia<sup>5</sup> and Zisis Kozlakidis<sup>6</sup>







- Senescent Cells and Syncytia are harboring spike proteins and/or persistent viruses.
- Our protocols prevent the formation of cell fusion by spike proteins, this is important for organ protection especially during detox!

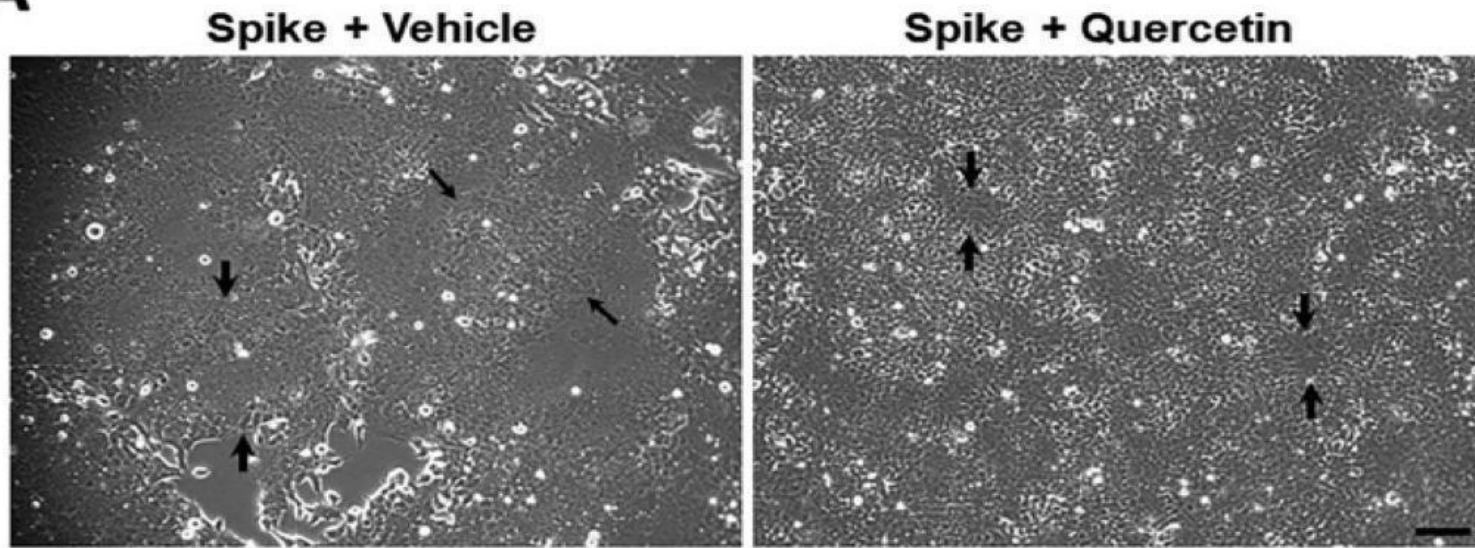
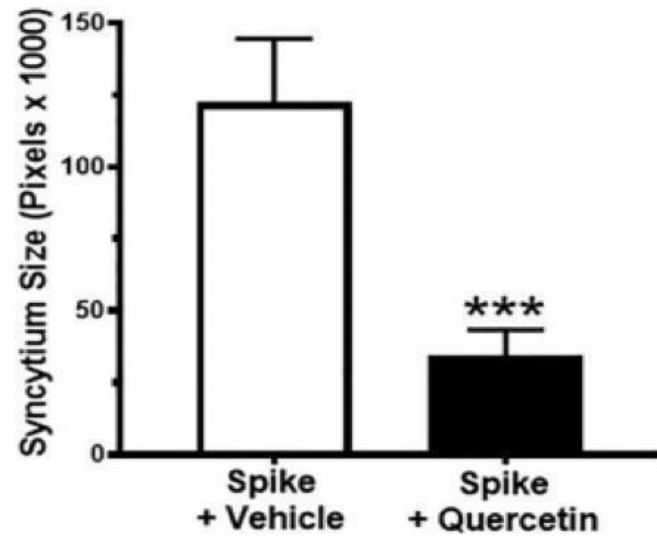
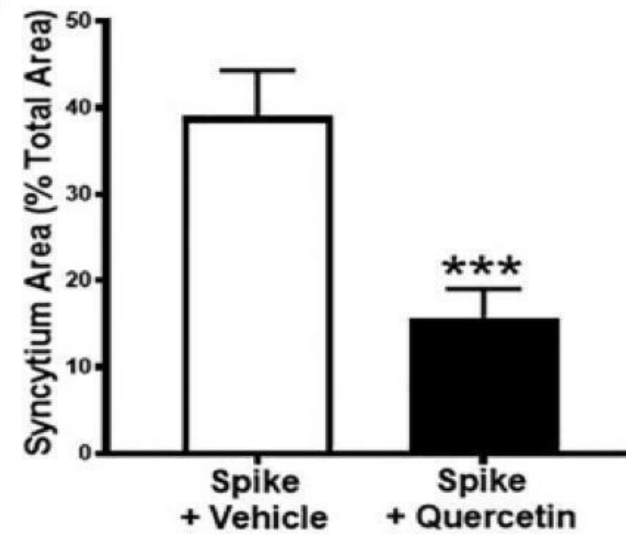


# SARS-CoV-2 Spike Protein expression in kidney cells results in syncytia formation with cellular sloughing

- Spike protein expression in these cells upregulates the cytoprotective gene HO-1.
- Quercetin, an HO-1(heme oxygenase) inducer, reduced syncytia size and spike protein expression.
- Quercetin may provide a clinically relevant protective strategy for acute kidney injury in COVID-19.

The spike protein of SARS-CoV-2 induces heme oxygenase-1: Pathophysiologic implications

Raman Deep Singh<sup>a</sup>, Michael A. Barry<sup>b</sup>,  
Anthony J. Croatt<sup>a</sup>, Allan W. Ackerman<sup>a</sup>,  
Joseph P. Grande<sup>c</sup>, Rosa M. Diaz<sup>d</sup>, Richard G. Vile<sup>d</sup>  
, Anupam Agarwal<sup>e</sup>, Karl A. Nath<sup>a</sup>  

**A****B****C**

# SPIKE DETOX PHASE 1:

- Degradation of free spike protein in circulation and spike that is attached to the receptor, NOT the membrane
- Prevention of renewed spike protein fusion to host cells
- Bromelain, Nattokinase, Augmented N-Acetyl Cysteine (ANAC), VEDICINALS 9, and a Heparin like substance (used as chelator for spike or fragments)

# Bromelain and Acetylcysteine present a synergistic effect on severe acute respiratory syndrome coronavirus (SARS-CoV-2) spike



## The Combination of Bromelain and Acetylcysteine (BromAc) Synergistically Inactivates SARS-CoV-2

[Javed Akhter](#),<sup>1,2,†</sup> [Grégory Quéromès](#),<sup>3,†</sup> [Krishna Pillai](#),<sup>2,†</sup> [Vahan Kepenekian](#),<sup>1,4,†</sup>  
[Samina Badar](#),<sup>1,5</sup> [Ahmed H. Mekkawy](#),<sup>1,2,5</sup> [Emilie Frobert](#),<sup>3,6,‡</sup> [Sarah J. Valle](#),<sup>1,2,5,‡</sup> and  
[David L. Morris](#)<sup>1,2,5,\*‡</sup>

**A**

	1	2	3	4	5	6
Acetylcysteine (20 mg/mL)	-	+	-	+	-	+
Bromelain (µg/mL)	-	+	50	50	100	100

Spike protein (150 KDa)







# SPIKE PROTEIN DENATURATION



12%

DENATURATION\*



99%

\*Degree of denaturation within 24 hours

STANDARD NAC

AUGMENTED NAC

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NACAUMENTATA.IT/EN

**Immunofluorescence analysis showed that S protein on the cell surface was degraded when nattokinase was added to the culture medium.**

### **Degradative Effect of Nattokinase on Spike Protein of SARS-CoV-2**

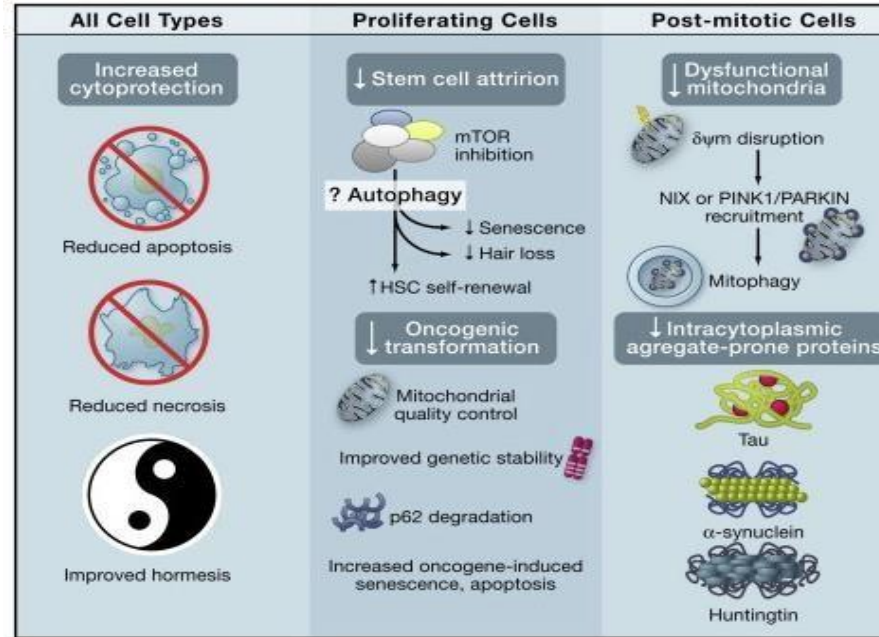
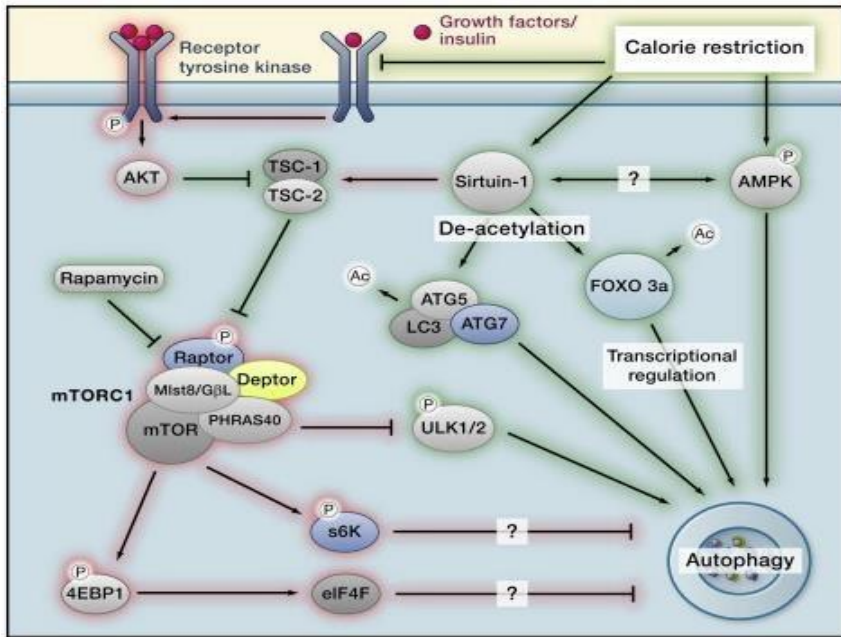
by  Takashi Tanikawa <sup>1,\*</sup>✉,  Yuka Kiba <sup>2,†</sup>,  James Yu <sup>3</sup>,  Kate Hsu <sup>3</sup>,  Shinder Chen <sup>3</sup>,  
 Ayako Ishii <sup>4</sup>,  Takami Yokogawa <sup>2</sup> ,  Ryuichiro Suzuki <sup>5</sup>,  Yutaka Inoue <sup>1</sup>  and  
 Masashi Kitamura <sup>2,\*</sup>✉



**NATTOKINASE 50mg / 1000FU low dosage**

# SPIKE DETOX PHASE 2:

- Overriding the blockages of the spike on AUTOPHAGY mechanisms
- Using these specific autophagy inducers:  
Resveratrol, VEDICINALS 9



## The Regulation of Autophagy and Life Span

- Autophagy may increase organismal fitness by inhibiting cell death, reducing oncogenic transformation, or increasing hormesis, both in quiescent and dividing cells (left).
- In addition, autophagy may contribute to life span extension through distinct mechanisms in post mitotic (middle) and proliferating cells (right). HCS, hematopoietic stem cell.
- Medicinals-9 molecules are known promoters of autophagy which can save the injured cells.

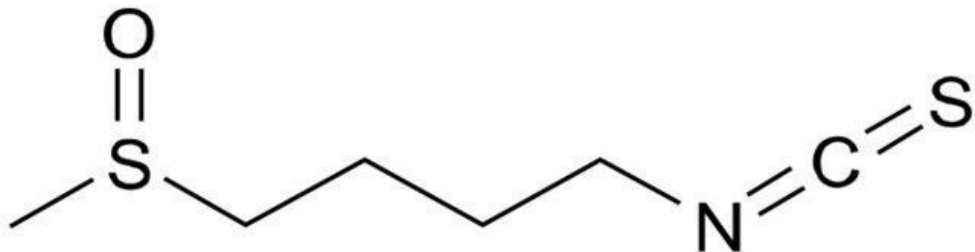
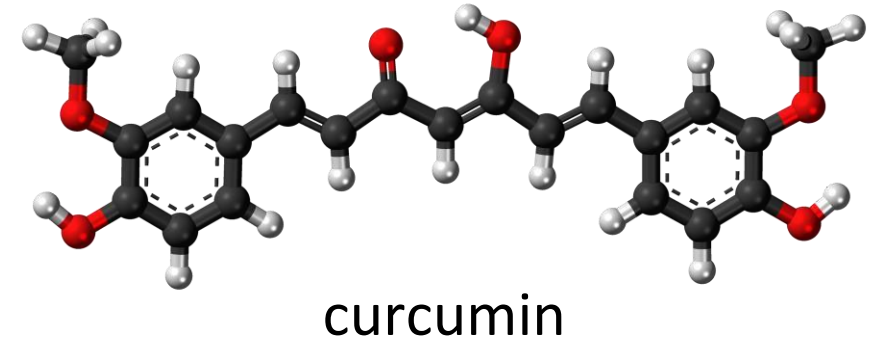


# SPIKE DETOX PHASE 3:

- Potent SENOLYTICS in order to break up SENESCENT cells and SYNCYTIA.
  - VEDICINALS 9 (Quercetin, Rutin, EGCG, Licorice, Curcumin) and Fisetin
- Bromelain, Nattokinase, and a Heparin like substance as chelator of free spike and excess collagen that is liberated in the process

# Many natural compounds have senolytic effects\*

- **Phenols:** curcumin, epigallocatechin, gallate, fisetin, genistein, phloretin, quercetin, resveratrol
- **Organosulfur compounds:** allicin, phenethyl isothiocyanate, sulforaphane
- **Methyl-tocols:** tocotrienols
- **Alkaloids:** berberine, piperlongumine
- **Terpenoids:** triptolide



\*Marco Malavolta et al. Mediators Inflamm 2018; 2018: 4159013.

# INJECTION OF RECOMBINANT FLUORESCENT SPIKE



24 hours after injection into the tail



72 hours after injection into the tail



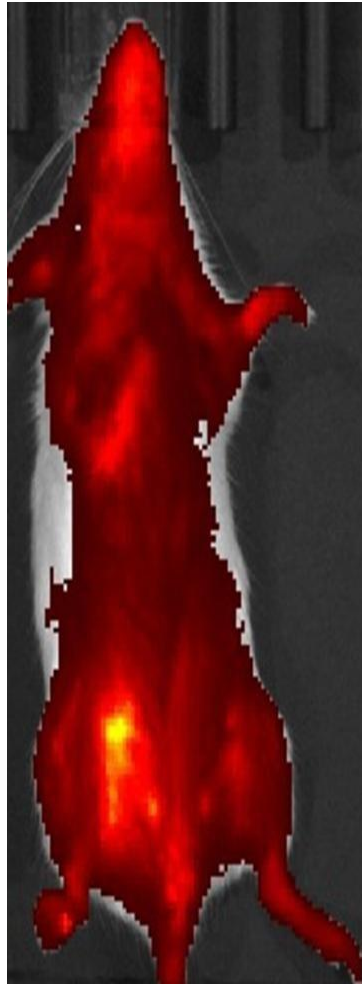
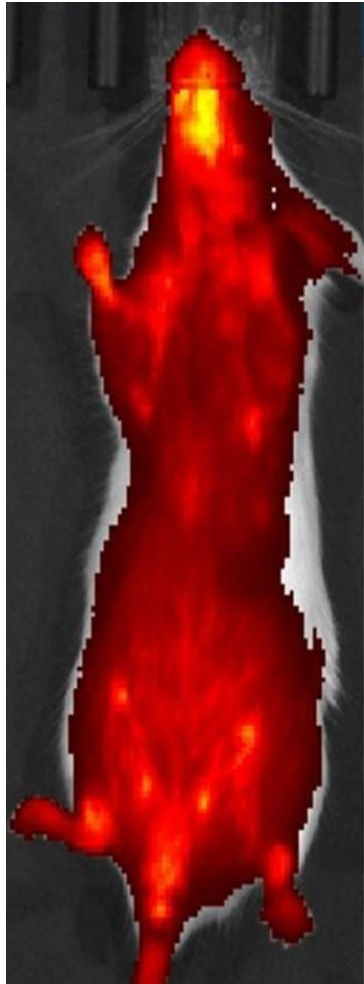
# Spike Detox - 1st Proof of Concept

animals were injected intraperitoneal with fluorescent recombinant spike protein

DAY 0

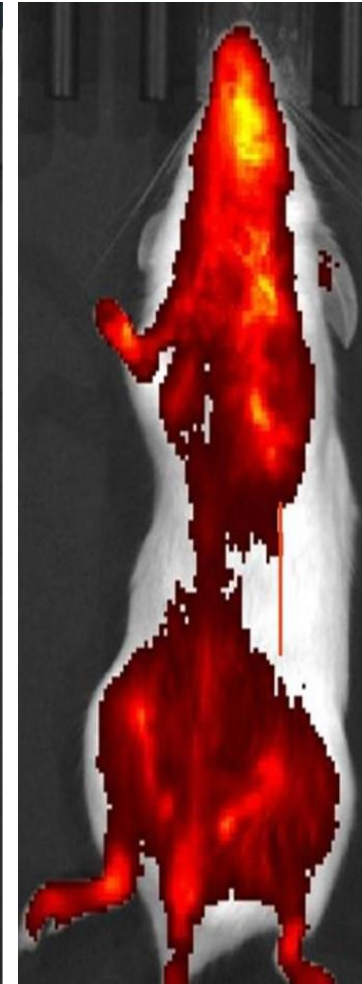
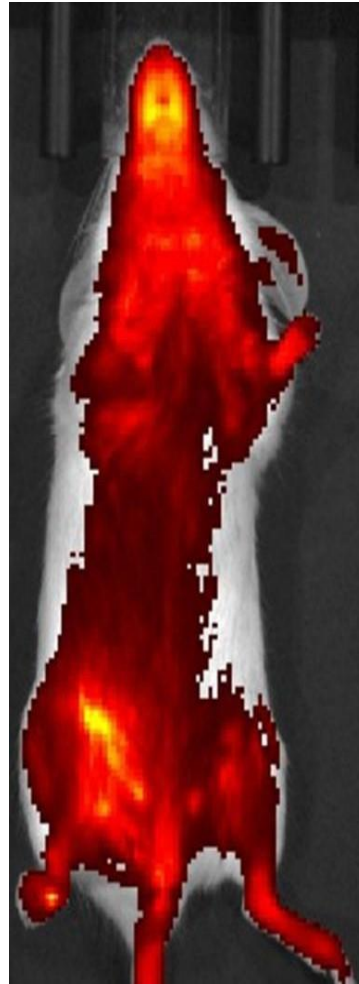
DAY 5

DAY 11



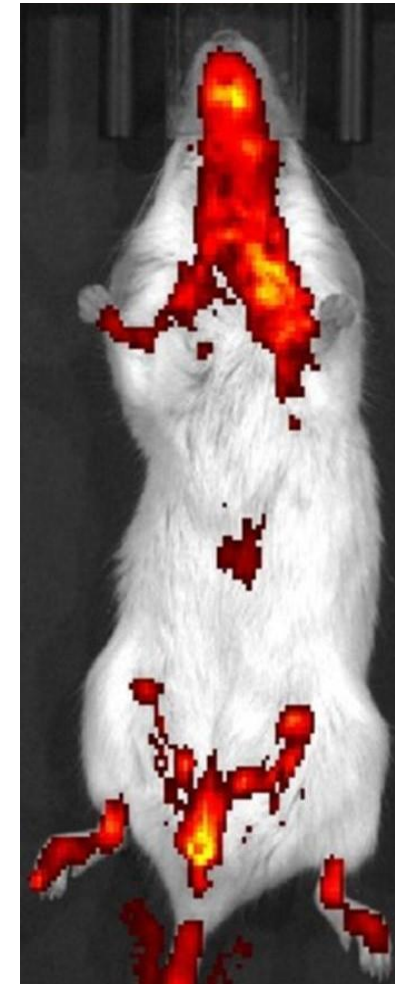
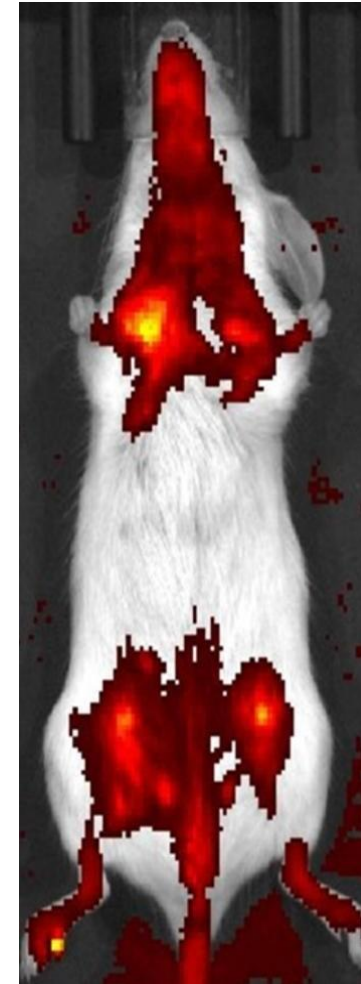
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TREATED



UNTREATED

TREATED



UNTREATED

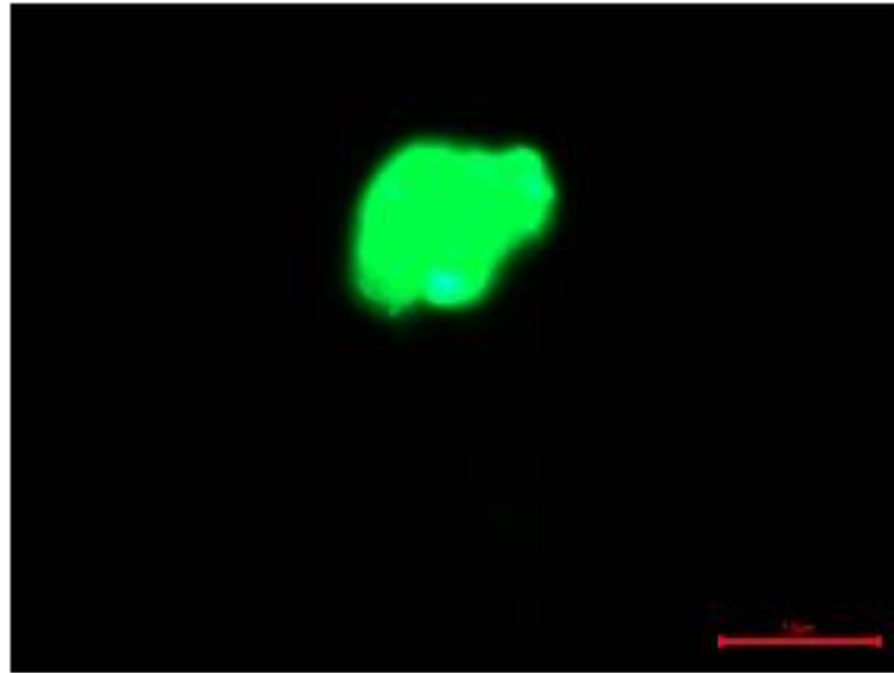
TREATED

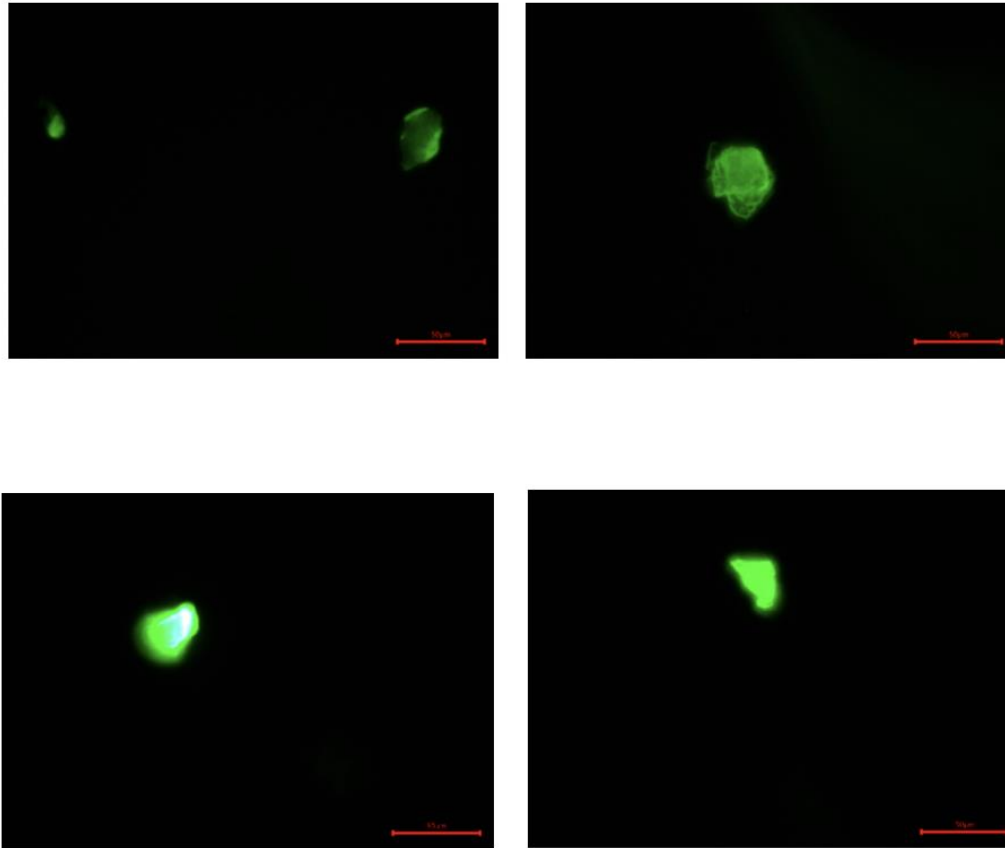


# Biomarkers that are significantly abnormal in our patients

- Human Transforming Growth Factor beta-1 (TGF- $\beta$ 1)
- D-dimer
- ABETA 42/40
- Cardiovascular (CV) Biomarkers
- Vascular Endothelial Growth Factor (VEGF)
- SARS COV2 Spike IgG and Nucleocapsid Antibodies
- Histamine
- WBC
- Microthrombi (all of our patients Grade 3/4- 4/4)
- High Sensitivity C-Reactive Protein (CRP)
- Anti-Nuclear Antibody (ANA)
- Epstein Barr Virus (EBV) titers

# Microthrombi Results 3.5/4



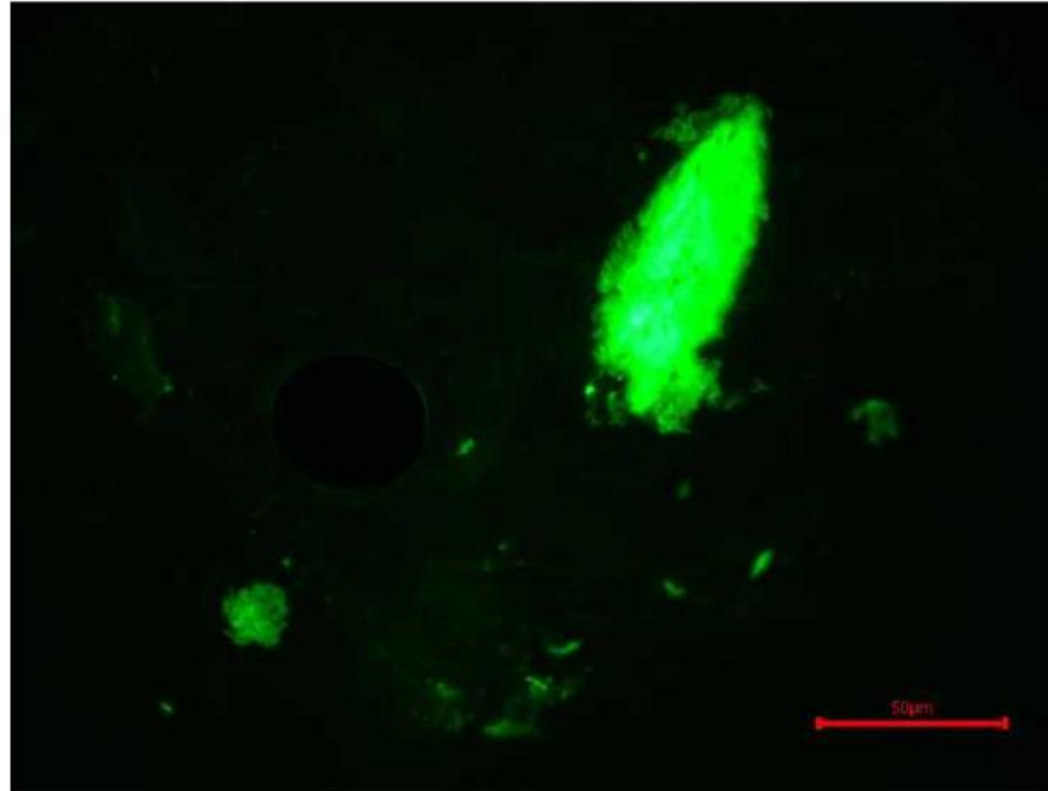


**Comments and staging of Amyloid Fibrin Microclots:**

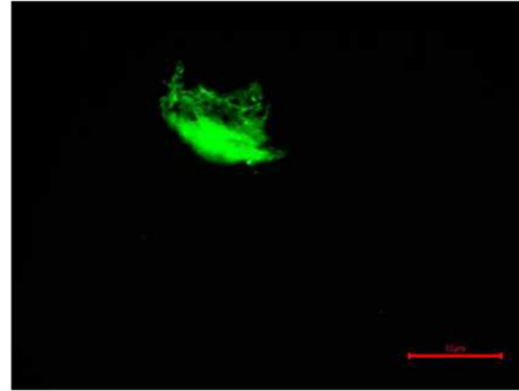
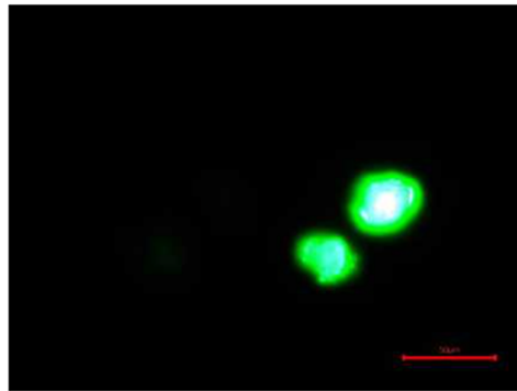
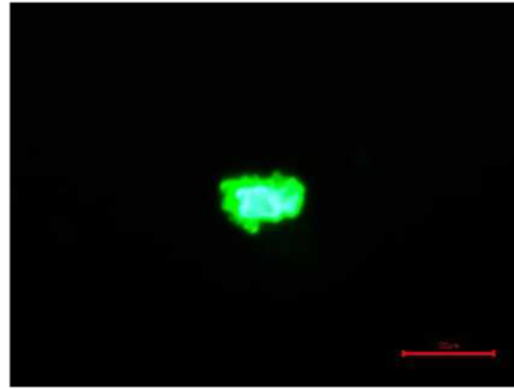
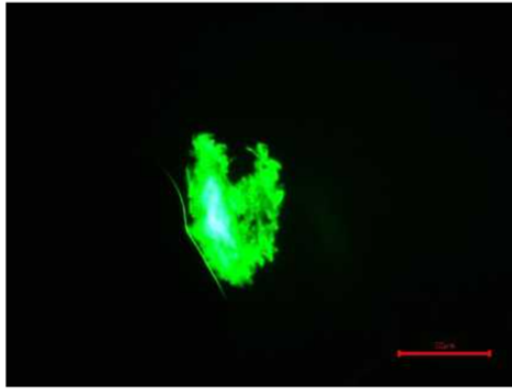
Stage/Grade 3.5 out of 4: Moderate and Widespread

**Note:** Micro-clots come in all shapes and sizes. You may also see long, string-like appearing objects in your pictures. These are **Endothelial cast** and are associated with **endothelial damage and inflammation**. This is a normal finding for long-COVID patients.

# Microthrombi Results 4/4







**Comments and staging of Amyloid Fibrin Microclots:**

Stage/Grade 4 out of 4: Significant and Widespread

**Note:** Micro-clots come in all shapes and sizes. You may also see long, string-like appearing objects in your pictures. These are **Endothelial cast** and are associated with **endothelial damage and inflammation**. This is a normal finding for long-COVID patients.

# Patient L History

- Male 66, Long Hauler COVID, Suffering from:
  - Chronic fatigue a/w exercise intolerance
  - Dysautonomia/spontaneous tachycardia
  - Horrible brain fog

# Patient L Before Treatment Biomarkers

- Out of Range:
  - TGF-B1
  - SARS CoV2 Antibodies
  - ABETA 42/40 Ratio
  - ANA Screen
  - EBV VCA IGM (U/mL)

## Reference Ranges:

- White Blood Cell Count: 3.8-10.8 Thous/uL
- D-Dimer: <0.50 mcg/mL
- Histamine: < OR = 1.8 ng/mL
- TFG-B1: 344-2382 pg/mL
- VEGF: 31-86 pg/mL
- SARS CoV2 Antibodies: (<1 Index)
- ABETA 42/40 Ratio: > OR = 0.160
- HS CRP: <1.0
- ANA: Negative
- EBV VCA IGM: <36 is a negative interpretation

Patient L	
Biomarker	Before Levels
WBC (thous/uL)	5.4
D-Dimer (mcg/mL)	0.43
Histamine (ng/mL)	<1.5
TGF-B1 (pg/mL)	9520 (High)
VEGF (pg/mL)	83
SARS CoV2 Antibodies	12.44 (High)
ABETA 42/40 RATIO	0.126 (Low)
HS CRP	0.8
ANA	1:40 (High) Positive
EBV VCA IGM (U/mL)	46 (High)

# Patient L Treatment Plan

- Long Hauler Protocol x 8 Weeks:
  - Medicinals
  - Vitamin D
  - Vitamin C
  - Zinc L-Carnosine
  - Lumbroxym
  - Melatonin
  - Rhizo Health (Pre-Pro-Post-biotic)
  - Trans-Resveratrol
  - EZ Trek (Parental oil: Omega 6&3)
  - Fisetin



# Patient L Post-Treatment Biomarkers

- Decreased Biomarkers
  - D-Dimer
  - TGF-B1
  - VEGF
  - SARS CoV2 Antibodies
  - HS CRP
  - ANA
  - EBV VCA IGM (U/mL)

## Reference Ranges:

- White Blood Cell Count: 3.8-10.8 Thous/uL
- D-Dimer: <0.5 mcg/mL
- Histamine: < OR = 1.8 ng/mL
- HTFG-B1: 344-2382 pg/mL
- VEGF: 31-86 pg/mL
- SARS CoV2 Antibodies: (<1 Index)
- ABETA 42/40 Ratio: > OR = 0.160
- HS CRP: <1.0
- ANA: Negative
- EBV VCA IGM: <36 is a negative interpretation

Patient L		
Biomarker	Before Levels	After Levels
WBC (thous/uL)	5.4	5.5
D-Dimer (mcg/mL)	0.43	0.25
Histamine (ng/mL)	<1.5	<1.5
TGF-B1 (pg/mL)	9520 (High)	1820
VEGF (pg/mL)	83	38
SARS CoV2 Antibodies	12.44 (High)	11.34 (High)
ABETA 42/40 RATIO	0.126 (Low)	0.174
HS CRP	0.8	0.5
ANA	1:40 (Positive)	Negative
EBV VCA IGM (U/mL)	46 (High)	<36

# Patient L Post-Treatment

- Patient states he is feeling great:
  - Little to no brain fog
  - Fatigue improved greatly
  - Able to focus more
  - Able to exercise and play basketball
  - No more shortness of breath
  - No more tachycardia

# Patient E History

- Female 60, Long Hauler COVID, suffering from:
  - Dizziness
  - Exercise intolerance
  - Tachycardia
  - Shortness of breath
  - Chronic fatigue
  - Brain fog
  - Joint pain and muscle aches

# Patient E Before Treatment Biomarkers

## Out of Range:

- D-Dimer
- TGF-B1
- VEGF
- SAR CoV2 Antibodies
- EBV VCA IGG

## Reference Ranges:

- White Blood Cell Count: 3.8-10.8 Thous/uL
- D-Dimer: <0.5 mcg/mL
- Histamine: < OR = 1.8 ng/mL
- TFG-B1: 344-2382 pg/mL
- VEGF: 31-86 pg/mL
- SARS CoV2 Antibodies: (<1 Index)
- ANA: Negative
- EBV VCA IGM: <36 is a negative interpretation
- EBV VCA IGG: : <18 is a negative interpretation

Patient E	
Biomarker	Before Levels
WBC (thous/uL)	4.7
D-Dimer (mcg/mL)	0.67 (High)
Histamine (ng/mL)	<1.5
TGF-B1 (pg/mL)	4140 (High)
VEGF (pg/mL)	<31 (Low)
SARS CoV2 Antibodies	>150 (High)
ANA	Negative
EBV VCA IGM (U/mL)	<36
EBV VCA IGG (U/mL)	248 (High)



# Patient E Treatment

- Long Haul Protocol
  - Medicinals
  - Vitamin D
  - Vitamin C
  - Zinc L-Carnosine
  - Lumbroxym
  - Melatonin
  - Rhizo Health
  - Trans-Resveratrol
  - EZ Trek

# Patient Post-Treatment Biomarkers

- Decreased Biomarker
  - D-Dimer
  - TGF-B1
  - EBV VCA IGG

## Reference Ranges:

- White Blood Cell Count: 3.8-10.8 Thous/uL
- D-Dimer: <0.5 mcg/mL
- Histamine: < OR = 1.8 ng/mL
- TFG-B1: 344-2382 pg/mL
- VEGF: 31-86 pg/mL
- SARS CoV2 Antibodies: (<1 Index)
- ANA: Negative
- EBV VCA IGM: <36 is a negative interpretation
- EBV VCA IGG: : <18 is a negative interpretation

Patient E		
Biomarker	Before Levels	After Levels
WBC (thous/uL)	4.7	5.2
D-Dimer (mcg/mL)	0.67 (High)	0.27
Histamine (ng/mL)	<1.5	<1.5
TGF-B1 (pg/mL)	4140 (High)	2380
VEGF (pg/mL)	<31 (Low)	<31 (Low)
SARS CoV2 Antibodies	>150 (High)	>150 (High)
ANA	Negative	Negative
EBV VCA IGM (U/mL)	<36	<36
EBV VCA IGG (U/mL)	248 (High)	235 (High)

# Patient E Post-Treatment

- Patient states she is feeling much better:
  - Brain fog and chronic fatigue significantly improved
  - Joint pain improved
  - Slowly exercising again
  - Shortness of breath improved

# Patient S Lab Work Prior to Treatment

- Out of Range
  - Histamine
  - TGF-B1
  - SARS CoV2 Antibodies
  - HS CRP
  - EBV VCA IGG

Reference Ranges:

- White Blood Cell Count: 3.8-10.8 Thous/uL
- D-Dimer: <0.5 mcg/mL
- Histamine: < OR = 1.8 ng/mL
- TFG-B1: 344-2382 pg/mL
- VEGF: 31-86 pg/mL
- SARS CoV2 Antibodies: (<1 Index)
- ABETA 42/40 Ratio: > OR = 0.160
- HS CRP: <1.0
- ANA: Negative
- EBV VCA IGG: : <18 is a negative interpretation

Patient S	
Biomarker	Before Levels
WBC (thous/uL)	10.6
D-Dimer (mcg/mL)	0.26
Histamine (ng/mL)	21.6 (High)
TGF-B1 (pg/mL)	6500 (High)
VEGF (pg/mL)	76
SARS CoV2 Antibodies	>150.00 (High)
ABETA 42/40 RATIO	0.163
HS CRP	36.10 (High)
ANA	Negative
EBV VCA IGG (U/mL)	36.10 (High)



