

Glyphosate, Vaccines and COVID-19

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MIT CSAIL
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"The further a society drifts from the truth, the more it will hate those that speak it."

-- George Orwell (1939)

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Outline

- Introduction
- Glyphosate and the MMR Vaccine
- COVID-19
- The SARS-CoV-2 mRNA Vaccines
- Summary

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Introduction

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Benefits of Infectious Diseases

- A large Japanese study found that a history of measles and mumps in childhood is significantly protective against deadly heart attacks and strokes during adulthood*
 - Adults who had contracted chicken pox were 33% less likely to develop coronary heart disease
- Each additional contagious disease contracted during childhood, such as measles, mumps or rubella, increased the protective effect against acute coronary events by 14%**
- Tumor remissions after measles infection are well documented in the medical literature

*Y. Kubota et al., *Atherosclerosis* 2015;241(2):682-686.

** E. Pesonen et al., *Atherosclerosis* 2007;192(2): 370-375.

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Glyphosate!

- Glyphosate is the active ingredient in the pervasive herbicide Roundup
 - It is widespread in our food supply, especially highly processed foods
- Many research papers have been published recently showing that glyphosate at levels below regulatory limits causes harm in animal studies
 - Embryonic developmental failure and DNA damage in water fleas*
 - Fatty liver disease in rats**
 - Epigenetic effects showing up in the third and fourth generation of offspring from rats exposed during pregnancy: prostate disease, obesity, kidney disease, ovarian disease, and birth abnormalities. ***
- I have argued that glyphosate is the primary factor in the autism epidemic
 - Disruption of the gut microbiome is the starting point****



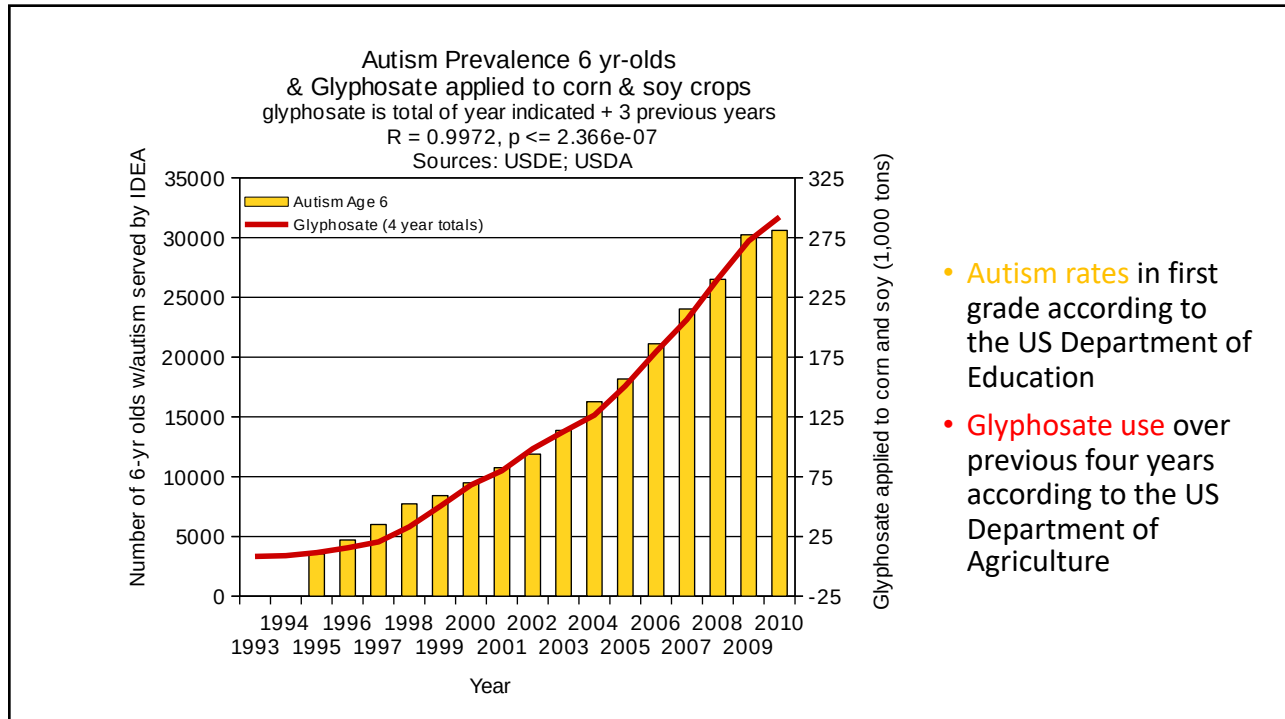
*Anotnio Suppa et al., Microbiome 2020; 8: 170.

**Robin Mesnage et al., Scientific Reports 2017; 7: Article number 39328.

***Deepika Kubsad et al., Scientific Reports 2019; 9 (1): Article number 6372.

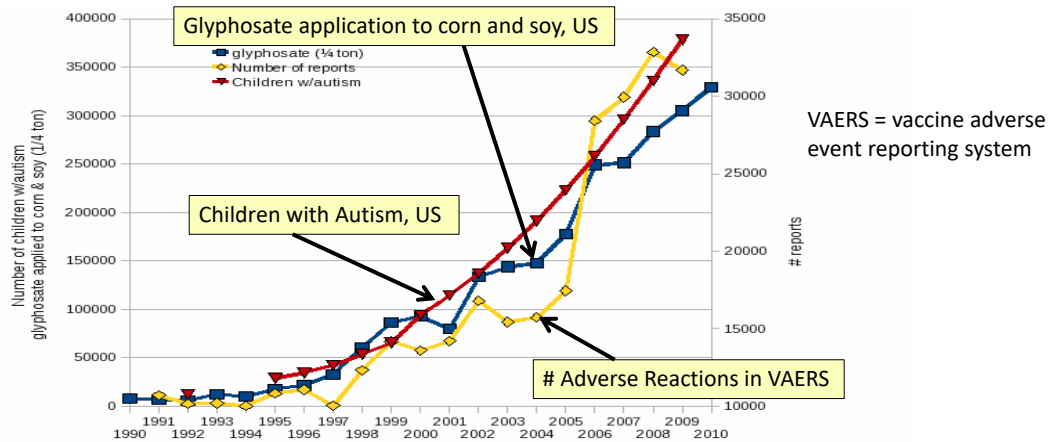
****Anthony Samsel and Stephanie Seneff Entropy 2013; 15: 1416-1463.

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Autism, Glyphosate, Vaccine Reactions*



*data gathered from US online sources in collaboration with Dr. Nancy Swanson

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Retrospective Study of Vaxxed/Unvaxxed Children*

- Retrospective analysis over ten-year period of a large pediatric practice with a conservative policy towards vaccines
- 3324 patients in total; 561 never vaccinated; 2763 fully vaccinated; rest variably vaccinated
- Overall rate of autism spectrum disorder (0.84%) in the cohort is half that of the US national rate (1.69%)
- Fully vaccinated children had a highly significant increased rate of office visits for several common childhood conditions:
 - Fever, Ear Pain, Ear Infection, Conjunctivitis, Asthma, Allergic Rhinitis, Sinusitis, Breathing Issues, Anemia, Eczema, Hives, Dermatitis, Behavioral Issues, Gastroenteritis, Weight/Eating Disorders



*James Lyons-Weiler and Paul Thomas, International Journal of Environmental Research and Public Health, 2020; 17: 8674.

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Glyphosate and the MMR Vaccine

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The Big Picture

- Glyphosate has been detected in multiple vaccines, with highest concentrations in MMR
 - Many vaccines include gelatin and fetal bovine serum as ingredients, both of which are often contaminated with glyphosate
- Glyphosate has been shown to induce neuroexcitotoxicity in the brains of mice due to excess exposure to glutamate
 - Glutamate has been found to be elevated in the blood and brain of autistic children
- A causal link between MMR and autism can be explained by autoimmune attack on myelin basic protein through molecular mimicry with measles hemagglutinin
- Hypothesis: glyphosate incorporated into a virus protein can lead to resistance to breakdown and autoimmune disease through molecular mimicry

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Glyphosate in Vaccines? From Animal Products?

FDA:

“Animal-derived products used in vaccine manufacture can include amino acids, glycerol [from cow tallow or lard], detergents, gelatin [from cow bones], enzymes and blood. Cow milk is a source of amino acids, and sugars such as galactose ... Cow skeletal muscle is used to prepare broths used in certain complex media.” *

- sugars (galactose)
- cow tallow --> glycerol
- gelatin & amino acids (cow bones)
- cow skeletal muscle --> broths
- fetal bovine serum

*<https://www.fda.gov/vaccines-blood-biologics/questions-about-vaccines/bovine-derived-materials-used-vaccine-manufacturing-questions-and-answers>

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- sugars (galactose)
- cow tallow --> glycerol
- gelatin & amino acids (cow bones)
- cow skeletal muscle --> broths
- fetal bovine serum

Cows are exposed to a heavy dose of glyphosate in their feed, and glyphosate has been found in multiple tissue samples from cows as well as in gelatin, fetal bovine serum and cow bones**

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*<https://www.fda.gov/vaccines-blood-biologics/questions-about-vaccines/bovine-derived-materials-used-vaccine-manufacturing-questions-and-answers>

** A Samsel and S Seneff, Journal of Biological Physics and Chemistry 2017;17:8-32.

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Glyphosate Contamination in Vaccines (Parts Per Billion)*

Merck	ZOSTAVAX	0.62	Shingles
Merck	MMR-II	3.74	Measles, Mumps and Rubella
Merck	VARIVAX	0.56	Varicella, Chicken Pox
MERCK	PNEUMOVAX	ND	Pneumococcal 18
MERCK	PROQUAD	0.66	Measles, Mumps Rubella, Varicella
GSK	ENERGIX-B	0.34	Heptatitis B

Both Anthony Samsel (a toxicologist) and Zen Honeycutt (of Moms Across America) tested multiple vaccines for glyphosate and they found consistent results. Contamination was found mostly in vaccines based on live viruses grown in culture.

*A Samsel and S Seneff, Journal of Biological Physics and Chemistry 2017;17:8-32.

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Large Proteins in Vaccines: Allergenic*

“Vaccines clog our lymphatic system and lymph nodes with *large protein molecules* which have not been adequately broken down by our digestive processes, since *vaccines bypass digestion* with injections. This is why vaccines are linked to *allergies*, because they contain large proteins which as circulating immune complexes (CICs) or 'klinkers' cause our body to become allergic.”

It is possible that glyphosate gets incorporated into proteins by mistake in place of the coding amino acid glycine, and this would make the virus proteins much more allergenic.

*Dave Mihalovic, ND, http://whale.to/v/vaccines_cause_allergies.html

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Glyphosate and Glutamate*

- Glyphosate is an amino acid and it enters cells via amino acid transporters
- Glyphosate causes excess glutamate in the brain by increasing its release and preventing its clearance from the synapses
- Acute exposure to rat pups activates NMDA receptors and causes neuron excitotoxicity in the brain
 - Oxidative stress and neuronal cell death
 - Increased glutamate levels in the synaptic cleft → *excessive extracellular glutamate levels*
 - Decreased glutathione content
 - Increased peroxidation of lipids (fats)



*<http://www.greenmedinfo.com/blog/roundup-weedkiller-brain-damaging-neurotoxin>;
Daiane Cattani et al., Toxicology 2014 Jun 5; 320: 34-45.

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Symptoms of Adverse Reactions to MMR before and after 2002*

More Common Before 2002

Reaction	Count Before 2002	Count After 2002	p-value
joint pain	126	65	0.036

More Common After 2002

Reaction	Count Before 2002	Count After 2002	p-value
hospitalization	71	319	0.00037
seizures	203	462	0.0014
shortness of breath	100	216	0.010
hives	324	504	0.011
mumps	5	51	0.014
abscess	51	120	0.022
autism	69	143	0.024
eczema	4	36	0.026
ear infection	16	56	0.031
anaphylactic shock	16	54	0.034
facial swelling	45	95	0.040
swelling	860	1018	0.048

*Data analyzed from the VAERS database

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Symptoms of Adverse Reactions to MMR before and after 2002*

More Common Before 2002

Reaction	Count Before 2002	Count After 2002	p-value
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Autistic children have a very high rate of seizures.*
Glutamate induces seizures by exciting NMDA receptors.**

*Patrick F Bolton et al., Br J Psychiatry. 2011 Apr; 198(4): 289–294.

**Silvia Josefina López-Pérez et al. Brain Res 2010; 1317: 246-56.

eczema	4	50	0.020
ear infection	16	56	0.031
anaphylactic shock	16	54	0.034
facial swelling	45	95	0.040
swelling	860	1018	0.048

*Data analyzed from the VAERS database

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Measles Virus and Hemagglutinin*

- The measles virus synthesizes the protein hemagglutinin
 - Antibodies to hemagglutinin are essential following MMR vaccination to induce immunity
- Hemagglutinin bears a sequence resemblance to myelin basic protein (MBP) → potential for autoimmune reaction through molecular mimicry
 - MBP is essential for the formation of the myelin sheath surrounding nerve fibers
- Autoantibodies to MBP along with excessive levels of antibodies to measles hemagglutinin are linked to autism**

*Oldstone, MBA, Ed. Molecular mimicry: Infection inducing autoimmune disease. Springer Berlin Heidelberg; January 9, 2006.

**VK Singh et al., J Biomed Sci 2002;9(4):359-64.

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Autism and Measles Hemagglutinin*

- 125 autistic children and 92 control children
- 60% of the children with autism had high levels of antibodies to measles hemagglutinin specific to the MMR vaccine
 - 90% of these had autoantibodies to myelin basic protein (MBP)
- 0% of the control children had high antibody titers to either hemagglutinin or MBP
- There were no elevations in antibodies detected against any proteins in the mumps or rubella viruses

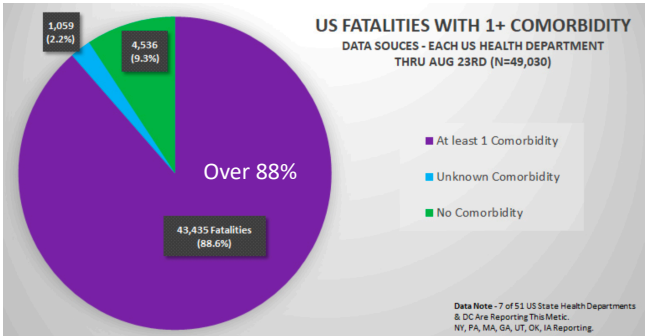
*VK Singh et al., J Biomed Sci 2002;9(4):359-64.

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COVID-19

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Most People Who Catch COVID 19 Recover*



Most who die have comorbidities like diabetes, heart disease, obesity, hypertension, etc.

COVID-19 Recovery Rates By Age - Thru August 23rd

Date	August 23rd	August 16th	August 9th	August 2nd
Age 0 to 19	99.982%	99.981%	99.980%	99.978%
Age 20 to 49	99.72%	99.72%	99.72%	99.71%
Age 50 to 69	97.31%	97.31%	97.28%	97.29%
Age 70+	82.43%	82.43%	82.15%	80.95%

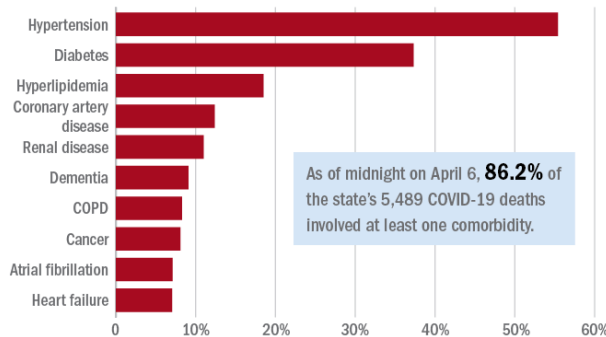
Data Source - All US State & Territory Health Departments

*Henry Ealy et al., Science, Public Health Policy, & Law 2020; 2: 4-22.

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Comorbidities for COVID-19 in New York State*

Leading comorbidities among COVID-19 deaths in New York



Note: Data reported on a daily basis by hospitals, nursing homes, and other health care facilities.
Source: New York State Department of Health

*<https://www.the-hospitalist.org/hospitalist/article/220457/coronavirus-updates/comorbidities-rule-new-yorks-covid-19-deaths>

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Correlations over time between Glyphosate Usage and Disease in the US*

Condition	Correlation Coefficient	Probability (<i>p</i> -value)
Hypertension (deaths)	0.923	1.6E-7
Diabetes (prevalence)	0.971	9.2E-9
Hyperlipidemia/Hypercholesterolemia (death)	0.973	7.9E-9
End stage renal disease (deaths)	0.975	7.2E-9
Dementia (deaths)	0.994	1.8E-9
Liver cancer (incidence)	0.960	4.6E-8
Obesity	0.962	1.7E-8

*Nancy L Swanson et al. J Org Syst 9 (2014) 6-37.

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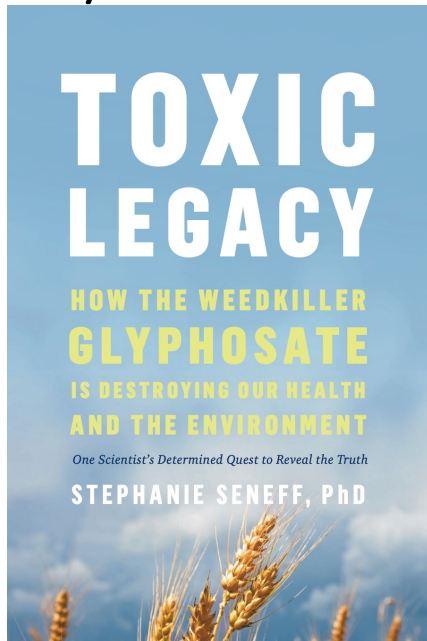
“Neutralising antibodies drive Spike mediated SARS-CoV-2 evasion”*

- Cancer patient being treated for recurrent lymphoma with a drug that depletes antibody-producing B cells caught COVID-19
 - Persistent viral RNA shedding and risk of transmission in the hospital
 - Patient was moved to a negative-pressure infectious disease isolation room
 - Patient died 101 days after diagnosis, after being given Remdesivir and two rounds of plasma from recovered patients, which contained antibodies against the virus.
 - Following antibody exposure, SARS-CoV-2 had acquired several mutations that might have allowed it to elude the antibodies.
- New virulent variant from the UK that spreads more easily
 - Gupta (an author) believes it may have originated from a similar scenario

*SA Kemp et al., medRxiv preprint doi: <https://doi.org/10.1101/2020.12.05.20241927>

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My New Book!



- Expected to be released in June 2021
- Presents extensive data on glyphosate toxicity to animals and humans
- One chapter is devoted to my theories as to how glyphosate suppresses the innate immune system
- I believe that this is a primary factor in the inability of countries where glyphosate is heavily used to control the COVID-19 pandemic

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Healthy Living is the Best Way to Protect Yourself

- Vitamin D deficiency is associated with 4-fold increased risk of dying from COVID-19
- Vitamin C and Vitamin K2 deficiency are also linked to poor outcomes
- Countries where fermented foods are a dietary staple have lower infection rates
- I believe the most important ways to protect yourself are to eat a **certified organic** whole-foods diet and to get out in the **sunlight** without sunscreen and without sunglasses



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The Sars-CoV-2 mRNA Vaccines

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One Lab Rat to another:

"Are you getting vaccinated?"

Second Rat replies:

"Are you crazy, They haven't finished the Human trials yet"!

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The New COVID-19 mRNA Vaccines

- The Pfizer and the Moderna vaccines are based on new technology that involves creating a nanoparticle containing a modified form of the messenger RNA from the SARS-CoV-2 virus that codes for the spike protein
- Polyethylene glycol (PEG) is included in the vaccine to keep the RNA from breaking down too quickly

“Instead of delivering a virus or a viral protein, RNA vaccines deliver genetic information that allows the body’s own cells to produce a viral protein. Synthetic mRNA that encodes a viral protein can borrow this machinery to produce many copies of the protein. These proteins stimulate the immune system to mount a response, without posing any risk of infection.”*

*<https://news.mit.edu/2020/rna-vaccines-explained-covid-19-1211>

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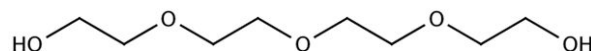
“A Dangerous Inactive Ingredient”*

Polyethylene glycol (PEG) is a major ingredient in the SARS-CoV-2 mRNA-based vaccines

Antibodies to PEG in the vaccine can lead to **life-threatening anaphylactic shock**

As of January 6, at least 29 US vaccine recipients have developed anaphylaxis

“Scientific studies to quantify the seriousness of the problem estimate that approximately 72% of the US population has acquired anti PEG antibodies. The referenced study used blood samples taken from 1990-1999 and earlier, showing a steady increase over time in the percentage of those with antibodies to PEG, making it conservative to estimate, after two decades, that **the incidence is closer to 80% today.**”



*<https://childrenshealthdefense.org/news/a-dangerous-inactive-ingredient/>
Qi Yang et al., Analytical Chemistry 2016, 88, 11804–11812.

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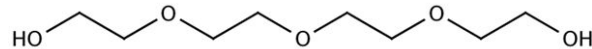
Antibodies to PEG in the vaccine can lead to **life-threatening anaphylactic shock**

"CDC: Anaphylaxis Rate With COVID Vax 10 Times Greater Than for Flu Shots"

Molly Walker, Associate Editor, MedPage Today January 6, 2021

<https://www.medpagetoday.com/infectiousdisease/covid19/90556>

“Science approach referenced study used blood samples taken from 1998–1999 and earlier, showing a steady increase over time in the percentage of those with antibodies to PEG, making it conservative to estimate, after two decades, that **the incidence is closer to 80% today.**”



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Qi Yang et al., Analytical Chemistry 2016, 88, 11804–11812.

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“SARS-CoV-2 RNA reverse-transcribed and integrated into the human genome”*

- Researchers from MIT and Harvard made an important discovery
- Many people continue to test positive for COVID after full recovery
- Researchers detected fragments of SARS-CoV-2 proteins fused with human peptide sequences, supporting integration into human DNA
 - Host can continue to synthesize new viral protein indefinitely
- Immune response to virus induces synthesis of LINE-1, a protein that can reverse transcribe RNA into DNA for permanent storage
- The AIDS retrovirus virus, HIV, also makes a reverse transcriptase

IS THE VIRUS A MECHANISM FOR RAPID EVOLUTION?

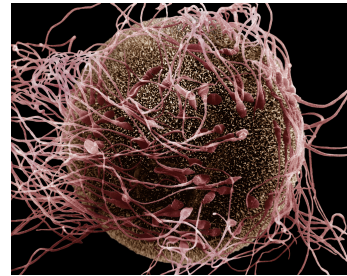
CAN THE SAME THING HAPPEN WITH THE VACCINE?

*Liguo Zhang et al., bioRxiv December 13, 2020, <https://doi.org/10.1101/2020.12.12.422516>.

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Sperm can insert DNA (from RNA) into the fertilized embryo and transfer it to offspring*

- “We recently discovered a reverse transcriptase (RT) activity [e.g., *LINE-1*] in mouse spermatozoa that can reverse-transcribe *exogenous RNA molecules* into cDNA copies”
- “Spliced EGFP cDNA is transferred from spermatozoa to early embryos at fertilization and propagated to fetuses and born animals” *and passed on to their offspring!*
- Sperm-mediated “reverse” gene transfer happens “when these cells are incubated with *exogenous RNA molecules*”



*Carmine Pittoggi et al., *Molecular Reproduction and Development* 2006; 73: 1239-1246.

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Antibody-Dependent Enhancement (ADE)*

The vaccine has the potential to backfire:

- Antibody enhances uptake into macrophages leading to increased viral infection and replication
- Antibody increases release of cytokines causing enhanced risk of excessive inflammation and cytokine storm

“ADE has been observed in SARS, MERS and other human respiratory virus infections including RSV and measles, which suggests a real risk of ADE for SARS-CoV-2 vaccines and antibody-based interventions.”

“Thus, the absence of ADE evidence in COVID-19 vaccine data so far does not absolve investigators from disclosing the risk of enhanced disease to vaccine trial participants, and it remains a realistic, non-theoretical risk to the subjects.”**

*Wen Shi Lee et al., *Nature Microbiology* 2020; 5: 1185-1191.

**T Cardozo and R Veazey, *Int J Clin Pract* 2020 Oct 28; e13795k [Epub ahead of print]

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Antibody-Dependent Enhancement (ADE)*

The vaccine has the potential to backfire:

- Antibody enhances uptake into macrophages leading to increased

- In the COVID-19 vaccine trials, adverse reactions to the second shot in the two-shot series were much more severe than reactions to the first shot.*

*Lindsey R Baden et al. Efficacy and Safety of the mRNA-1273 SARS-CoV-2 Vaccine. The New England Journal of Medicine Dec. 10, 2020. DOI: 10.1056/NEJMoa2035389.

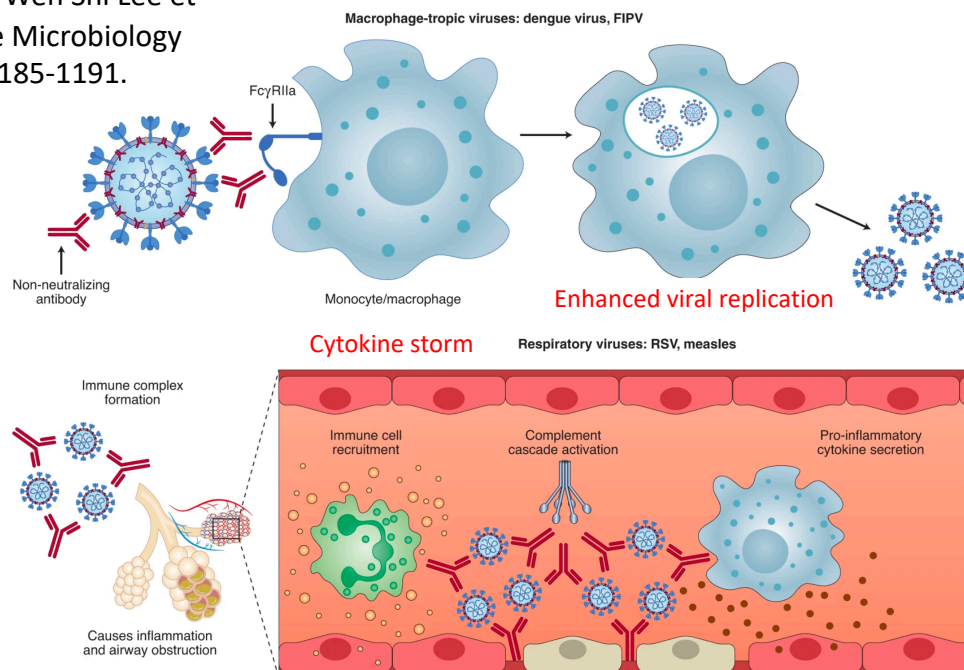
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*Figure 1. Wen Shi Lee et al., Nature Microbiology 2020; 5: 1185-1191.



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“Potential antigenic cross-reactivity between SARS-CoV-2 and human tissue with a possible link to an increase in autoimmune diseases”*

- Cross reaction between **spike protein antibody** and tissue proteins

Protein

- transglutaminase
- extractable nuclear antigens:
- myelin basic protein:
- mitochondria:
- nuclear antigen:
- myosin:
- thyroid peroxidase:
- S100B:

Diseases

- Celiac disease
- Scleroderma, lupus
- Multiple sclerosis, autism
- Lupus, primary biliary cirrhosis, hepatitis, myocarditis
- Sjogren's syndrome, mixed connective disease, lupus
- Myocarditis, dilated cardiomyopathy, Chagas' heart disease, Kawasaki disease, rheumatic fever
- Hashimoto's thyroid disease
- Brain metastases from lung disease, epilepsy, multiple sclerosis, and Parkinson's disease

*Aristo Vojdani and Datis Kharrazian, Clinical Immunology 217 (2020) 108480.

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NEWS FEATURE · 19 JANUARY 2021

Rogue antibodies could be driving severe COVID-19 *

Evidence is growing that self-attacking ‘autoantibodies’ could be the key to understanding some of the worst cases of SARS-CoV-2 infection.

I predict that a massive vaccination campaign against COVID-19 may result in a dramatic increase in all sorts of autoimmune diseases

*Nature News Feature. <https://www.nature.com/articles/d41586-021-00149-1>

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Problems with the vaccine spike protein*

- "Is it possible the spike protein itself causes the tissue damage associated with Covid-19?"
- The S1 subunit localizes to the endothelia of microvessels in the mouse brain and is a potent **neurotoxin**."
- "So the spike S1 subunit of SARS-CoV-2 alone is capable of being endocytosed by ACE2 positive endothelia in both human and mouse brain, with a concomitant paucicellular **microencephalitis** that may be the basis for the neurologic complications of COVID-19."

*<https://beta.regulations.gov/document/FDA-2020-N-1898-0246>
 Comment from J. Patrick Whelan MD PhD
 Food and Drug Administration on Dec 8, 2020

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Problems with the vaccine spike protein*

- "Is it possible the spike protein itself causes

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- T "As important as it is to quickly arrest the spread of the virus by immunizing the population, it would be vastly worse if hundreds of millions of people were to suffer long-lasting or even permanent damage to their brain or heart microvasculature as a result of failing to appreciate in the short-term an unintended effect of full-length spike protein-based vaccines on these other organs."

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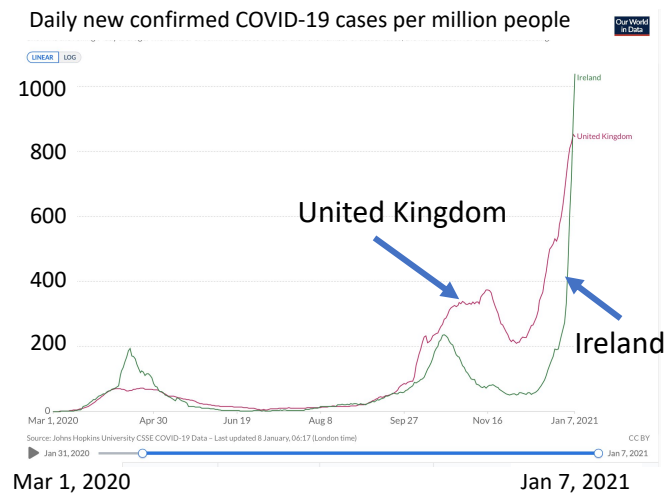
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*<https://beta.regulations.gov/document/FDA-2020-N-1898-0246>
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How Long Will the Vaccine Be Effective?

- The spike protein mutates very quickly, especially in immune compromised individuals
- New strains of SARS-CoV-2 are appearing at an alarming rate
- New strains from the UK, South Africa and Brazil spread infection much more rapidly
- Will the vaccine be able to keep up with the multitude of variants appearing in greater and greater numbers?
- *Will the vaccine increase the opportunity for variants to appear?*



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“Large Numbers of Health Care and Frontline Workers Are Refusing Covid-19 Vaccine”*

“Despite the Covid-19 death count in the United States rapidly accelerating, **a startlingly high percentage of health care professionals and frontline workers** throughout the country—who have been prioritized as early receipts of the coronavirus vaccine—are reportedly hesitant or outright refusing to take it, **despite clear scientific evidence that the vaccines are safe and effective.**”

*Tommy Beer, Forbes

<https://www.forbes.com/sites/tommybeer/2021/01/02/large-numbers-of-health-care-and-frontline-workers-are-refusing-covid-19-vaccine/>

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Deep Thoughts and Speculation

- Viruses are a foundational component of all life on earth
- Viruses are almost surely the primary agent in rapid evolution. following extreme stress (such as from toxic environmental chemicals)
- Viral infectious diseases in childhood provide long term protection from chronic disease in mysterious ways
- A person with a healthy innate immune system can easily clear a virus like SARS-CoV-2 without even developing antibodies
- A vaccine intentionally bypasses the innate immune system to induce abundant antibody production
- Antibodies in the absence of infection (e.g., induced by a vaccine) can more easily become autoantibodies, and can lead to debilitating autoimmune disease

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Summary

- Vaccines are assumed to be an essential part of routine healthcare, but they may be doing more harm than good to children's health
- Glyphosate is another overlooked factor in our failing health
- Glyphosate has been found as a contaminant in live-virus vaccines (especially MMR) and it may be a significant factor in the adverse reactions
- Glyphosate may play a significant role in bad outcomes from COVID 19
 - The government should be emphasizing healthy living to boost immune function
- The SARS-CoV-2 mRNA vaccines are a new unproven technology
 - There are many unknown but plausible ways that they could cause harm
- We are in the middle of a giant experiment on a huge population
 - Health workers refusing the vaccine show that the warnings are being heeded

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