

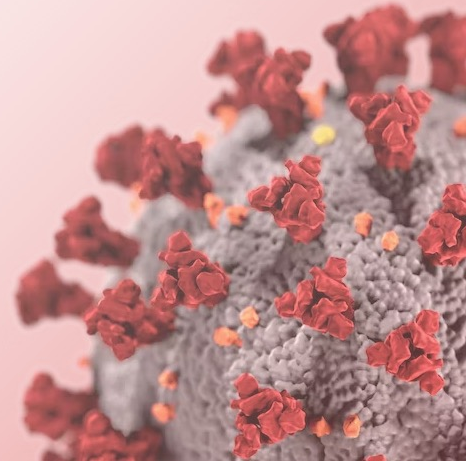


**EMERGING APPROACHES TO TREATING
SPIKE PROTEIN-INDUCED DISEASES**

April 28-29, 2023 • Fort Worth, Texas

Biomarkers in Spikopathy: Guiding Treatment

**Presented by:
Scott Marsland, FNP-C**



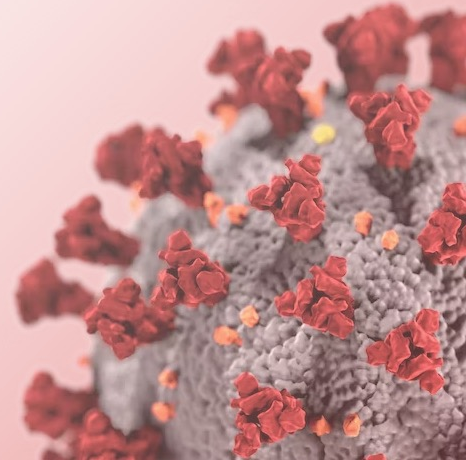


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CONFLICTS OF INTEREST

None



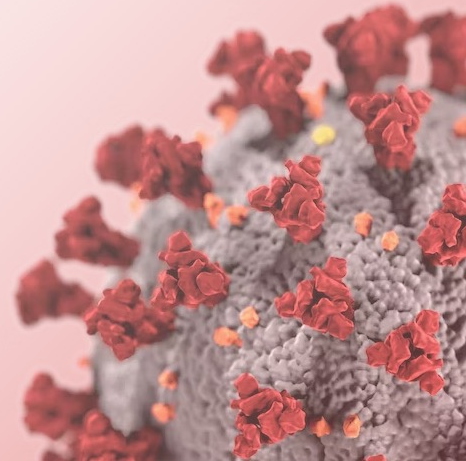


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INTRODUCTION

- No commercially available measure of spike
- Clinical correlation of indirect measure
- Hypotheses re: pathophysiology
- Interventions with clinical benefit
- Implications for practice



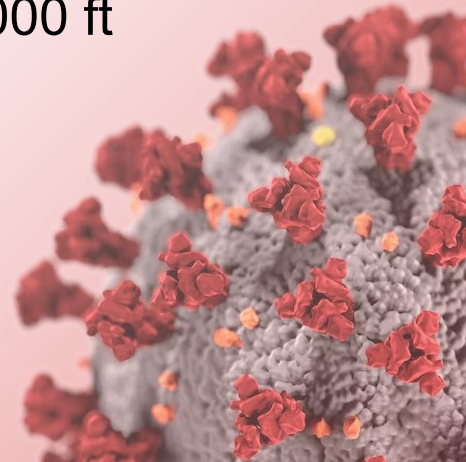


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CASE STUDY: PATIENT X

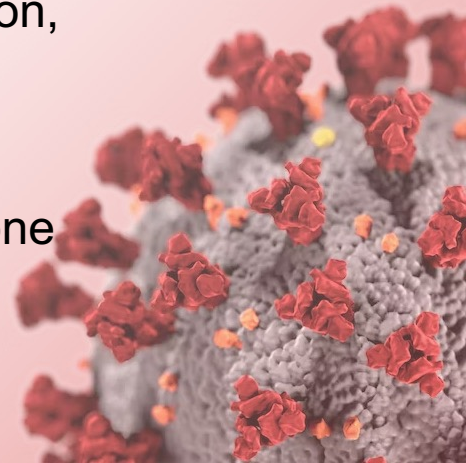
- Mid 30s, female
- Hx of depression, chronic back pain s/p MVC. S/p ACL repair, hand surgery.
- Rx Lexapro, Nuvaring, OTC Vit D, B-12 (Methyl)
- Physically active, passion for snowboarding, living at 9,000 ft altitude, working at 10,000 ft altitude.
- Single, gainfully employed, supportive extended family





CASE STUDY: PATIENT X

- Initial visit was for acute COVID late June 2022
- Single shot J&J
- Treatment in our telemedicine practice, with foundation of FLCCC protocol at that time, including IVM, HCQ, as well as NTZ, Vit D, Quercetin, Zinc, Vit C, Nasopharyngeal/oral spray/gargle
- Initial sx: fever (T Max 101.4F), sore throat, HA, sinus congestion, fatigue, body/muscle aches, brain fog, low oxygen SaO₂
- Progression into organizing pneumonia, and high dose Methylprednisolone was initiated
- Patient was recovering, and abruptly stopped Methylprednisolone
- Uh-oh...





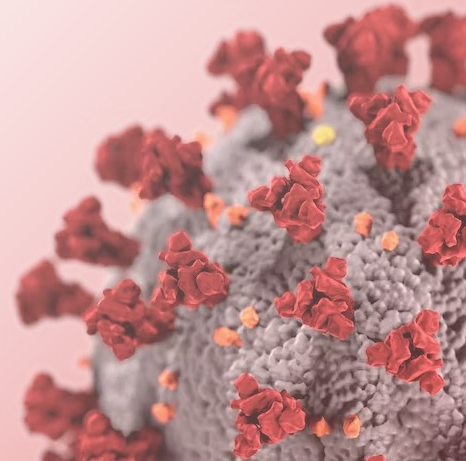
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CASE STUDY: PATIENT X

Gestalt of treating acute COVID and post-acute sequelae of COVID (PASC) and vaccine injury

- Complexity
- Brain fog is real: easily overwhelmed
- Close follow up, clear communication
- Citizen scientists: decisive role of patient engagement
- Active learning, flexible application by providers

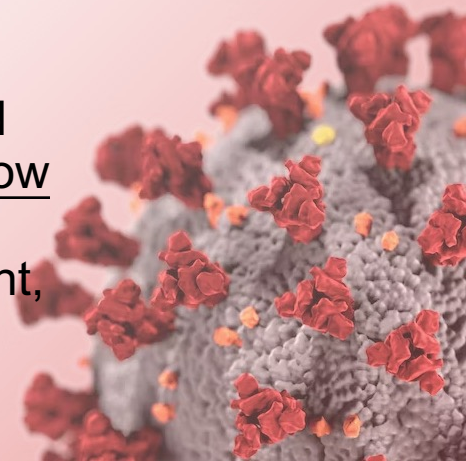




CASE STUDY: PATIENT X

Clinical Course:

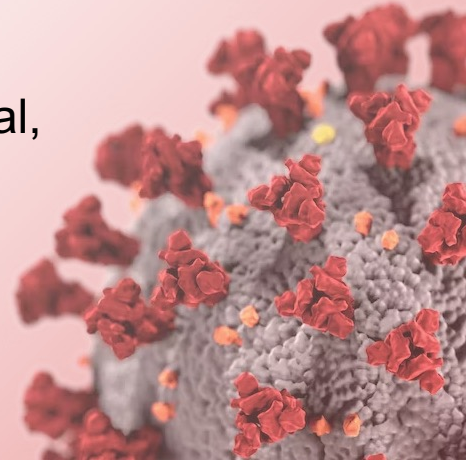
- Moved from acute COVID directly into PASC, despite tx
- Recurrent acute viral infections, secondary bacterial infections, reactivated EBV, negative by 2/23/23
- Prolonged recovery after each acute episode
- Interval functionality, followed by worsening setbacks
- Gradual acknowledgement and growth towards resolve
- From 6/22 through 2/23, pertinent abnormal labs were elevated RBCs (high altitude), platelets, and low normal B-12 and D3, now at 412 pg/ml and 75.8 ng/mL, respectively
- Many trials of therapy, including: LDN, TA-1 (peptide), Aprepitant, ATP-360.



CASE STUDY: PATIENT X

Critical Junctures, 1 of 3

- Lingering impact on adrenal function from abrupt cessation of high dose steroids. Not Addisonian crisis, but not good.
- Emotional work of processing what is happening in her body, and coming to accept that it won't resolve without an organized, strategic, layered approach
- Follow up, follow up, follow up: value of a highly professional, knowledgeable, communicative nursing team manifesting itself
- Dietary changes, including elimination of soda
- Breaking isolation with support online from other PASC/ vaccine injured patients.

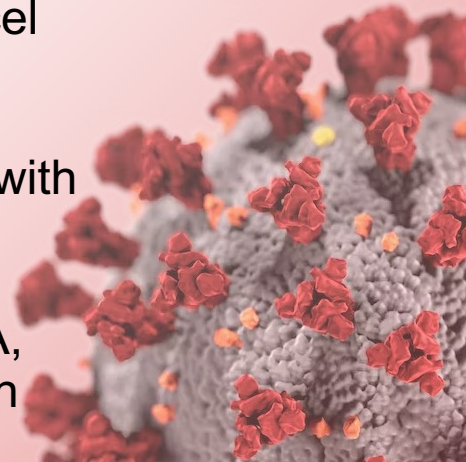




CASE STUDY: PATIENT X

Critical Junctures, 2 of 3

- Early initiation of EPA: 30% of refractive mental health patients have underlying endothelial inflammation
- POTS symptoms: HR management with Midodrine.
- Measurement of reactivated EBV: initiation of Humacel and Lauricidin, transition to TA-1, incidental NTZ for acute sx.
- Emergence of microclotting as a dominant dynamic, with exertion and cold provoking escalating events of decompensation.
- Progression from anticoagulation with Turmeric, EPA, Aspirin and Nattokinase, to triple anti-coagulation with Plavix and Eliquis mid-January 2023

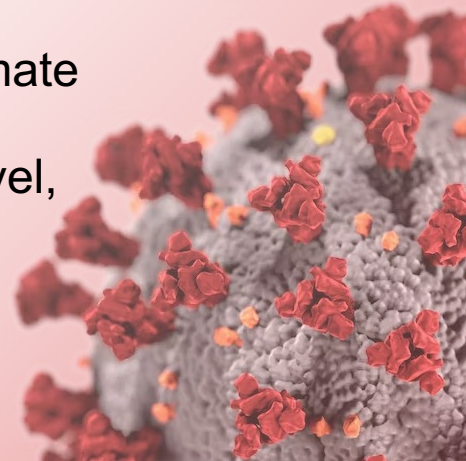




CASE STUDY: PATIENT X

Critical Junctures, 3 of 3

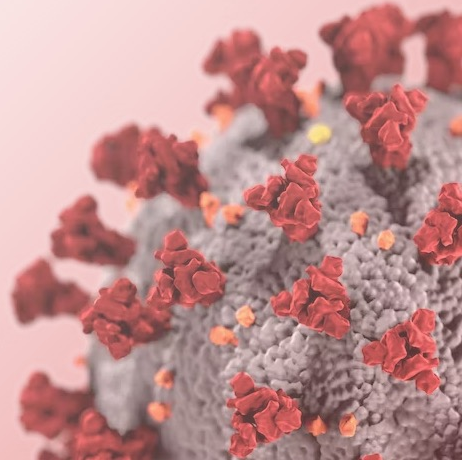
- Implementation of HBOT after triple anticoagulation, with relief of dyspnea, CP, decrease in joint/muscle pain in two weeks
- Identification of a clinically correlated measure: SARS-CoV-2- Semi quantitative antibody 23,192 U/mL
- Improvement of anxiety and cognition with introduction glutamate antagonist (Memantine) early February 2023
- Dynamic of living at high altitude, and coming down to sea level, TWICE!
- GAME CHANGER: Quantum NAC. Back to new normal and rapid, quantifiable drop in spike ab dilution after three weeks.





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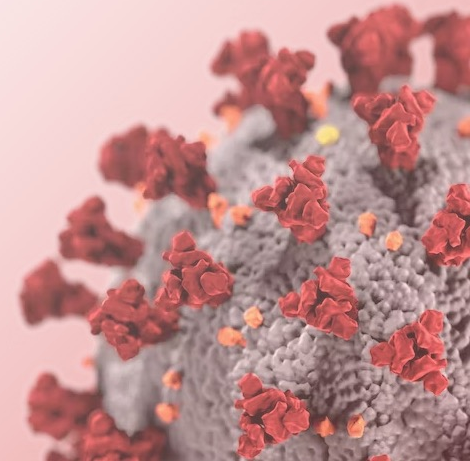
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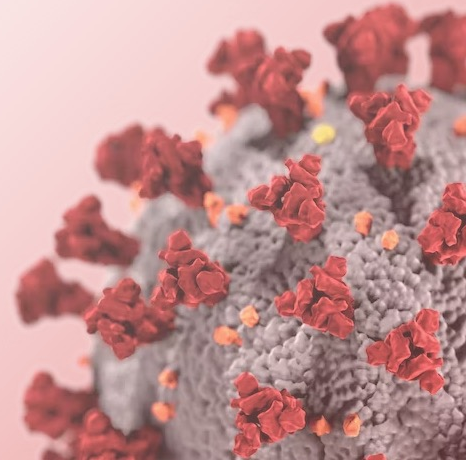
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Dr Gi-Gi and me:

- Medicine and Psychiatry
- Data on >200 patients
- Emerging patterns since December 2022



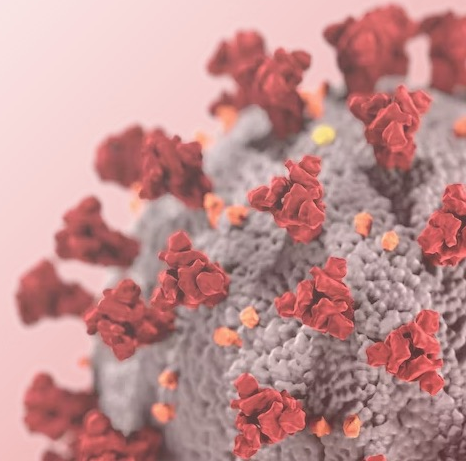


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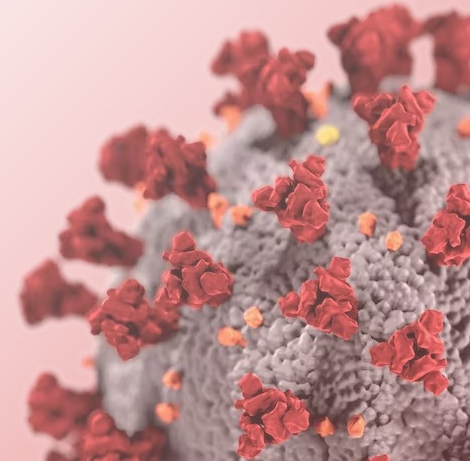
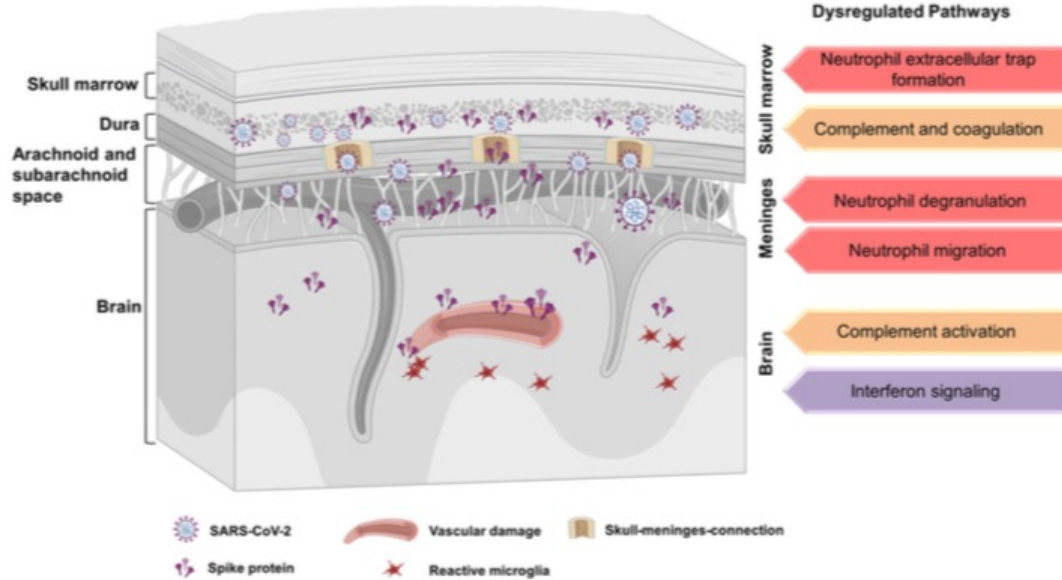
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PATHOPHYSIOLOGY

- Brain vs body immunity
- Spike and BBB
- IVM and BBB
- Glutamate and GABA
- Spike and Tau
- EBV



Graphical Summary





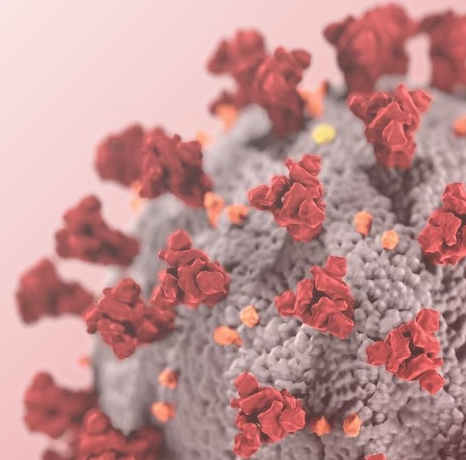
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GLUTAMATE

Glutamate is an abundant, powerful excitatory neurotransmitter present almost in all neural synapses in the central nervous system and plays an essential role in the functioning of the brain.

Glutamate levels need to be well regulated, as excessive exposure to glutamate may be toxic to neurons and may damage them leading to ALS.



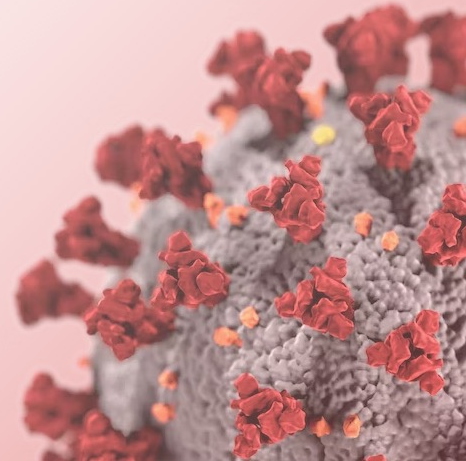


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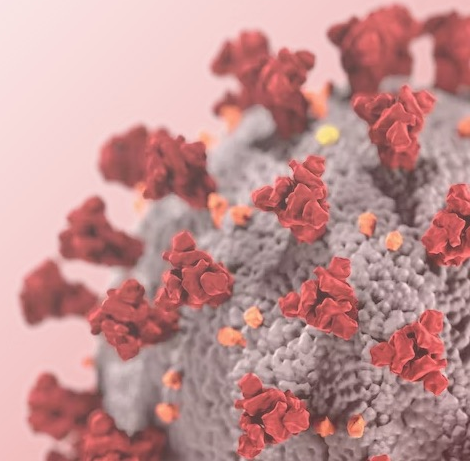
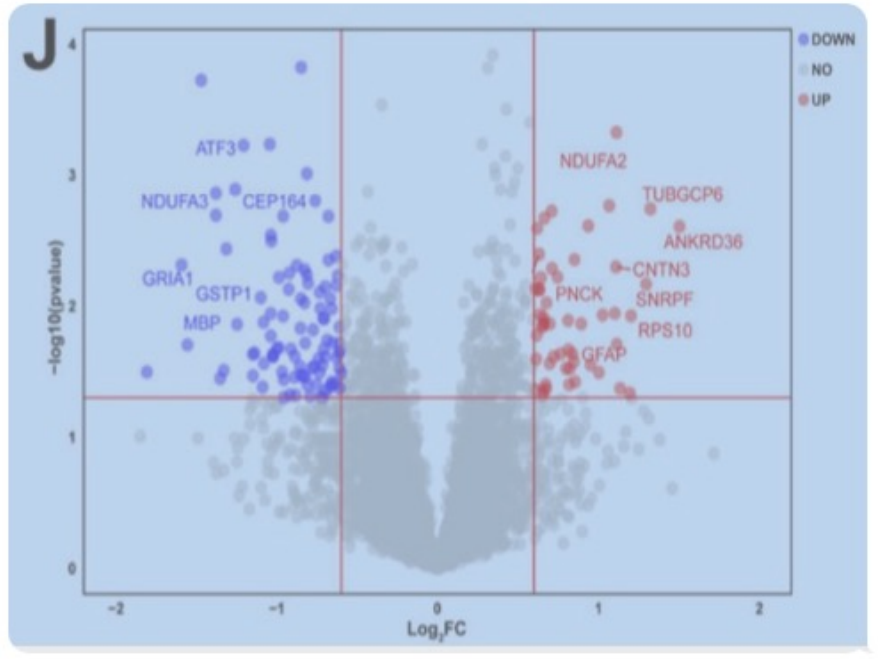
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PATHOPHYSIOLOGY II

- Glutamate channels
- GABA & myelin inhibition
- Neuronal instability, apoptosis



GRIA1 Downregulated Post-mortem Brains: Mediates Glutamate





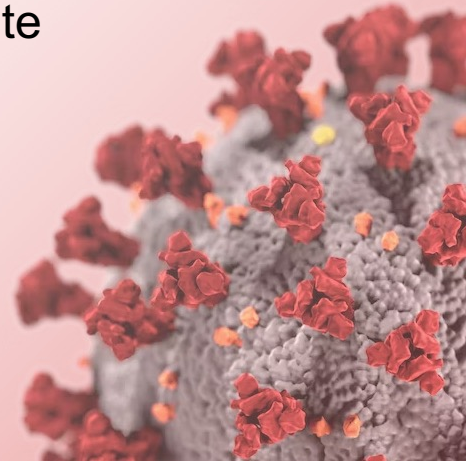
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PATHOPHYSIOLOGY MEETS PHARMACOLOGY: MEMANTINE / NAMENDA

- Low-affinity, voltage dependent, uncompetitive
- NMDA Receptor antagonist
- Interacts under pathologic conditions of >Glutamate

- Commonly used in Psychiatry and Medicine



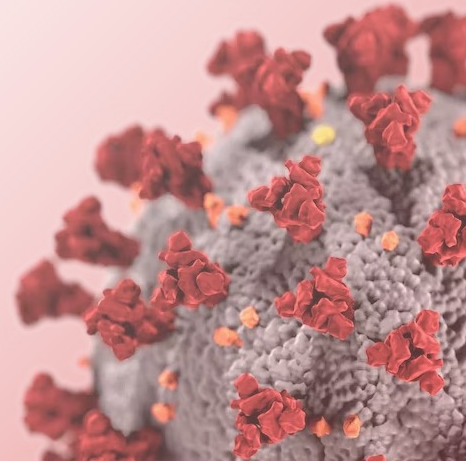


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PATHOPHYSIOLOGY MEETS PHARMACOLOGY: MEMANTINE / NAMENDA

- Primary side effect is sleepiness
- Primary adverse effects: dizziness, bad dreams and sleep disruption
- Few drug interactions
- May block: nicotinic, acetylcholine, serotonin and sigma-1 receptors
- Inexpensive: ~ \$3 for one month supply
- Low dose: up to 5mg daily



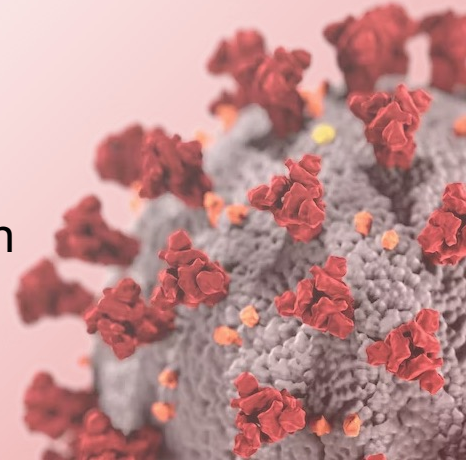


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PATHOPHYSIOLOGY MEETS NUTRACEUTICAL: SHILAJIT / MOOMIYO / FULVIC ACID

- Ayurvedic, in use 3,000 years
- Dark, sticky mineral substance that exudes from the rocks of high mountainous regions during the heat of summer
- Glycine and GABA mimetic actions
- Prevents Tau formation, neural anti-inflammatory, mitochondrial support, increases iron levels, mild diuretic, adrenal support, > testosterone production
- 150mg → 1500mg daily



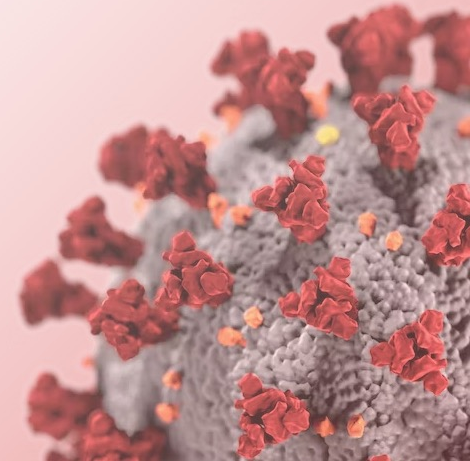


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“If you care, you’ll learn one thing from another.” Barbara Kingsolver



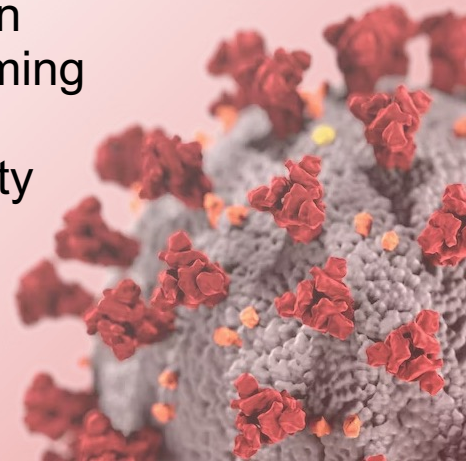
SPIKE VS SPIKE

Spike from community infection

- Nucleocapsid
- Lower concentration
- Must pass mucosa

Spike from injection

No nucleocapsid
Up to 1000x concentration
Bypasses mucosa, becoming
systemic
Cleavage increases affinity
for ACE2





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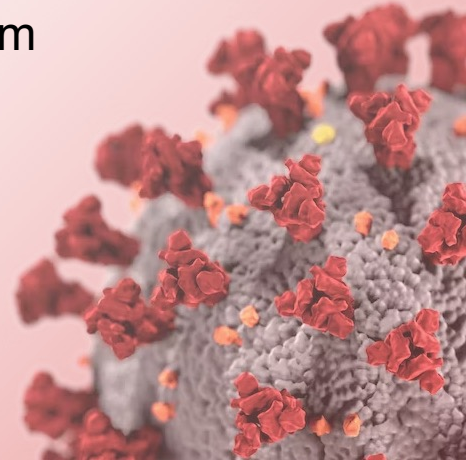
SPIKE VS SPIKE ANTIBODY

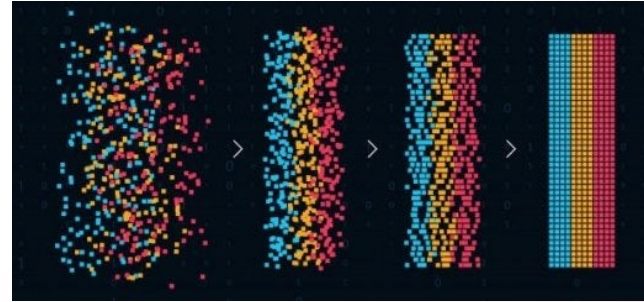
Spike

- Cannot yet be measured with commercially available testing.
- Point-of-care testing in Italy, not brought to market

Spike Antibody

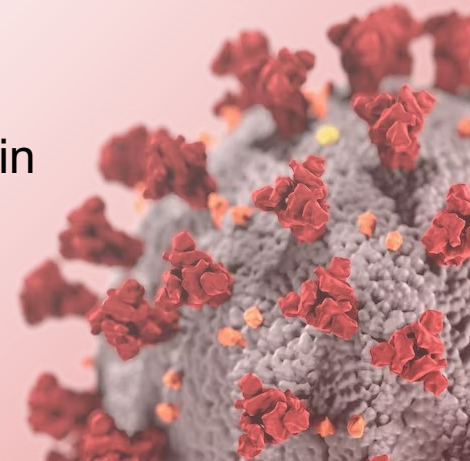
\$100 test from Lab Corp
AND...our data shows clinical correlation to symptom burden





PATTERN RECOGNITION

- In the **absence** of spike neutralizing efforts, provides some measure of global background spike
- In the **presence** of spike neutralizing efforts, points towards a reservoir of spike in the brain
- Consistently decreases with intervention
- In symptomatic patients: symptom burden decreases in direct correlation
- Rate of decrease flattens





EMERGING APPROACHES TO TREATING SPIKE PROTEIN-INDUCED DISEASES

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• SARS CoV-2 Antibody Profile, Nucleocapsid and Spike CPT: Test code: 160236 and 86769x2

Labcorp Order Code: 160236 and 86769x2

Test code: 160236; 86769x2

Non-fasting, LAB CORP ONLY!

WHAT IS THE TEST?

Ordered Items: **SARS-CoV-2 Antibody, IgG; SARS-CoV-2 Semi-Quant Total Ab; Venipuncture**

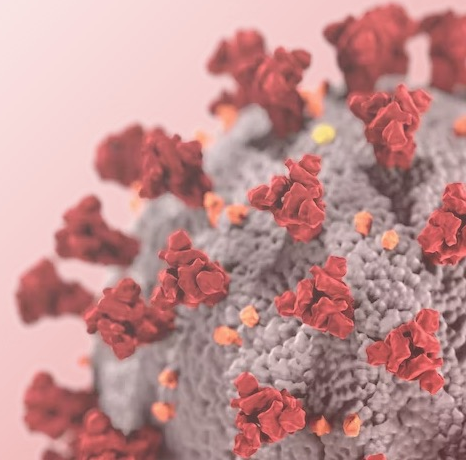
Date Collected: **01/25/2023** Date Received: **01/25/2023** Date Reported: **01/26/2023** Fasting: **Yes**

SARS-CoV-2 Antibody, IgG

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
SARS-CoV-2 Semi-Quant IgG Ab ^{A41}	>800.0		AU/mL	Neg <13.0
SARS-CoV-2 Spike Ab Interp ^{A41}	Positive Antibodies against the SARS-CoV-2 spike protein, including the receptor binding domain (RBD) were detected. It is not yet known what level of antibody to SARS-CoV-2 spike protein correlates to immunity against developing symptomatic SARS-CoV-2 disease. This assay was performed using DiaSorin Liaison(R) SARS-CoV-2 Trimeric S IgG assay.			

SARS-CoV-2 Semi-Quant Total Ab

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
SARS-CoV-2 Semi-Quant Total Ab ^{A41}	See Dilution		U/mL	Negative<0.8
SARS-CoV-2 Spike Ab Dilution ^{A41}	8680		U/mL	Negative<0.8
SARS-CoV-2 Spike Ab Interp ^{A41}	Positive Antibodies against the SARS-CoV-2 spike protein receptor binding domain (RBD) were detected. It is yet undetermined what level of antibody to SARS-CoV-2 spike protein correlates to immunity against developing symptomatic SARS-CoV-2 disease. Studies are underway to measure the quantitative levels of specific SARS-CoV-2 antibodies following vaccination. Such studies will provide valuable insights into the correlation between protection from vaccination and antibody levels. Roche Elecsys Anti-SARS-CoV-2 S			



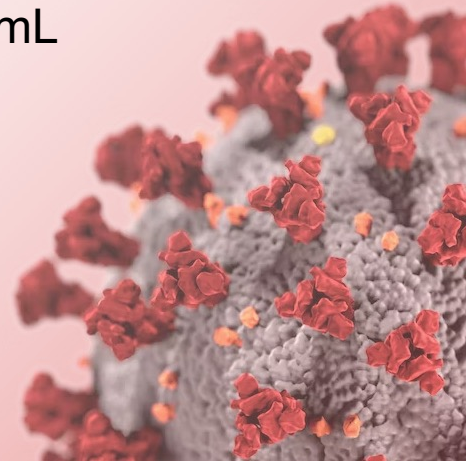


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TIPS FOR SUCCESS

- **Lab Corp only** (Boston Heart option)
- NOT Quest, NOT local hospital
- Lab Corp will check semi-quant, and if >250 U/mL, will perform a reflex dilution level
- Levels can vary between <0.8 U/mL and $>25,000$ U/mL
- Patient doesn't need to be fasting



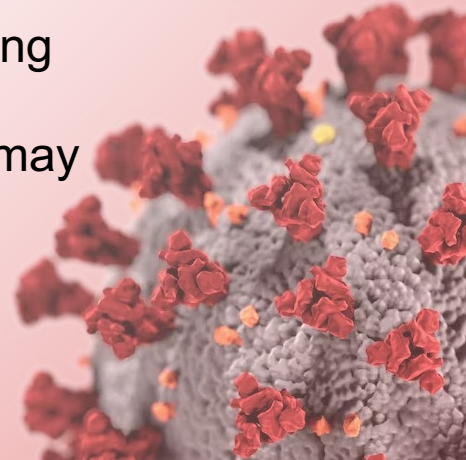


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INTERPRETATION: PART 1

- Levels > 400 U/mL often correlate to symptoms, including HA, fatigue, and cognitive impairment
- Levels >5,000 U/mL can correlate to severe changes in mental health and neurological function
- Levels >25,000 U/mL are out of bounds, and concerning
- Unvaccinated patients with levels up to 12,000 U/mL
- Very low or absent levels in decompensated patients may represent a severely compromised immune system



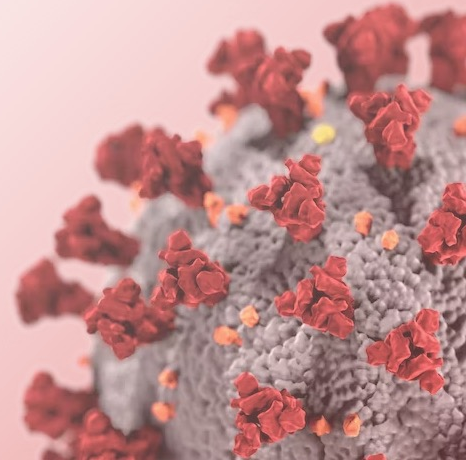


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INTERPRETATION: PART 2

- Clinical context is paramount: point 0.0 is testing symptomatic patients
- Early consideration needs to be given to close contacts
- Asymptomatic close contacts with elevated spike ab dilution levels are consistent with “bad batches” and individual autoimmune response
- Spike ab levels in close contacts decrease with spike neutralizing treatment
- This benefits the patient
- And points to...shedding as an real phenomenon



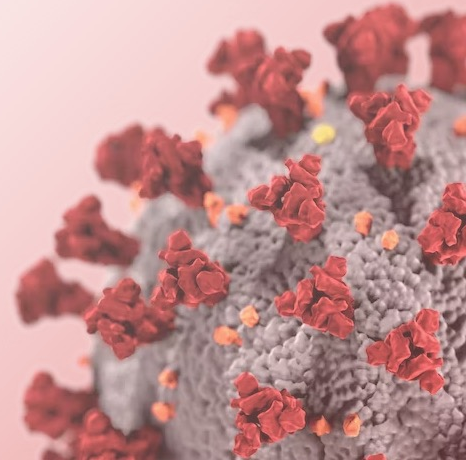


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TREATMENT

- Baseline spike neutralization with intermittent fasting (IF), IVM, Nattokinase, Resveratrol
- Add Spermidine to promote autophagy
- Spike ab <1,000 U/mL, consider Shilajit
- Spike ab > 2,000 U/mL, trial Memantine
- Quantum NAC...a game changer?



CLINICAL PEARLS

START
MEMANTINE

1.25MG

ADVANCE
MEMANTINE

5MG

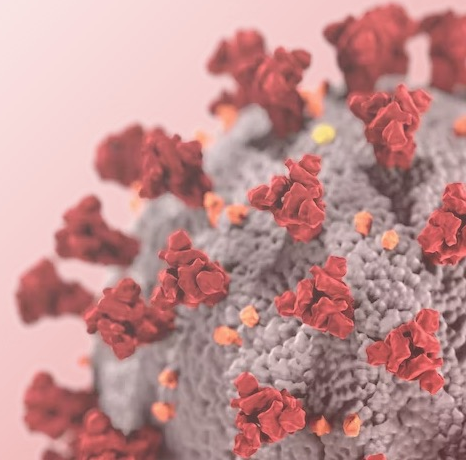
ANTICIPATE
Spike ab >25k?
2-3 months tx

STOP MEMANTINE

Dizziness, bad dreams, sleep
interruption, lethargy,
abrupt downturn

PLAN TO
TRANSITION

Shilajit on deck



WHAT DO WE SEE?

RAPID IMPROVEMENT

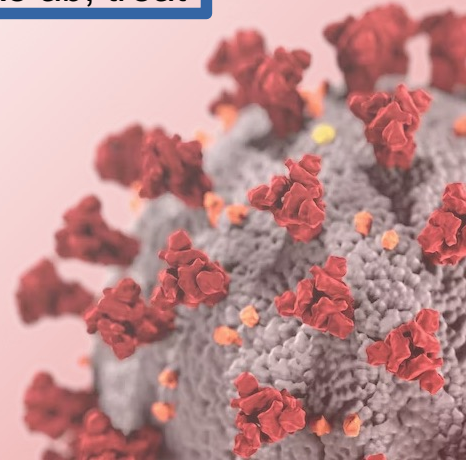
- Acute sx burden with elevated spike ab
- Reversal of suicidality, homicidality, severe anxiety

DECREASING SPIKE AB

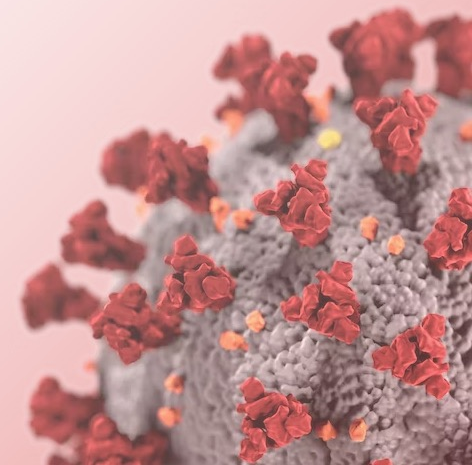
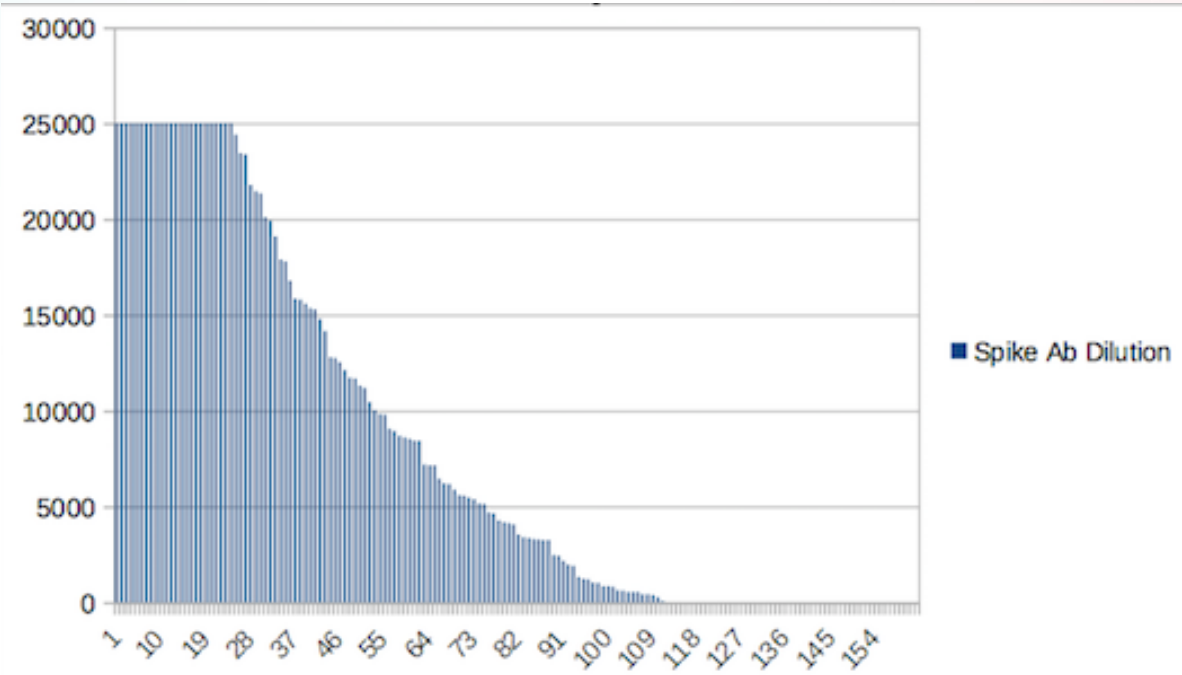
- 2,000 U/mL per month max
- Associated with full interventions & Aggressive IF

CLOSE CONTACTS (CC)

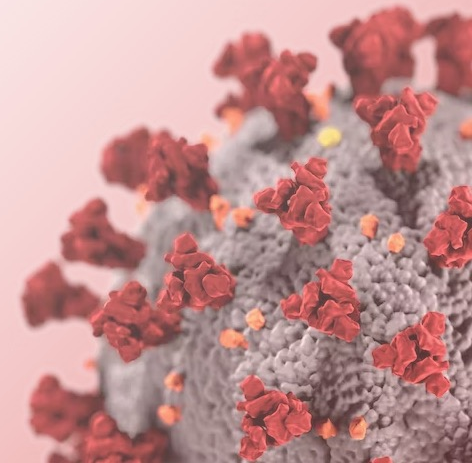
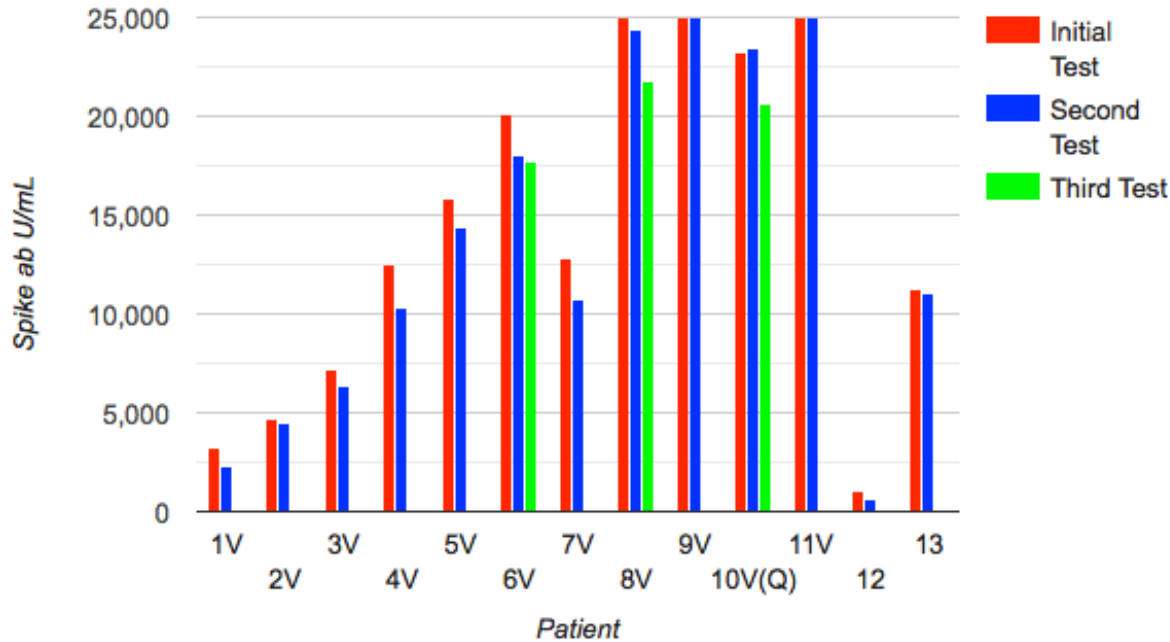
- Signals of shedding
- Patient plateau, check cc
- With > spike ab, treat



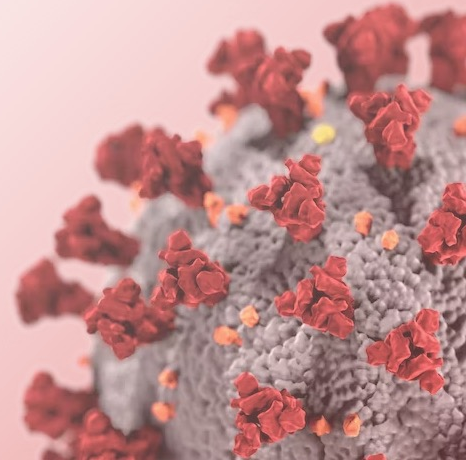
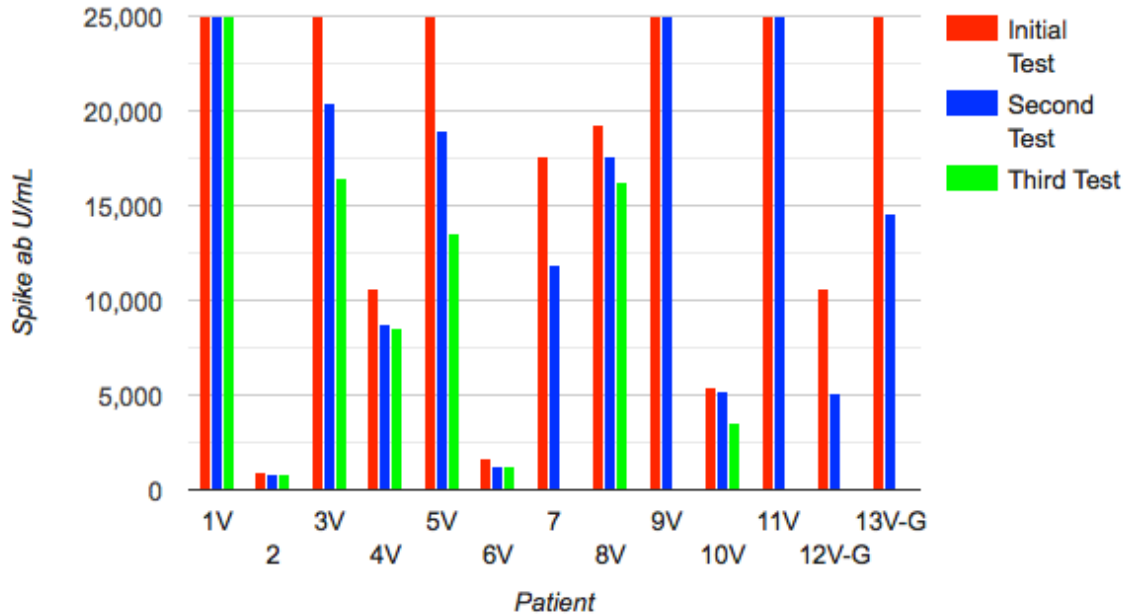
SPIKE ANTIBODY DILUTION LEVELS



Serial Spike ab Dilution Testing



Serial Spike ab Dilution Testing (Dr Gi-Gi)





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EXAMPLES OF SHEDDING

4,000 U/mL

Unvax patient has
vax/Boosted spouse has
Spike ab 23,500 U/mL

11,000 U/mL

Unvax daughter lives
with her works in criminal
court

?

Unvaccinated spouse
performed felatio upon
vax/boosted spouse

12,000 U/mL

Unvaccinated patient
teaches vax/boosted
band students

?

Snuggled skin-to-skin with
friend just boosted

5,000 U/mL

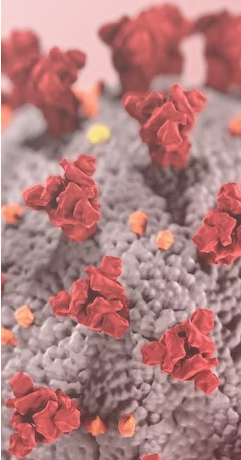
Unvax visited mother in
nursing home every day
for 1 hour for months

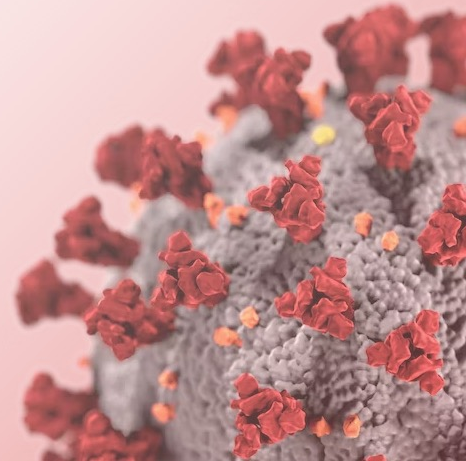
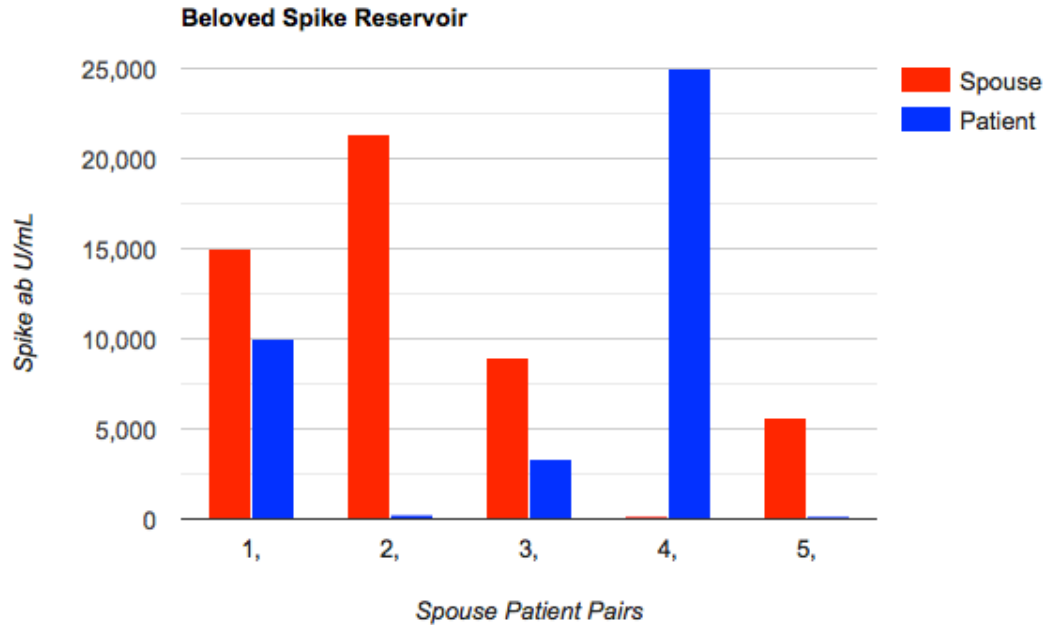
500 U/mL

Unvax cared for vax
mother at home providing
intimate care

>25,000 U/mL

Vax patient living with vax
partner







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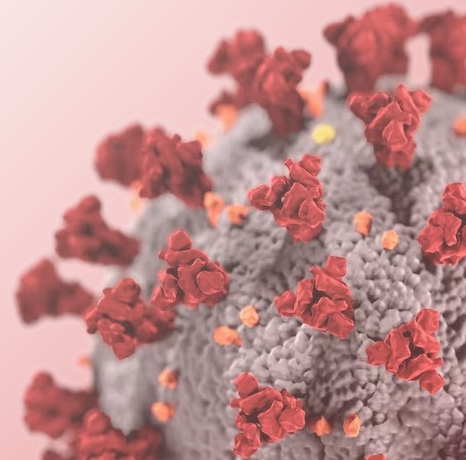
VAX, SPIKE AB ~4K

BEFORE MEMANTINE

- Low testosterone
- Low libido
- Erectile dysfunction
- Brain fog
- Poor memory

AFTER MEMANTINE

- Improved libido
- Improved erectile function
- Better energy
- Decreased brain fog
- Improved memory





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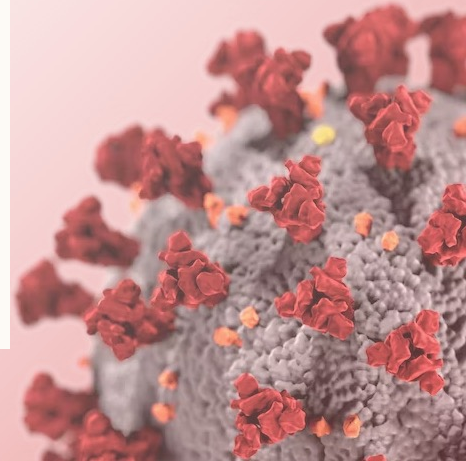
VAX, SPIKE AB ~5K

BEFORE MEMANTINE

- Severe back pain
- Nerve pain and weakness in arm and legs
- Difficulty walking

AFTER MEMANTINE

- Improved sleep
- Resolved neuropathic pain
- Resolved brain fog





**EMERGING APPROACHES TO TREATING
SPIKE PROTEIN-INDUCED DISEASES**

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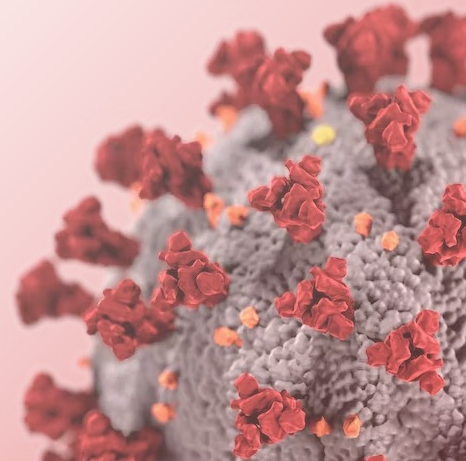
VAX, SPIKE AB ~7K

BEFORE MEMANTINE

- Fatigue
- Brain fog
- Memory problems
- Tachycardia

AFTER MEMANTINE

- Improved brain fog
- Improved joint pain
- Reduced paresthesia
- Improved cognition





**EMERGING APPROACHES TO TREATING
SPIKE PROTEIN-INDUCED DISEASES**

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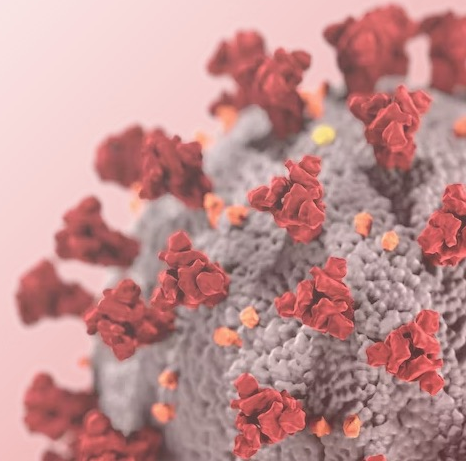
VAX, SPIKE AB ~18K

BEFORE MEMANTINE

- Brain fog
- Memory problems
- Dizziness when standing
- Tachycardia
- Depression
- Anxiety
- Headache
- Insomnia

AFTER MEMANTINE

- Resolved HA
- Improved sleep





**EMERGING APPROACHES TO TREATING
SPIKE PROTEIN-INDUCED DISEASES**

April 28-29, 2023 • Fort Worth, Texas

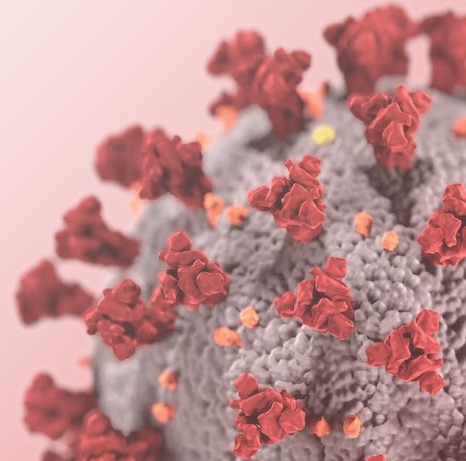
VAX, SPIKE AB >25K

BEFORE MEMANTINE

- Brain fog
- Poor sleep
- Lower back pain
- Tinnitus

AFTER MEMANTINE

- Overall feels better
- Less fatigue
- Improved sleep





**EMERGING APPROACHES TO TREATING
SPIKE PROTEIN-INDUCED DISEASES**

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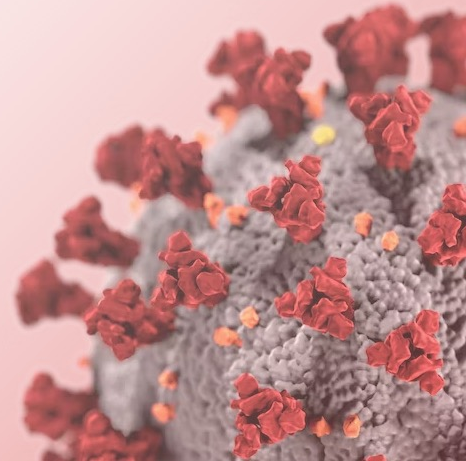
VAX, SPIKE AB >25K

BEFORE MEMANTINE

- Numbness and temperature dysregulation in legs
- Poor circulation
- Severe leg pain and cramping
- Stinging in fee

AFTER MEMANTINE

- Less numbness
- Less stinging in feet
- Less hip pain
- Less calf pain
- Overall pain improvement





EMERGING APPROACHES TO TREATING SPIKE PROTEIN-INDUCED DISEASES

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VAX, SPIKE AB >25K

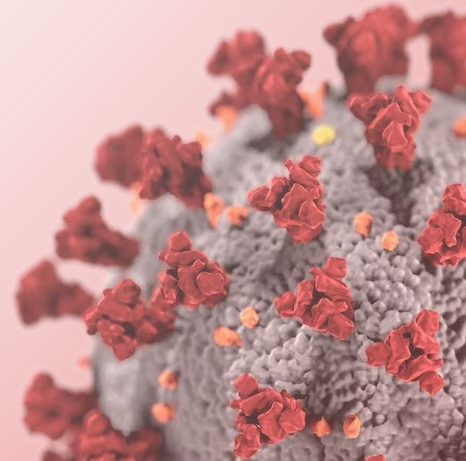
Vax, spike ab >25k

BEFORE MEMANTINE

- Neuropathy
- Poor sleep
- Lower energy

AFTER MEMANTINE

- Improved sleep
- Improved energy
- Overall improvement



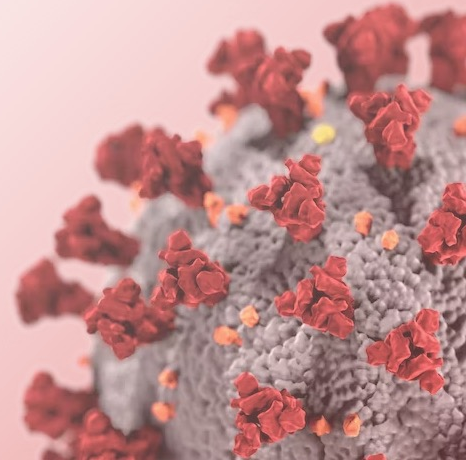


**EMERGING APPROACHES TO TREATING
SPIKE PROTEIN-INDUCED DISEASES**

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IMPLICATIONS FOR PRACTICE

- Mental health acuity
- Autophagy
- Intermittent fasting
- Layered therapeutics
- Persistence
- Shedding
- Close contacts



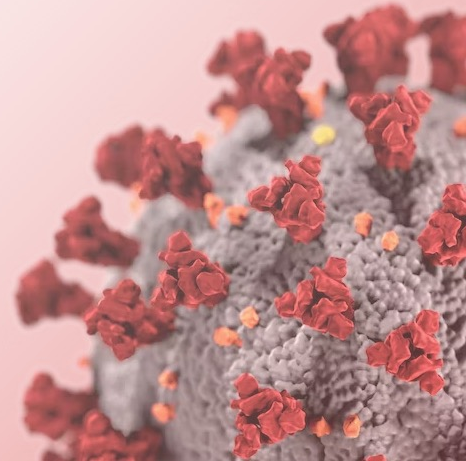


**EMERGING APPROACHES TO TREATING
SPIKE PROTEIN-INDUCED DISEASES**

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EMERGING THERAPEUTIC OPTIONS

- Quantum NAC
www.zerospike.org/en/
- Glutathione IV
- Ashawaganda
- GABA supplementation
- Ozempic (GLP-1 Peptide)
- Mounjari (GLP-1 Peptide)



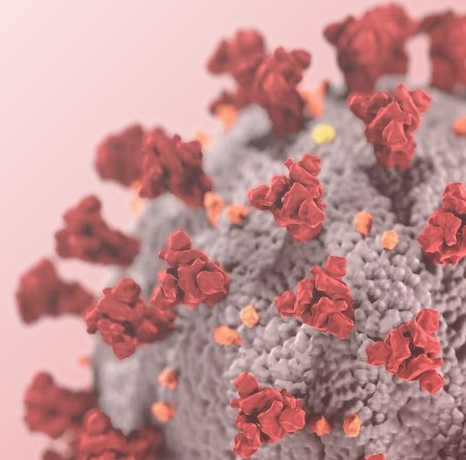


**EMERGING APPROACHES TO TREATING
SPIKE PROTEIN-INDUCED DISEASES**

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LINGERING QUESTIONS

- Mechanism of action in brain to lower spike?
- Does auto catalytic amplification explain shedding?
- What are the reasons for variability among individuals?
- What is the impact of depressed immune function on lab values?
- Does adipose tissue represent a spike sink?
- Why do some patients with elevated spike ab not respond well to Memantine or Shilajit?



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Scott Marsland, FNP-C

Partner

Pierre Kory, MD: Leading Edge Clinic, LLC

(608) 400-0141

<https://drpierrekory.com>

scott.leadingedgeclinic@proton.me





THANK YOU

