



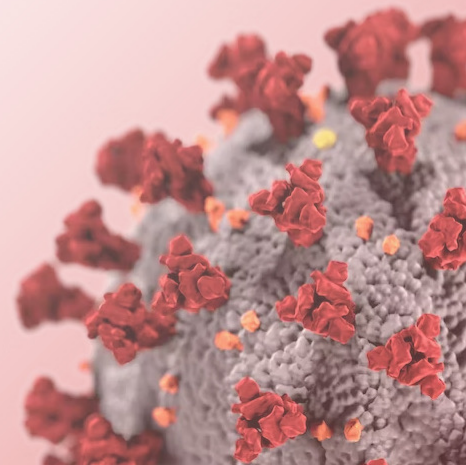
**EMERGING APPROACHES TO TREATING
SPIKE PROTEIN-INDUCED DISEASES**

April 28-29, 2023 • Fort Worth, Texas

CELLS, SEQUENCES AND SPIKE DAMAGE: THE CLOT THICKENS

Presented By:

**Ryan N. Cole, MD
AP/CP**



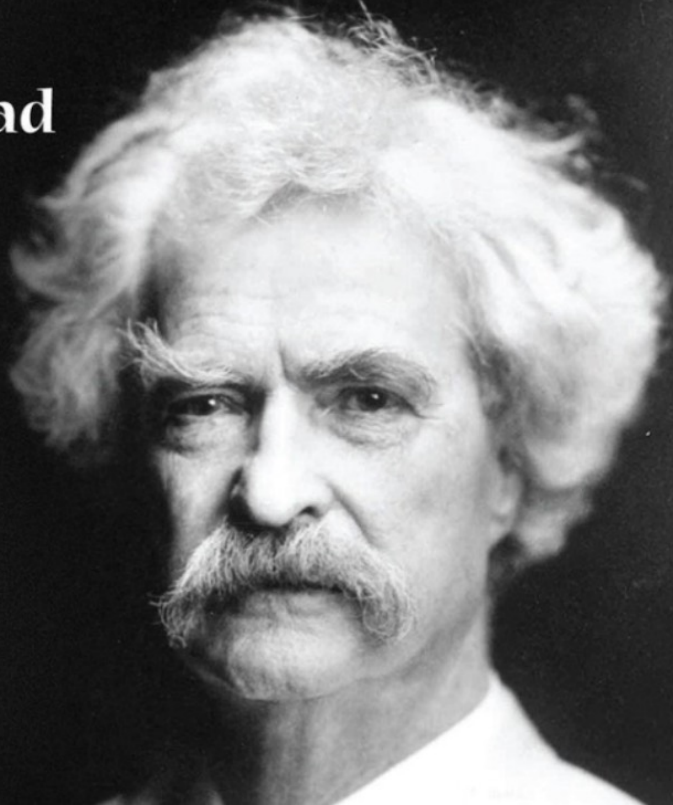
CONFLICTS OF INTEREST

- NONE



**"The man who does not read
has no advantage
over the man
who cannot read"**

-Mark Twain



“If everybody is thinking alike,
then somebody isn’t thinking”

–George S. Patton



SPIKE PROTEIN

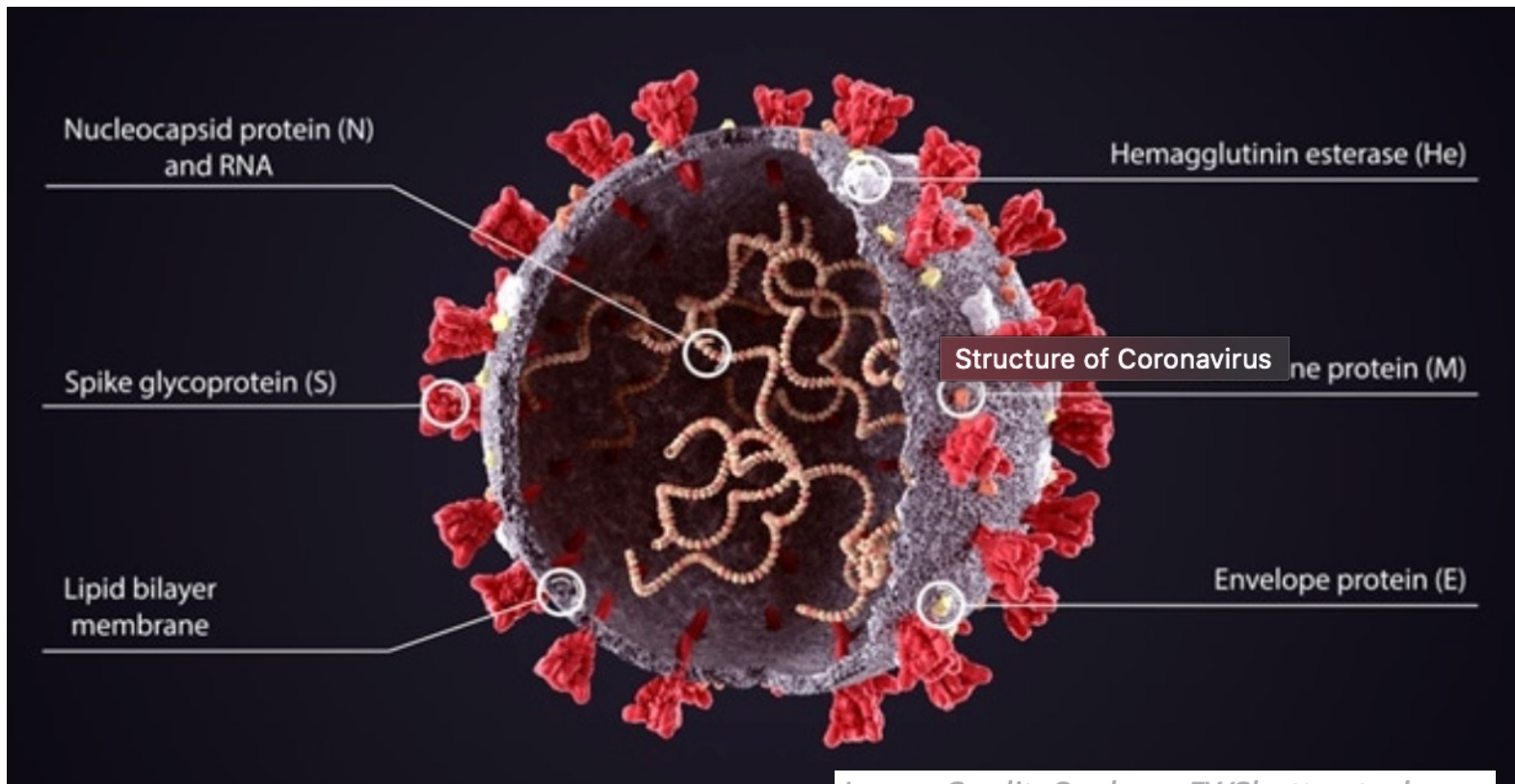


Image Credit: Orpheus FX/Shutterstock.com

SPIKE PROTEIN

WHAT IS THE SPIKE?

SARS-CoV-2

Spike conformations:

3 closed RBDs



1 open RBD



2 open RBDs



Postfusion

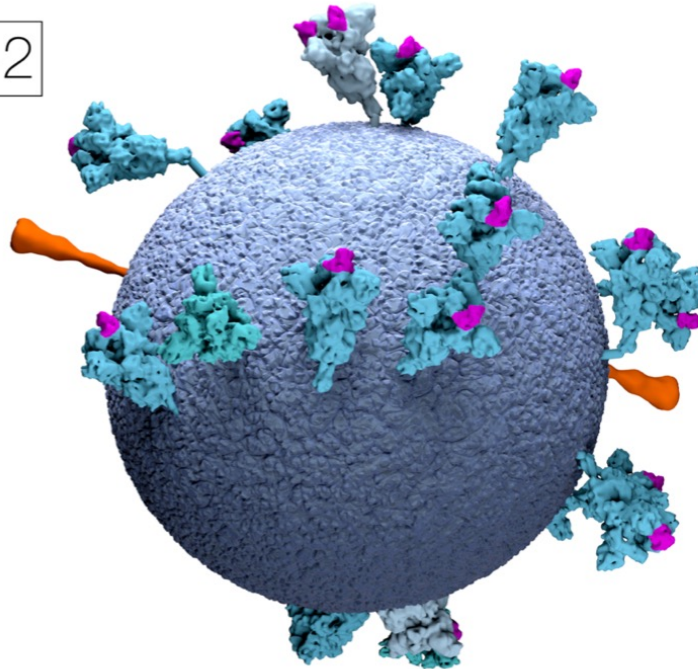
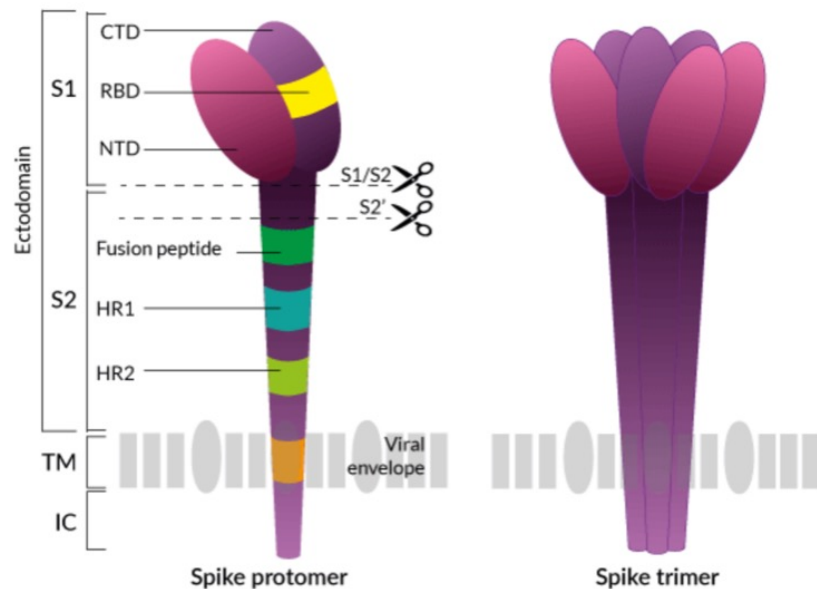
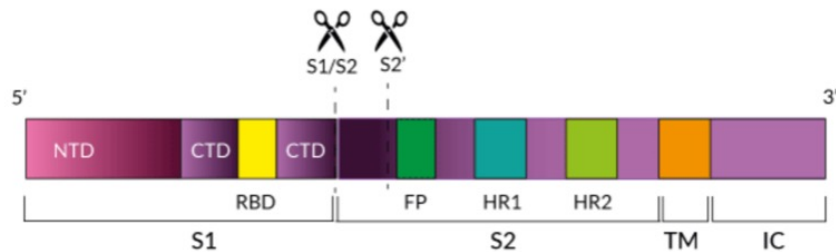
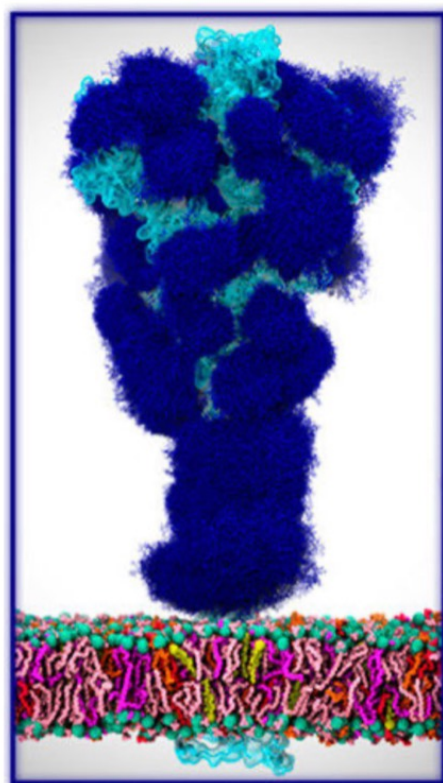


Image courtesy of MRC Laboratory of Molecular Biology. Ke, Z., Briggs, J. et al. Nature (2020).

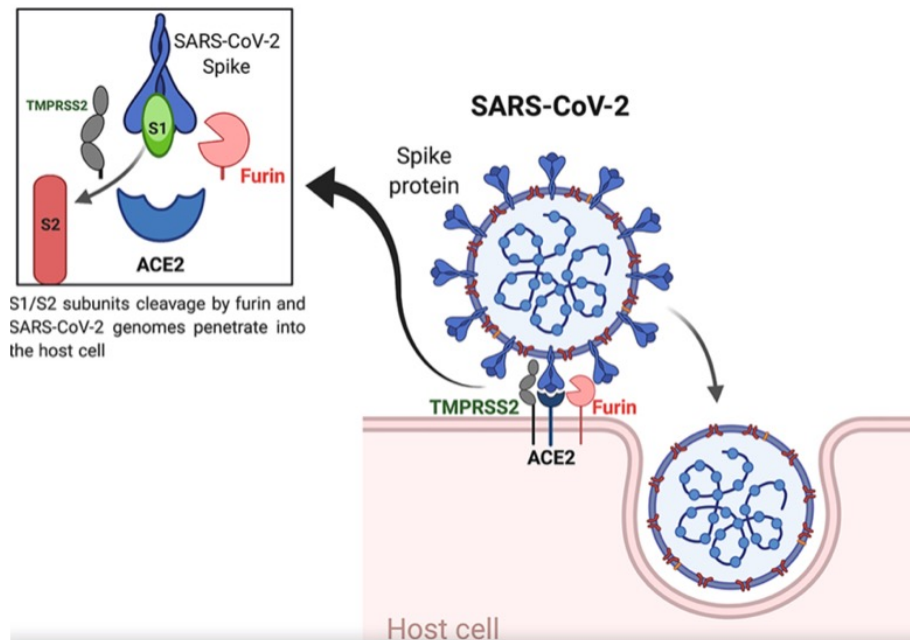
SPIKE PROTEIN



SPIKE PROTEIN

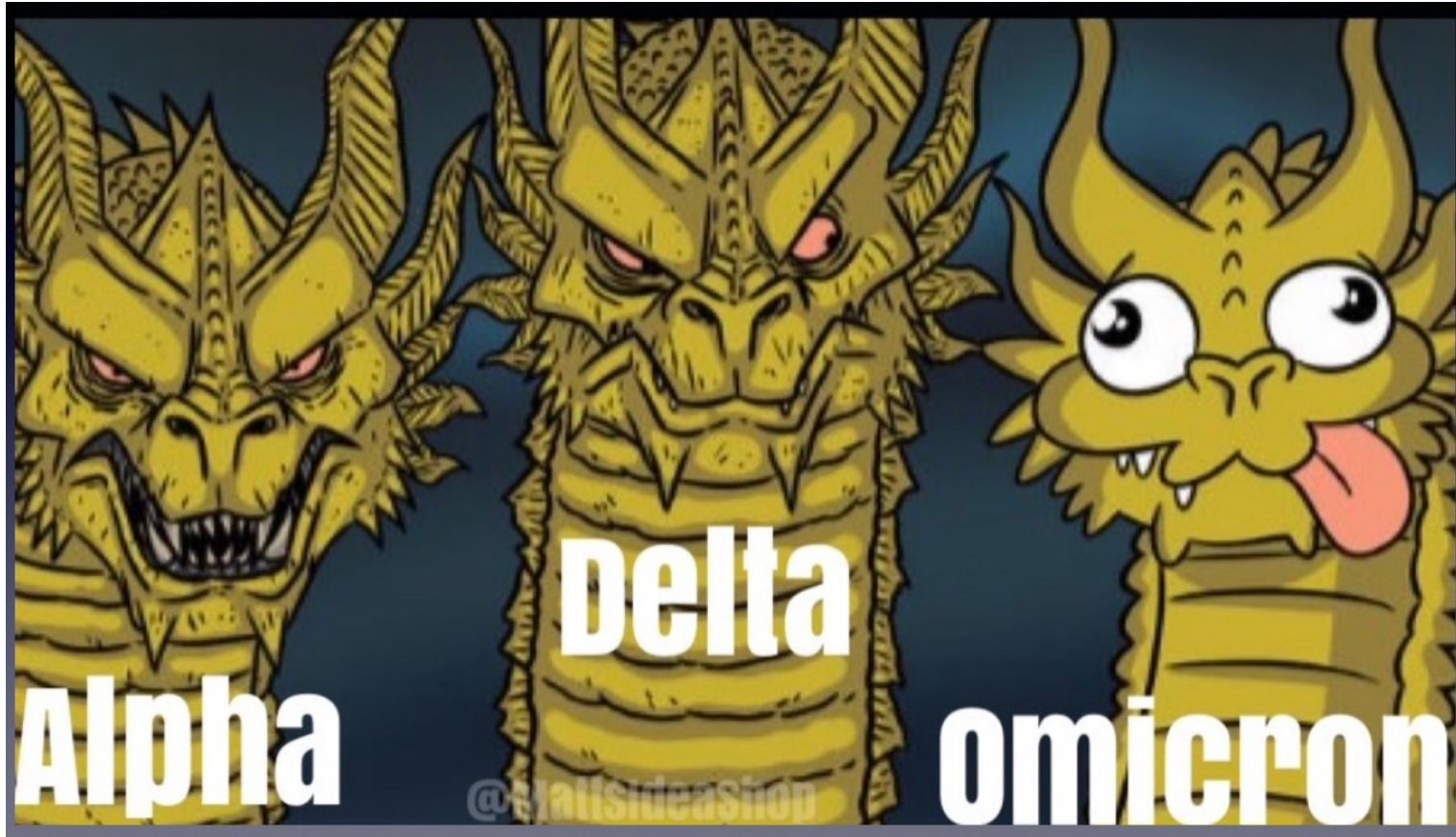


The protective coating of sugars, shown in blue. Courtesy of ACS Publications.



From the journal *Clinical Chemistry and Laboratory Medicine (CCLM)*
<https://doi.org/10.1515/cclm-2020-0727>

WHICH SPIKE PROTEIN?



WHICH SPIKE PROTEIN?

Built with [nextstrain/ncov](#). Maintained by [the Nextstrain team](#). Enabled by data from [GISAID](#).

Showing 2816 of 2816 genomes sampled between Dec 2019 and Apr 2023.

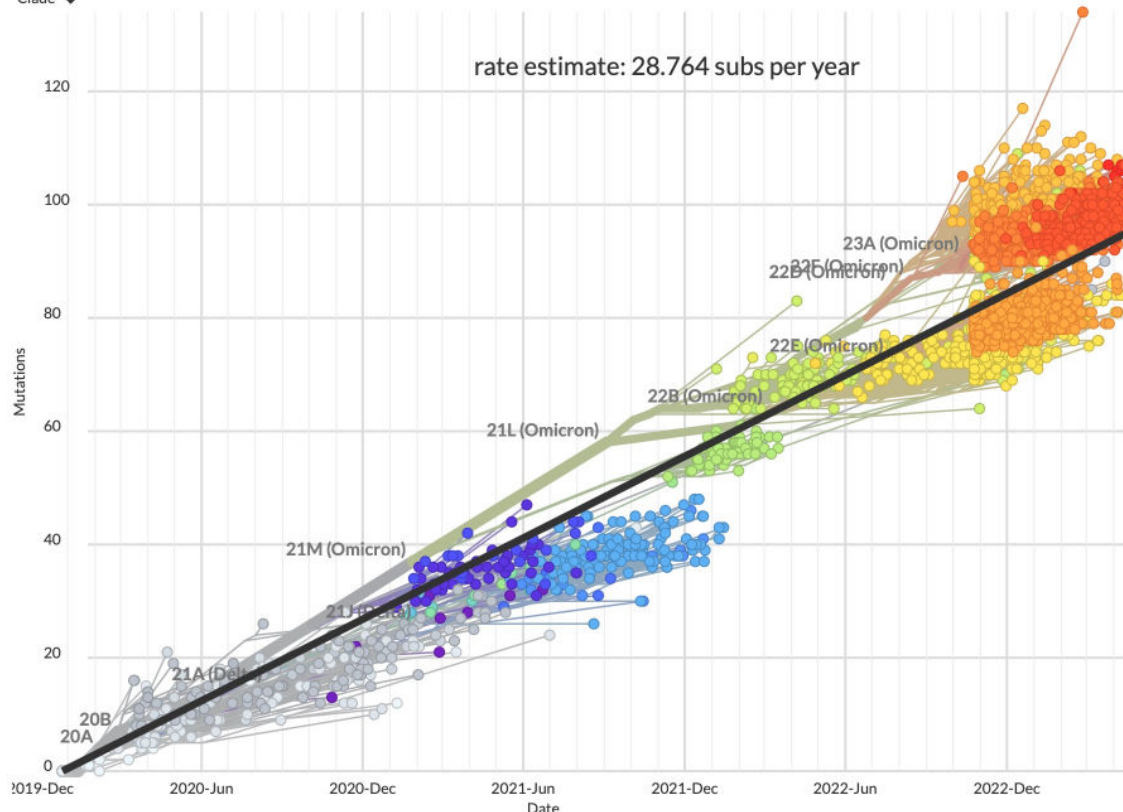
Phylogeny

Clade ▾



ZOOM TO SELECTED

RESET LAYOUT



Phylogeny

Clade ^

- | | |
|-----------------|---------------|
| 20H (Beta, V2) | 22C (Omicron) |
| 20I (Alpha, V1) | 22D (Omicron) |
| 20J (Gamma, V3) | 22E (Omicron) |
| 21A (Delta) | 22F (Omicron) |
| 21I (Delta) | 23A (Omicron) |
| 21J (Delta) | 23B (Omicron) |
| 21C (Epsilon) | 19A |
| 21D (Eta) | 19B |
| 21G (Lambda) | 20A |
| 21H (Mu) | 20C |
| 21K (Omicron) | 20G |
| 21L (Omicron) | 20E (EU1) |
| 22A (Omicron) | 20B |
| 22B (Omicron) | 20D |

WHICH SPIKE?

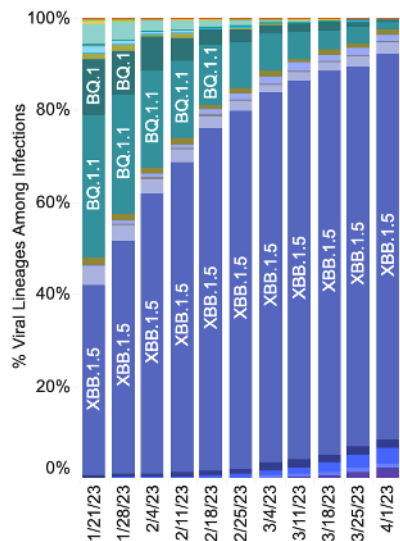
Weighted and Nowcast Estimates in United States for Weeks of 1/15/2023 –

Nowcast Estimates in United States for 4/16/2023 – 4/22/2023



Hover over (or tap in mobile) any lineage of interest to see the amount of uncertainty in that lineage's estimate.

Weighted Estimates: Variant proportions based on reported genomic sequencing results



Collection date, week ending

Nowcast:



USA

WHO label	Lineage #	US Class	%Total	95%PI	
Omicron	XBB.1.5	VOC	73.6%	69.6-77.3%	
	XBB.1.16	VOC	9.6%	6.7-13.6%	
	XBB.1.9.1	VOC	7.9%	6.1-10.1%	
	XBB.1.9.2	VOC	2.9%	2.1-4.0%	
	XBB.1.5.1	VOC	2.2%	1.7-2.8%	
	FD.2	VOC	1.6%	0.7-3.2%	
	XBB	VOC	1.0%	0.6-1.8%	
	BQ.1.1	VOC	0.7%	0.4-1.1%	
	CH.1.1	VOC	0.4%	0.2-0.5%	
	BQ.1	VOC	0.1%	0.0-0.1%	
	BN.1	VOC	0.0%	0.0-0.0%	
	BA.5	VOC	0.0%	0.0-0.0%	
	BA.2.75	VOC	0.0%	0.0-0.0%	
	BA.2	VOC	0.0%	0.0-0.0%	
	BF.7	VOC	0.0%	0.0-0.0%	
	BA.2.75.2	VOC	0.0%	0.0-0.0%	
	BA.5.2.6	VOC	0.0%	0.0-0.0%	
	BF.11	VOC	0.0%	0.0-0.0%	
	BA.4.6	VOC	0.0%	0.0-0.0%	
Other	Other*		0.1%	0.0-0.1%	

WHICH SPIKE?

**The Covid Injections are technically
NOT vaccines.**

**They are genetic biological products.
The variants they code for are extinct!
The covid shots are all expired.**



WHICH SPIKE?

Severe Illness Not Linked to New Variant

The latest reports regarding XBB.1.16—dubbed “Arcturus”—and cases of conjunctivitis in children come after the World Health Organization (WHO) upgraded the variant to a “variant of interest,” citing its ability to evade immune system response.

Children Diagnosed With New COVID-19 Variant Show New Symptom, Health Professionals Warn

PREMIUM

COVID NEWS



Katabella Roberts

Apr 25 2023



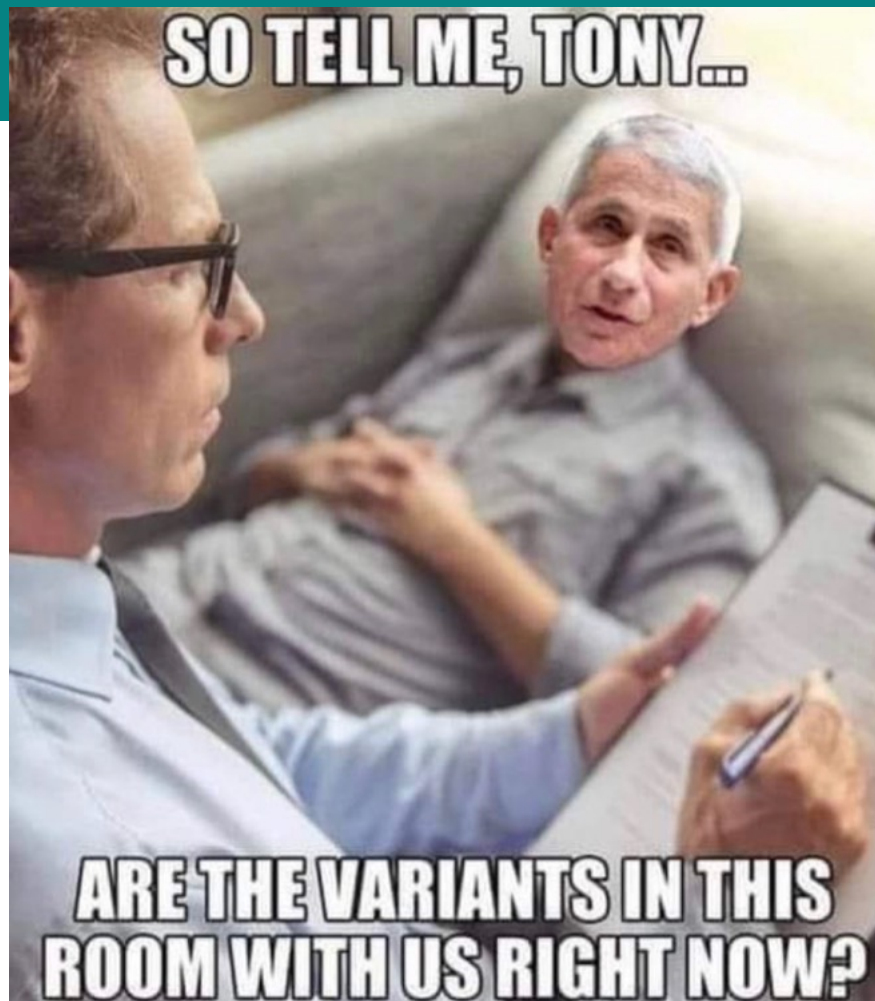
WHICH SPIKE?



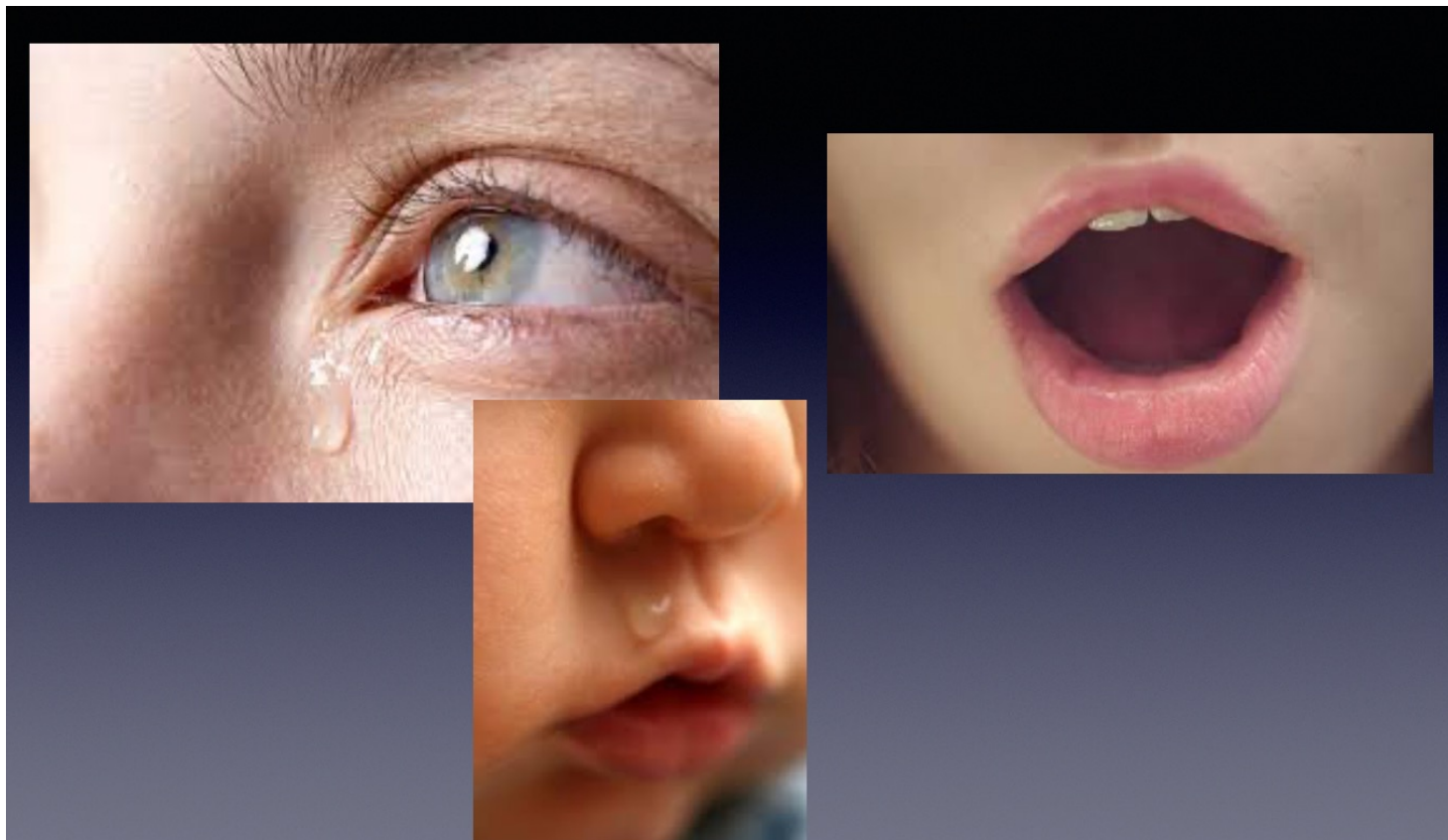
WHICH SPIKE?



WHICH SPIKE?

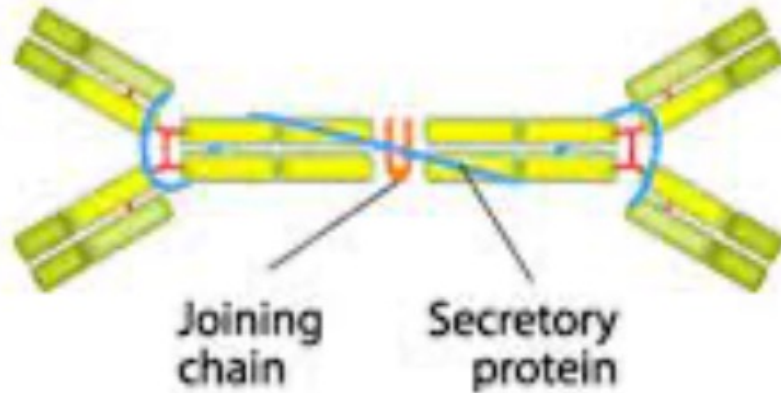
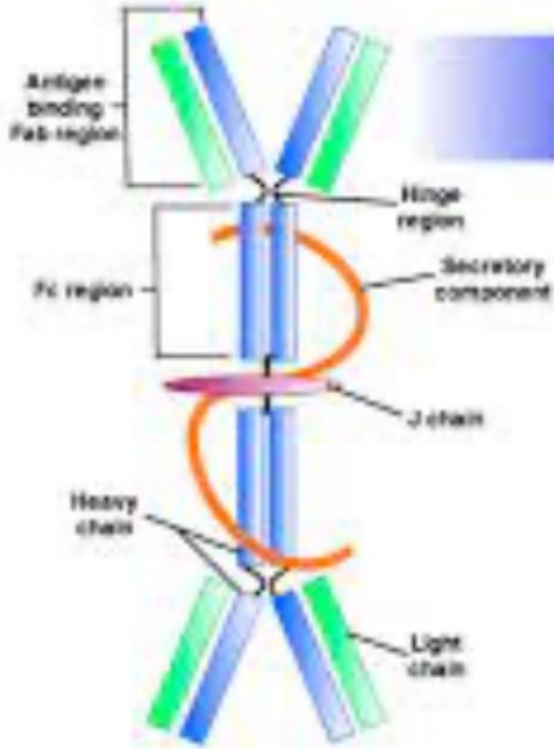


NATURAL IMMUNITY



NATURAL IMMUNITY

Immunoglobulin A (IgA)



NATURAL IMMUNITY



**“NATURAL INFECTION IS THE
MOTHER OF ALL VACCINES.”**

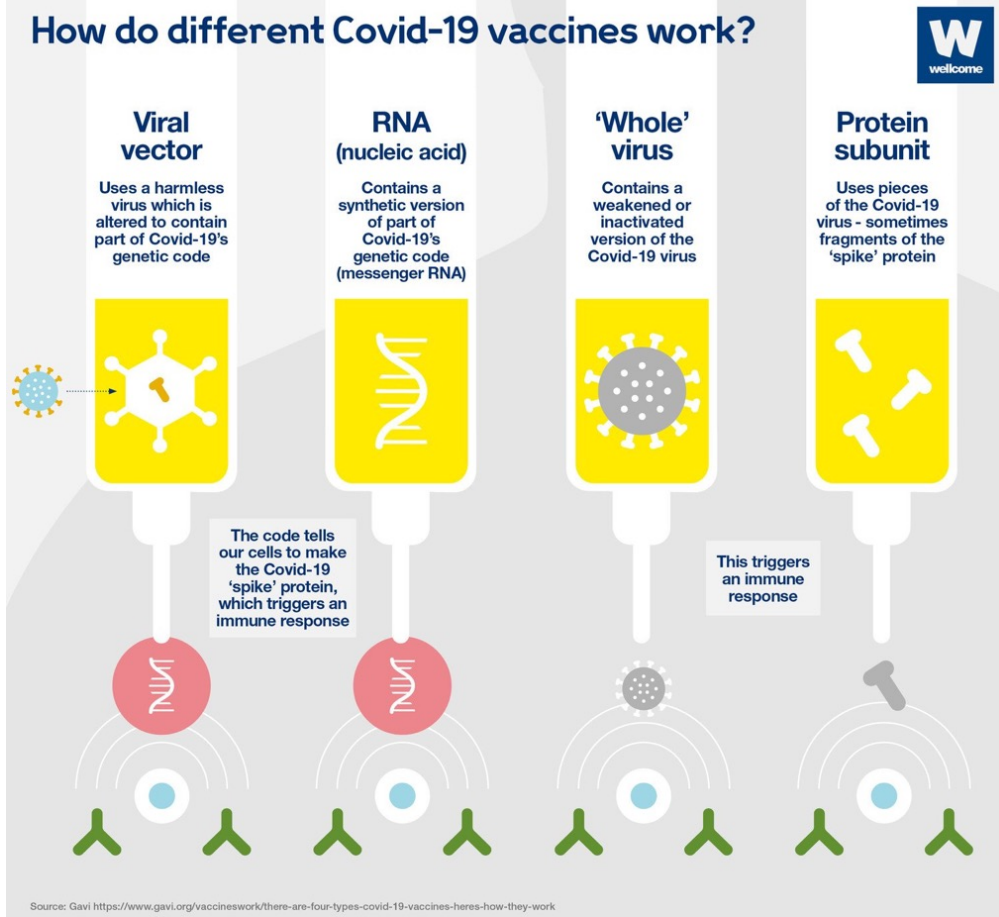
DR. ANTHONY FAUCI

2018



“VACCINE” MODALITIES

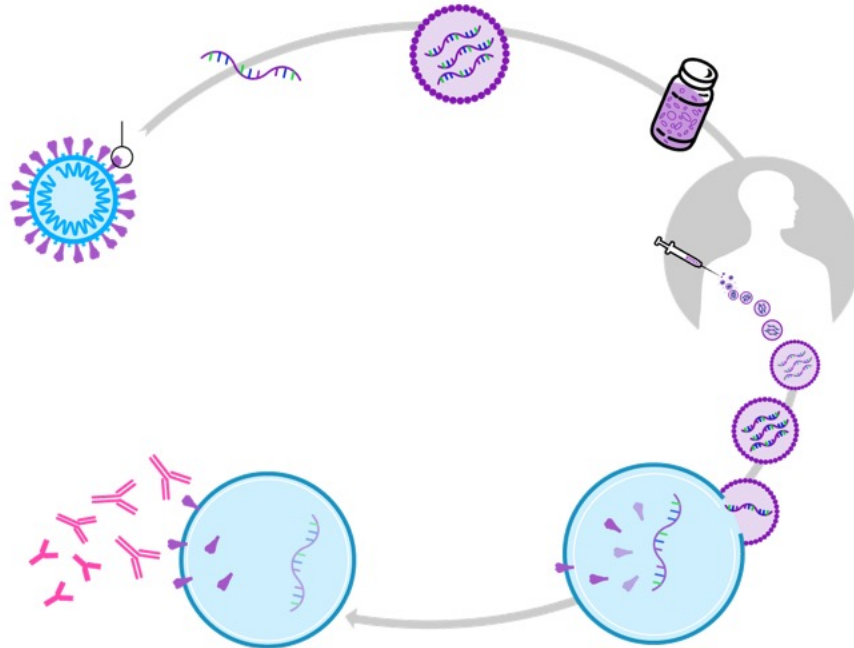
How do different Covid-19 vaccines work?



“VACCINE” MODALITIES

mRNA/cDNA platform

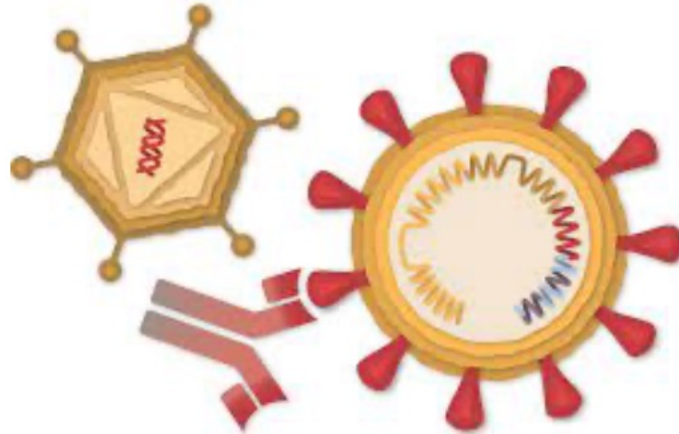
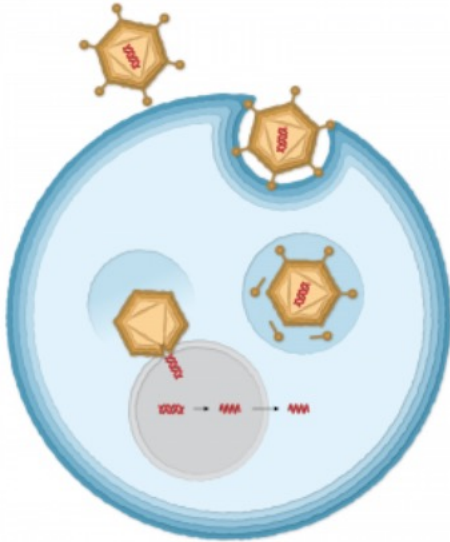
never before used in humans for mass “vaccination”



“VACCINE” MODALITIES

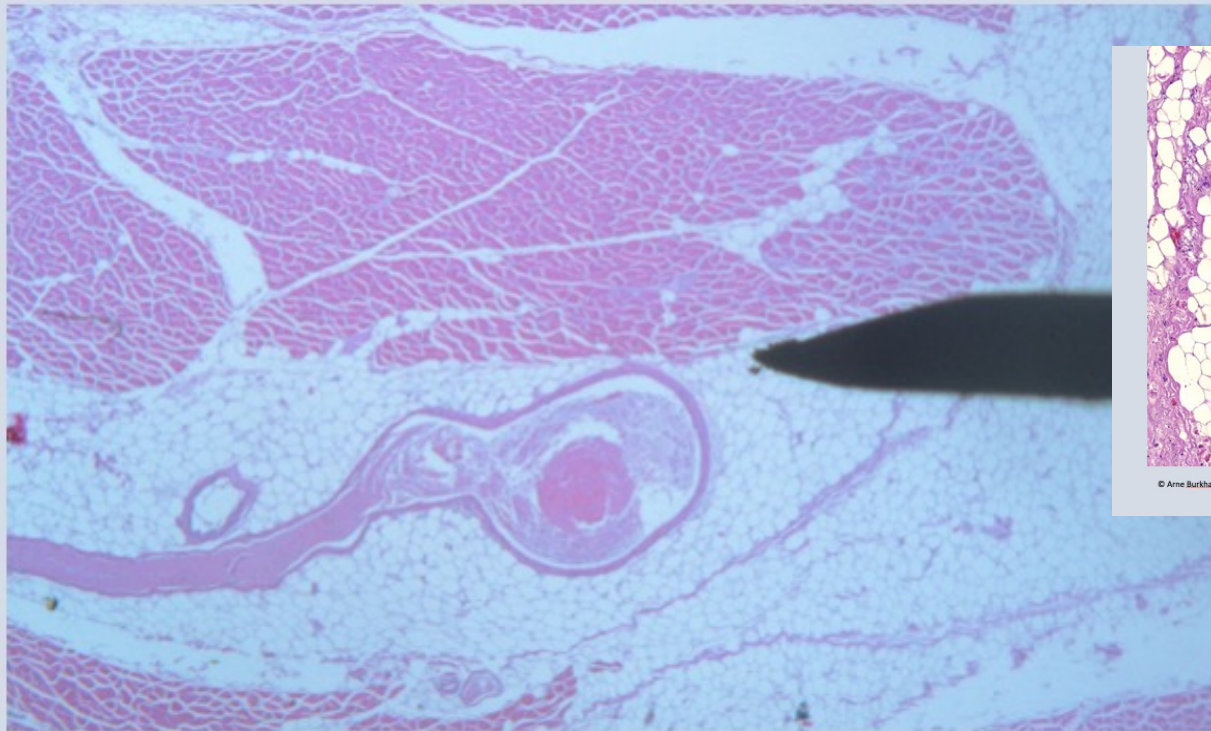
J and J (Janssen) and Astra Zeneca (AZ)

Viral Vector

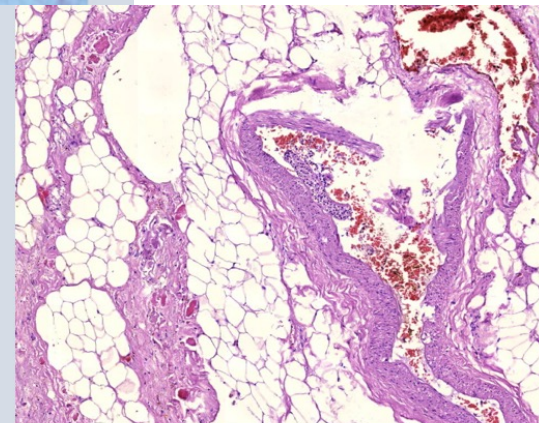


“VACCINE” MODALITIES

Deltoid muscle with superimposed injection needle



© Arne Burkhardt and colleagues 2022

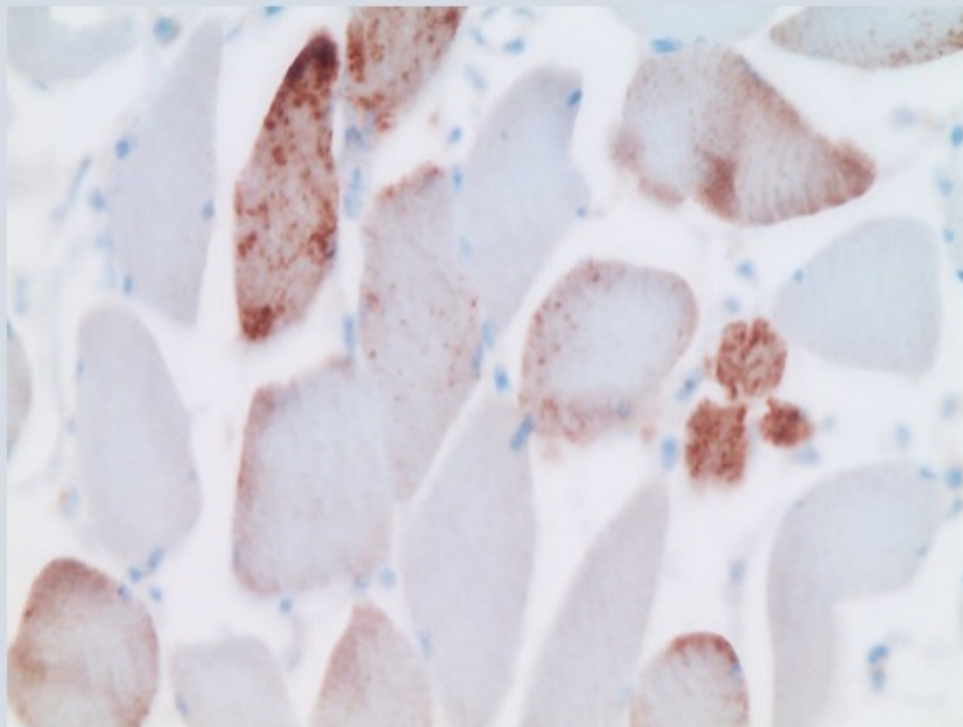


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Spring 2023

“VACCINE” MODALITIES

Expression of spike protein in deltoid muscle



© Arne Burkhardt and colleagues 2022

“VACCINE” MODALITIES

**LNPs go everywhere
and take their payload there too!!**



“VACCINE” MODALITIES

**mRNA shots (Pfizer/BionTech, Moderna)
vs cDNA shots (Jaansen, Astra Zeneca)**

Cell

Available online 25 January 2022

In Press, Corrected Proof 



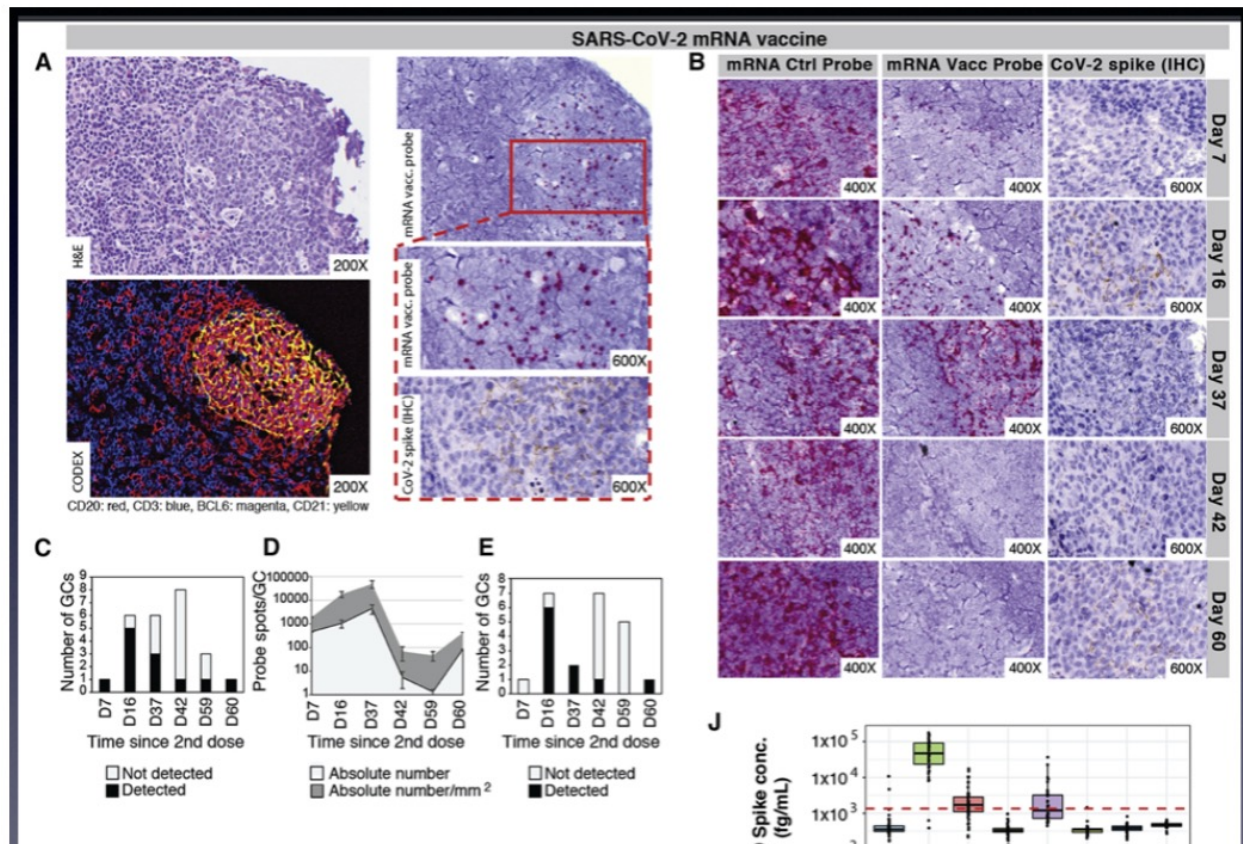
Article

Immune imprinting, breadth of variant recognition, and germinal center response in human SARS-CoV-2 infection and vaccination

Katharina Röltgen ^{1, 14}, Sandra C.A. Nielsen ^{1, 14}, Oscar Silva ^{1, 14}, Sheren F. Younes ^{1, 14}, Maxim Zaslavsky ¹, Cristina Costales ¹, Fan Yang ¹, Oliver F. Wirz ¹, Daniel Solis ¹, Ramona A. Hoh ¹, Aihui Wang ¹, Prabhu S. Arunachalam ², Deana Colburg ¹, Shuchun Zhao ¹, Emily Haraguchi ¹, Alexandra S. Lee ³, Mihir M. Shah ³, Monali Manohar ³ ... Scott D. Boyd ^{1, 3, 15, 16}  



SYNTHETIC mRNA



CIRCULATING SPIKE

[Clin Infect Dis.](#) 2021 May 20 : ciab465.

Published online 2021 May 20. doi: [10.1093/cid/ciab465](https://doi.org/10.1093/cid/ciab465)

PMCID: PMC8241425

PMID: [34015087](https://pubmed.ncbi.nlm.nih.gov/34015087/)

Circulating SARS-CoV-2 Vaccine Antigen Detected in the Plasma of mRNA-1273 Vaccine Recipients

[Alana F Ogata](#),^{1,2,3} [Chi-An Cheng](#),^{1,2,3} [Michaël Desjardins](#),^{3,4,5} [Yasmeen Senussi](#),¹ [Amy C Sherman](#),^{3,4}
[Megan Powell](#),⁴ [Lewis Novack](#),⁴ [Salena Von](#),⁴ [Xiaofang Li](#),⁶ [Lindsey R Baden](#),^{3,4,6} and [David R Walt](#)^{1,2,3}



CIRCULATING SPIKE

> *J Immunol.* 2021 Nov 15;207(10):2405-2410. doi: 10.4049/jimmunol.2100637. Epub 2021 Oct 15.

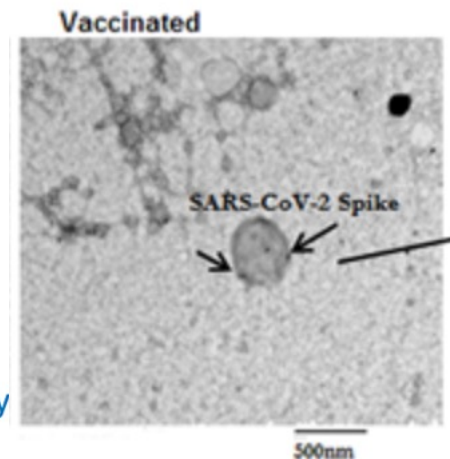
Cutting Edge: Circulating Exosomes with COVID Spike Protein Are Induced by BNT162b2 (Pfizer-BioNTech) Vaccination prior to Development of Antibodies: A Novel Mechanism for Immune Activation by mRNA Vaccines

Sandhya Bansal ¹, Sudhir Perincheri ², Timothy Fleming ¹, Christin Poulson ¹, Brian Tiffany Ross M Bremner ¹, Thalachallour Mohanakumar ³

Affiliations + expand

PMID: 34654691 DOI: [10.4049/jimmunol.2100637](https://doi.org/10.4049/jimmunol.2100637)

dose. Transmission electron microscopy of exosomes also demonstrated spike protein Ags on their surface. Exosomes with spike protein and Abs decreased in parallel after four months. These



ORIGINAL RESEARCH article

Front. Immunol., 10 January 2022

Sec. Viral Immunology

Volume 12 - 2021 | <https://doi.org/10.3389/fimmu.2021.746021>

Persistence of SARS CoV-2 S1 Protein in CD16+ Monocytes in Post-Acute Sequelae of COVID-19 (PASC) up to 15 Months Post-Infection



Bruce K. Patterson^{1*},



Edgar B. Francisco¹,



Ram Yogendra²,

Circulation

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[Home](#) > [Circulation](#) > [Vol. 147, No. 11](#) > [Circulating Spike Protein Detected in Post–COVID-19 mRNA Vaccine Myocard...](#)


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RESEARCH ARTICLE

 Request Access

Full Text




Circulating Spike Protein Detected in Post–COVID-19 mRNA Vaccine Myocarditis

Lael M. Yonker , Zoe Swank, Yannic C. Bartsch, Madeleine D. Burns, Abigail Kane, Brittany P. Boribong, Jameson P. Davis, Maggie Loiselle, Tanya Novak, Yasmeen Senussi, Chi-An Cheng, ... [See all authors](#) 

Originally published 4 Jan 2023 |
<https://doi.org/10.1161/CIRCULATIONAHA.122.061025> | Circulation. 2023;147:867–876



Persistent circulating SARS-CoV-2 spike is associated with post-acute COVID-19 sequelae

 Zoe Swank,  Yasmeen Senussi, Galit Alter,  David R. Walt

doi: <https://doi.org/10.1101/2022.06.14.22276401>

Now published in *Clinical Infectious Diseases* doi: [10.1093/cid/ciac722](https://doi.org/10.1093/cid/ciac722)

inflammatory markers. Strikingly, we detect SARS-CoV-2 spike antigen in a majority of PASC patients up to 12 months post-diagnosis,

Research Letter

ONLINE FIRST FREE

September 26, 2022

Detection of Messenger RNA COVID-19 Vaccines in Human Breast Milk

Nazeeh Hanna, MD¹; Ari Heffes-Doon, MD¹; Xinhua Lin, PhD²; [et al](#)

[» Author Affiliations](#) | [Article Information](#)

JAMA Pediatr. Published online September 26, 2022. doi:10.1001/jamapediatrics.2022.3581



> [APMIS](#). 2023 Mar;131(3):128-132. doi: 10.1111/apm.13294. Epub 2023 Jan 29.

SARS-CoV-2 spike mRNA vaccine sequences circulate in blood up to 28 days after COVID-19 vaccination

Jose Alfredo Samaniego Castruita ¹, Uffe Vest Schneider ¹, Sarah Mollerup ¹,
Thomas Daell Leineweber ¹, Nina Weis ^{2 3}, Jens Bukh ^{2 4}, Martin Schou Pedersen ^{1 5},
Henrik Westh ^{1 3}

Affiliations + expand

PMID: 36647776 PMCID: [PMC10107710](#) DOI: [10.1111/apm.13294](#)

Free PMC article



➤ [Biomedicines](#). 2022 Jun 28;10(7):1538. doi: 10.3390/biomedicines10071538.

Vaccine mRNA Can Be Detected in Blood at 15 Days Post-Vaccination

Tudor Emanuel Fertig ^{1 2}, Leona Chitoiu ¹, Daciana Silvia Marta ^{1 3}, Victor-Stefan Ionescu ¹,
Valeriu Bogdan Cismasiu ¹, Eugen Radu ^{2 4}, Giulia Angheluta ², Maria Dobre ¹,
Ana Serbanescu ⁵, Mihail Eugen Hinescu ^{1 2}, Mihaela Gherghiceanu ^{1 2}

Affiliations + expand

PMID: 35884842 PMCID: [PMC9313234](#) DOI: [10.3390/biomedicines10071538](#)

[Free PMC article](#)



CIRCULATING SPIKE

WHEN IS PRODUCTION OF THE SPIKE
STOPPED IN THE BODY?



WHAT ELSE IS PRESENT?



WHAT ELSE IS PRESENT?

Impure mRNA in vials

per regulatory agencies

-EMA - 50ish % pure

-TGA - Australia 40-60ish% pure

Many shorter, incomplete coding and non- coding sequences present in mRNA vials i.e. - micro RNAs


TrialSiteNews

Leaked EMA Emails Reveal:

- A leaked 26th of November PowerPoint presentation of a meeting between Pfizer-BioNTech and the EMA revealed how this major objection was shockingly 'resolved'- the RNA integrity specification was simply lowered to 50%.
- The potential implications of the RNA integrity loss in terms of safety and efficacy were unknown.



ARE WE DEALING WITH ONLY SPIKE DISEASE?

R&D Report R-20-0211

Version 02

Page 15 of 22

4 TABLES AND FIGURES

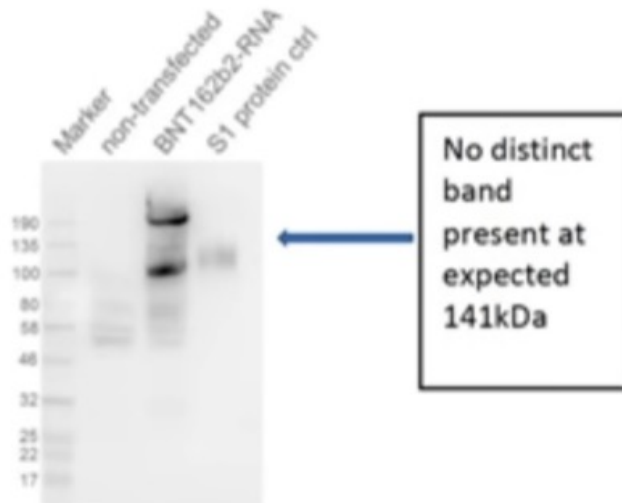
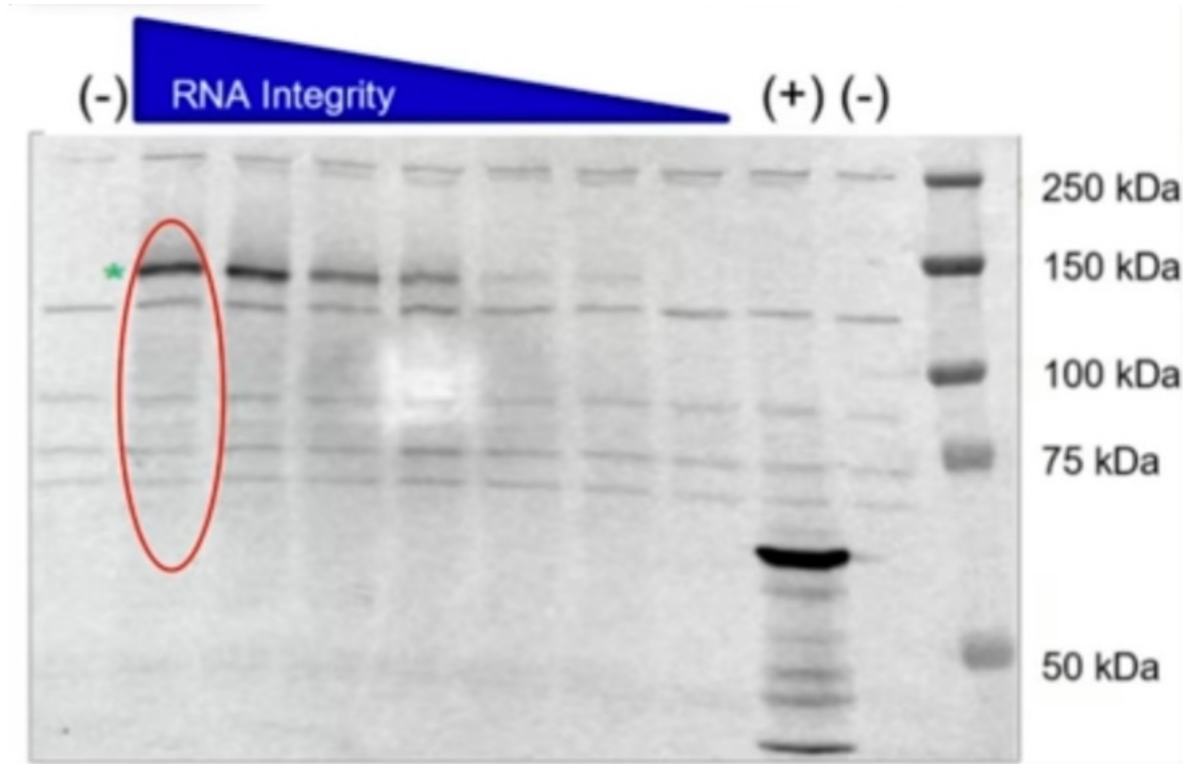


Figure 1: Western blot analysis for detection of BNT162b2 antigen expression

Cells were transfected with DS BNT162b2-RNA, and harvested after 18 h to allow antigen expression. Cells were lysed and lysates were subjected to a sodium dodecyl sulfate (SDS)-polyacrylamide gel electrophoresis (PAGE) system using a 4–15% gradient polyacrylamide gel followed by Western blot analysis. BNT162b2 has a predicted size of 141.14 kDa. A recombinant SARS-CoV-2 S1 Subunit protein (76.5 kDa) was used as a positive control.

ARE WE DEALING WITH ONLY SPIKE DISEASE?



ARE WE DEALING WITH ONLY SPIKE DISEASE?

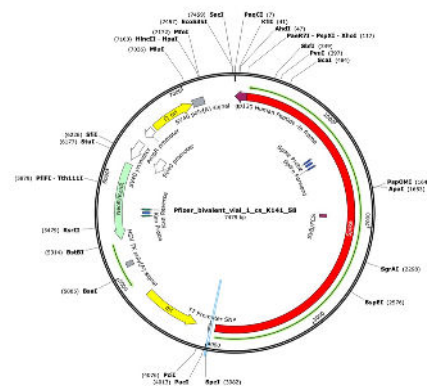
Nepetalactone Newsletter

Pfizer and Moderna bivalent vaccines contain 20-35% expression vector and are transformation competent in E.coli



ANANDAMIDE

MAR 8, 2023



Who is the pathologist? Why does it matter?



**One cannot find that for the which they do not
look!!**

THE CELLS DON'T LIE !!

THE SPEED OF SCIENCE



SPEED OF SOUND



SPEED OF LIGHT



SPEED OF SCIENCE

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Spring 2023

SPIKE HARMS

TIP OF THE ICEBERG - SOME, NOT ALL

- TISSUE/ORGAN DAMAGE
- ENDOTHELIAL DAMAGE
- CLOTTING/THROMBOSIS
- CANCER/CANCER GENE BINDING
- INNATE IMMUNE SUPPRESSION
- AUTOIMMUNE DISEASE
- INTERFERON SUPPRESSION
- THYMUS

SPIKE HARMS

TIP OF THE ICEBERG - SOME, NOT ALL

- VIRAL REACTIVATION
- DNA MISMATCH REPAIR INHIBITION
- NEUROLOGIC DAMAGE
- MITOCHONDRIAL DAMAGE
- HEART DAMAGE
- IMMUNE IMPRINTING/ORIGINAL ANTIGENIC SIN
- ANTIBODY DEPENDENT CELLULAR CYTOTOXICITY
- DECREASED SPERM COUNTS AND MOTILITY
- HORMONAL DYSREGULATION
- etc....

WHAT IS KNOWN.



SPIKE - VASCULAR INFLAMMATION

Circulation Research > Vol. 128, No. 9 > SARS-CoV-2 Spike Protein Impairs Endothelial Function via Downreg...

FREE ACCESS

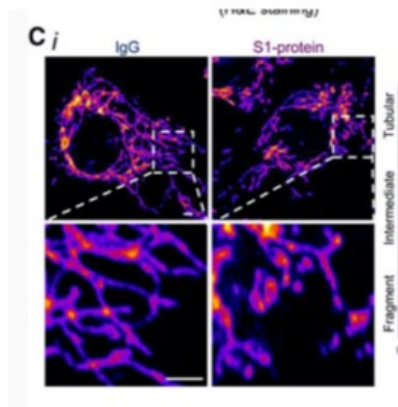
SARS-CoV-2 Spike Protein Impairs Endothelial Function via Downregulation of ACE 2

PDF/EPUB

Yuyang Lei, Jiao Zhang, Cara R. Schiavon, Ming He, Lili Chen, Hui Shen, Yichi Zhang, Qian Yin, Yoshitake Cho, Leonardo Andrade, Gerald S. Shadel, Mark Hepokoski, Ting Lei, ... [See all authors](#) ✓

ols  Share

Originally published 31 Mar 2021 |
<https://doi.org/10.1161/CIRCRESAHA.121.318902> |
Circulation Research. 2021;128:1323–1326



Spike Protein- VASCULAR HARMS

- Impairs endothelial function
- Increases endothelial cell inflammatory signaling
- Endothelial protein cell surface binding can elicit clotting cascades

SPIKE: KNOWN HARMS

BRIEF RESEARCH REPORT article

Front. Cardiovasc. Med., 11 June
2021

Sec. Cardiovascular Metabolism

<https://doi.org/10.3389/fcvm.2021.68778>

3

This article is part of the Research Topic

Metabolism Linking Immunity and Inflammatory Phenotypes in
Cardiovascular Disease

[View all 13 Articles >](#)

SARS-CoV-2 Spike Protein Induces Degradation of Junctional Proteins That Maintain Endothelial Barrier Integrity



Somasundaram Raghavan,



Divya Borsandra Kenchappa and



M. Dennis Leo*

Department of Pharmaceutical Sciences, University of Tennessee Health Science Center, Memphis, TN, United States



SPIKE: KNOWN HARMS

[nature](#) > [signal transduction and targeted therapy](#) > [articles](#) > article

Article | [Open Access](#) | [Published: 04 December 2020](#)

CD147-spike protein is a novel route for SARS-CoV-2 infection to host cells

[Ke Wang](#), [Wei Chen](#), ... [Zhi-Nan Chen](#)  [+ Show authors](#)

[Signal Transduction and Targeted Therapy](#) **5**, Article number: 283 (2020) | [Cite this article](#)

22k Accesses | **327** Citations | **119** Altmetric | [Metrics](#)



SPIKE: KNOWN HARMS

HE-stain

Spikeproteine

40 year old woman with severe circulatory disorder of the lower leg after 8 month p.f. Covid-19 vaccination

Biopsy lower leg – skin –
muscle

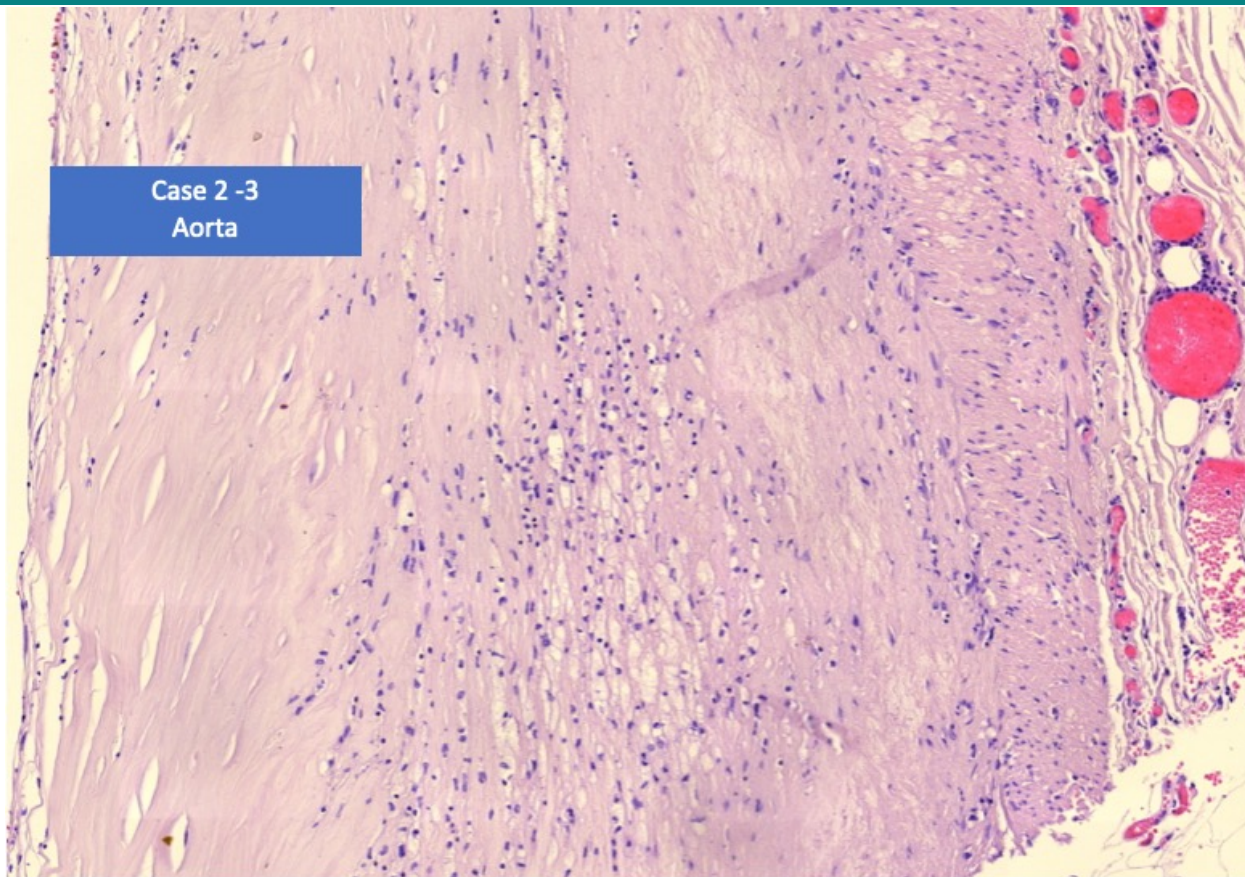
SPIKE: KNOWN HARMS

Excised aortic wall segment



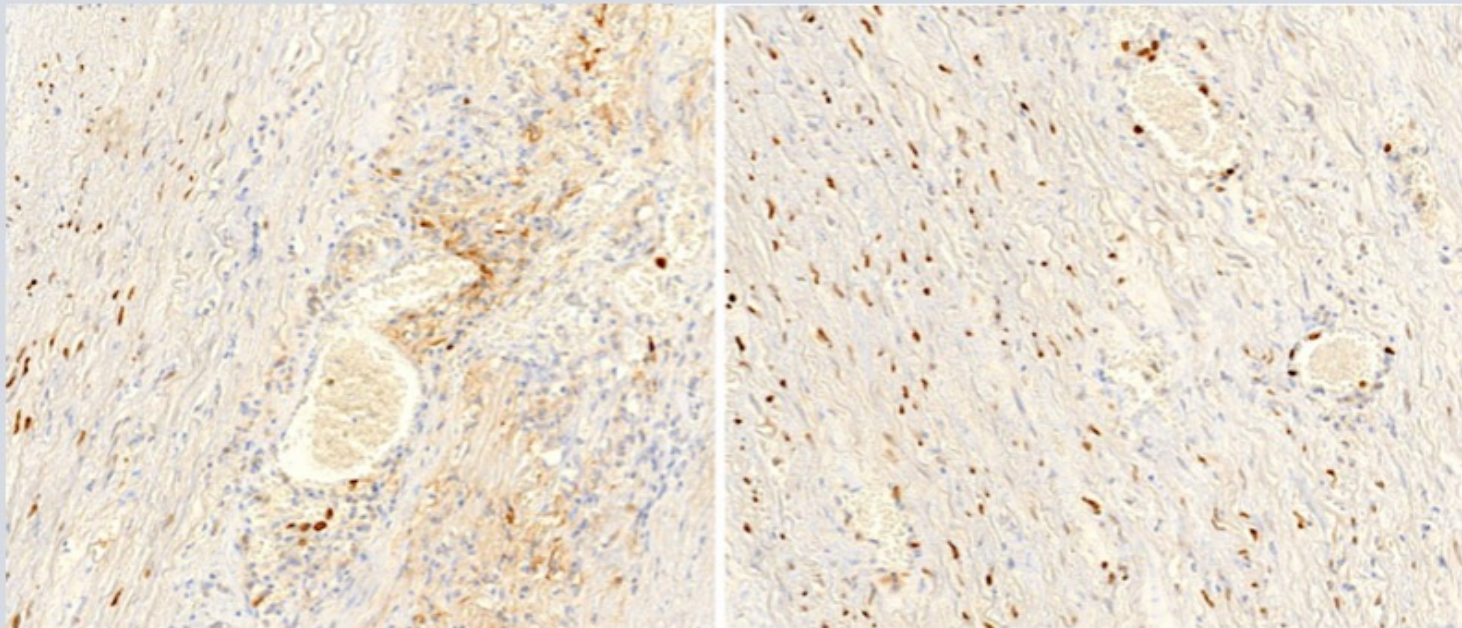
© Arne Burkhardt and colleagues 2022

SPIKE: KNOWN HARMS



SPIKE: KNOWN HARMS

Spike protein is expressed in myofibroblasts near the lymphocyte infiltrates within the aorta (case 10)



SPIKE: KNOWN HARMS



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COVID-19: Vaccine-induced immune thrombotic thrombocytopenia (VITT)

Authors: Theodore E Warkentin, MD, BSc(Med), FRCP(C), FACP, FRCP(Edin), Adam Cuker, MD, MS

Section Editor: Mark Crowther, MD, MSc

Deputy Editor: Jennifer S Tirnauer, MD

All topics are updated as new evidence becomes available and our [peer review process](#) is complete.

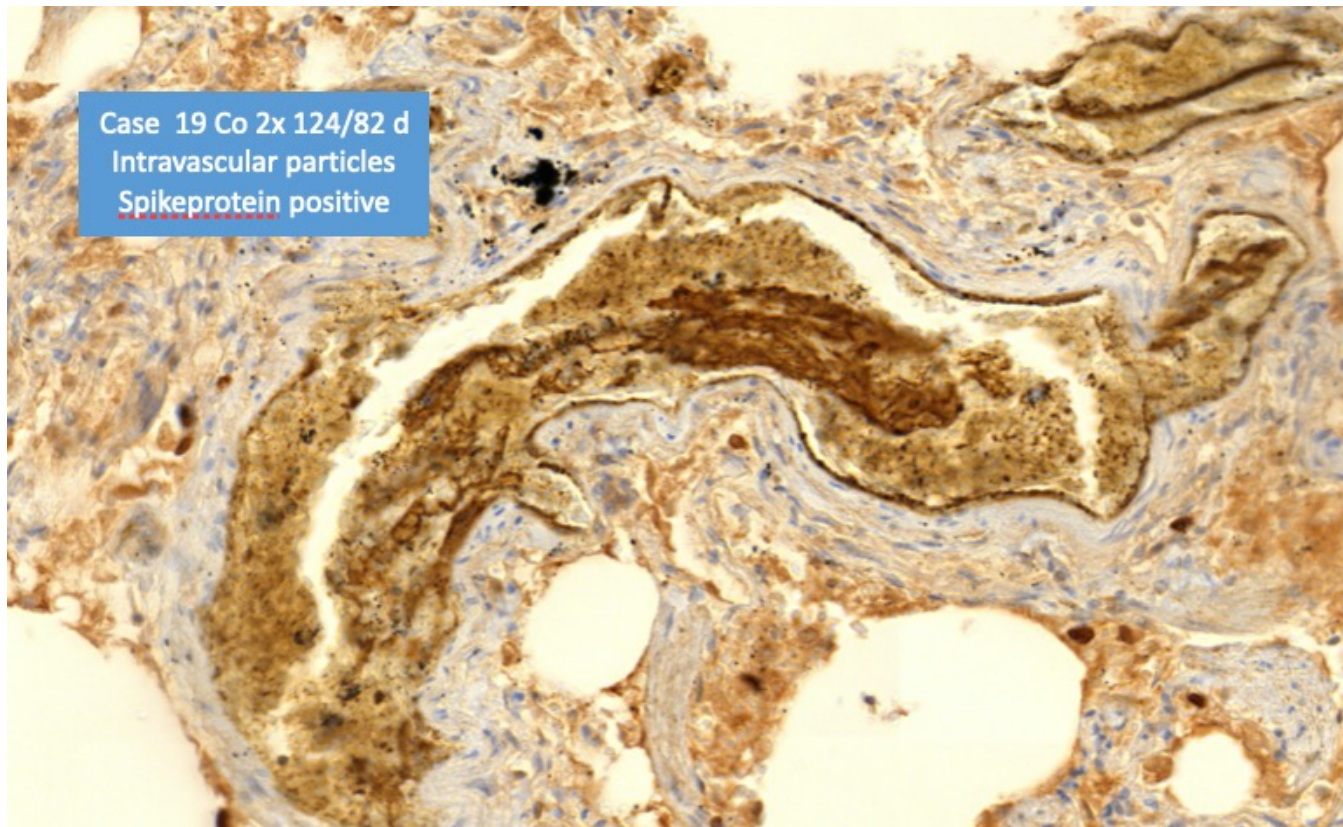
Literature review current through: **Mar 2023**. | This topic last updated: **Feb 07, 2023**.



SPIKE: KNOWN HARMS



SPIKE: KNOWN HARMS



SPIKE: KNOWN HARMS



SPIKE: KNOWN HARMS



SPIKE: KNOWN HARMS

medRxiv

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Spring
Harbor
Laboratory

BMJ Yale

SARS-CoV-2 spike protein S1 induces fibrin(ogen) resistant to fibrinolysis: Implications for microclot formation in COVID-19

Lize M. Grobbelaar, Chantelle Venter, Mare Vlok, Malebogo Ngoepe, Gert Jacobus Laubscher, Petrus Johannes Lourens, Janami Steenkamp,  Douglas B. Kell,  Etheresia Pretorius

doi: <https://doi.org/10.1101/2021.03.05.21252960>

Now published in *Bioscience Reports* doi: [10.1042/bsr20210611](https://doi.org/10.1042/bsr20210611)



SPIKE: KNOWN HARMS



Cardiovascular Diabetology

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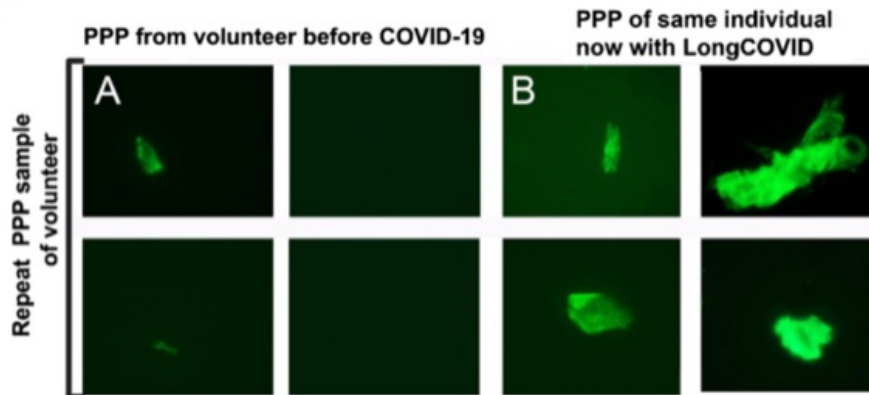
Original Investigation | [Open Access](#) | [Published: 23 August 2021](#)

Persistent clotting protein pathology in Long COVID/Post-Acute Sequelae of COVID-19 (PASC) is accompanied by increased levels of antiplasmin

[Etheresia Pretorius](#) , [Mare Vlok](#), [Chantelle Venter](#), [Johannes A. Bezuidenhout](#), [Gert Jacobus Laubscher](#), [Janami Steenkamp](#) & [Douglas B. Kell](#) 

[Cardiovascular Diabetology](#) 20, Article number: 172 (2021) | [Cite this article](#)

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SPIKE: KNOWN HARMS

[Int J Mol Sci.](#) 2022 Oct; 23(19): 11589.

PMCID: PMC9569841

Published online 2022 Sep 30. doi: [10.3390/ijms231911589](#)

PMID: [36232891](#)

Evaluation of Free Light Chains (FLCs) Synthesis in Response to Exposure to SARS-CoV-2

[Monika Gudowska-Sawczuk](#),^{1,*} [Anna Moniuszko-Malinowska](#),² [Sara Pączek](#),³ [Katarzyna Guziejko](#),⁴
[Monika Choraży](#),⁵ and [Barbara Mroczko](#)^{1,6}

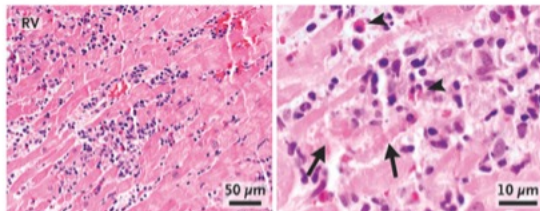
Jacek Z. Kubiak, Academic Editor and Malgorzata Kloc, Academic Editor

FLC were HIGHEST in the HEALTHY VACCINATED CONTROLS!

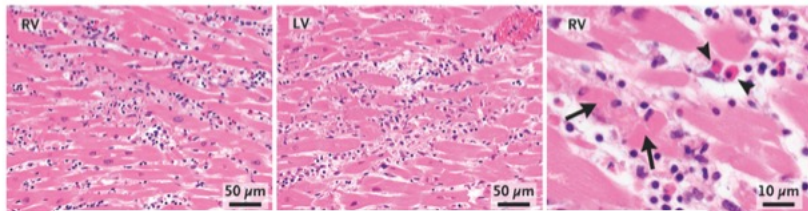


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A Patient 1, Endomyocardial Biopsy



B Patient 2, Autopsy



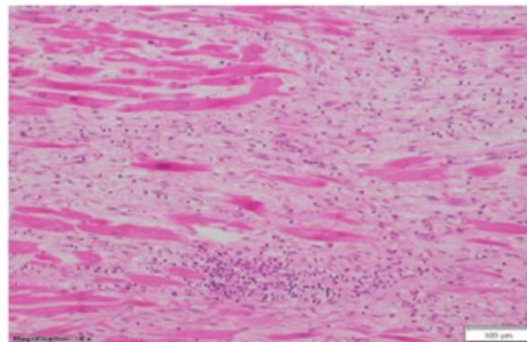
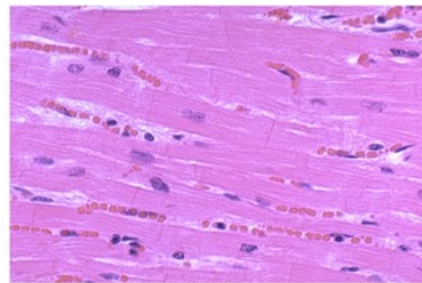
Case Reports > Arch Pathol Lab Med. 2022 Aug 1;146(8):925-929.
doi: 10.5858/arpa.2021-0435-SA.

Autopsy Histopathologic Cardiac Findings in 2 Adolescents Following the Second COVID-19 Vaccine Dose

James R Gill ^{1 2}, Randy Tashjian ^{3 4}, Emily Duncanson ⁵

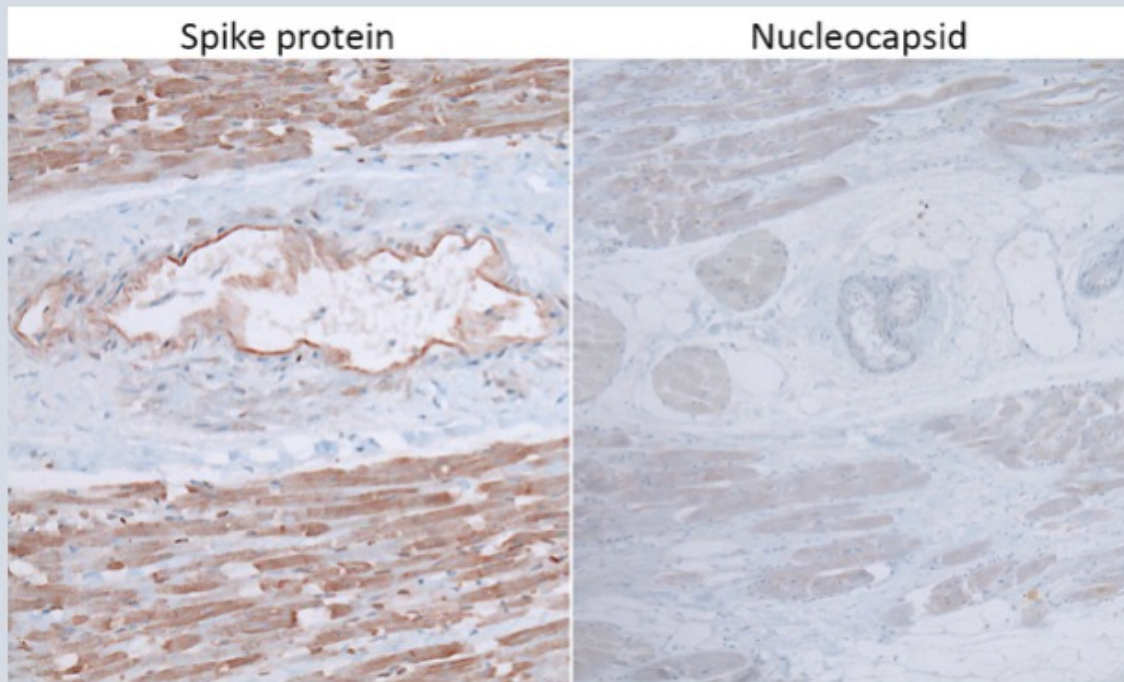
Affiliations + expand

PMID: 35157759 DOI: 10.5858/arpa.2021-0435-SA



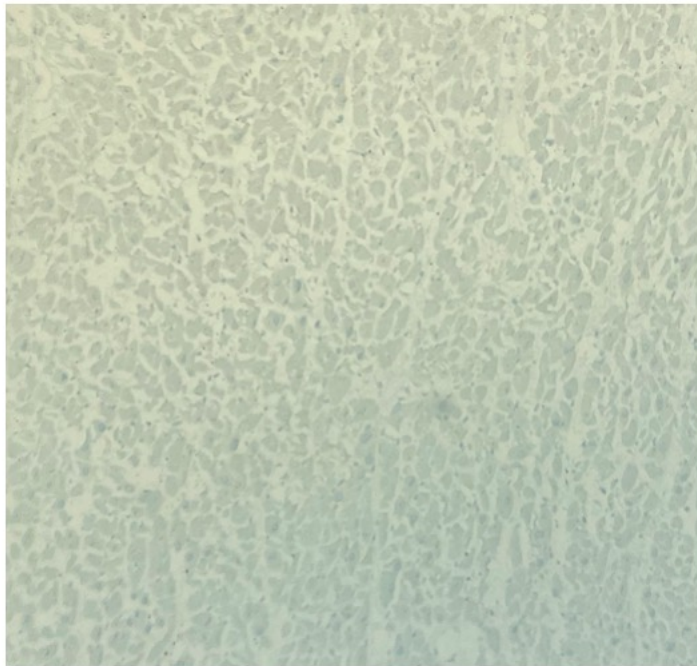
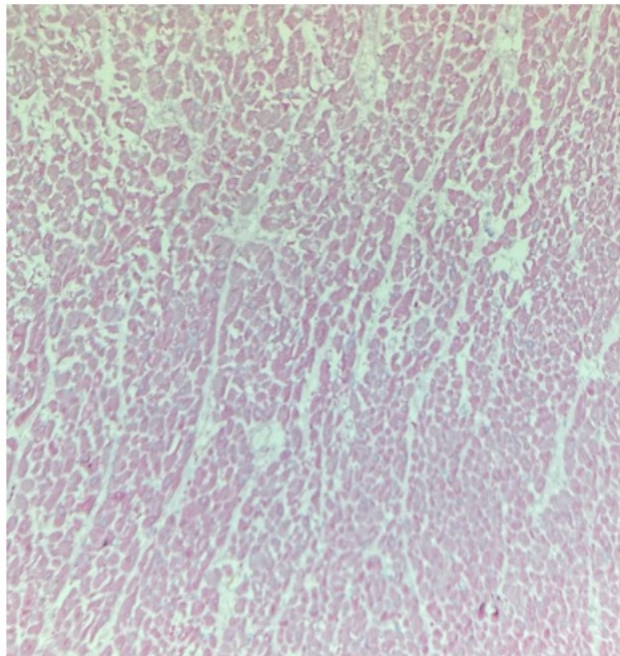
SPIKE: KNOWN HARMS

Spike protein vs. nucleocapsid expression in heart muscle (immunohistochemistry)

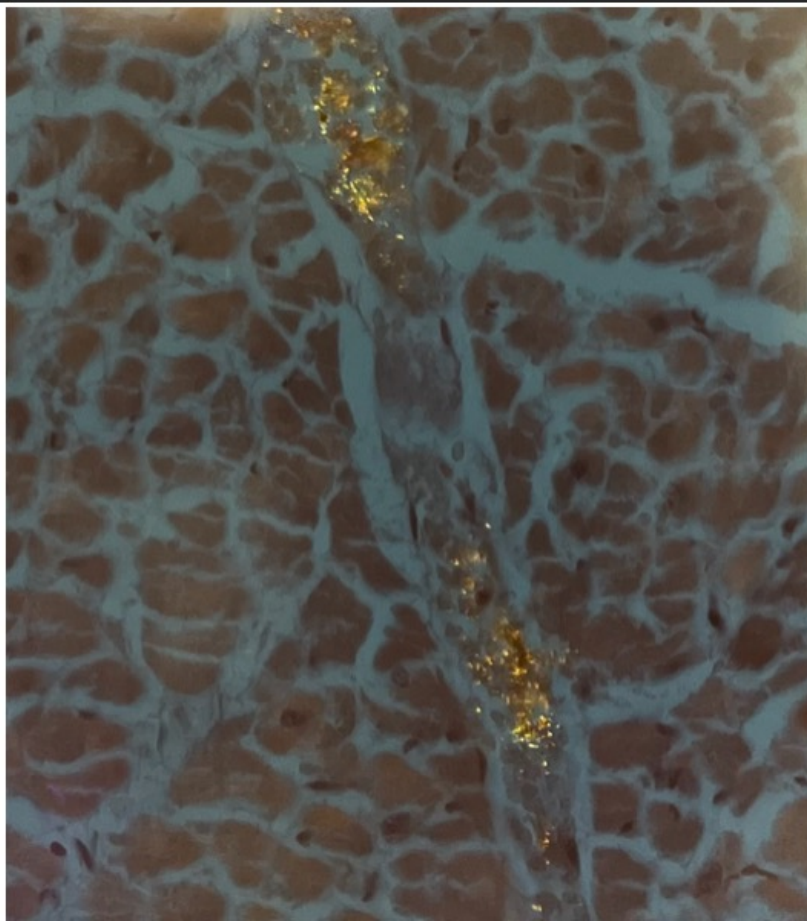


SPIKE: KNOWN HARMS

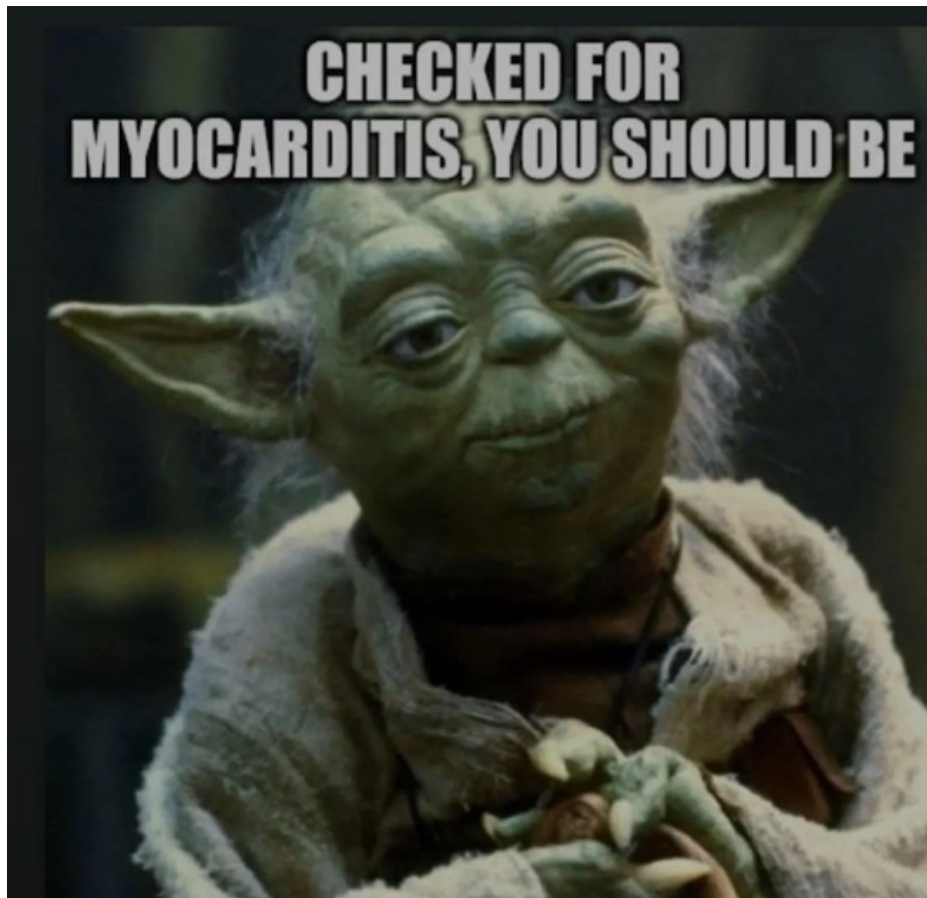
Spike - Heart



SPIKE: KNOWN HARMS

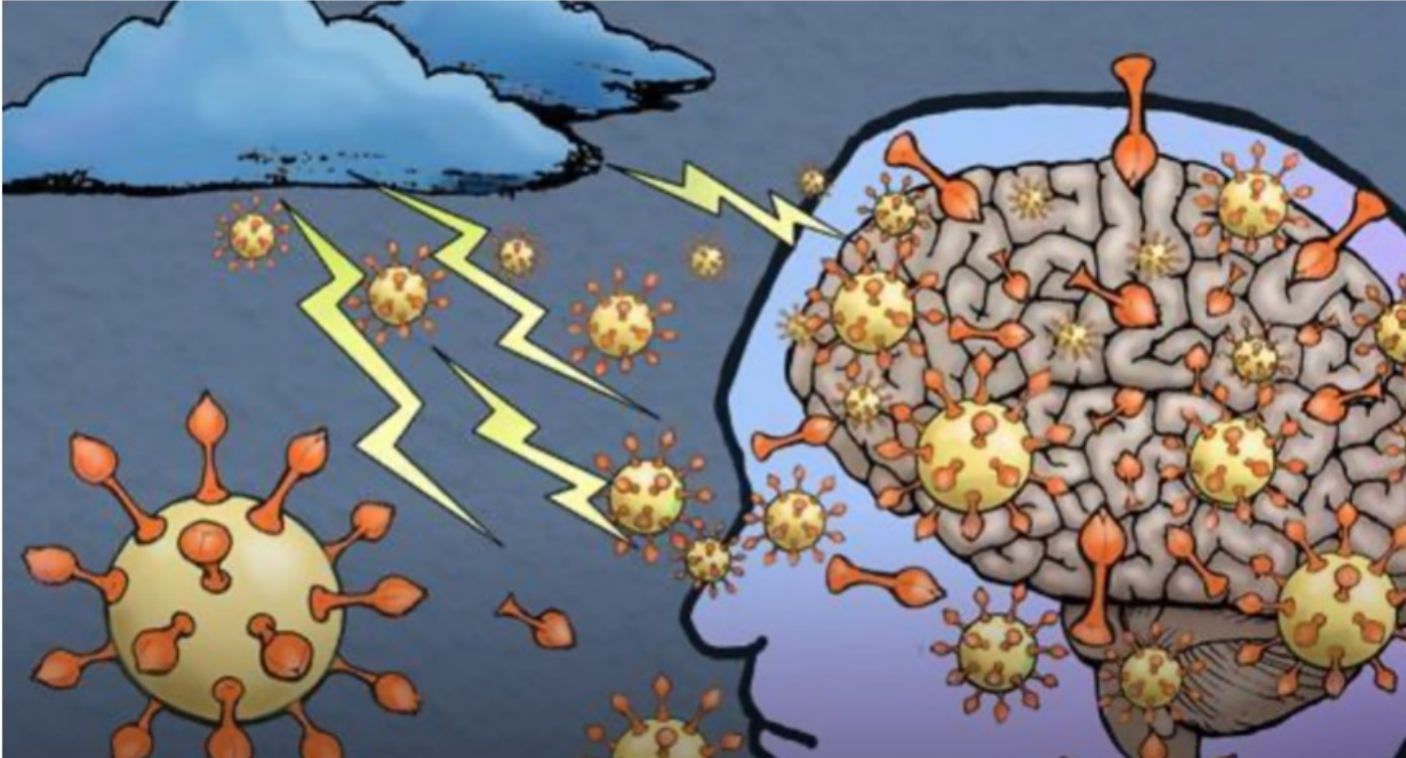


SPIKE: KNOWN HARMS



SPIKE: KNOWN HARMS

SPIKE - NEUROLOGIC DAMAGE



SPIKE: KNOWN HARMS

nature neuroscience

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[nature](#) > [nature neuroscience](#) > [articles](#) > [article](#)

Article | [Published: 16 December 2020](#)

The S1 protein of SARS-CoV-2 crosses the blood–brain barrier in mice

[Elizabeth M. Rhea](#), [Aric F. Logsdon](#), [Kim M. Hansen](#), [Lindsey M. Williams](#), [May J. Reed](#), [Kristen K. Baumann](#), [Sarah J. Holden](#), [Jacob Raber](#), [William A. Banks](#) ✉ & [Michelle A. Erickson](#)

[Nature Neuroscience](#) **24**, 368–378 (2021) | [Cite this article](#)

327k Accesses | **196** Citations | **6935** Altmetric | [Metrics](#)



SPIKE: KNOWN HARMS

Open Access Case Report

A Case Report: Multifocal Necrotizing Encephalitis and Myocarditis after BNT162b2 mRNA Vaccination against COVID-19

by Michael Mörz

Institute of Pathology 'Georg Schmorl', The Municipal Hospital Dresden-Friedrichstadt, Friedrichstrasse 41, 01067 Dresden, Germany

Vaccines 2022, 10(10), 1651; <https://doi.org/10.3390/vaccines10101651>

Received: 31 August 2022 / Revised: 25 September 2022 / Accepted: 27 September 2022 / Published: 1 October 2022

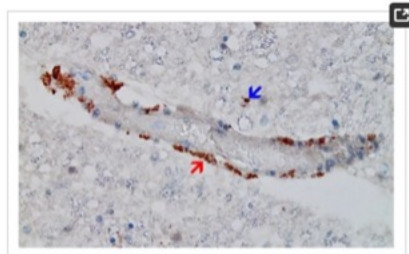
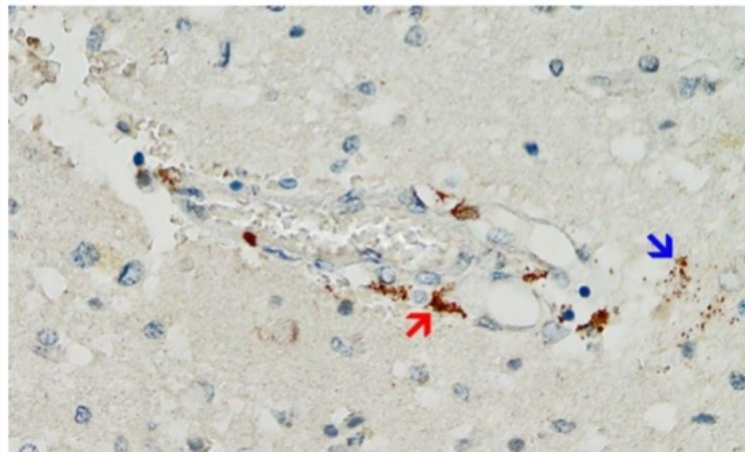


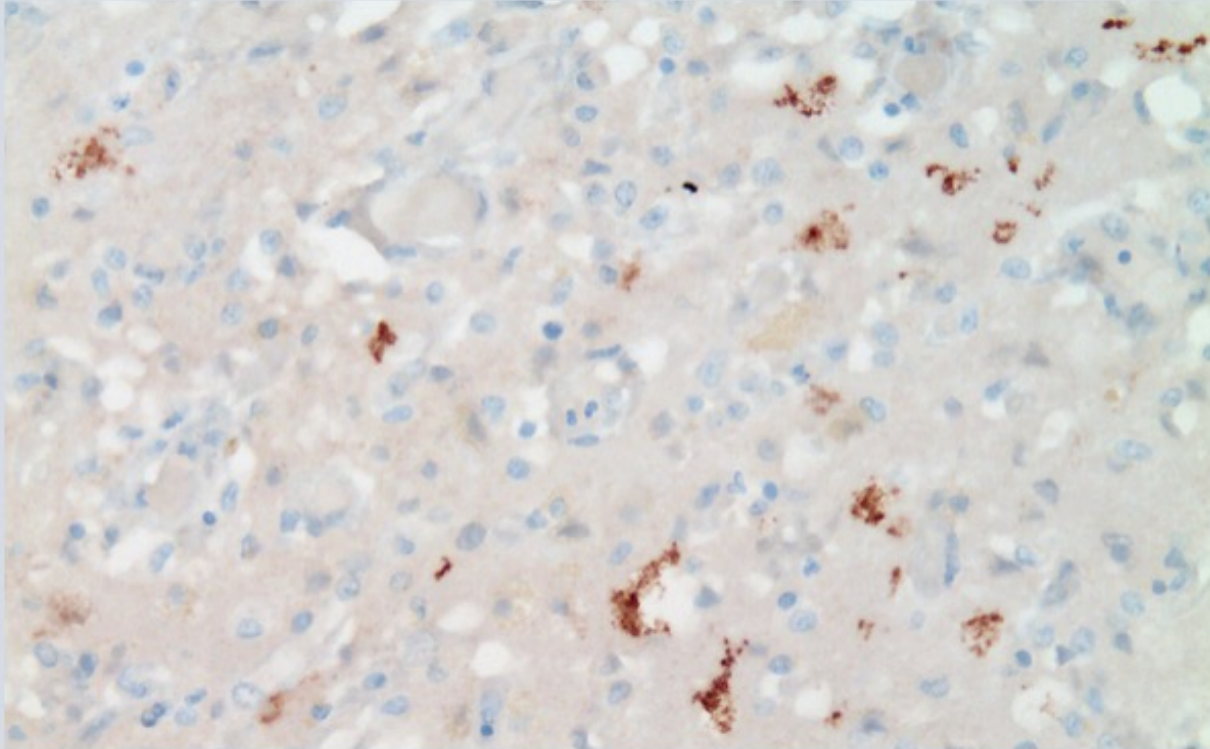
Figure 10. Brain, Nucleus ruber. The abundant presence of SARS-CoV-2 spike protein in swollen endothelium of a capillary vessel shows acute signs of inflammation with sparse mononuclear inflammatory cell infiltrates (same vessel as shown in Figure 12, serial sections of 5 to 20 μm). Immunohistochemical demonstration for SARS-CoV-2 spike protein subunit 1 visible as brown granules in capillary endothelial cells (red arrow) and individual glial cells (blue arrow). Magnification: 200 \times .

Figure 9. Frontal brain. Positive reaction for SARS-CoV-2 spike protein. Cross section through a capillary vessel (same vessel as shown in Figure 11, serial sections of 5 to 20 μm). Immunohistochemical reaction for SARS-CoV-2 spike subunit 1 detectable as brown granules in capillary endothelial cells (red arrow) and individual glial cells (blue arrow). Magnification: 200 \times .

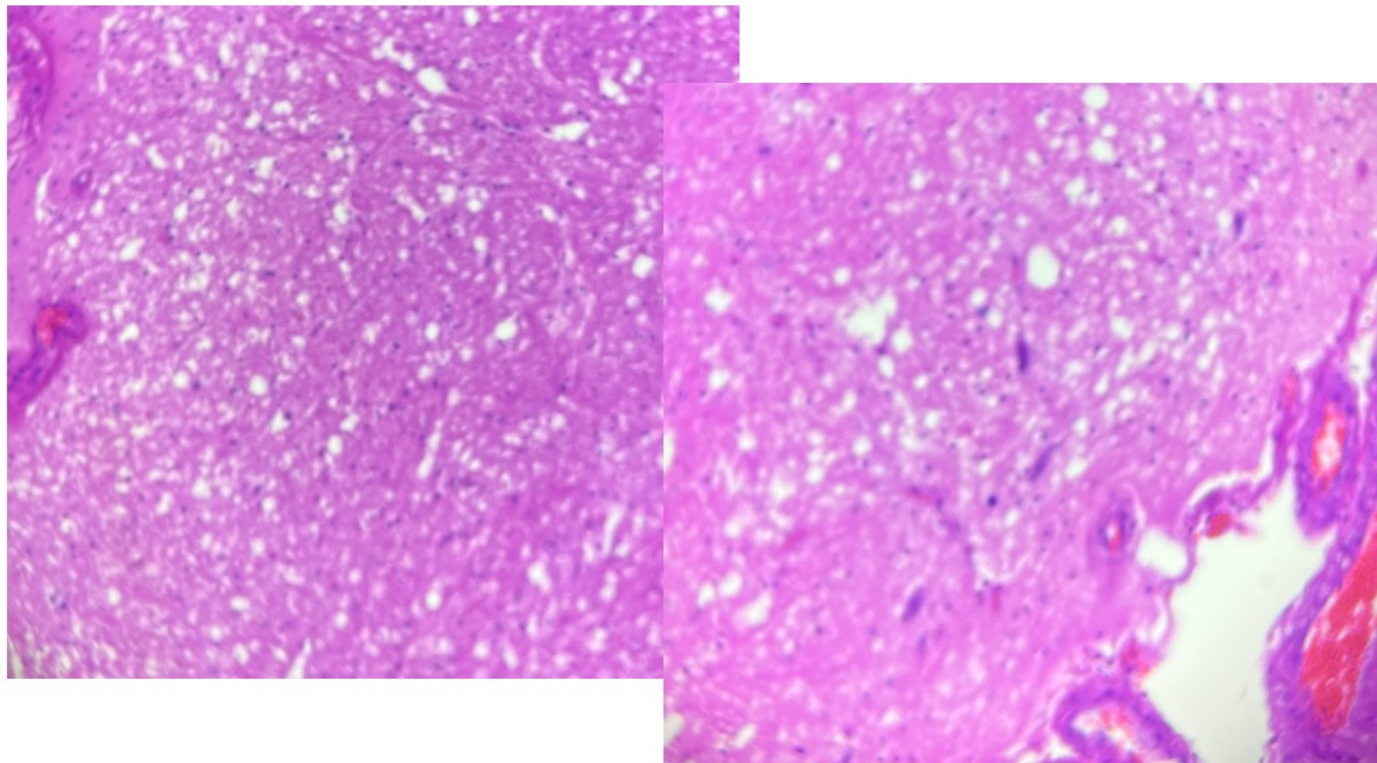


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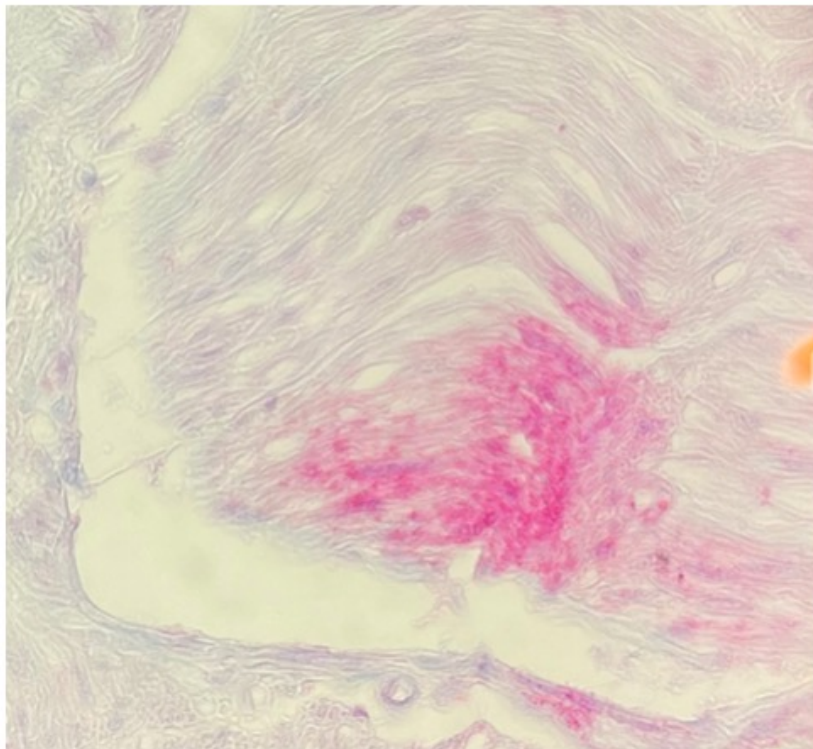
Expression of spike protein in brain tissue



SPIKE: KNOWN HARMS



Peripheral nerve - Spike



SPIKE: KNOWN HARMS

ORGAN DAMAGE/METABOLIC ALTERATIONS



SPIKE: KNOWN HARMS

[Leg Med \(Tokyo\)](#). 2023 Jul; 63: 102244.

PMCID: PMC10027302

Published online 2023 Mar 20. doi: [10.1016/j.legalmed.2023.102244](https://doi.org/10.1016/j.legalmed.2023.102244)

PMID: [36990036](https://pubmed.ncbi.nlm.nih.gov/36990036/)

A case of fatal multi-organ inflammation following COVID-19 vaccination

[Hideyuki Nushida](#),^{a,*} [Asuka Ito](#),^a [Hiromitsu Kurata](#),^{a,b} [Hitomi Umemoto](#),^{a,c} [Itsuo Tokunaga](#),^a [Hirofumi Iseki](#),^{a,b} and [Akiyoshi Nishimura](#)^a

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Abstract

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A 14-year-old Japanese girl died unexpectedly 2 days after receiving the third dose of the BNT1262b2 mRNA COVID-19 vaccine. Autopsy findings showed congestive edema of the lungs, T-cell lymphocytic



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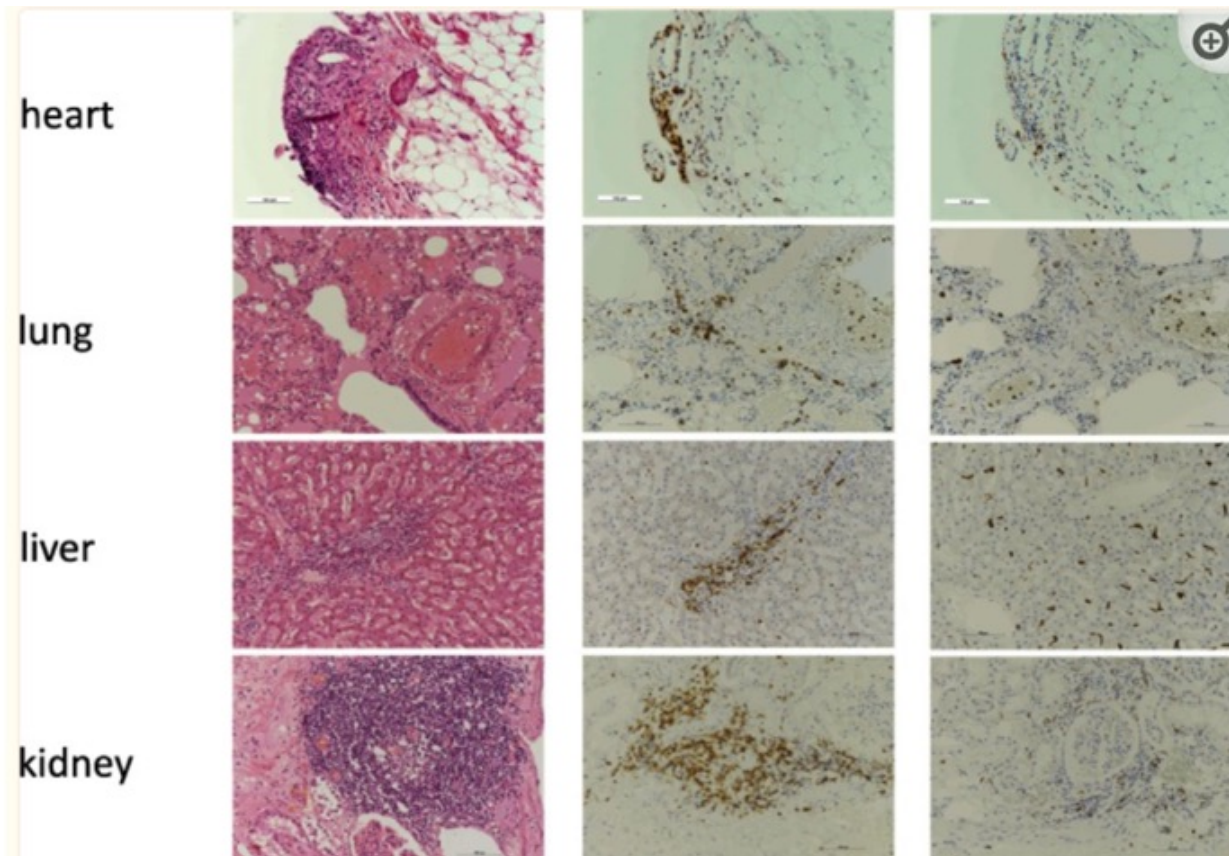
2.3. Biochemical analysis

Laboratory studies revealed elevated SARS-CoV-2 antibody (43600 U/mL, normal less than 0.80), elevated IL-6 (226 pg/mL, normal ≤ 4.0), slightly elevated C-reactive protein (0.910 mg/mL). IgE (30.8 IU/mL, normal ≤ 170) and C3 (126 mg/dL, normal 86–160) were within the normal range. The biochemical analysis was performed by SRL, Inc. (Tokyo, Japan).

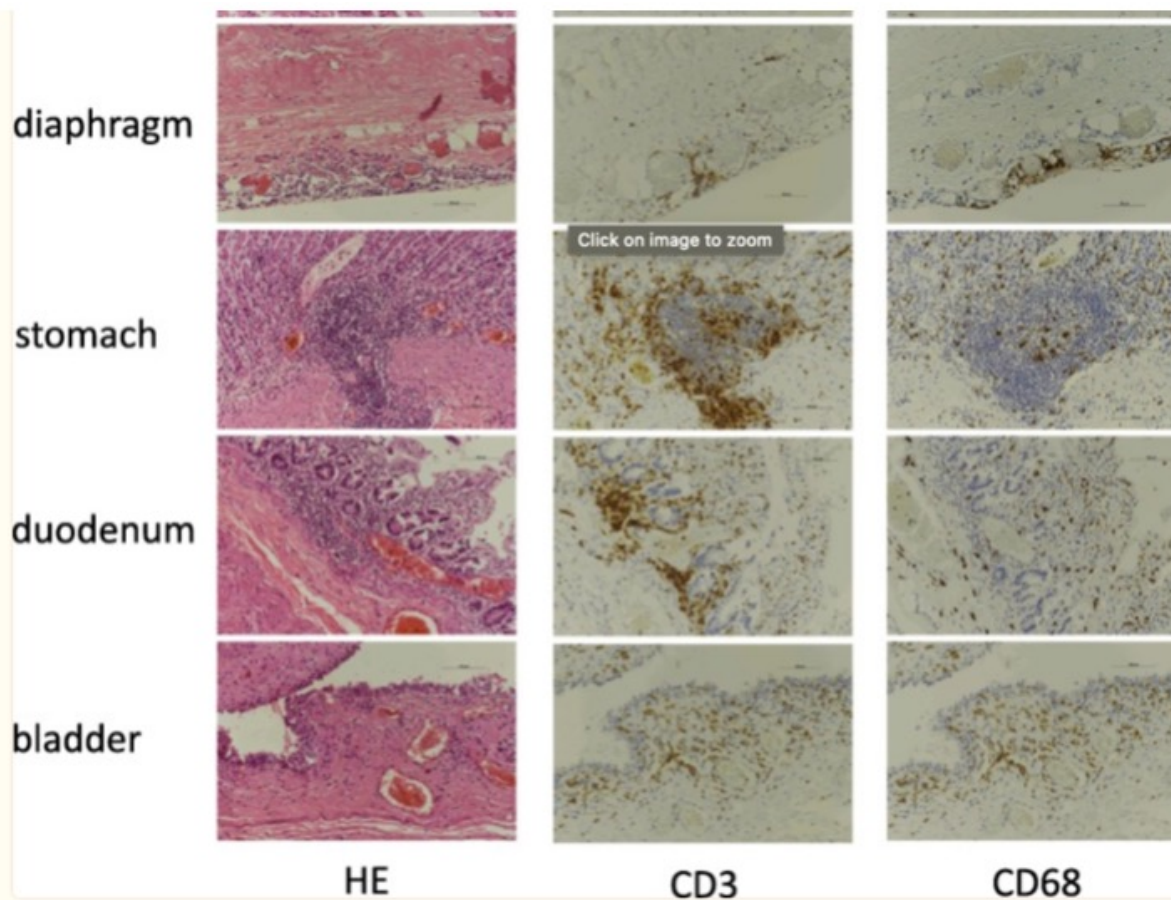
2.4. Diagnosis

A diagnosis of vaccine-related multiple-organ inflammation was made based on the absence of bacterial or viral infection, lack of a past medical history suggestive of autoimmune disease, no allergic reaction, and no drug exposure other than the vaccine. Myopericarditis is a form of multiple-organ inflammation.

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SPIKE: KNOWN HARMS



Spike damage in liver

HEPATOLOGY 

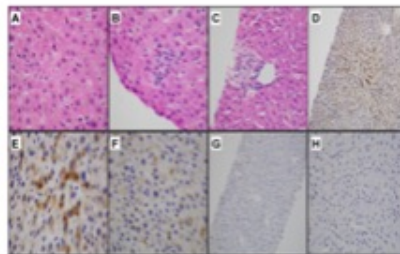
Original ARTICLE |  Free Access


Liver injury after SARS-CoV-2 vaccination: Features of immune-mediated hepatitis, role of corticosteroid therapy and outcome

Cumali Efe , Anand V. Kulkarni, Benedetta Terziroli Beretta-Piccoli, Bianca Magro, Albert Friedrich Stättermayer, Mustafa Cengiz, Daniel Clayton-Chubb, Craig Lammert ... [See all authors](#) 


First published: 14 May 2022 | <https://doi.org/10.1002/hep.32572>

Staffan Wahlin and Thomas D. Schiano share senior authorship.





JOURNAL OF HEPATOLOGY  **EASL** Submit Claim Log in Register


LETTER TO THE EDITOR | VOLUME 77, ISSUE 2, P556-558, AUGUST 01, 2022

PDF [973 KB]  Figures

Severe *de novo* liver injury after Moderna vaccination – not always autoimmune hepatitis

Chan Maung Nyein [†] • Zi Hui Shenlyn Liew [†] • Wei-Qiang Leow • Poh Sheng Joe Yeong • Gims Hin Ho  

[Show footnotes](#)

Published: April 16, 2022 • DOI: <https://doi.org/10.1016/j.jhep.2022.03.041> •  Check for updates

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SPIKE HARM LUNG DAMAGE

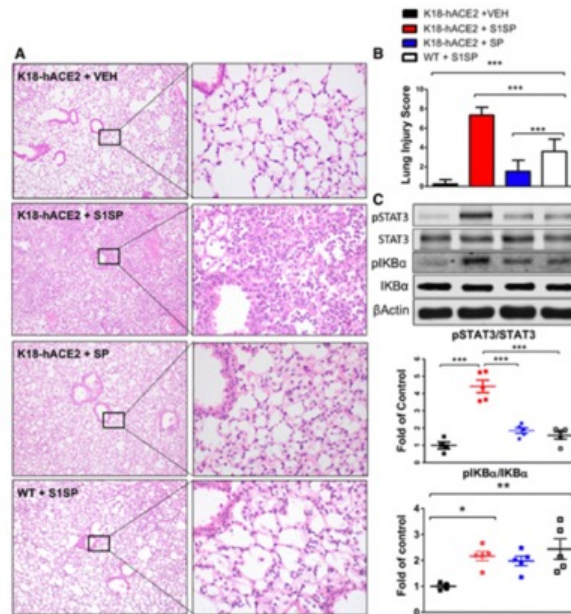
AMERICAN JOURNAL OF PHYSIOLOGY
LUNG CELLULAR AND MOLECULAR PHYSIOLOGY

american physiological society

JOURNAL HOME ISSUES ▾ COLLECTIONS INFORMATION ABOUT SUBMIT SUBSCRIBE

Rapid Report | The Pathophysiology of COVID-19 and SARS-CoV-2 Infection
The SARS-CoV-2 spike protein subunit S1 induces COVID-19-like acute lung injury in K18-hACE2 transgenic mice and barrier dysfunction in human endothelial cells

Ruben M. L. Colunga Biancatelli *, Pavel A. Solopov *, Elizabeth R. Sharlow, ... See all authors ▾
10 AUG 2021 // <https://doi.org/10.1152/ajplung.00223.2021>



SPIKE: KNOWN HARMS

SPIKE HARM ORGAN DAMAGE

- Heart, Lung, Liver

SARS-CoV-2 spike protein disrupts lipid metabolism resulting in liver, heart & kidney damage



Cold
Spring
Harbor
Laboratory

bioRxiv

THE PREPRINT SERVER FOR BIOLOGY

bioRxiv posts many COVID19-related papers. A reminder: they have not been formally peer-reviewed and should not guide health-related behavior or be reported in the press as conclusive.

New Results

 [Follow this preprint](#)

The Spike protein of SARS-CoV-2 impairs lipid metabolism and increases susceptibility to lipotoxicity: implication for a role of Nrf2

Vi Nguyen, Yuping Zhang, Chao Gao, Xiaoling Cao, Yan Tian, Wayne Carver, Hippokratidis Kiaris, Taixing Cui, Wenbin Tan

doi: <https://doi.org/10.1101/2022.04.19.488806>

FLCCC
ALLIANCE
EDUCATIONAL
CONFERENCE
Spring 2023

SPIKE: KNOWN HARMS

[Lancet Diabetes Endocrinol.](#) 2022 Jan; 10(1): 13–16.

PMCID: PMC8601687

Published online 2021 Nov 18. doi: [10.1016/S2213-8587\(21\)00291-6](https://doi.org/10.1016/S2213-8587(21)00291-6)

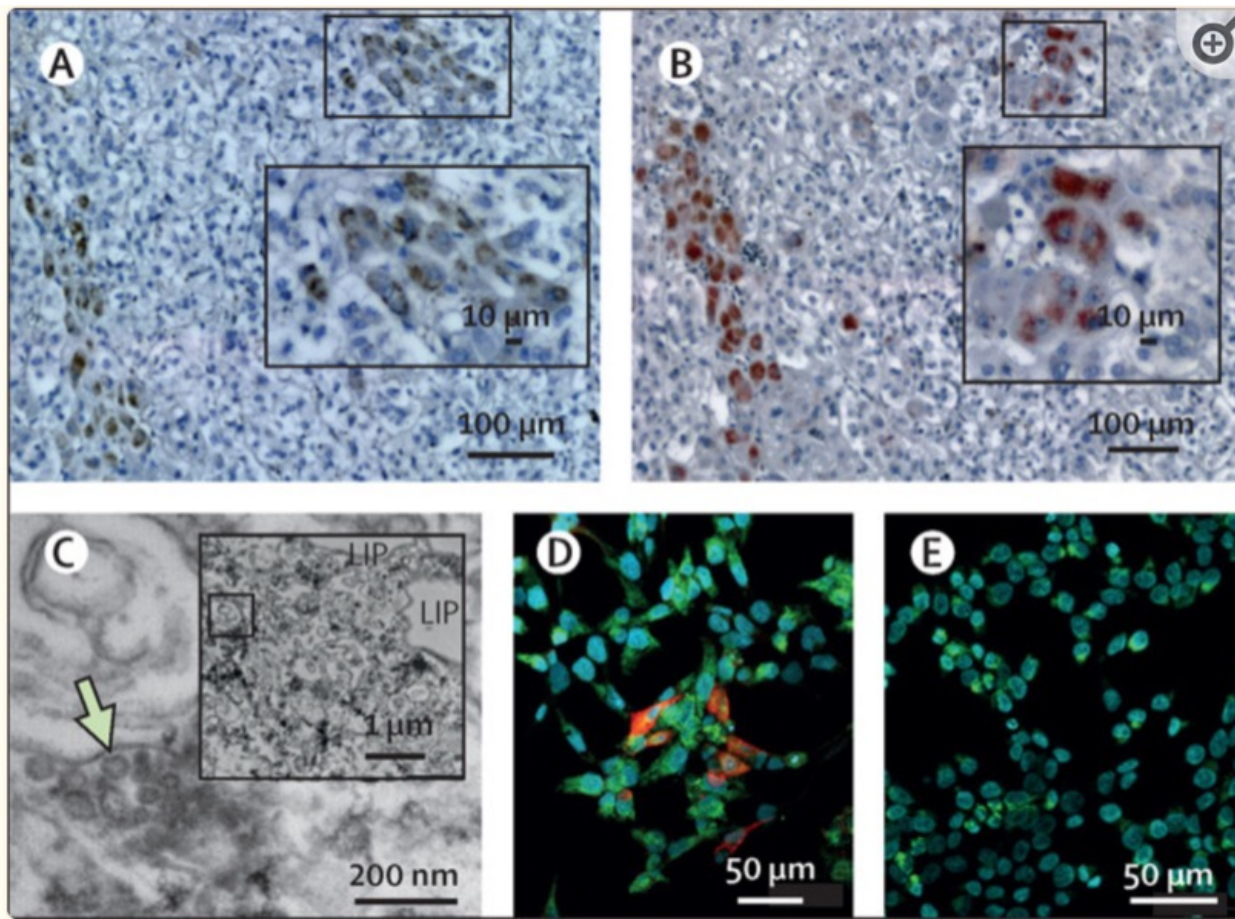
PMID: [34801110](https://pubmed.ncbi.nlm.nih.gov/34801110/)

COVID-19 targets human adrenal glands

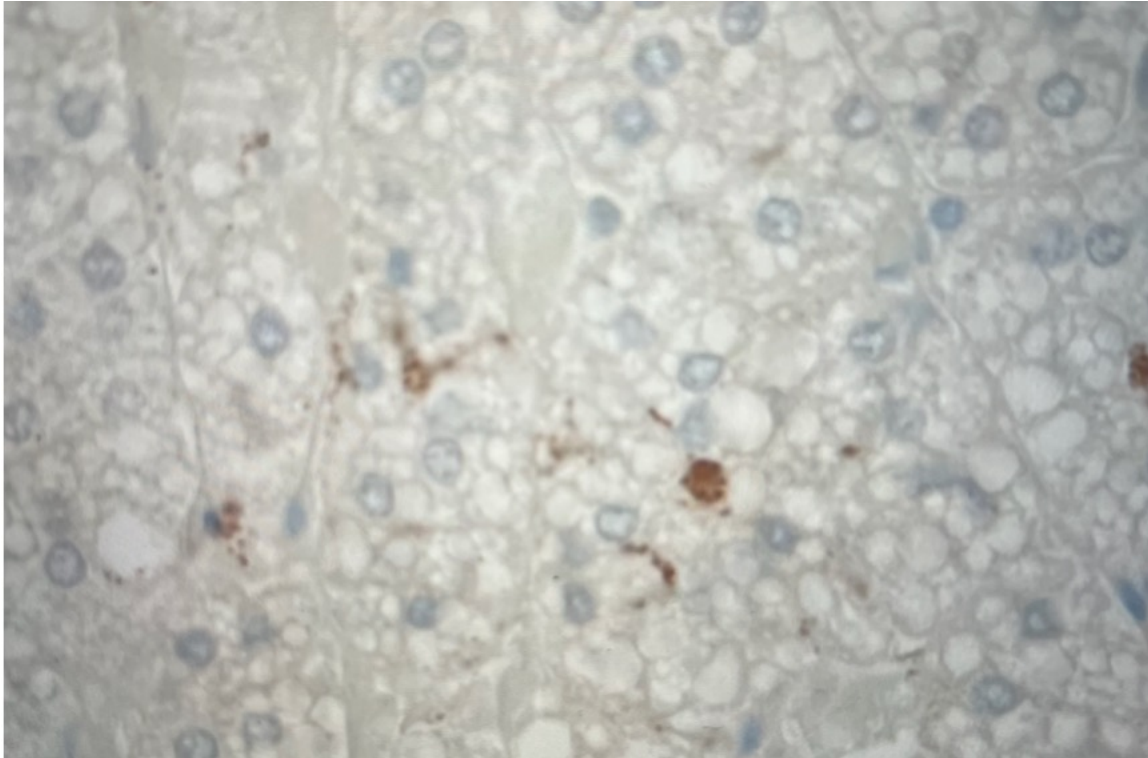
[Waldemar Kanczkowski](#),^a [Katja Evert](#),^e [Marlena Stadtmüller](#),^b [Martina Haberecker](#),^f [Laura Laks](#),^h [Lan-Sun Chen](#),^b
[Karl Frontzek](#),^h [Jessica Pablik](#),^c [Constanze Hantel](#),^{a,g,h} [Felix Beuschlein](#),^{g,h} [Thomas Kurth](#),^d [Sven Gruber](#),^{g,h}
[Adriano Aguzzi](#),^h [Zsuzsanna Varga](#),^f and [Stefan R Bornstein](#)^{a,i}



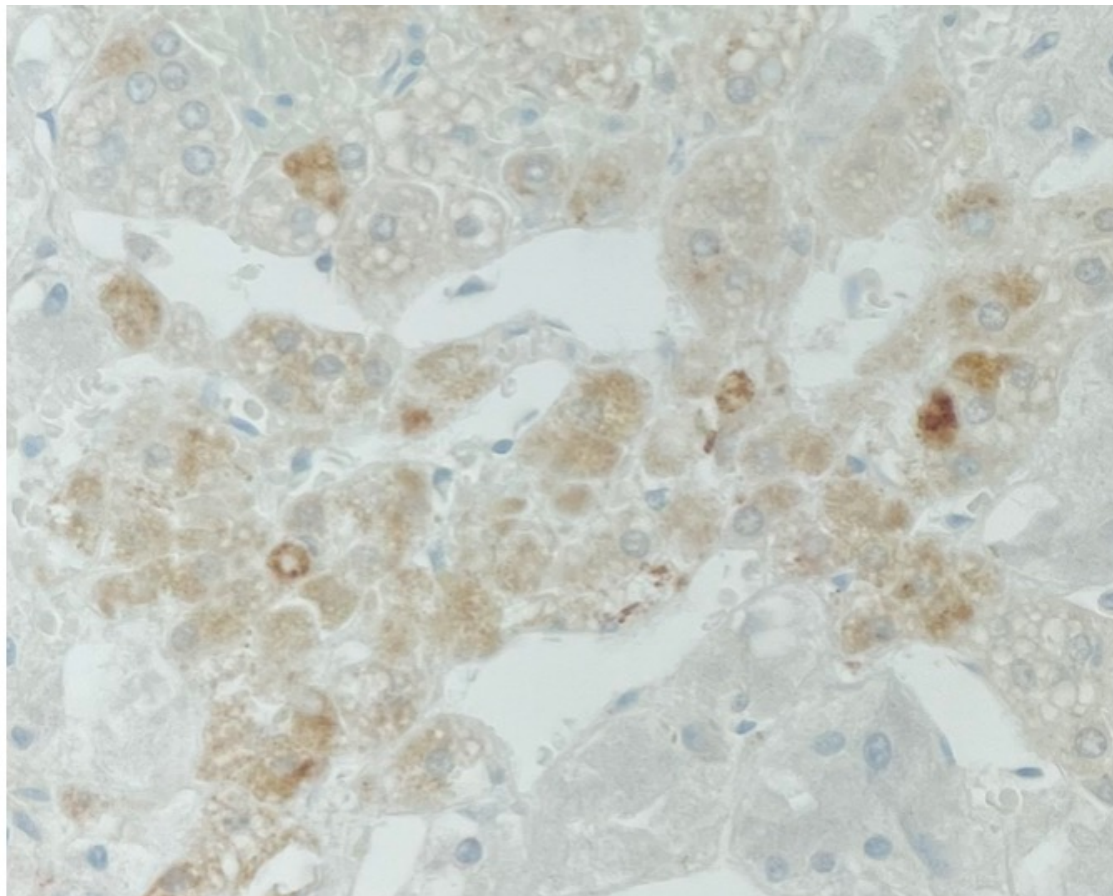
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SPIKE: KNOWN HARMS



SPIKE: KNOWN HARMS



VIRAL REACTIVATION



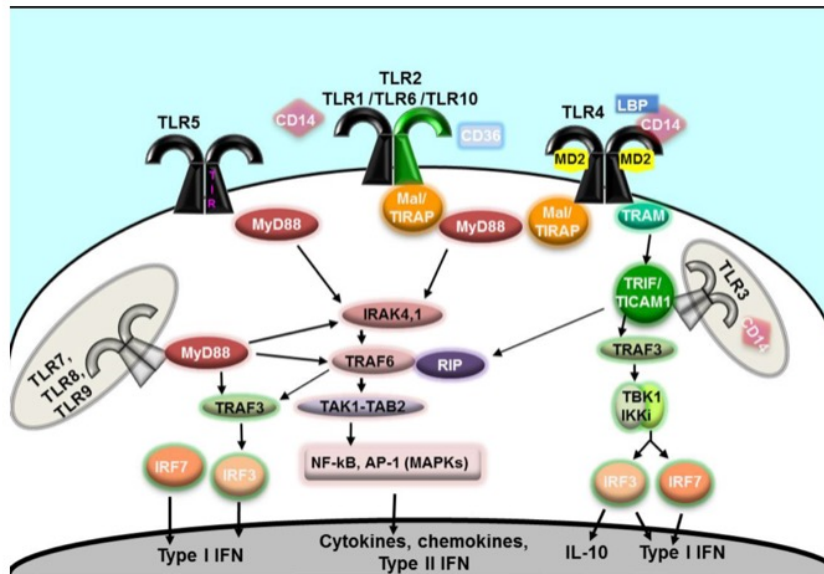
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SPIKE HARM

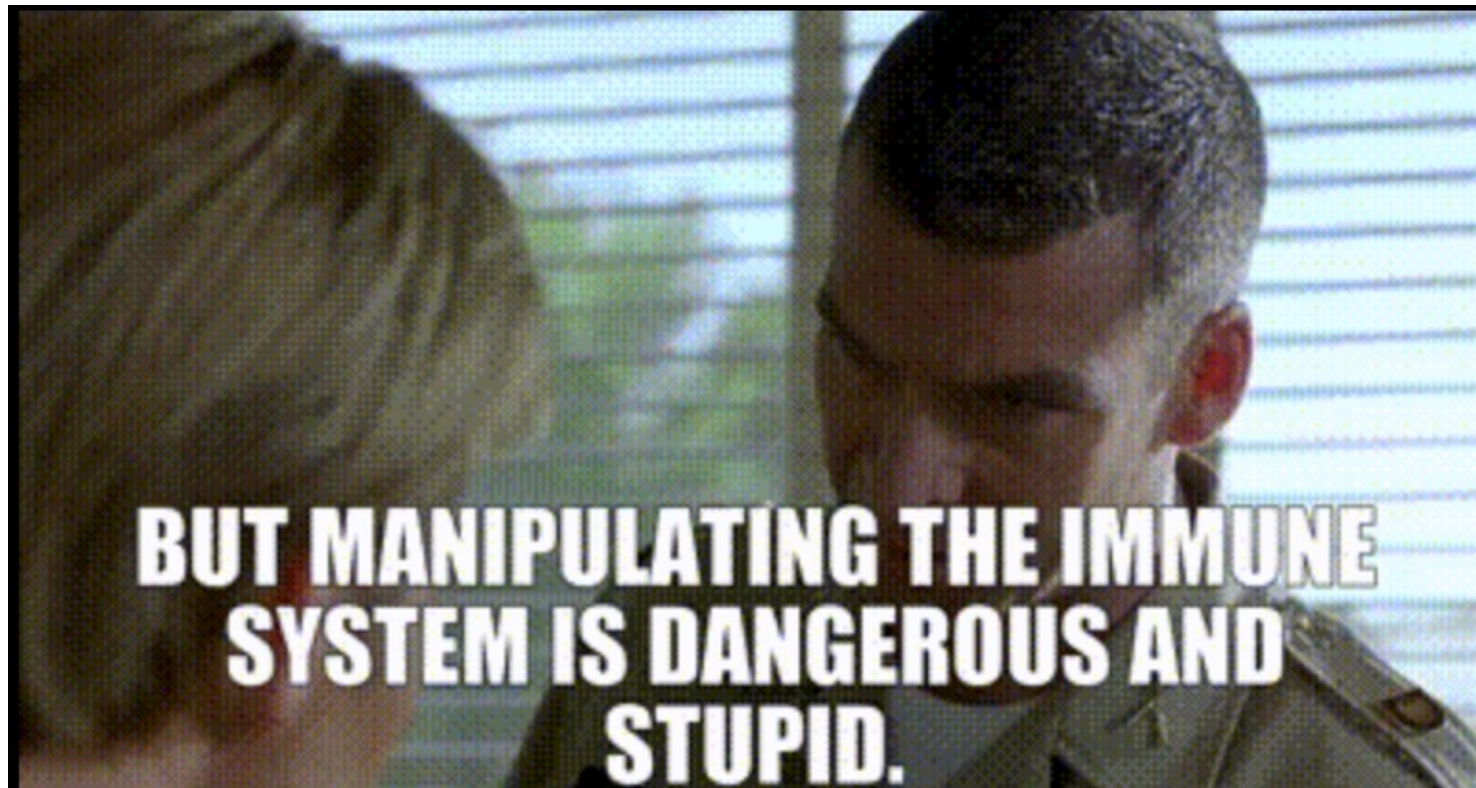
DAMAGE-

TOLL LIKE RECEPTORS

- DOWN REGULATION 3,4,7,8
- DECREASE 7,8 = Increase of latent viruses (Herpes Family viruses, Zoster, HSV1 and 2, HHV Epstein-Barr, RSV, HPV, etc.)



SPIKE: KNOWN HARMS



SPIKE: KNOWN HARMS

Comm

The BNT162b2 mRNA vaccine against SARS-CoV-2 reprograms both adaptive and innate immune responses

 F. Konstantin Föhse,  Büsranur Geckin,  Gijs J. Overheul,

“The mRNA BNT162b2 vaccine induces complex functional reprogramming of innate immune responses, which should be considered in the development and use of this new class of vaccines,” writes the team.

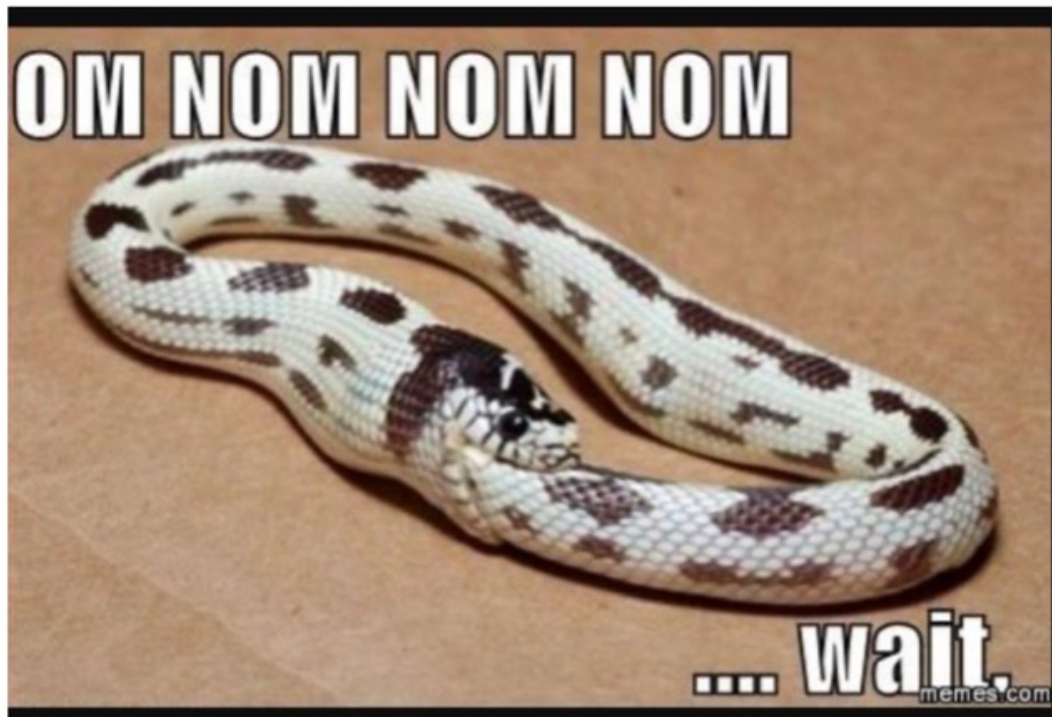
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- IMMUNE IMPRINTING/ANTIBODY DEPENDENT ENHANCEMENT/ORIGINAL ANTIGENIC SIN



SPIKE: KNOWN HARMS

AUTOIMMUNITY and SPIKE PROTEIN



Case Reports

> [Infect Drug Resist.](#) 2023 Mar 4;16:1263-1278. doi: 10.2147/IDR.S394602.

eCollection 2023.

Emergence of Post COVID-19 Vaccine Autoimmune Diseases: A Single Center Study

Safi Alqatari ¹, Mona Ismail ¹, Manal Hasan ¹, Raed Bukhari ¹, Reem Al Argan ¹,
Abrar Alwaheed ¹, Dania Alkhafaji ¹, Syed Essam Ahmed ¹, Kawther Hadhiah ¹, Turki Alamri ¹,
Ameera Nemer ¹, Fedaa Albeladi ¹, Noor N Bumurah ¹, Khalid Sharofna ¹, Zainab Albaggal ¹,
Raghad Alghamdi ¹, Reem S AlSulaiman ¹

Affiliations + expand

PMID: 36910517 PMCID: [PMC9994665](#) DOI: [10.2147/IDR.S394602](#)

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viruses

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Article Menu

Open Access Article

Potential Autoimmunity Resulting from Molecular Mimicry between SARS-CoV-2 Spike and Human Proteins

by Janelle Nunez-Castilla ¹ , Vitalii Stebliankin ² , Prabin Baral ³ ,
 Christian A. Balbin ¹ , Masrur Sobhan ⁴ , Trevor Cickovski ² ,
 Ananda Mohan Mondal ^{2,4,5} , Giri Narasimhan ^{2,5} , Prem Chapagain ^{3,5} ,
 Kalai Mathee ^{5,6} and Jessica Siltberg-Liberles ^{1,5,*}

Immune Tolerance - IgG4

SPIKE: KNOWN HARMS



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ORIGINAL RESEARCH article

Front. Immunol., 12 January 2023
Sec. Vaccines and Molecular Therapeutics
Volume 13 - 2022 | <https://doi.org/10.3389/fim-mu.2022.1020844>

This article is part of the Research Topic
Current Landscape of Adjuvants for Optimizing the
Immunogenicity of Vaccines

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mRNA vaccines against SARS-CoV-2 induce comparably low long-term IgG Fc galactosylation and sialylation levels but increasing long-term IgG4 responses compared to an adenovirus-based vaccine



Jana Sophia Buhre^{1†},



Tamas Pongracz^{2†},



Inga Künsting¹,



HOME > SCIENCE IMMUNOLOGY > VOL. 8, NO. 79 > CLASS SWITCH TOWARD NONINFLAMMATORY, SPIKE-SPECIFIC IGG4 ANTIBODIES AFTER REPEATED SARS-...






RESEARCH ARTICLE

CORONAVIRUS



Class switch toward noninflammatory, spike-specific IgG4 antibodies after repeated SARS-CoV-2 mRNA vaccination

[PASCAL IRRGANG](#) , [JULIANE GERLING](#) , [KATHARINA KOCHER](#) , [DENNIS LAPUENTE](#) , [PHILIPP STEININGER](#), [KATHARINA HABENICHT](#), [MONIKA WYTOPIL](#) ,
[STEPHANIE BEILEKE](#), [SIMON SCHÄFER](#), [...], AND [MATTHIAS TENBUSCH](#) 

+13 authors

[Authors Info & Affiliations](#)

SCIENCE IMMUNOLOGY • 22 Dec 2022 • Vol 8, Issue 79 • DOI: [10.1126/sciimmunol.ade2798](https://doi.org/10.1126/sciimmunol.ade2798)



SPIKE REPRODUCTIVE HARMS

- REPRODUCTIVE SYSTEM ALTERATIONS?



SPIKE REPRODUCTIVE HARMS

ANDROLOGY



ORIGINAL ARTICLE |  [Free Access](#)

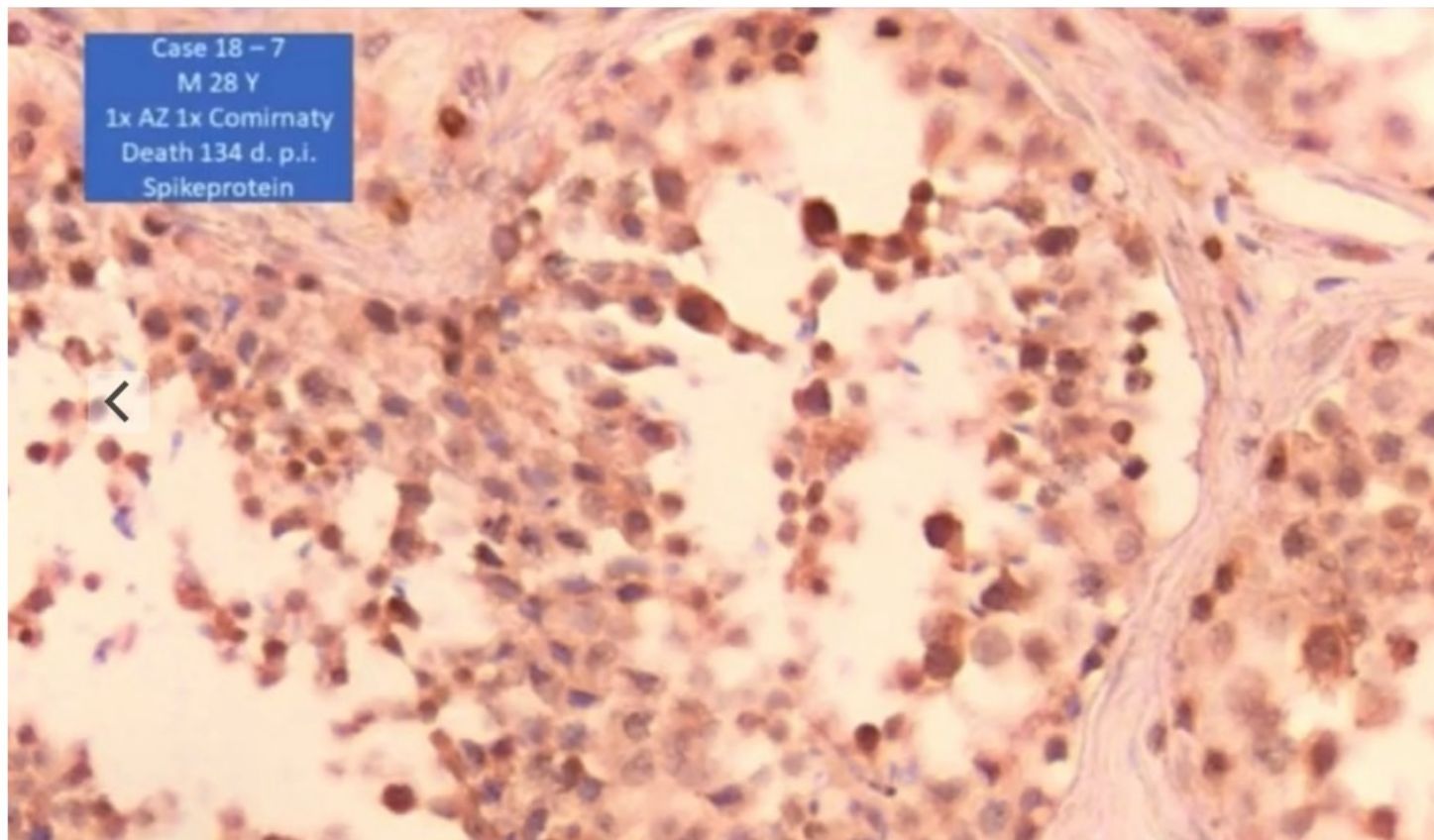
Covid-19 vaccination BNT162b2 temporarily impairs semen concentration and total motile count among semen donors

Itai Gat✉, Alon Kedem, Michal Dviri, Ana Umanski, Matan Levi, Ariel Hourvitz, Micha Baum

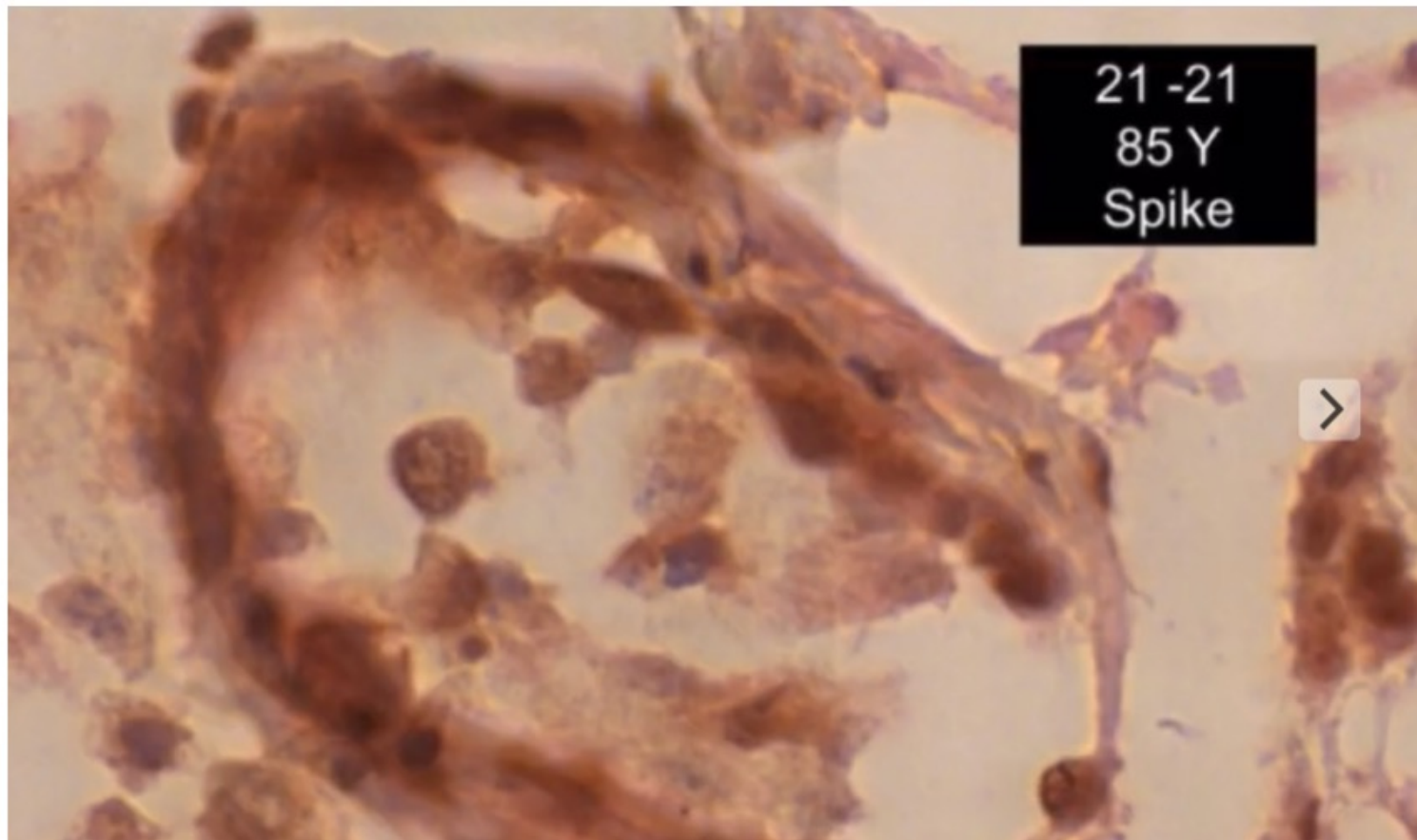
First published: 17 June 2022 | <https://doi.org/10.1111/andr.13209> | Citations: 1



SPIKE REPRODUCTIVE HARMS



SPIKE REPRODUCTIVE HARMS



SPIKE REPRODUCTIVE HARMS



SPIKE REPRODUCTIVE HARMS

Jerusalem Post > Health & Wellness > Coronavirus



UNIVERSITY HOSPITAL
Samson Assuta Ashdod
OF Maccabi

The Health & Wellness portal is presented in collaboration with
[Samson Assuta Ashdod University Hospital >>](#)


COVID-19 booster shot can cause irregular menstrual periods - Health Ministry

Women and young people are more susceptible to experiencing the side effects of the booster shot, a Health Ministry study showed.

By JERUSALEM POST STAFF Published: FEBRUARY 9, 2022 16:52



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ORIGINAL RESEARCH


Association Between Menstrual Cycle Length and Coronavirus Disease 2019 (COVID-19) Vaccination
A U.S. Cohort


Edelman, Alison MD, MPH; Boniface, Emily R. MPH; Benhar, Eleonora PhD; Han, Leo MD, MPH; Matteson, Kristen A. MD, MPH; Favaro, Carlotta PhD; Pearson, Jack T. PhD; Darney, Blair G. PhD, MPH


[Author Information](#) ☺

Obstetrics & Gynecology: January 5, 2022 - Volume - Issue - 10.1097/AOG.0000000000004695
doi: 10.1097/AOG.0000000000004695 

 Outline

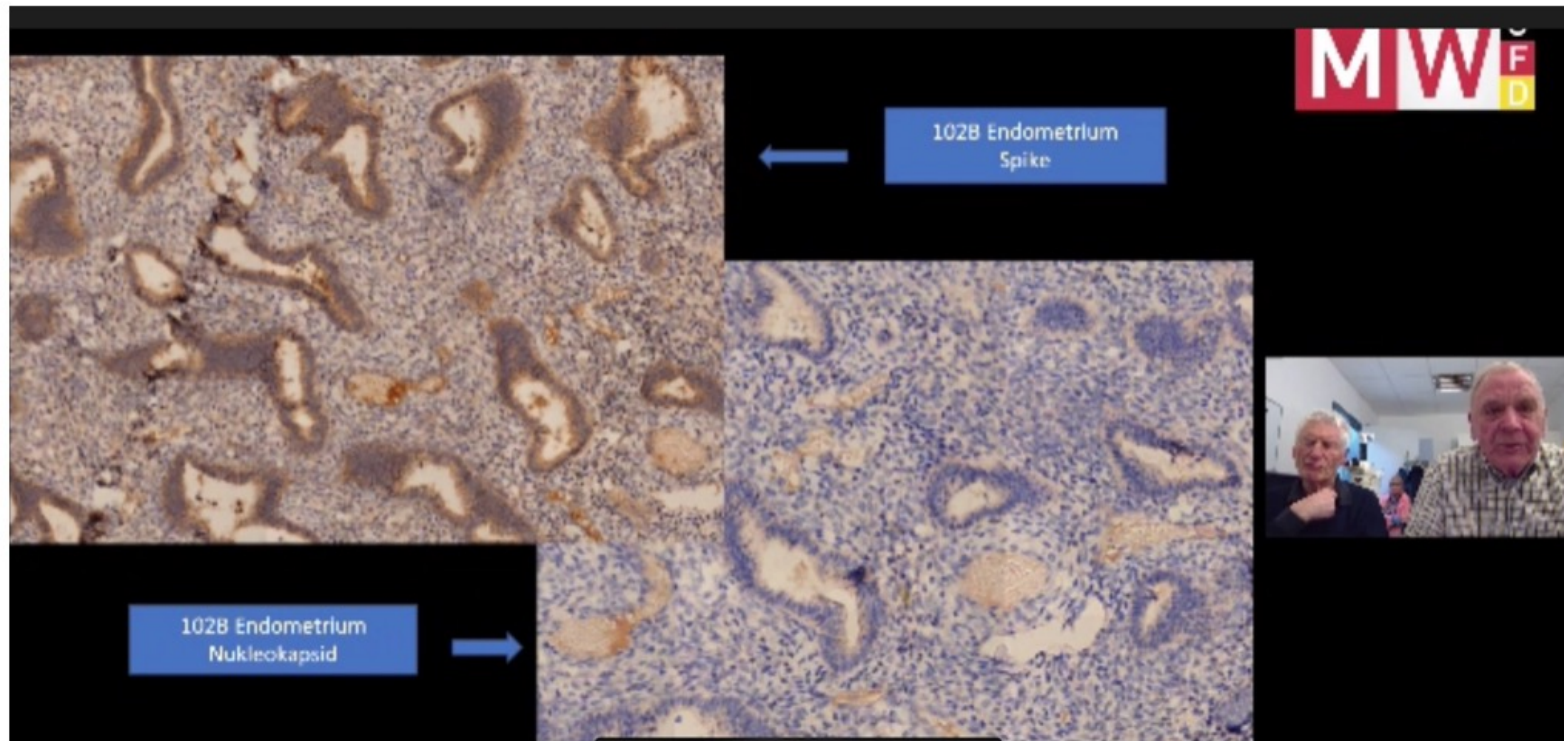
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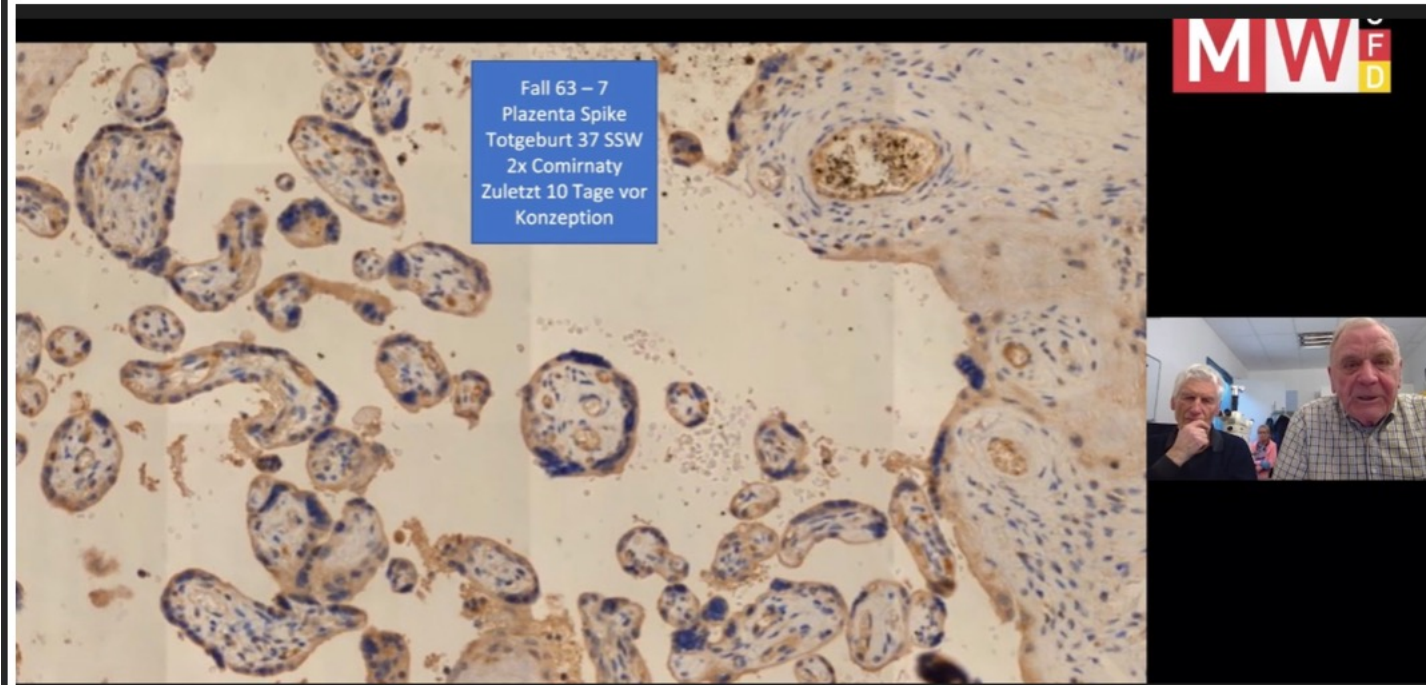




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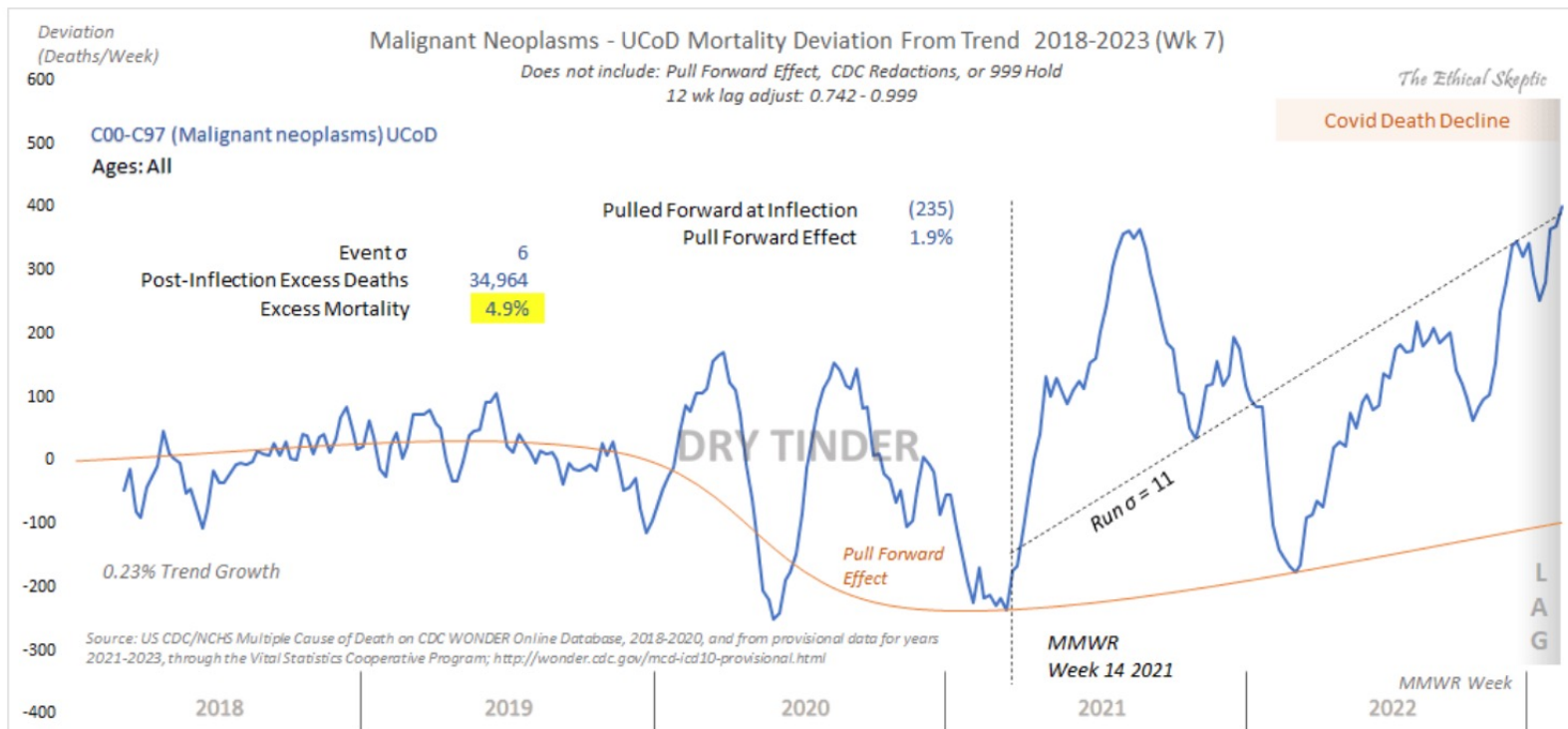
SPIKE HARMS: CANCER?

SPIKE - CANCER MECHANISM POTENTIAL



SPIKE HARMS: CANCER?

<https://theethicalskeptic.com/2022/08/20/houston-we-have-a-problem-part-1-of-3/>



SPIKE HARMS: CANCER?

Malignant Neoplasms (C00-C97) Deaths - 2023 Wk 11 (Lag/MCoD Adjusted)

US Center for Disease Control and Prevention: Weekly Provisional Counts of Deaths by State and Select Causes, 2020-2023; <https://data.cdc.gov/NCHS/Weekly-Provisional-Counts-of-Deaths-by-State-and-Select-Causes>
US Center for Disease Control and Prevention: Weekly Counts of Deaths by State and Select Causes, 2014-2019; <https://data.cdc.gov/NCHS/Weekly-Counts-of-Deaths-by-State-and-Select-Causes>

MMWR Week Actuals (7-wk m-avg)

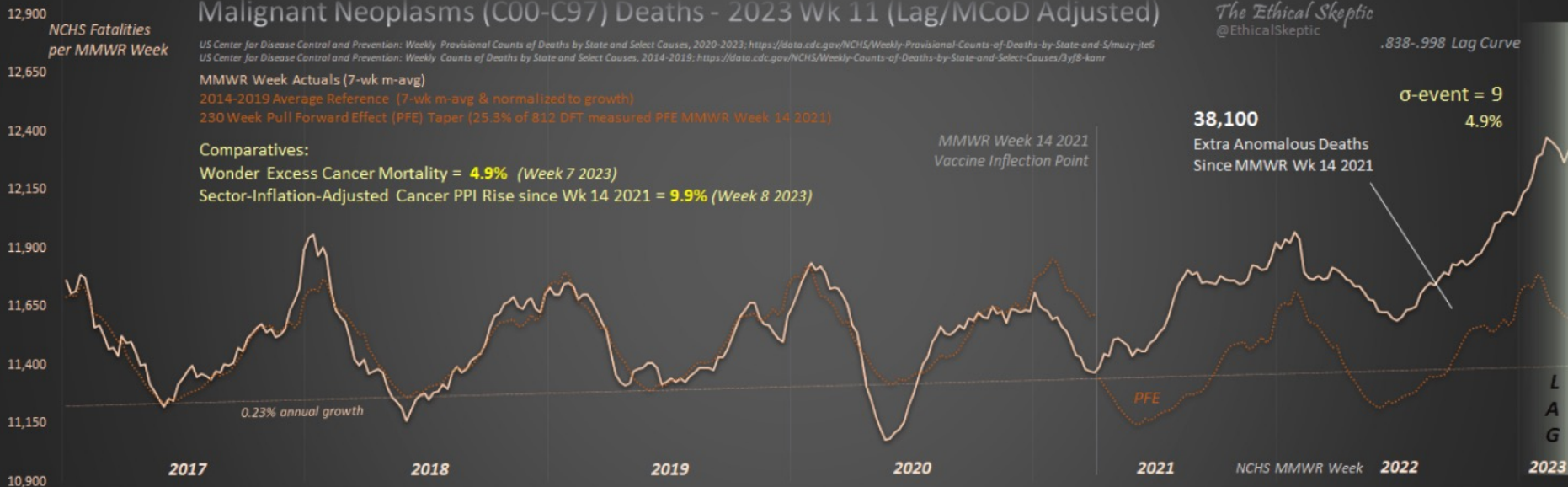
2014-2019 Average Reference (7-wk m-avg & normalized to growth)

230 Week Pull Forward Effect (PFE) Taper (25.3% of 812 DFT measured PFE MMWR Week 14 2021)

Comparatives:

Wonder Excess Cancer Mortality = **4.9%** (Week 7 2023)

Sector-Inflation-Adjusted Cancer PPI Rise since Wk 14 2021 = **9.9%** (Week 8 2023)



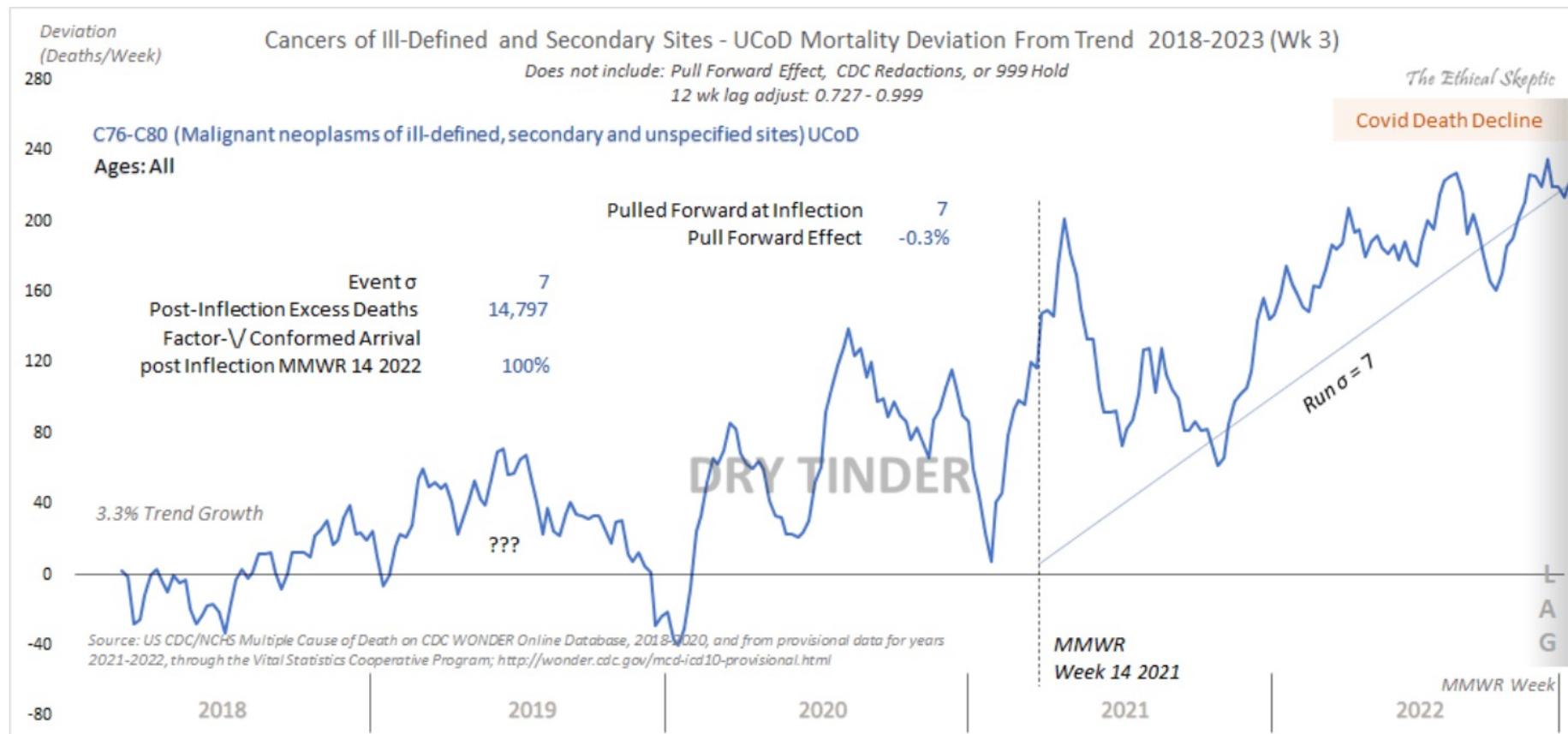
The Ethical Skeptic
@EthicalSkeptic

.838-.998 Lag Curve

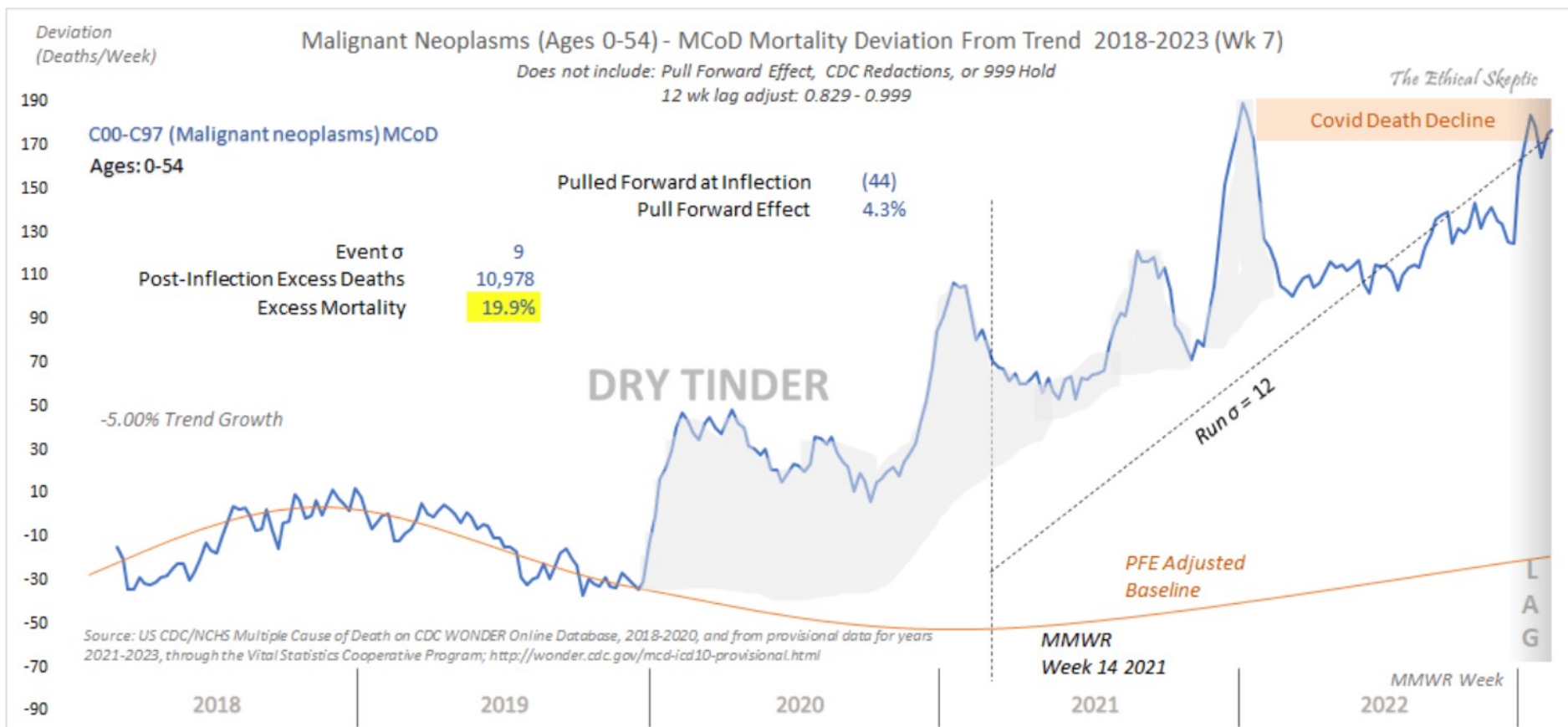
σ -event = 9
4.9%

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Spring 2023

SPIKE HARMS: CANCER?



SPIKE HARMS: CANCER?



SPIKE HARMS: CANCER?

**Government Databases and Codes must
be searched and reporting not delayed!**



SPIKE HARMS: CANCER?



SPIKE HARMS: CANCER?

P53 is the GUARDIAN OF OUR GENOME



SPIKE HARMS: CANCER?

[Transl Oncol.](#) 2020 Oct; 13(10): 100814.

Published online 2020 Jun 30. doi: [10.1016/j.tranon.2020.100814](https://doi.org/10.1016/j.tranon.2020.100814)

PMCID: PMC7324311

PMID: [32619819](https://pubmed.ncbi.nlm.nih.gov/32619819/)

S2 Subunit of SARS-nCoV-2 Interacts with Tumor Suppressor Protein p53 and BRCA: an In Silico Study

[Nishant Singh](#)* and [Anuradha Bharara Singh](#)

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SPIKE HARM DAMAGE - DNA REPAIR

> [Viruses](#). 2021 Oct 13;13(10):2056. doi: 10.3390/v13102056.

SARS-CoV-2 Spike Impairs DNA Damage Repair and Inhibits V(D)J Recombination In Vitro

Hui Jiang ^{1 2}, Ya-Fang Mei ²

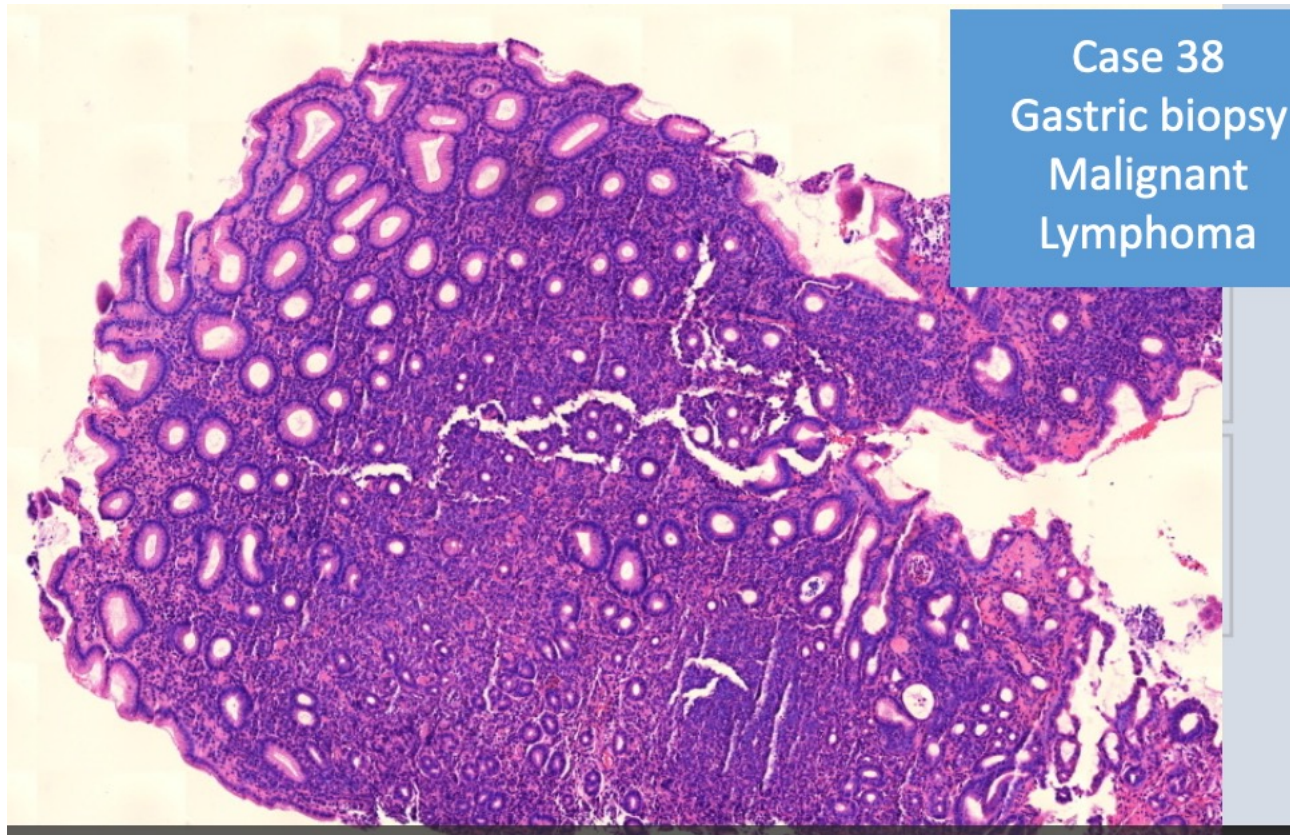
Affiliations + expand

PMID: 34696485 PMCID: [PMC8538446](#) DOI: [10.3390/v13102056](#)

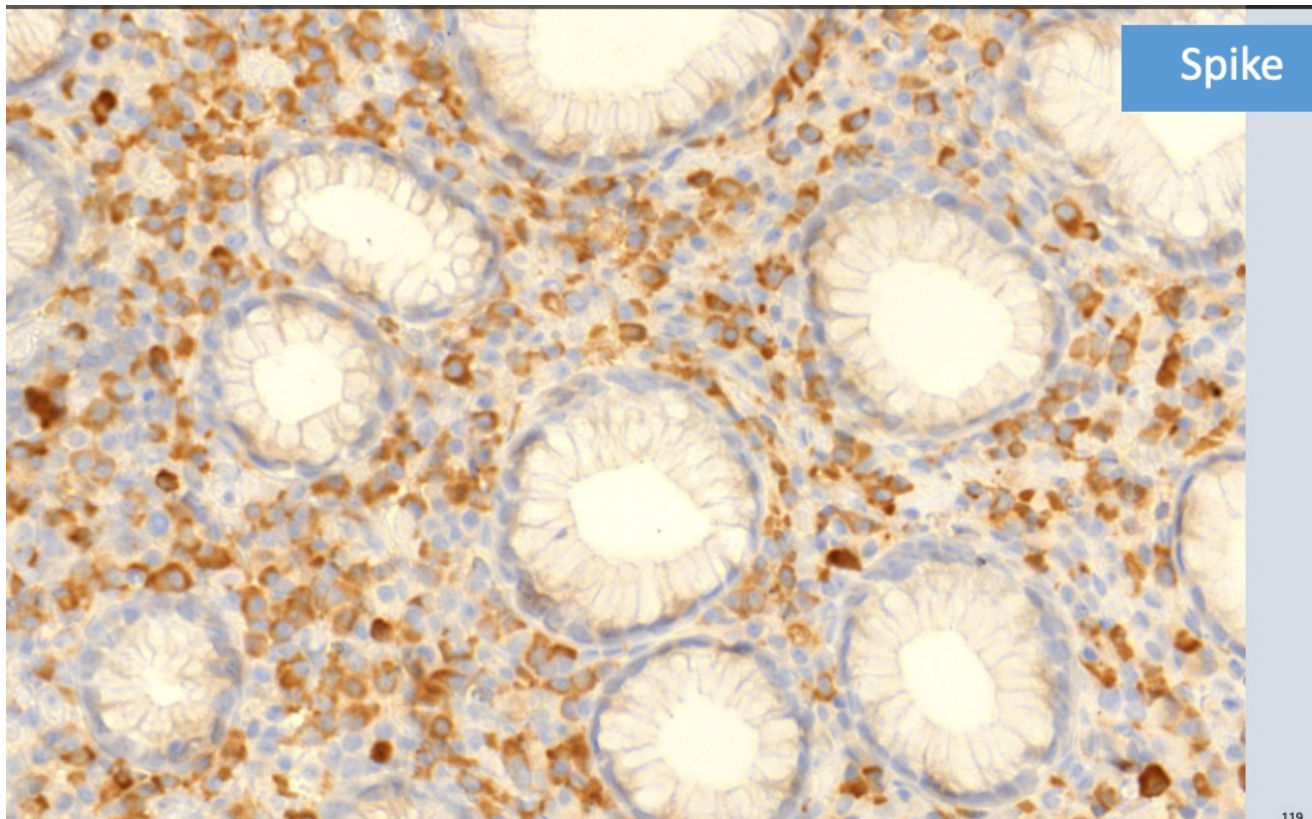
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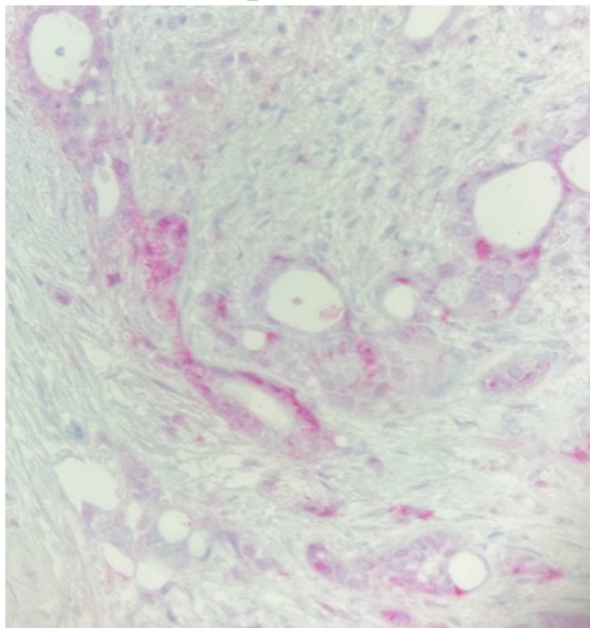
SPIKE HARMS: CANCER?



SPIKE HARMS: CANCER?



Pancreatic adenocarcinoma- Spike



Comparative Study > [Anticancer Res.](#) 1999 May-Jun;19(3B):2173-80.

Cancer risk associated with simian virus 40 contaminated polio vaccine

[S G Fisher](#)¹, [L Weber](#), [M Carbone](#)

[Clin Microbiol Rev.](#) 2004 Jul; 17(3): 495–508.

doi: [10.1128/CMR.17.3.495-508.2004](https://doi.org/10.1128/CMR.17.3.495-508.2004)

Emergent Human Pathogen Simian Virus 40 and Its Role in Cancer

[Regis A. Vilchez](#)^{1,2} and [Janet S. Butel](#)^{2,*}





Sequencing the Pfizer monovalent mRNA vaccines also reveals dual copy 72-bp SV40 Promoter



ANANDAMIDE

APR 12, 2023



Cancer mechanisms/drivers/contributors

many - not comprehensive

- gene mutations
- hypoxic environment
- chronic viral infections HPV, EBV, etc.
- low interferon response
- decreased cell energy mitochondrial damage
- loss of immune surveillance
- microRNA
- hormone dysregulation
- Toll like receptor alterations
- SV40 virus/SV40 promoter ?

[Front Med \(Lausanne\)](#). 2021; 8: 798095.

PMCID: PMC8656165

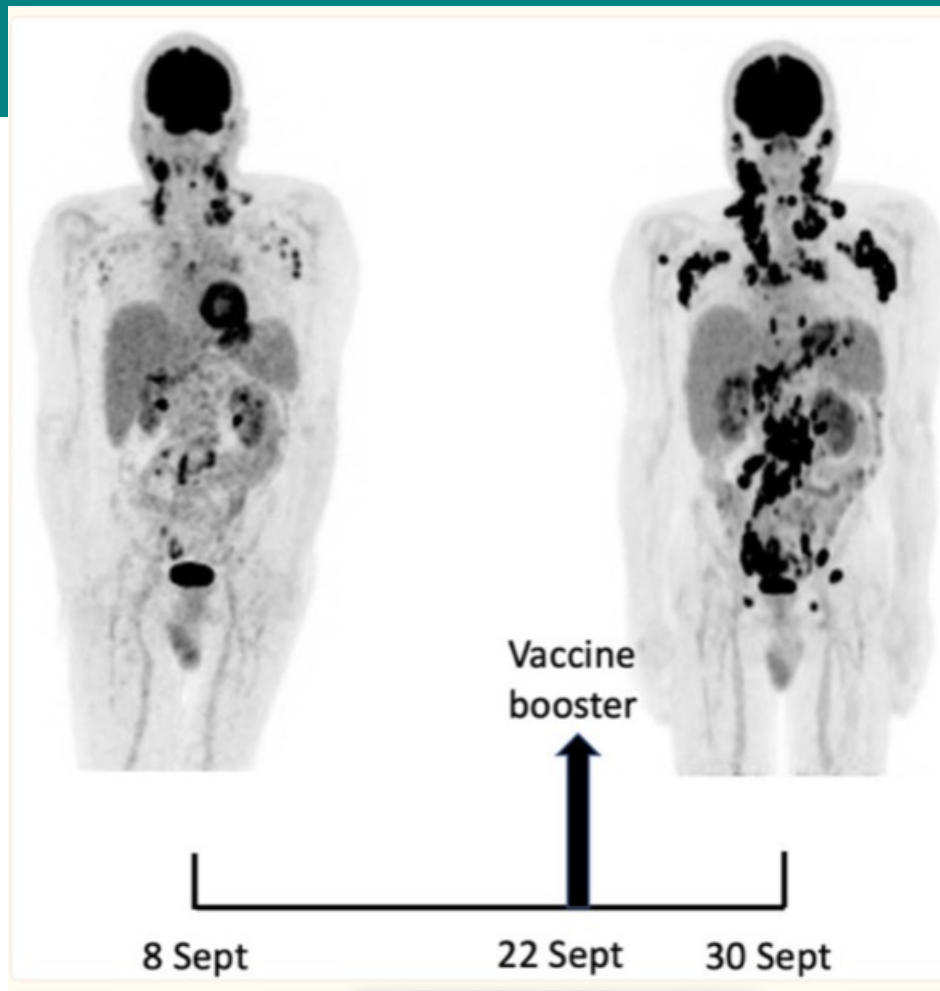
Published online 2021 Nov 25. doi: [10.3389/fmed.2021.798095](https://doi.org/10.3389/fmed.2021.798095)

PMID: [34901098](https://pubmed.ncbi.nlm.nih.gov/34901098/)

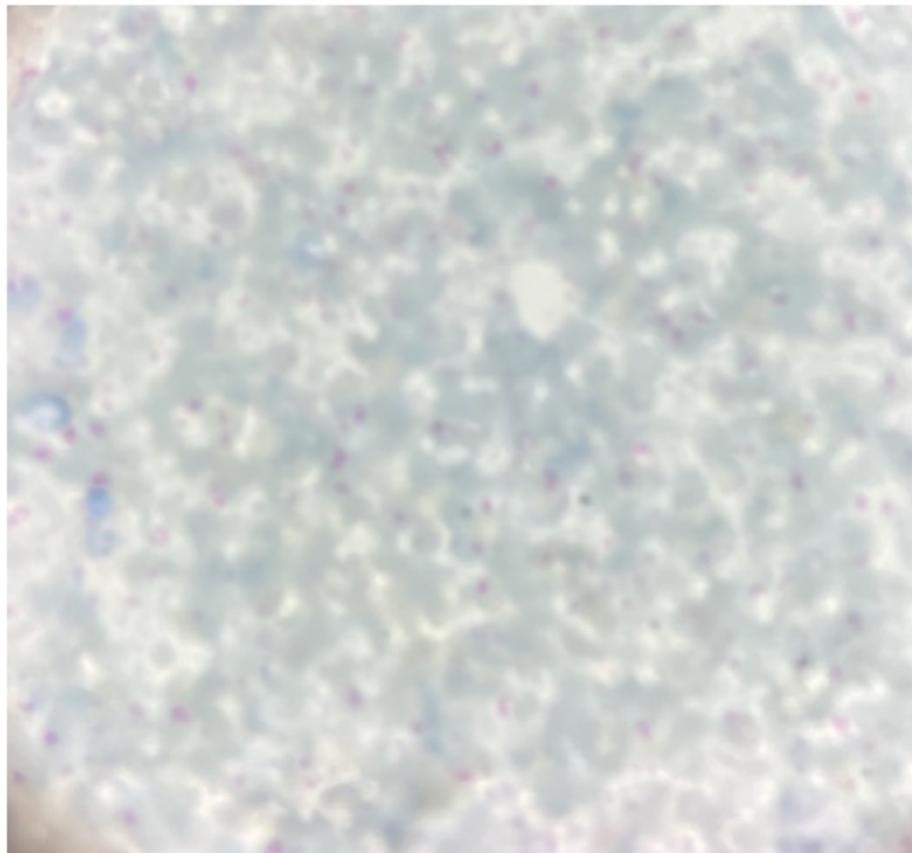
Rapid Progression of Angioimmunoblastic T Cell Lymphoma Following BNT162b2 mRNA Vaccine Booster Shot: A Case Report

[Serge Goldman](#),¹ [Dominique Bron](#),² [Thomas Tousseyn](#),³ [Irina Vierasu](#),¹ [Laurent Dewispelaere](#),⁴ [Pierre Heimann](#),⁴ [Elie Cogan](#),⁵ and [Michel Goldman](#)^{6,*}

CANCER

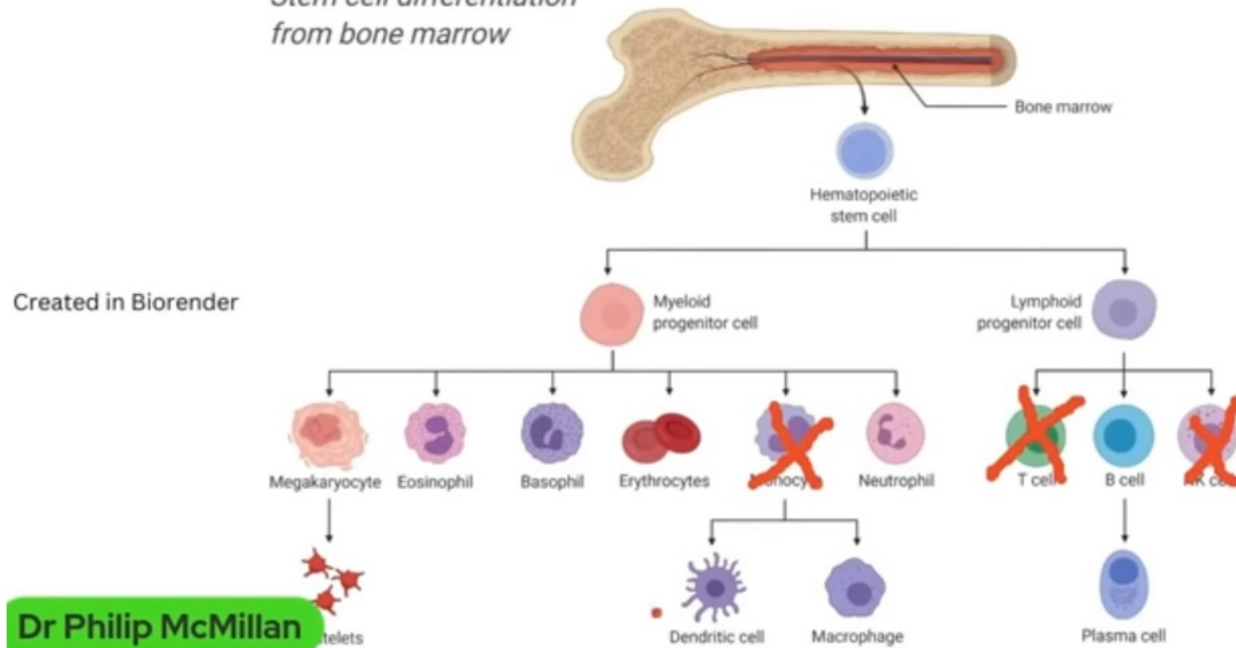


Bone Marrow



CANCER


*Stem cell differentiation
from bone marrow*



Dr Philip McMillan

SPIKE PROTEIN HARMS

Scientists can tell us how a mummy died 10,000 years ago



"Unexplained Deaths" becoming #1 cause of death in 2022 in Canada, Australia, and Europe

– deaths among children and young people explode in Europe

by Brian Shilhavy
Editor, Health Impact News

But can't tell us how people died yesterday? 🤔

Sudden Death Excess Death

SPIKE PROTEIN HARM: SOME FOOD FOR THOUGHT

Doctors & Nurses pretending they have no idea why healthy young people are having strokes and heart attacks.



Sudden Death Excess Death



SPIKE PROTEIN HARM: SOME FOOD FOR THOUGHT



Sudden Death Excess Death

SPIKE PROTEIN HARM: SOME FOOD FOR THOUGHT

DailyMail | Health

Expert warns that shoveling snow can be a deadly way to discover underlying cardiovascular conditions as straining the heart with physical activity could cause sudden death

THE U.S. Sun

Health > Wellbeing

GREEN FINGERS Urgent warning to gardeners as soil 'increases risk of killer heart disease'

Terri-Ann Williams
Published: 5:30 ET, Nov 14 2022 | Updated: 7:55 ET, Nov 14 2022

NewScientist

Solar storms may cause up to 5500 heart-related deaths in a given year

In an approximate 11-year cycle, the sun

NATION

Climate change, heat waves affect heart health, experts say. Here's why that puts people of color at higher risk.

Entirely new kind of 'highly reactive' chemical is found in Earth's atmosphere - and it could be triggering respiratory and heart diseases and contributing to global warming, scientists claim

Artificial Sweeteners Behind Spike in Sudden Deaths, Heart Attacks, 'Experts' Claim

Frank Bergman
December 24, 2022 - 12:57 pm

Energy bill price rise may cause heart attacks and strokes, says TV GP

Sudden Death Excess Death

VICE 1 h

This terrifying phenomenon is becoming increasingly common because of climate change



vice.com

Scientists Studying Temperature at Which Humans Spontaneously Die With Increasing Urgency



SPIKE PROTEIN HARM: SOME FOOD FOR THOUGHT




NEWS IN YOUR AREA WHAT'S ON RUGBY FOOTBALL

NEWS

Energy bill price rise may cause heart attacks and strokes, says TV GP

There could also be an increase in chest infections, mental health problems and ill-health in children




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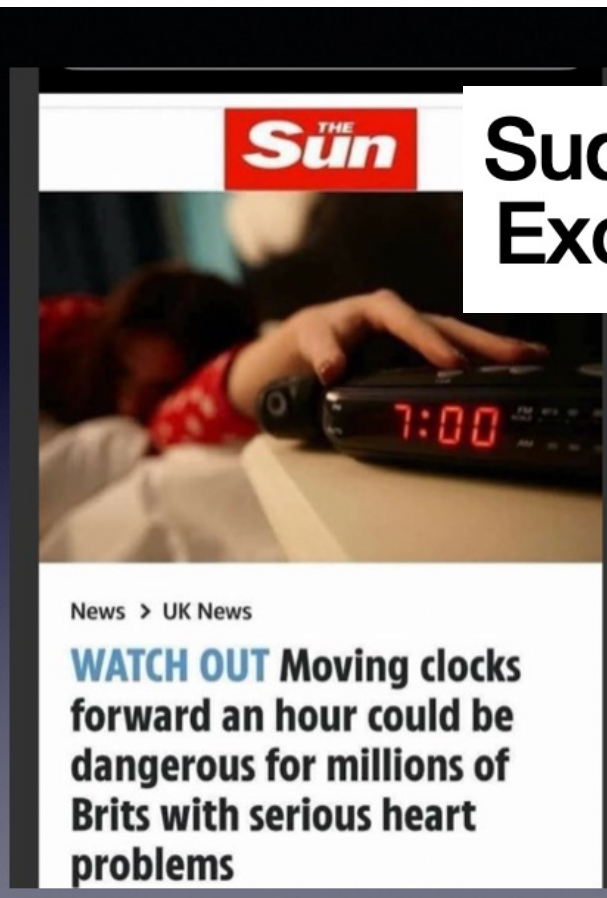
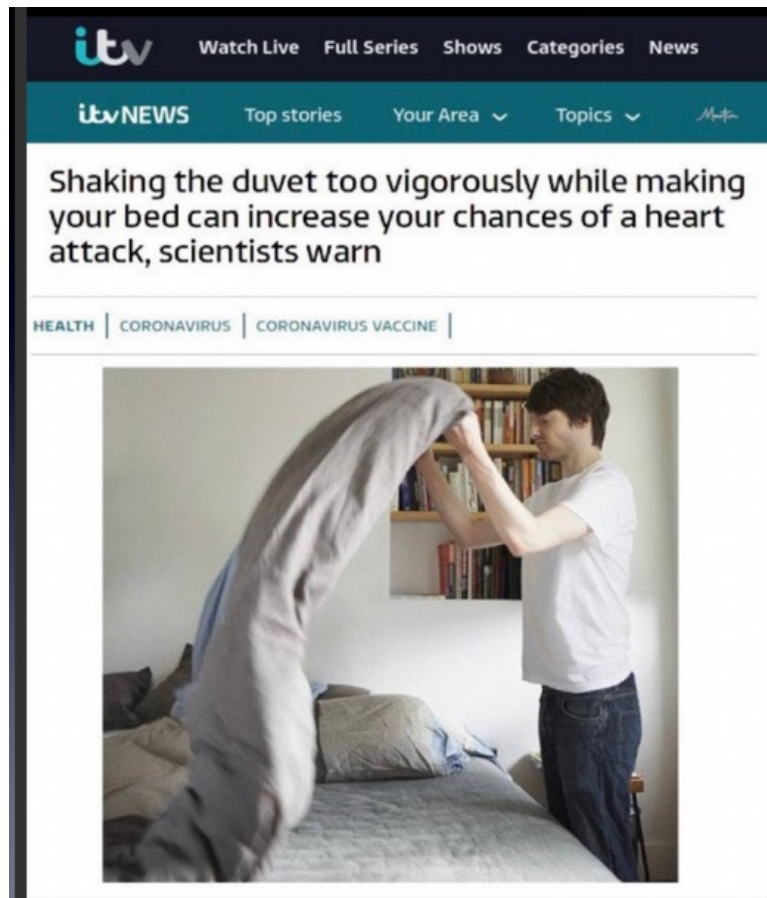
Sudden Death Excess Death



Breathing too many times a day could raise your risk of a deadly heart attack

Trial found that people who breathe more than 5 percent above the daily average had a rise in blood

SPIKE PROTEIN HARM: SOME FOOD FOR THOUGHT



Sudden Death Excess Death



SPIKE PROTEIN HARM: SOME FOOD FOR THOUGHT

Published November 8, 2022
Cannabis use disorder may be linked to growing number of heart attacks in younger adults



Energy bill price rise may cause heart attacks and strokes, says TV GP – WalesOnline

Rise in heart attacks attributed to pandemic stress and poor diet



Health > News Health

HIDDEN RISK Urgent warning as 300,000 Brits living with stealth disease that could kill within 5 years

Vanessa Chalmers, Digital Health Reporter
8:15, 26 Jan 2023 | Updated: 11:14, 26 Jan 2023

The little-known heart attack that's striking 'fit and healthy' women as young as 22

By Sarah-Jane Williams, The Sun

October 26, 2021 | 10:57pm | Updated



Devoted football fans experience 'dangerous' levels of stress



E-cigarettes increase stroke risk at earlier ages than conventional cigarettes

By Sarah-Jane Williams

Heart attack: The drink that could trigger a 'sudden' cardiac arrest – 'catastrophic'

Now even sticking to medics' alcohol guidelines is bad for your health! Risk of heart problems could be increased even if you drink less than NHS weekly units, study suggests

More people suffering stroke and heart disease after COVID, CT doctors say
Why are heart attacks becoming common in 'seemingly' fit people?



Health > News Health

HEALTH FORECAST How the weather is HARMING your health – from heart attacks to stroke and gout

Health Reporter
10:57, 26 Jan 2023 | Updated: 10:57, 26 Jan 2023



Health > Weathering

TIS THE SEASON The ways cold weather can affect your body – from winter vagina to blood clots

By Sarah-Jane Williams

Heart attack: Does skipping breakfast increase your risk?



Sudden Death Excess Death



SPIKE PROTEIN HARM: SOME FOOD FOR THOUGHT

Heart attack: The 'healthy' diet that may 'increase' your risk of having a heart attack



Sports can break your heart in more ways than one



Heart disease: Reduce your child's risk

COVID-19 pandemic increasing risk of anxiety, and therefore heart disease: study

Can shovelling snow cause a heart attack? What Canadians need to know

Sudden Death Excess Death

WE ARE STILL LEARNING



THERE ARE TWO WAYS TO BE
FOOLED: ONE IS TO BELIEVE
WHAT ISN'T TRUE, THE OTHER
IS TO REFUSE TO BELIEVE WHAT
IS TRUE.

– Soren Kierkegaard



THANK YOU

