COVID Myths:

And the Hits Just Keep on Comin’

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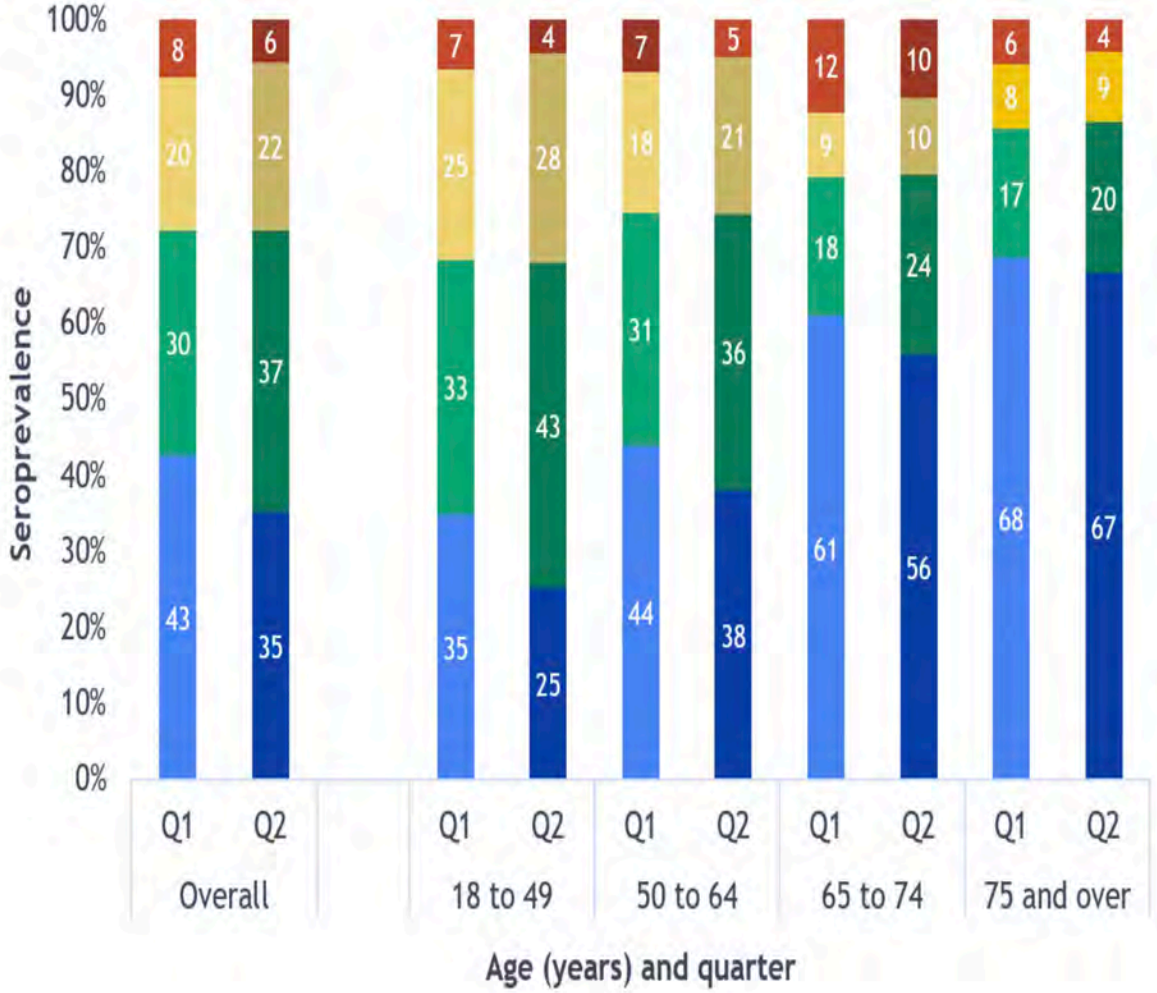
April 3, 2024

We are at a different stage of this pandemic

Seroprevalence by Vaccine and Infection History Among U.S. Adult Blood Donors by Age Group, January-June 2022



No immunity

Infection only induced immunity

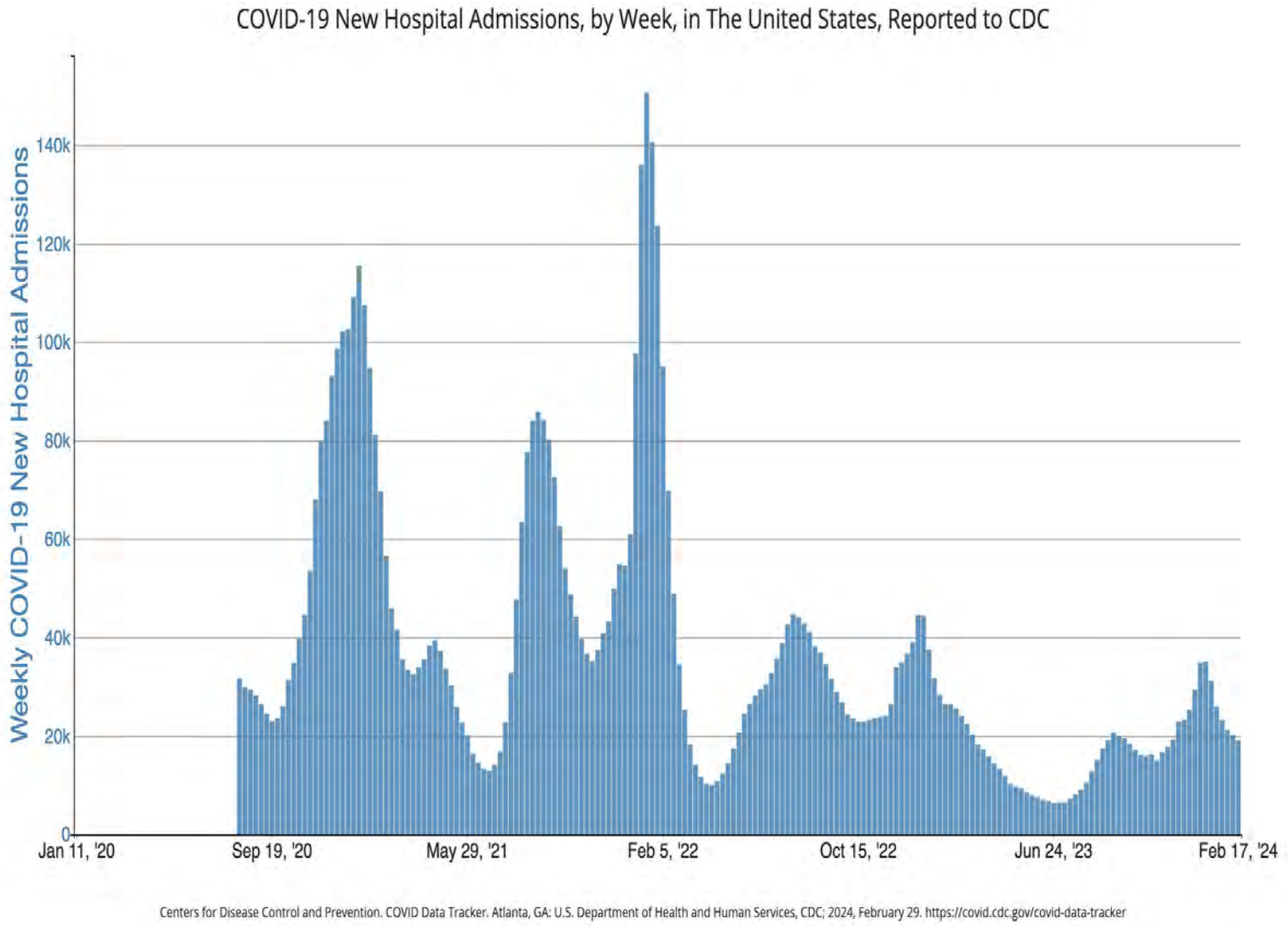
Both vaccine and infection induced immunity

Vaccine only induced immunity

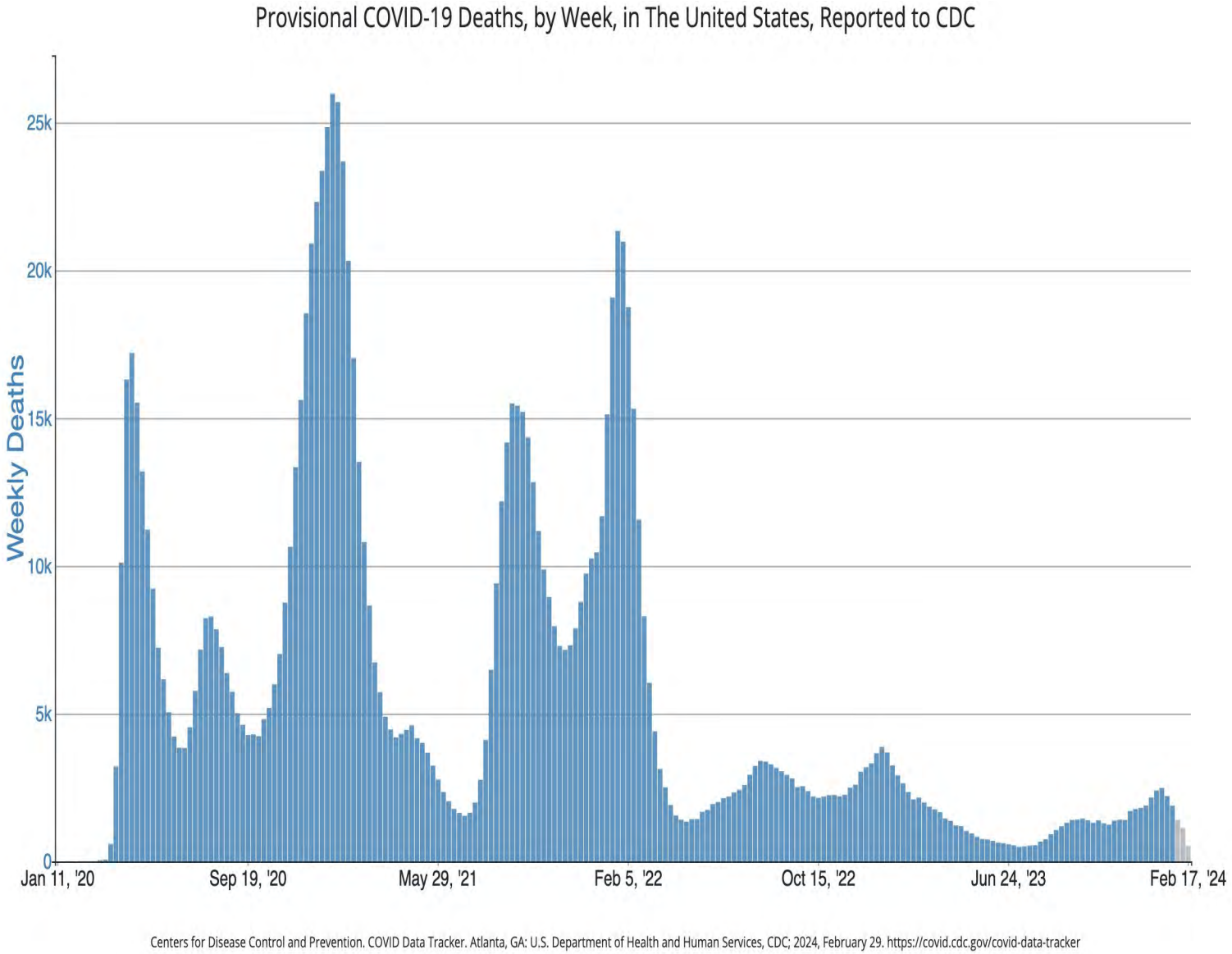
Q1 = Jan. - Mar. 2022

Q2 = Apr. - Jun. 2022

Source: https://covid.cdc.gov/covid-data-tracker/#nationwide-blood-donor-seroprevalence-2022



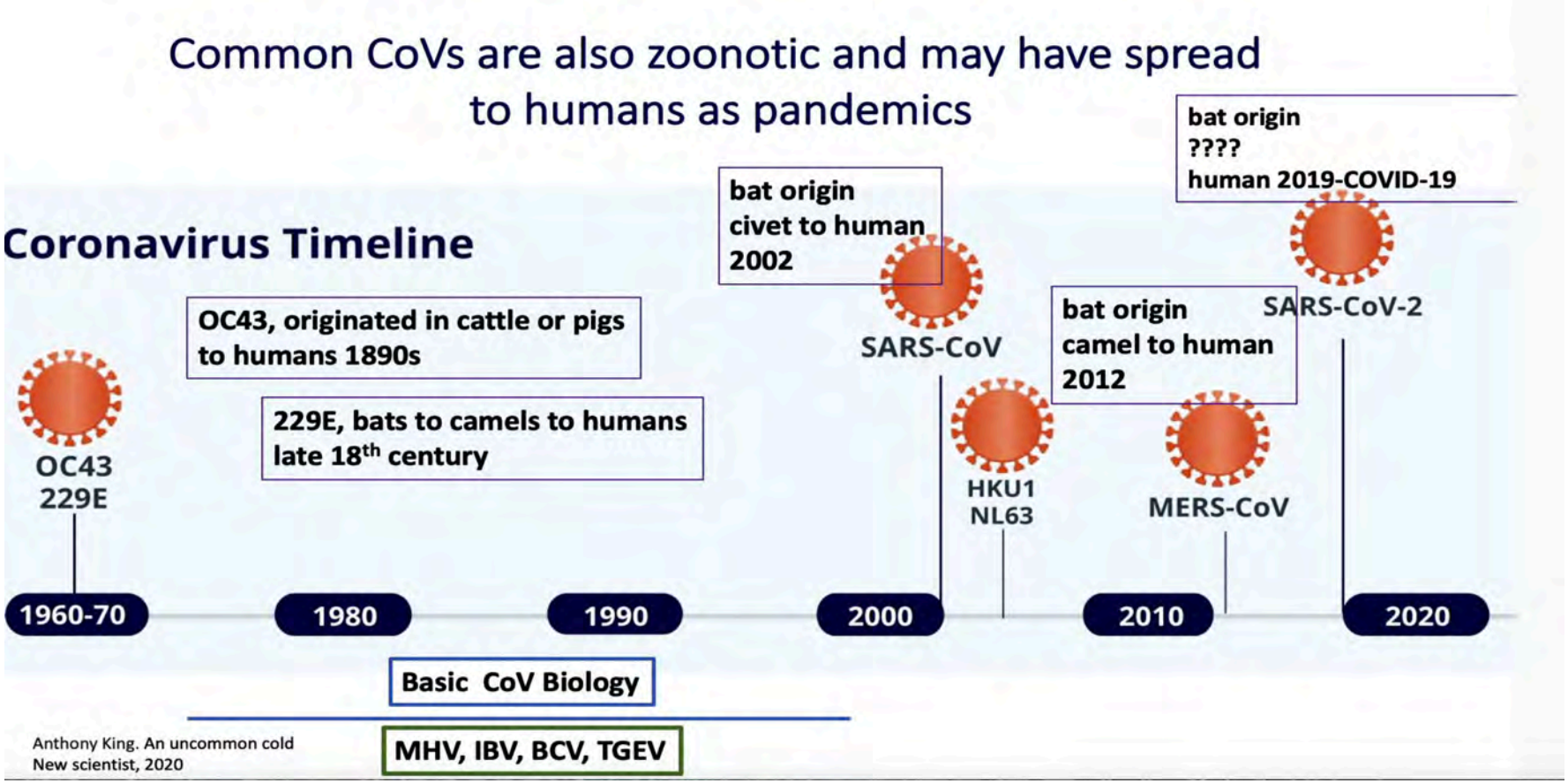
The incidence of COVID hospitalizations is declining



The incidence of COVID deaths is declining

Pandemics change the way we live, work, and play

Wells Fargo Center, Philadelphia, December 2023



1. SARS-CoV-2 will likely circulate for decades.

2. Need to continue to protect those at highest risk.

The Vulnerable

- Every year in the United States 3-4 million children are born who will be fully susceptible to COVID by 6 months of age.
- About 9 million people cannot be successfully vaccinated due to immune suppression. They depend on those around them for protection.
- Groups most likely to be benefit from booster dosing include: 1) people with high-risk medical conditions like obesity, diabetes, and chronic lung, heart, kidney or liver disease; 2) pregnant people; 3) the elderly and 4) those who are mildly immune suppressed.

The continued onslaught of misinformation about vaccines will limit our ability to protect those who are most vulnerable

At the heart of misinformation is the notion that healthcare workers, public health agencies, and pharmaceutical companies are involved in a massive conspiracy to hide the truth

When were COVID conspiracies born?

COVID Myth #1:

The Lab Leak Theory

The Washington Times
America's Newspaper

Coronavirus link to China biowarfare program possible, analyst says

By Bill Gertz - *The Washington Times* - Sunday, January 26, 2020

Wuhan Institute of Virology

Abundant evidence supports an animal-to-human spillover in the western section of the Huanan Wholesale Seafood Market in late 2019

Animal-to-human spillover

- Photographs taken of the western section of the Huanan Seafood Market showed raccoon dogs and a red fox, both of which are known to be infected with SARS-CoV-2. A customer at the market took photos on December 3, 2019, then posted them on a Chinese microblogging website.

- The photos were deleted, but not before a CNN reporter was able to pass them on to scientists in the United States.

Huanan Wholesale Seafood Market, December 2019

Animal-to-human spillover

- In that same area of the market, SARS-CoV-2 virus genome was later detected in carts, drains, a feather-and-hair remover, a metal cage, and machines that process animals after they've been slaughtered.

Animal-to-human spillover

- The first known human case of COVID occurred on December 10, 2019, in a female vendor at the Huanan Market; two of the first three cases had direct contact with the western section of the market.

- More than half of the early cases had direct or indirect exposure to the Huanan market.

- Wuhan is a city of 11 million people. There are probably 10,000 places where a new virus could have arisen. Nonetheless, the first cluster of cases were restricted to the western section of a market that was selling live animals susceptible to the virus, exactly where you would have expected an animal-to-human spillover event to occur.

Animal-to-human spillover

- The Huanan Wholesale Seafood Market is

located *north* of the Yangtze River, about 9 miles from the Wuhan Institute of Virology, which is *south* of the river. If the pandemic virus leaked from the Wuhan Institute, it would have had to have leapt across the river without infecting anyone in between.

Animal-to-human spillover

- On March 17, 2023, Michael Worobey, an evolutionary biologist at the University of Arizona, Kristian Anderson, a virologist at the Scripps Research Institute in California, and Eddie Holmes, a biologist at the University of Sydney, found genetic evidence for SARS-CoV-2 virus in raccoon dogs from samples from the western section of Huanan Wholesale Seafood Market first taken in January 2020.

Extraordinary claims should be backed by extraordinary evidence

--Carl Sagan

March 1, 2023

Hopkins' Makary Tells Lawmakers COVID Lab Leak a 'No-Brainer'

— Other expert witnesses open to other origin theories

Marty Makary, MD, MPH, is a professor of transplant surgery at Johns Hopkins University

FBI chief Christopher Wray says China lab leak most likely

1 March 2023

Share

By Max Matza & Nicholas Yong
in Washington and Singapore

Getty Images

FBI Director Christopher Wray has said that the bureau believes Covid-19 most likely originated in a Chinese government-controlled lab.

COVID Myth #2:

mRNA vaccines are contaminated with dangerous fragmented DNA

House of Representatives, November 13, 2023

November 13, 2023

Kimberly Biss (left), Robert Malone (ctr), Thomas Renz (right)

Robert Malone, MD

- Published two important papers in *PNAS* in the late 1980s showing that naked mRNA injected into mice could be translated to proteins.

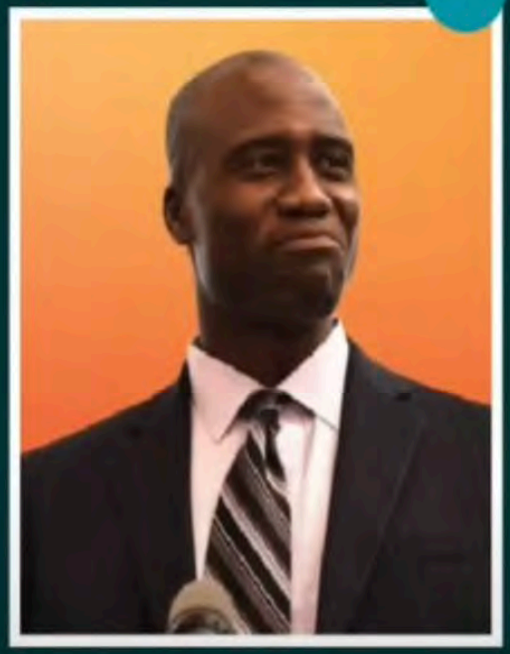
- Malone claimed that the mRNA vaccines made by Pfizer and Moderna were contaminated with fragments of foreign DNA, "which could alter our DNA, causing cancer, autoimmune diseases, and a variety of other disorders."

- He claimed that "DNA fragments could be used by the federal government to monitor who has been vaccinated and who hasn't."

- Malone also claimed that the FDA, CIA, and other government agencies knew about the DNA contamination but were covering it up. "The CIA has its fingers all over this," he declared.

Joseph A. Ladapo, MD, PhD
@FLSurgeonGen

I am calling for a halt to the use of mRNA COVID-19 vaccines.



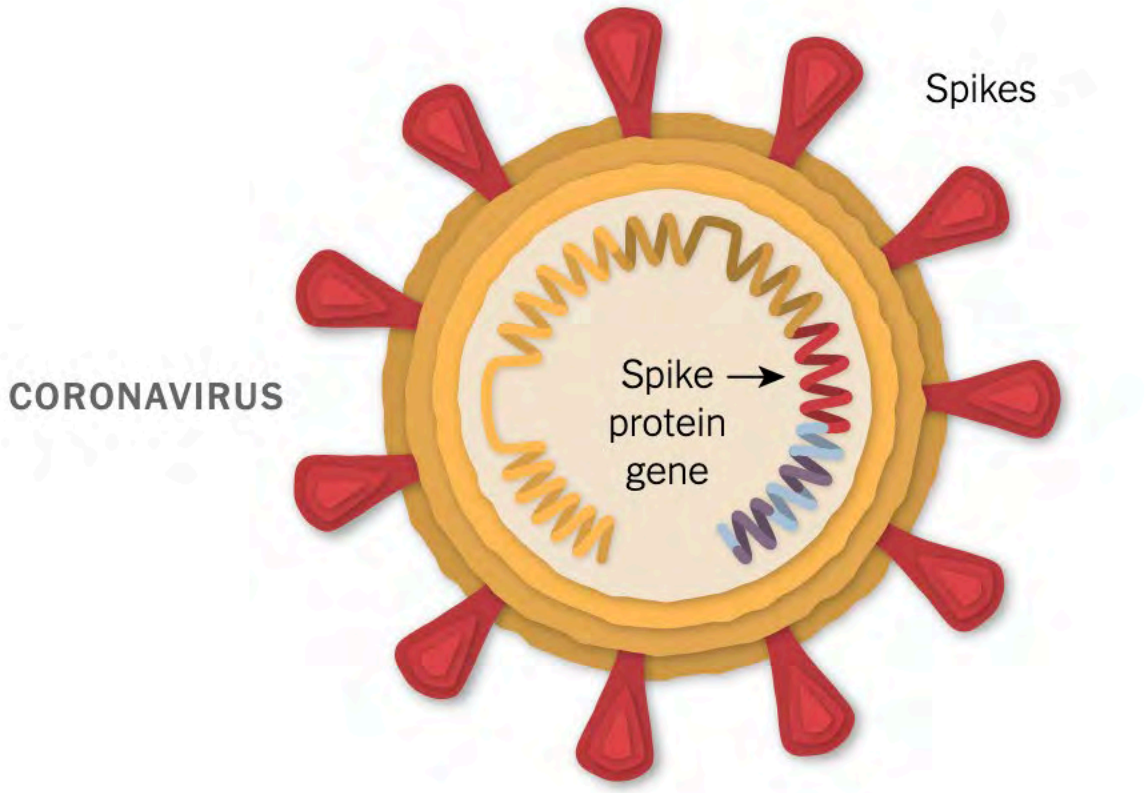
I am calling for a halt to the use of mRNA COVID-19 vaccines.

The U.S. Food and Drug Administration and the Centers for Disease Control and Prevention have always played it fast and loose with COVID-19 vaccine safety, but their failure to test for DNA integration with the human genome - as their own guidelines dictate - when the vaccines are known to be contaminated with foreign DNA is intolerable.

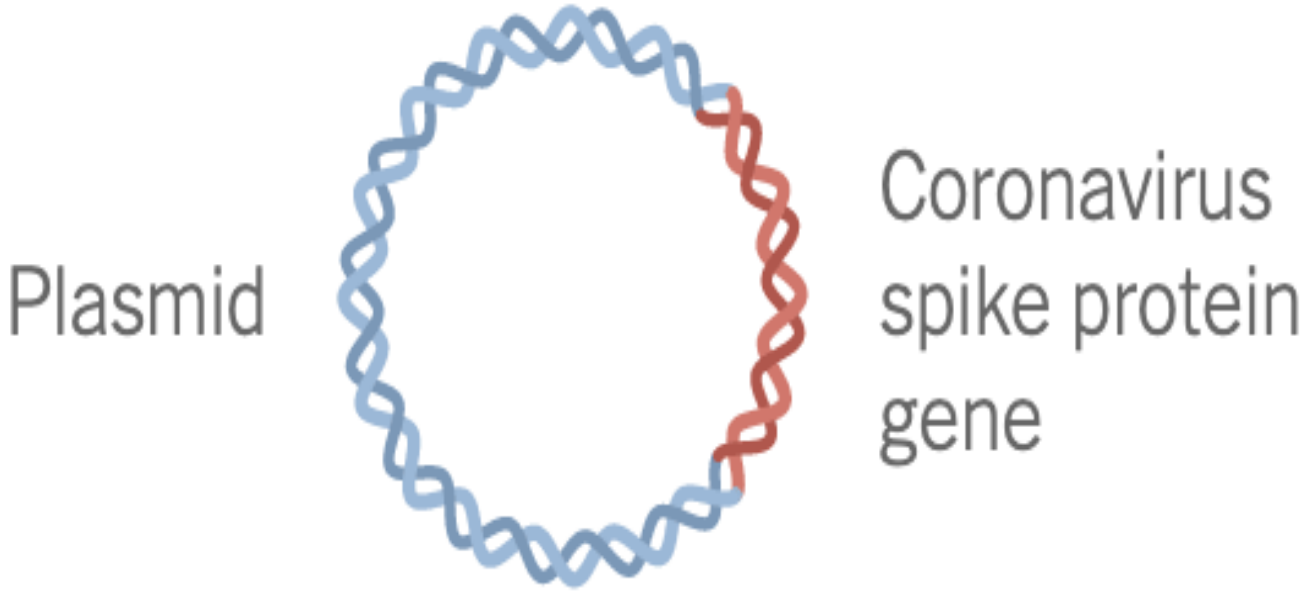
Florida HEALTH


THE HIGHWIRE
WITH DEL BIGTREE
JOSEPH LADAPO, MD, PhD
SURGEON GENERAL OF FLORIDA
DEL BIGTREE
THEHIGHWIRE.COM

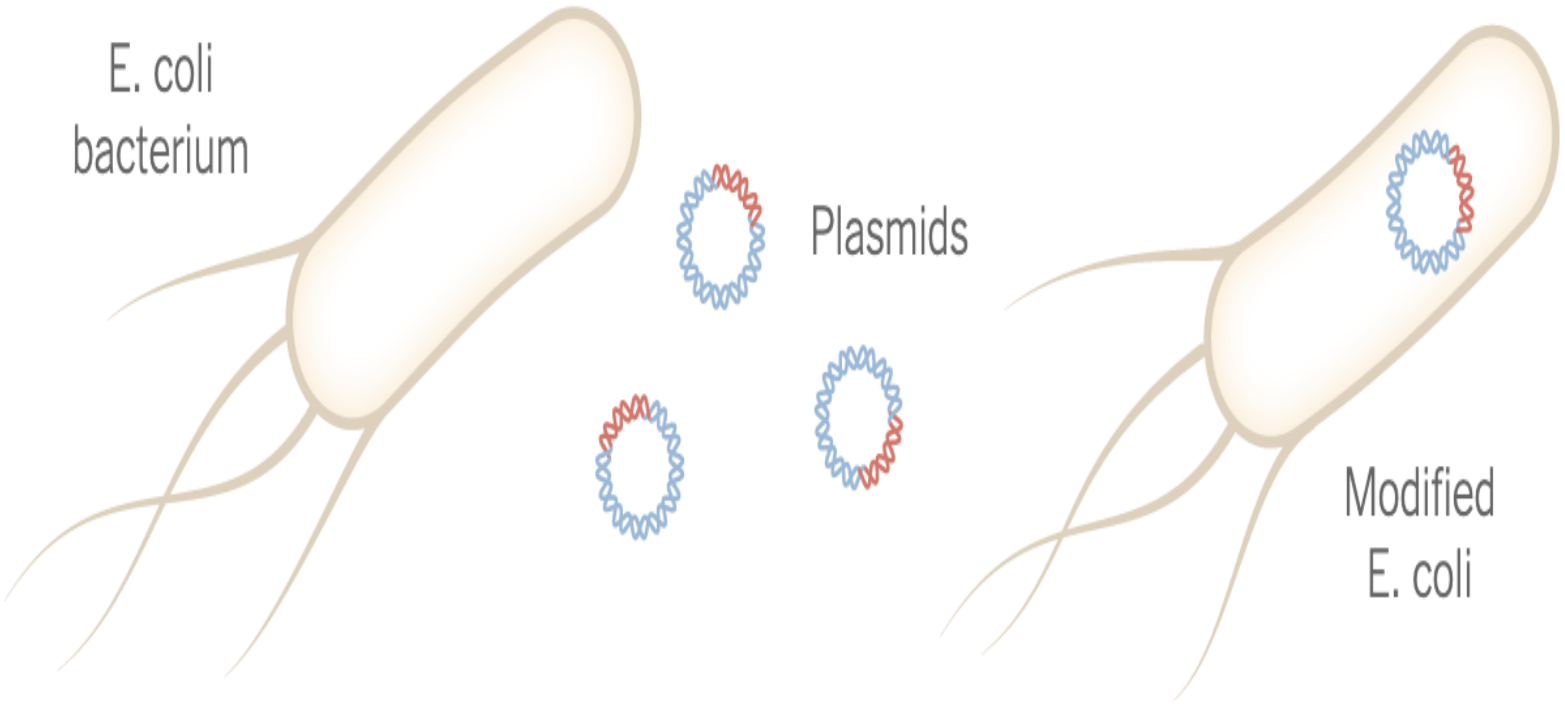
How are mRNA vaccines made?



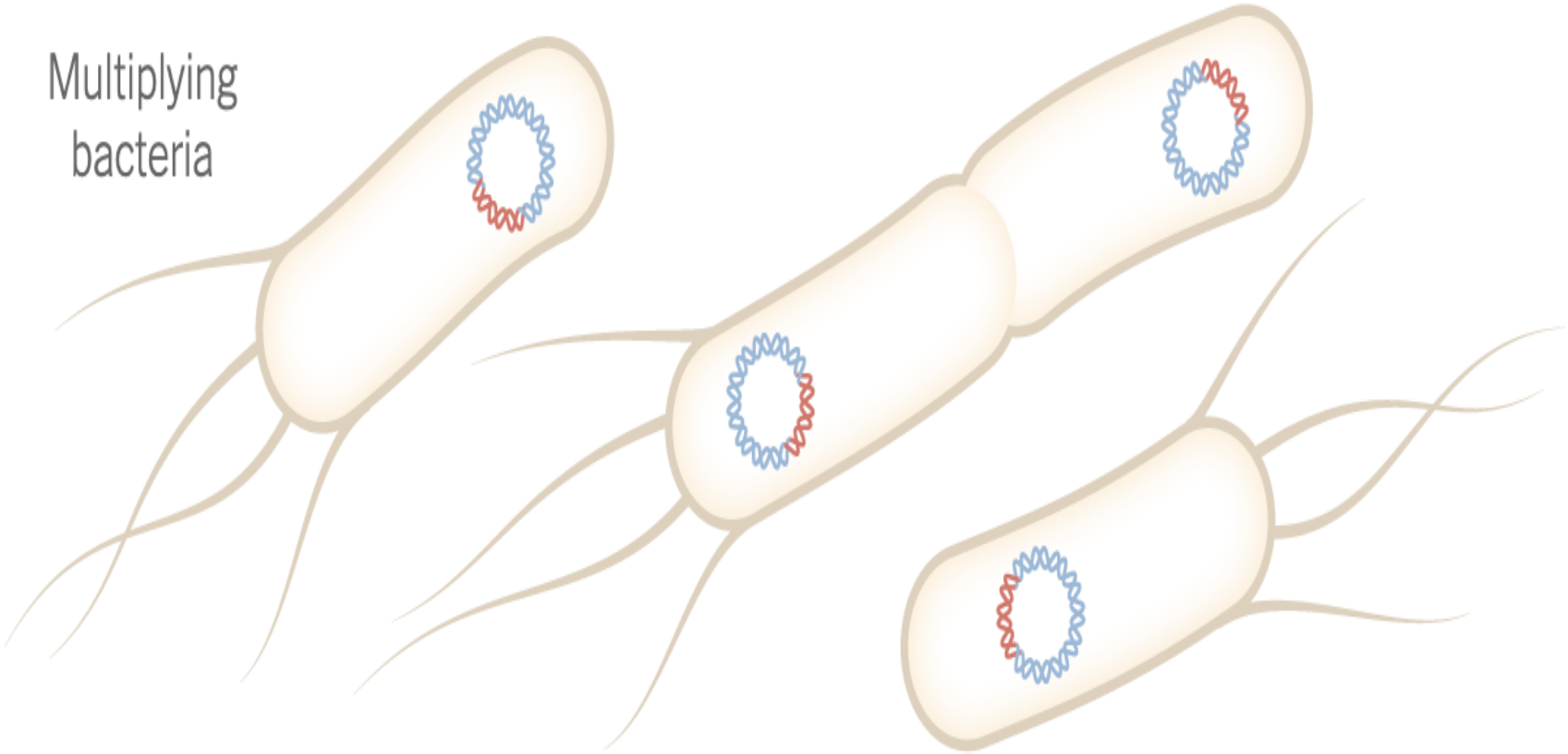
Synthesize DNA that codes for the spike protein



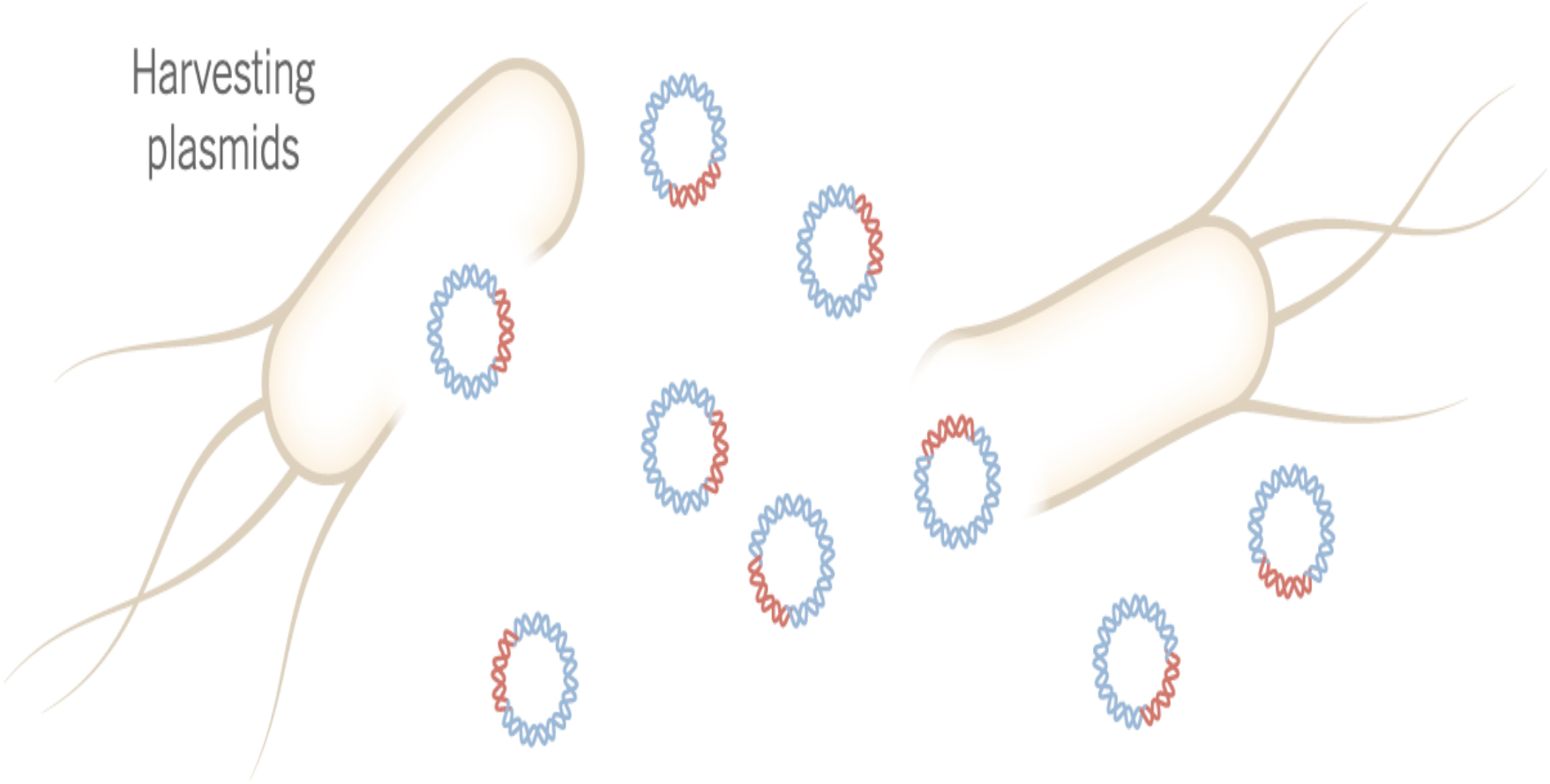
Insert synthesized DNA coding for the spike protein into a DNA plasmid



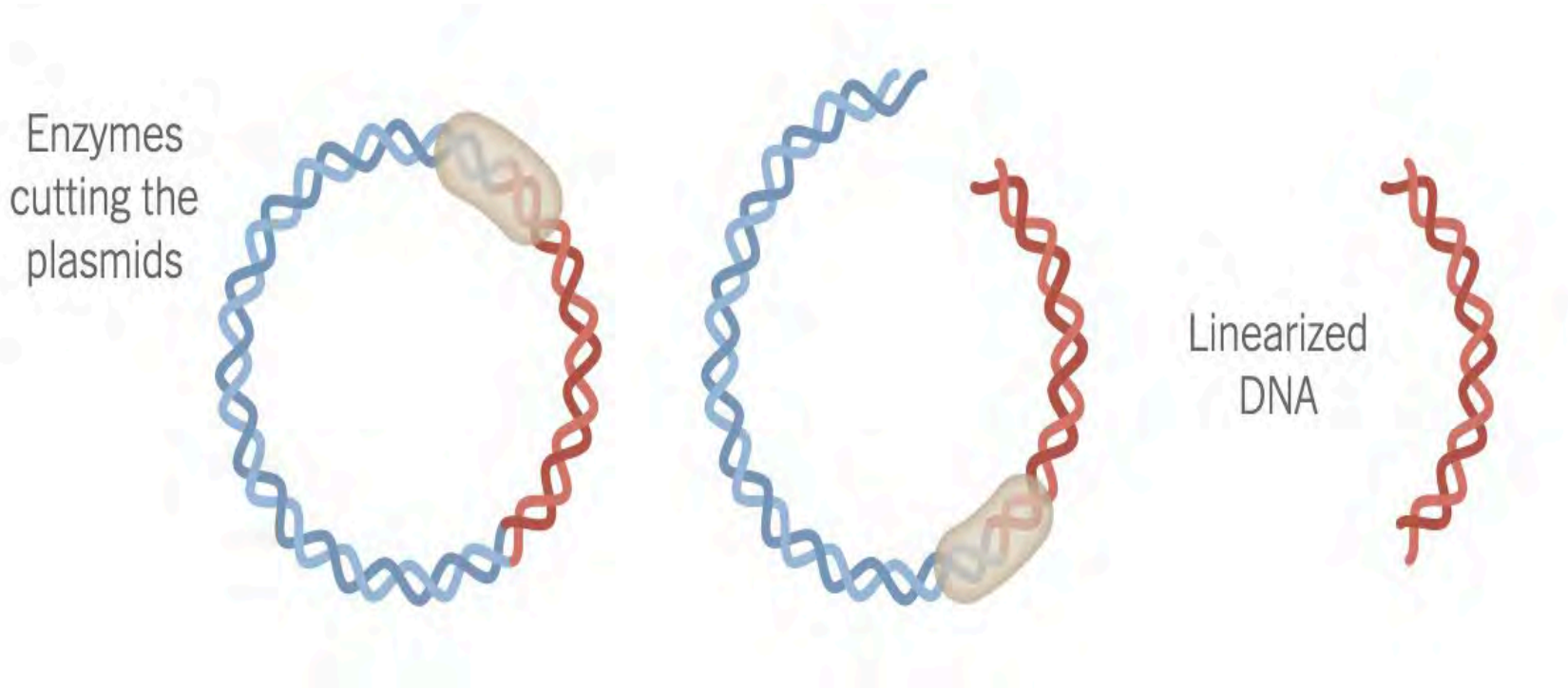
Put DNA plasmids into *E. coli*



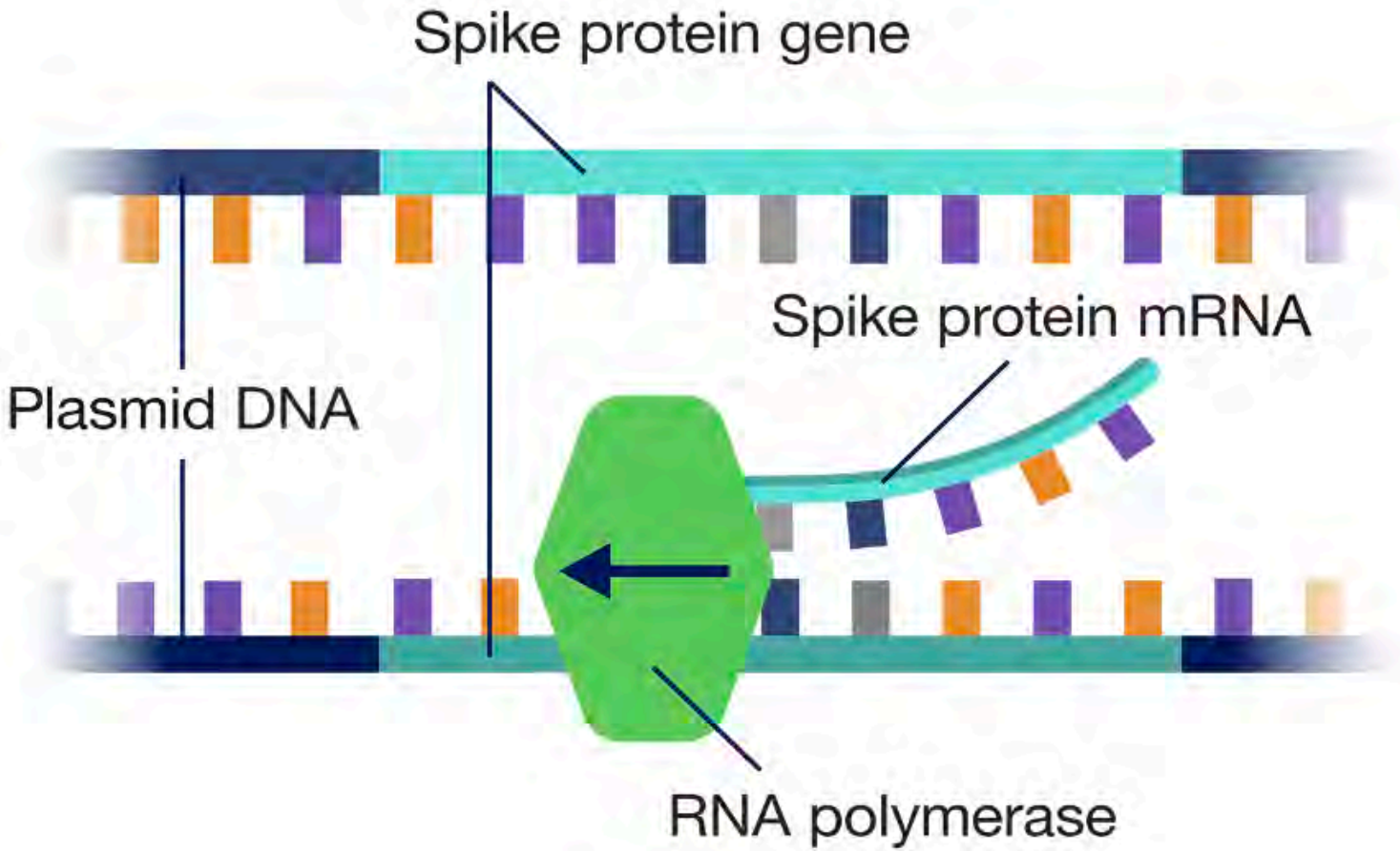
Grow the *E. coli* in a fermenter. As the bacteria multiply, the plasmids also multiply.



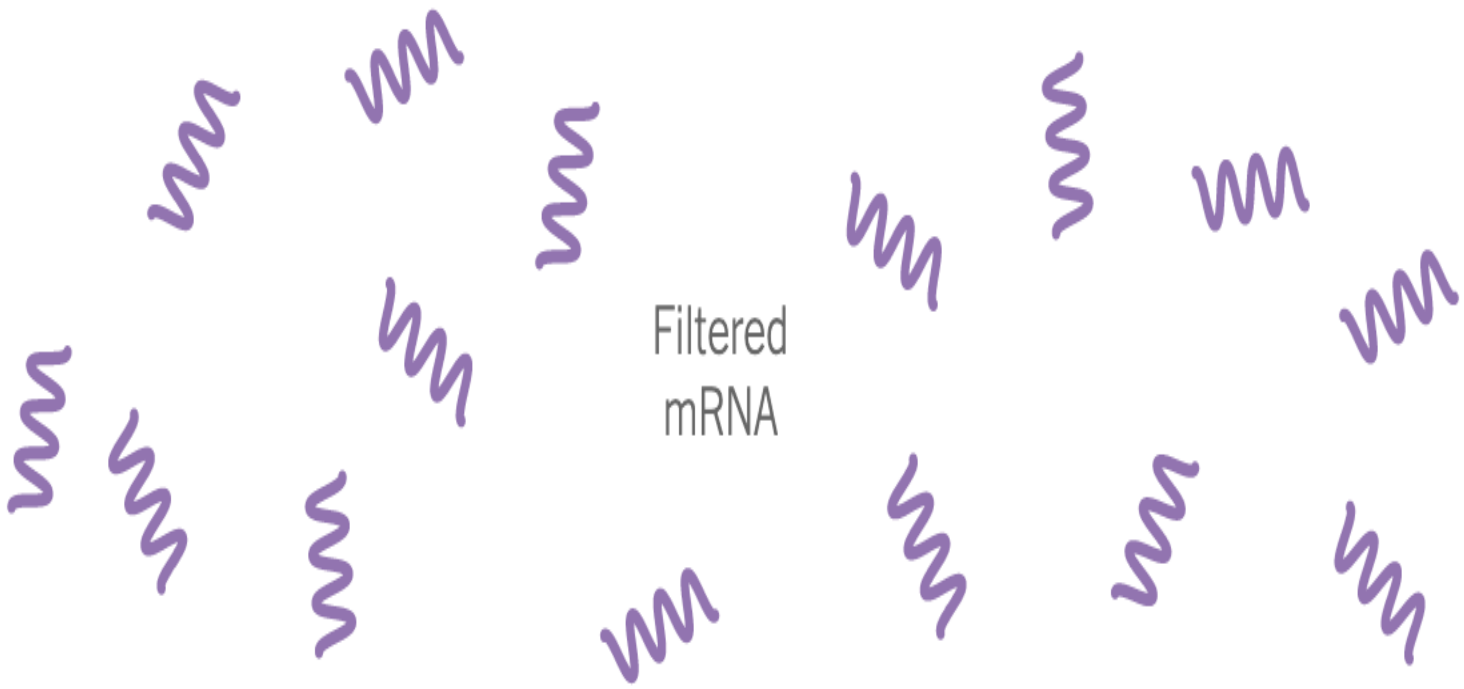
Disrupt the bacterial cell, releasing the plasmids



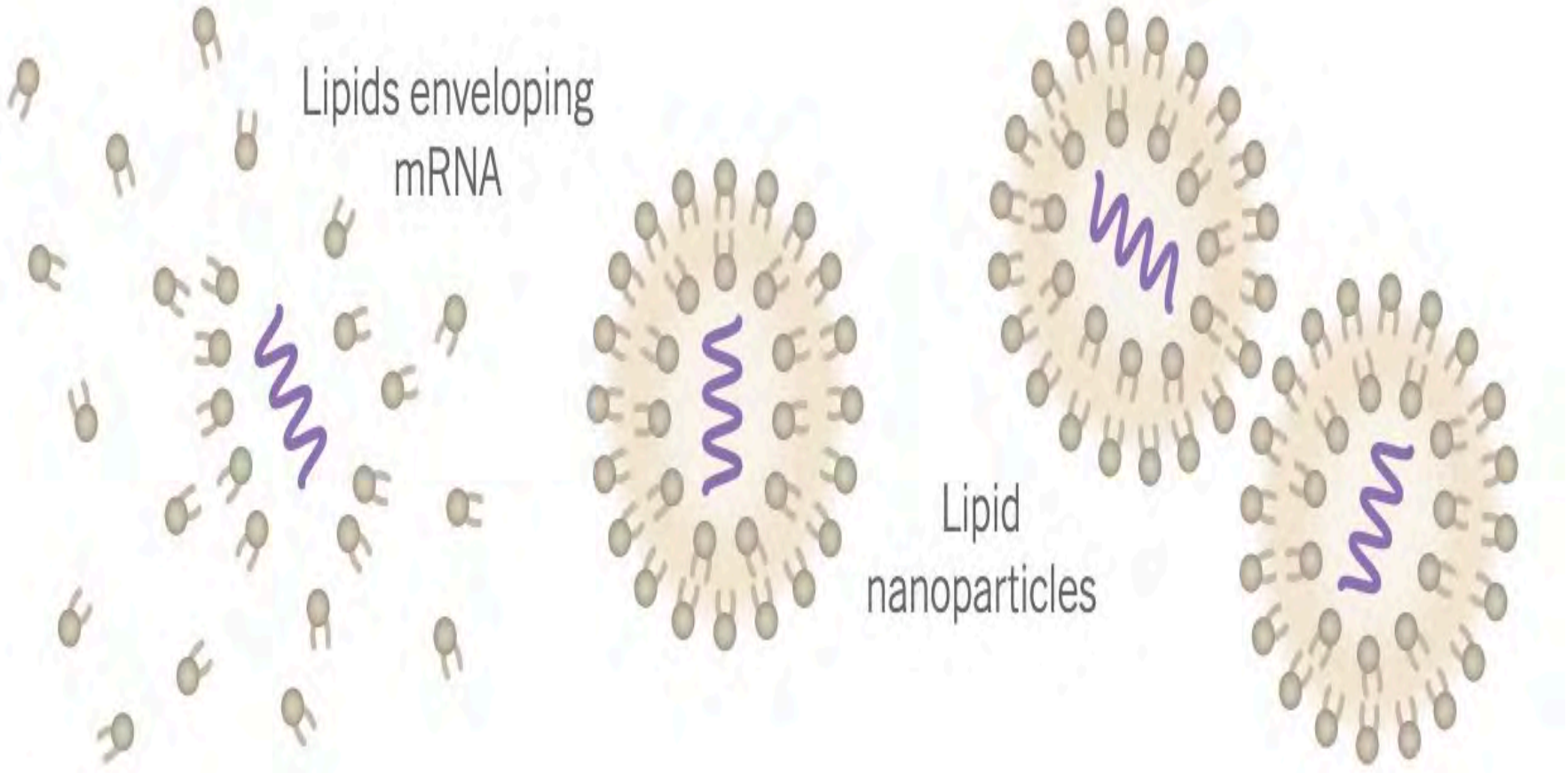
Remove the spike protein DNA from the plasmid with a restriction enzyme



Convert plasmid DNA to mRNA using an RNA polymerase



Filter and purify mRNA and treat with DNase to fragment any residual plasmid DNA



Place mRNA in lipid nanoparticles

DNA fragments detected in monovalent and bivalent Pfizer/BioNTech and Moderna modRNA COVID-19 vaccines from Ontario, Canada: Exploratory dose response relationship with serious adverse events.

David J. Speicher[1], Jessica Rose[2], L. Maria Gutschi[3], David Wiseman[4], Kevin McKernan[5]

[1]Department of Pathobiology, University of Guelph, Guelph, Ontario, Canada

[2]Independent Researcher, Ontario, Canada ORCID 0000-0002-9091-4425

[3]Pharmacy Consultant, Ottawa, Ontario, Canada

[4]Synechion, Inc., Dallas, Texas, USA ORCID 0000-0002-8367-6158

[5]Medicinal Genomics, Beverly, MA, USA ORCID 0000-0002-3908-1122

DNA fragments in vaccines

- Authors found DNA fragments in Pfizer's mRNA vaccine at levels ranging from 0.28 – 4.27 ng/dose.
- They also found DNA fragments in Moderna's mRNA vaccine at 0.25 – 0.78 ng/dose.
- Trace quantities of DNA fragments are contained in many biological products, including viral vaccines grown in cells such as the measles, mumps, rubella, varicella, and rotavirus vaccines.

Can DNA fragments in the vaccine affect our DNA?


Debunking
The
FUNK.
with molecular biologist
Dr. Dan Wilson

YOUTUBE.COM

This Florida Surgeon General situation is insane

Patreon: https://www.patreon.com/DrWilsonDebunksI rarely read YouTube comments these...

Reason #1:

DNA fragments would be destroyed in the cytoplasm

CellPress

Immunity

Review

Immune Sensing Mechanisms that Discriminate Self from Altered Self and Foreign Nucleic Acids

Eva Bartok[1] and Gunther Hartmann[1,*]
[1]Institute of Clinical Chemistry and Clinical Pharmacology, University Hospital Bonn, Venusberg-Campus 1, 53127 Bonn, Germany
*Correspondence: gunther.hartmann@uni-bonn.de
https://doi.org/10.1016/j.immuni.2020.06.014

All lifeforms have developed highly sophisticated systems equipped to detect altered self and non-self nucleic acids (NA). In vertebrates, NA-sensing receptors safeguard the integrity of the organism by detecting pathogens, dyshomeostasis and damage, and inducing appropriate responses to eliminate pathogens and reconstitute homeostasis. Effector mechanisms include i) immune signaling, ii) restriction of NA functions such as inhibition of mRNA translation, and iii) cell death pathways. An appropriate effector response is necessary for host defense, but dysregulated NA-sensing can lead to devastating autoimmune and autoinflammatory disease. Their inherent biochemical similarity renders the reliable distinction between self NA under homeostatic conditions and altered or exogenous NA particularly challenging. In this review, we provide an overview of recent progress in our understanding of the closely coordinated and regulated network of innate immune receptors, restriction factors, and nucleases to effectively respond to pathogens and maintain host integrity.

Bartok, E., G. Hartmann, *Immunity* (2020) 53: 54-77.

DNA fragments destroyed in cytoplasm

- All lifeforms have developed highly sophisticated systems to detect altered self and non-self nucleic acids.
- To effectively respond to pathogens, maintain host integrity, and eliminate foreign DNA, cells have a highly regulated network of innate immune responses, restriction factors, nucleases, and cell death pathways.

Reason #2:

Virtually impossible for DNA fragments to enter the nucleus of a non-dividing cell

Nuclear entry of nonviral vectors

DA Dean[1], **DD Strong**[2], and **WE Zimmer**[3]

[1]Division of Pulmonary and Critical Care Medicine, Feinberg School of Medicine, Northwestern University, Chicago, IL, USA

[2]VA Loma Linda Health Care System, Loma Linda, CA, USA

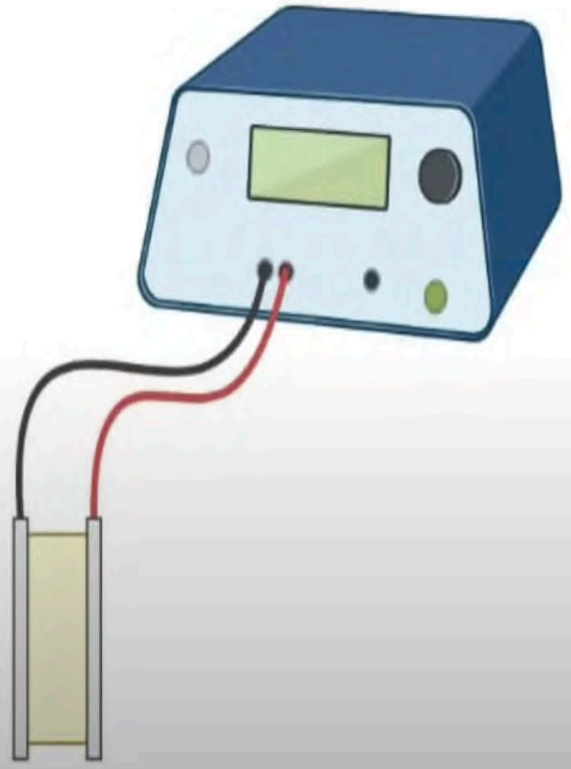
[3]Department of Medical Pharmacology and Toxicology, College of Medicine, Texas A&M University, College Station, TX, USA

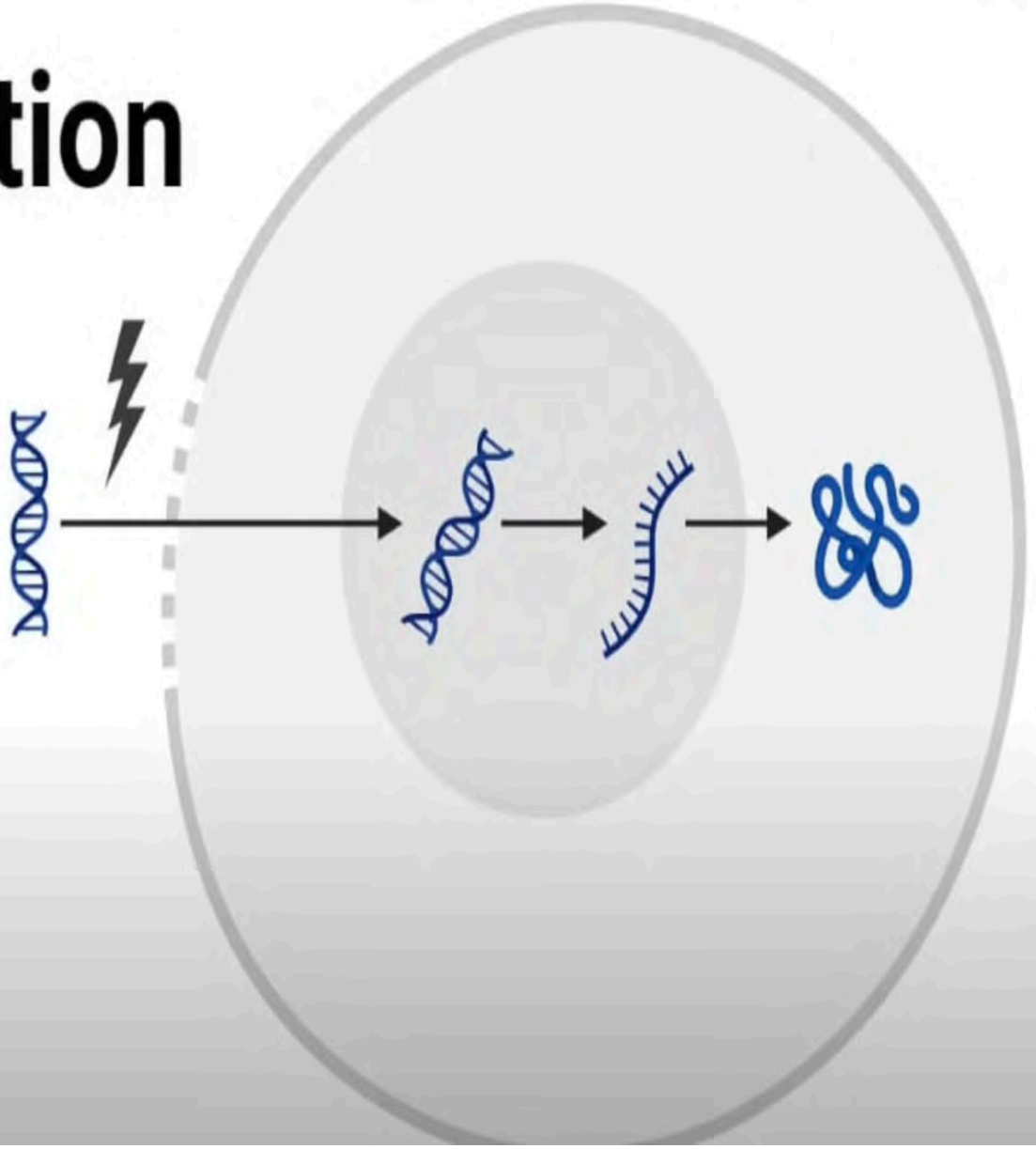
Abstract

Nonviral gene delivery is limited to a large extent by multiple extracellular and intracellular barriers. One of the major barriers, especially in nondividing cells, is the nuclear envelope. Once in the cytoplasm, plasmids must make their way into the nucleus in order to be expressed. Numerous studies have demonstrated that transfections work best in dividing populations of cells in which the nuclear envelope disassembles during mitosis, thus largely eliminating the barrier. However, since many of the cells that are targets for gene therapy do not actively undergo cell division during the gene transfer process, the mechanisms of nuclear transport of plasmids in nondividing cells are of critical importance. In this review, we summarize recent studies designed to elucidate the mechanisms of plasmid nuclear import in nondividing cells and discuss approaches to either exploit or circumvent these processes to increase the efficiency of gene transfer and therapy.

Dean, D.A. et al. Gene Therapy (2005)12: 881-890.

Electroporation





Reason #3:

Difficult for DNA fragments to integrate into our DNA

Detection of integration of plasmid DNA into host genomic DNA following intramuscular injection and electroporation

Z Wang[1], PJ Troilo[1], X Wang[1], TG Griffiths II[1], SJ Pacchione[1], AB Barnum[1], LB Harper[1], CJ Pauley[1], Z Niu[1], L Denisova[1], TT Follmer[1], G Rizzuto[2], G Ciliberto[2], E Fattori[2], NL Monica[2], S Manam[3] and BJ Ledwith[1]

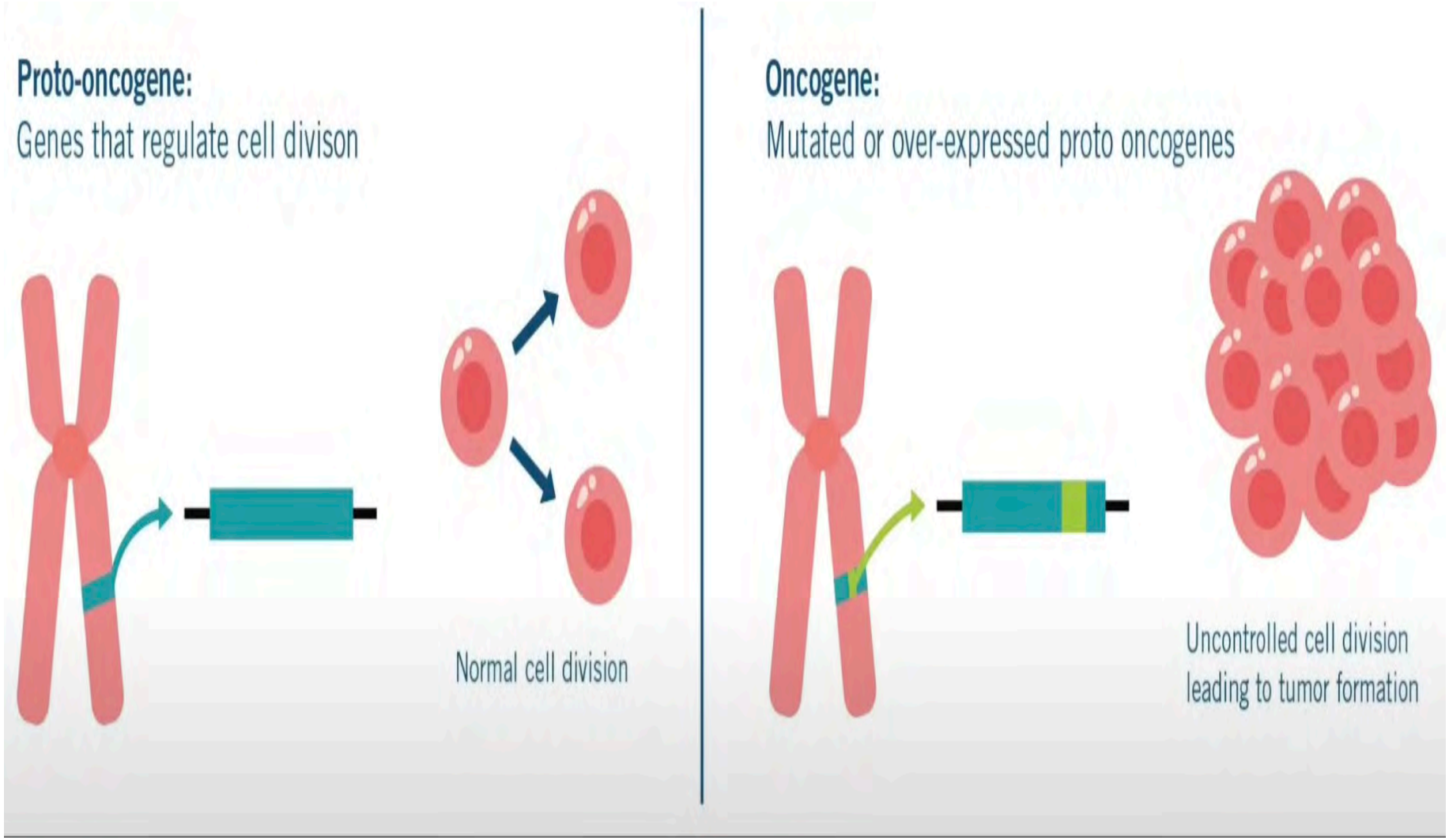
[1]*Department of Biologics Safety Assessment, Merck Research Laboratories, West Point, PA, USA;* [2]*Istituto Di Ricerche Di Biologia Molecolare, 00040 Pomezie, Rome, Italy; and* [3]*Department of Regulatory Affairs, Merck Research Laboratories, Blue Bell, PA, USA*

The low frequency and random nature of the integration events, and the nonclonal nature of the cellular material, limit the ability to characterize each integration event. For example, only one of the two vector-to-genomic DNA junctions for a given integration event is revealed in this assay, and the structure of the overall plasmid and insertion site are not determinable. Furthermore, the effect of integration on transgene expression cannot be determined for such rare integration events. However, it is clear from the gel purification results that >99.5% of the vector in the electroporated sample remained extrachromosomal (ie, <1000/220 000 copies at the 6 week time-point were integrated). Thus, the enhanced EPO expression observed with electroporation[13] is unlikely to be due to the integration, but

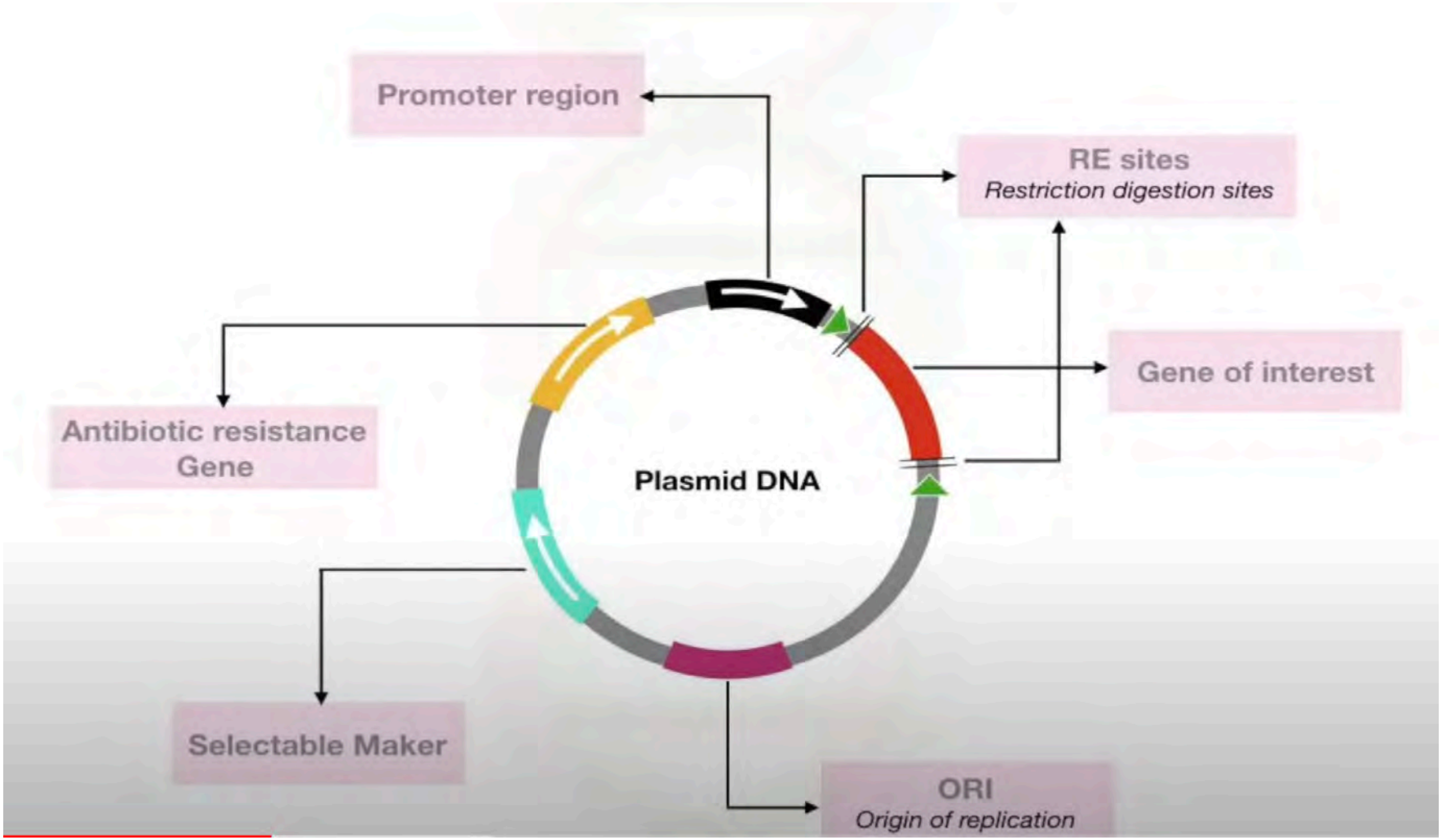
Reason #4:

DNA fragments in mRNA vaccines can’t cause cancer

Oncogenes cause cancer



DNA plasmids used to make mRNA vaccines don't contain an oncogene



Amount of oncogenic DNA necessary to transform cells is exponentially greater than those contained in vaccines

Oncogenicity of DNA *in vivo*: Tumor induction with expression plasmids for activated H-*ras* and c-*myc*

Li Sheng [a], Fang Cai [a 1], Yong Zhu [a 2], Achintya Pal [a 3], Meropi Athanasiou [b], Brian Orrison [a], Donald G. Blair [b 4], Stephen H. Hughes [b], John M. Coffin [b c], Andrew M. Lewis [a] ✉, Keith Peden [a] ✉

oncogene. Their oncogenic activity was confirmed *in vitro* using the focus-formation transformation assay. Two strains of adult and newborn immune-competent mice were inoculated with different amounts of either plasmid alone or with a combination of the H-*ras* and c-*myc* plasmids. Tumors developed only in mice inoculated with both plasmids and only at the highest amount of DNA (12.5 μg of each plasmid). The NIH Swiss mouse was more sensitive than the C57BL/6 mouse, and newborn animals were more sensitive than adults. Cell lines were established from the tumors. PCR and Southern hybridization analyses demonstrated that both inoculated oncogenes were present in all of the tumor-derived cell lines and that the cells in the tumors were clonal. Western analysis demonstrated that both oncoproteins were

Quantity of DNA fragments in vaccines is well within acceptable limits

residual dna analysis

- Host cell DNAs or residual DNAs (rDNAs) are trace/low quantity of DNA originating from the organisms used in the production process of biopharmaceutical products, which may be introduced into the final products. The rDNAs may be able to transmit viral infections, cause a potential risk for oncogenesis or adverse reactions, etc. To assure the safety and potency, rDNAs in final biopharmaceutical products must be carefully monitored and quantitated, following the requirements established by World Health Organization (WHO), the European Pharmacopeia, the US Food and Drug Administration (FDA), and other regulatory agencies. The acceptable limits have been set between 100 pg/dose and 10 ng/dose depending on the cell line used, and the mode and frequency of dosing. Hence, the sensitive, accurate, and quantitative methods must be applied to ensure the rNDA is cleared to the limits.

Reason #5:

We are constantly exposed to foreign DNA

Complete Genes May Pass from Food to Human Blood

Sándor Spisák[1,2*], Norbert Solymosi[3,4], Péter Ittzés[3], András Bodor[3], Dániel Kondor[3], Gábor Vattay[3], Barbara K. Barták[5], Ferenc Sipos[5], Orsolya Galamb[5], Zsolt Tulassay[1,5], Zoltán Szállási[2], Simon Rasmussen[6], Thomas Sicheritz-Ponten[6], Søren Brunak[6], Béla Molnár[1,5], István Csabai[3,7]

1 Molecular Medicine Research Group, Hungarian Academy of Sciences, Budapest, Hungary, **2** Children's Hospital, Harvard Medical School, Boston, Massachusetts, United States of America, **3** Department of Physics of Complex Systems, Eötvös University, Budapest, Hungary, **4** Department of Animal Hygiene, Herd Health and Veterinary Ethology, Szent István University, Budapest, Hungary, **5** 2nd Department of Internal Medicine, Semmelweis University, Budapest, Hungary, **6** Center for Biological Sequence Analysis, Technical University of Denmark, Lyngby, Denmark, **7** Department of Physics and Astronomy, The Johns Hopkins University, Baltimore, Maryland, United States of America

Abstract

Our bloodstream is considered to be an environment well separated from the outside world and the digestive tract. According to the standard paradigm large macromolecules consumed with food cannot pass directly to the circulatory system. During digestion proteins and DNA are thought to be degraded into small constituents, amino acids and nucleic acids, respectively, and then absorbed by a complex active process and distributed to various parts of the body through the circulation system. Here, based on the analysis of over 1000 human samples from four independent studies, we report evidence that meal-derived DNA fragments which are large enough to carry complete genes can avoid degradation and through an unknown mechanism enter the human circulation system. In one of the blood samples the relative concentration of plant DNA is higher than the human DNA. The plant DNA concentration shows a surprisingly precise log-normal distribution in the plasma samples while non-plasma (cord blood) control sample was found to be free of plant DNA.

Spisak, S, et al. *PLoS One* (2013) 8: e69805

Foreign DNA in Food

- In an analysis of more than 1000 human samples from four independent studies, researchers found that meal-derived DNA fragments large enough to carry complete genes can avoid degradation and enter the human circulation.
- Relative concentration of plant DNA in the circulation is higher than human DNA.
- Authors concluded that “the presence of foreign DNA in human plasma is not unusual.”

To put this in perspective…

ZYCOV-D®

World's first Plasmid DNA Vaccine for Covid-19

Efficacy, safety, and immunogenicity of the DNA SARS-CoV-2 vaccine (ZyCoV-D): the interim efficacy results of a phase 3, randomised, double-blind, placebo-controlled study in India

*Akash Khobragade, Suresh Bhate, Vijendra Ramaiah, Shrikant Deshpande, Krishna Giri, Himanshu Phophle, Pravin Supe, Inderjeet Godara, Ramesh Revanna, Rajnish Nagarkar, Jayesh Sanmukhani, Ayan Dey, T M Chozhavel Rajanathan, Kevinkumar Kansagra, Parshottam Koradia, on behalf of the ZyCoV-D phase 3 Study Investigator Group**

Summary

Background ZyCoV-D, a DNA-based vaccine, showed promising safety and immunogenicity in a phase 1/2 trial. We now report the interim efficacy results of phase 3 clinical trial with ZyCoV-D vaccine in India.

Methods We conducted an interim analysis of a multicentre, double-blind, randomised, placebo-controlled phase 3 trial at 49 centres in India. Healthy participants aged at least 12 years were enrolled and randomly assigned (1:1) to receive either ZyCov-D vaccine (Cadila Healthcare; 2 mg per dose) or placebo. An interactive web response system was used for randomisation (blocks of four) of participants as well as to enrol those aged 60 years and older with or without comorbid conditions, and those aged 12–17 years. It was also used to identify 600 participants for

Lancet 2022; 399: 1313–21

See **Comment** page 1281

*Group members are listed at the end of the Article

Grant Government Medical College and Sir J J Group of Hospital, Byculla, Mumbai, India (A Khobragade MD); Jeevan Rekha Hospital,

Khobragade, A, et al. *Lancet* (2022) 399: 1313-1321.

ZyCOV-D

- ZyCOV-D is plasmid DNA containing the gene coding for the spike protein given by electronic pulsed, spray powered, jet injector, which disrupts cells allowing for entrance of the plasmid into the nucleus.
- Given at 2 ug/dose, roughly one-million-fold more DNA than the DNA fragments found in Pfizer and Moderna's mRNA vaccines.
- ZyCOV-D plasmid DNA codes for whole spike protein whereas DNA fragments, after treatment with DNase, were far too small to code for a whole protein.

November 13, 2023

Kimberly Biss (left), Robert Malone (ctr), Thomas Renz (right)

Kimberly Biss, MD

- An obstetrician-gynecologist who is chief-of-staff at Bayfront Health in St. Petersburg, Florida.
- Biss claimed that after receiving COVID vaccines women in her practice suffered menstrual cycle irregularities, including severe bleeding.
- Biss testified that her “miscarriage rate went up 100 percent.”
- She claimed that she “had never seen a pregnant woman die from COVID.”
- She stated that, “only 3 in one million children will die from COVID. So why are we giving children these vaccines?!”

COVID Myth #3:

COVID vaccines cause menstrual cycle irregularities, including severe bleeding

COVID-19 vaccination and menstrual cycle characteristics: A prospective cohort study

Amelia K. Wesselink [a,*], Sharonda M. Lovett [a], Janice Weinberg [b], Ruth J. Geller [a], Tanran R. Wang [a], Annette K. Regan [c], Mary D. Willis [d], Rebecca B. Perkins [d], Jennifer J. Yland [a], Martha R. Koenig [a], Kenneth J. Rothman [a], Elizabeth E. Hatch [a], Lauren A. Wise [a]

[a] *Department of Epidemiology, Boston University School of Public Health, Boston, MA, United States*
[b] *Department of Biostatistics, Boston University School of Public Health, Boston, MA, United States*
[c] *University of San Francisco, United States*
[d] *Department of Obstetrics & Gynecology, Boston University Chobanian and Avedesian School of Medicine, Boston, MA, United States*

Wesselink AK, et al. *Vaccine* (2023) 41: 4327-4334.

COVID vaccine and menstruation

- Boston University School of Public Health study of 1,137 participants who did or didn't receive COVID vaccines.
- Menstrual cycle characteristics that were studied included cycle regularity, cycle length, bleed length, heaviness of bleed, and menstrual pain.
- Participants had a 1.1 day longer menstrual cycle length after receiving the first dose of COVID vaccine and 1.3 day longer cycle after receiving the second dose. This association returned to baseline for the second cycle.
- No associations were found for cycle regularity, bleed length, heaviness of bleed, or menstrual pain.

COVID Myth #4:

COVID vaccines cause miscarriages

Morbidity and Mortality Weekly Report

Receipt of COVID-19 Vaccine During Pregnancy and Preterm or Small-for-Gestational-Age at Birth — Eight Integrated Health Care Organizations, United States, December 15, 2020–July 22, 2021

Heather S. Lipkind[1]; Gabriela Vazquez-Benitez[2]; Malini DeSilva[2]; Kimberly K. Vesco[3]; Christina Ackerman-Banks[1]; Jingyi Zhu[2]; Thomas G. Boyce[4]; Matthew F. Daley[5]; Candace C. Fuller[6]; Darios Getahun[7]; Stephanie A. Irving[3]; Lisa A. Jackson[8]; Joshua T.B. Williams[9]; Ousseny Zerbo[10]; Michael M. McNeil[11]; Christine K. Olson[11]; Eric Weintraub[11]; Elyse O. Kharbanda[2]

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COVID-19 vaccines are recommended during pregnancy to prevent severe maternal morbidity and adverse birth outcomes; however, vaccination coverage among pregnant women has been low (*1*). Concerns among pregnant women regarding vaccine safety are a persistent barrier to vaccine acceptance during pregnancy. Previous studies of maternal COVID-19 vaccination and birth outcomes have been who are pregnant, recently pregnant (including those who are lactating), who are trying to become pregnant now, or who might become pregnant in the future (*4*).

VSD is a collaboration between CDC and nine health care organizations representing approximately 3% of the U.S. population. This observational retrospective study included singleton live births from eight VSD sites in California, Colorado, Minnesota, Oregon, Washington, and Wisconsin (Kaiser Permanente: Colorado, Northern California, Northwest, Southern

Lipkind, HS, et al. *Morbid Mortal Wkly Rep* (2022) 71: 26-30.

COVID vaccine and miscarriages

- Yale University School of Medicine study of 46,079 pregnant women between December 2020 and July 2021 vaccinated between the second and third trimester.
- COVID vaccination was not associated with either preterm births or small for gestational age births when compared with pregnant women of the same age who were unvaccinated.

V-safe pregnancy registry: No self-reported pregnancy or neonatal outcomes above the published background rates

Outcomes	Background rates*	V-safe pregnancy registry overall
Pregnancy outcome		
Miscarriage (<20 weeks)	26%	15%†
Stillbirth (≥20 weeks)	0.6%	<1%
Pregnancy complications		
Gestational diabetes	7-14%	10%
Preeclampsia or gestational hypertension§	10-15%	15%
Eclampsia	0.27%	0%
Intrauterine growth restriction	3-7%	1%
Neonatal		
Preterm birth	10.1%	10%
Congenital anomalies‡	3%	4%
Small for gestational age^	3-7%	4%
Neonatal death	0.38%	0%

* Sources listed on slide 33; † 93% of these were pregnancy losses <13 weeks of age; § Preeclampsia or gestational hypertension diagnosed during pregnancy and/or during delivery; ‡ Congenital anomalies (overall) diagnosed after delivery only; ^ Birth weight below the 10th percentile for gestational age and sex using INTERGROWTH-21st Century growth standards

Data as of February 18, 2021*

COVID Myth #5:

Pregnant women are not at increased risk of dying from COVID

Clinical manifestations, risk factors, and maternal and perinatal outcomes of coronavirus disease 2019 in pregnancy: living systematic review and meta-analysis

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Abstract

Objective

To determine the clinical manifestations, risk factors, and maternal and perinatal outcomes in pregnant and recently pregnant women with suspected or confirmed coronavirus disease 2019 (covid-19).

STUDY SELECTION

Cohort studies reporting the rates, clinical manifestations (symptoms, laboratory and radiological findings), risk factors, and maternal and perinatal outcomes in pregnant and recently pregnant women with suspected or confirmed covid-19.

Allotey, J., et al. *British Med J*, August 23, 2020

COVID during pregnancy

- Review of 435 studies involving 293,152 pregnant women compared with 2.9 million non-pregnant women with COVID.
- Pregnant women with COVID were 2.5 times more likely to be admitted to the intensive care unit and require mechanical ventilation, and 6 times more likely to die than non-pregnant women with COVID.
- Pregnant women with COVID were also more likely to deliver prior to term and their babies were more likely to be admitted to the neonatal intensive care unit.

COVID Myth #6:

Young children don’t need a COVID vaccine

Original Investigation | Public Health

Assessment of COVID-19 as the Underlying Cause of Death Among Children and Young People Aged 0 to 19 Years in the US

Seth Flaxman, PhD; Charles Whittaker, PhD; Elizaveta Semenova, PhD; Theo Rashid, MSci; Robbie M. Parks, PhD; Alexandra Blenkinsop, PhD; H. Juliette T. Unwin, PhD; Swapnil Mishra, PhD; Samir Bhatt, DPhil; Deepti Gurdasani, PhD; Oliver Ratmann, PhD

Abstract

IMPORTANCE COVID-19 was the underlying cause of death for more than 940 000 individuals in the US, including at least 1289 children and young people (CYP) aged 0 to 19 years, with at least 821 CYP deaths occurring in the 1-year period from August 1, 2021, to July 31, 2022. Because deaths among US CYP are rare, the mortality burden of COVID-19 in CYP is best understood in the context of all other causes of CYP death.

OBJECTIVE To determine whether COVID-19 is a leading (top 10) cause of death in CYP in the US.

Key Points

Question Where does COVID-19 rank as an underlying cause of death for children and young people aged 0 to 19 years in the US?

Findings Among children and young people aged 0 to 19 years in the US, COVID-19 ranked eighth among all causes of deaths, fifth in disease-related

Flaxman S, et al. *J Am Med Assoc Open Network* (2023) 6: e2253590.

COVID in children

- Biss claimed that “only 3 in one million children died from COVID, so why are we vaccinating children?”
- JAMA study of 821 children who died from COVID found a death of 43 per million in those less than one year of age and 6 per million in those 1-4 years of age.
- The authors concluded that, “among children and young people less than 19 years of age in the U.S., COVID-19 ranked eighth among all causes of deaths, fifth in disease-related deaths, and first in deaths caused by infectious or respiratory diseases.

COVID Myth #7:

The spike protein is toxic

Dr. Peter McCullough is a cardiologist and chief of the division of preventive medicine at William Beaumont Hospital in Michigan

Circulation Research

RESEARCH LETTER

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

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, Hongliang Wang, Jin Zhang, Jason X.-J. Yuan, Atul Malhotra, Uri Manor,† Shengpeng Wang,† Zu-Yi Yuan,† John Y-J. Shyy†

SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) infection relies on the binding of S protein (Spike glycoprotein) to ACE (angiotensin-converting enzyme) 2 in the host cells. Vascular endothelium can be infected by SARS-CoV-2,[1] which triggers mitochondrial reactive oxygen species production and glycolytic shift.[2] Paradoxically, ACE2 is protective in the cardiovascular system, and SARS-CoV-1 S protein promotes lung injury by decreasing the level of ACE2 in the infected lungs.[3] In the current study, we show that S protein alone can damage vascular endothelial cells (ECs) by downregulating ACE2 and consequently inhibiting mitochondrial function.

indicated impaired eNOS activity. These changes of pACE2, ACE2, MDM2 expression, and AMPK activity in endothelium were recapitulated by in vitro experiments using pulmonary arterial ECs infected with Pseu-Spike which was rescued by treatment with N-acetyl-L-cysteine, a reactive oxygen species inhibitor (Figure [B], ii).

We next studied the impact of S protein on mitochondrial function. Confocal images of ECs treated with S1 protein revealed increased mitochondrial fragmentation, indicating altered mitochondrial dynamics (Figure [C], i). To examine whether these mitochondrial changes were due, in part, to the decreased amount of ACE2, we overexpressed ACE2 S680D (ACE2-D, a phospho-mimetic

Lei Y, et al. *Circulation Research* (2021) 128: 1323-1326.

Lei study

- Study of Syrian hamsters inoculated intratracheally with 500,000 plaque forming units of vesicular stomatitis virus expressing the SARS-CoV-2 spike protein.
- Found evidence for endothelial cell damage in the lungs.
- Authors chose an unusual route of inoculation, an extremely high quantity of vesicular stomatitis virus, and an animal model to make predictions about people inoculated with mRNA vaccines. The authors admitted that “the use of a noninfectious pseudovirus is a limitation of this study…”.

Crossing the line into parody…

Private Florida School Won't Employ Vaccinated Teachers

A private school founded by an anti-vaccination activist in South Florida has warned teachers and staff against taking the COVID-19 vaccine.

By Associated Press | April 27, 2021, at 9:53 p.m.

The Centner Academy

- In October 2021, five months after COVID vaccines had been approved for everyone more than 12 years of age, David Centner prohibited vaccinated teachers from the classroom for at least 30 days because of his fear of vaccine “shedding.”
- “It is in the best interests of the children to protect them from the unknown implications of being in close proximity for the entire day with a teacher who has very recently taken the COVID-19 injection…” A few months later, Centner also banned vaccinated children from attending school for 30 days.

The Centner Academy

- Consider the logic. The mRNA vaccines contain a small piece of genetic material that serves as a blueprint for the cell to make the SARS-CoV-2 spike protein. When the vaccine mRNA enters the cell, it joins about 200,000 other pieces of mRNA that are making the proteins and enzymes necessary for life. If it were true that these proteins were “shed” from the body and transferred to someone else standing nearby, imagine what that could mean. Insulin-dependent diabetics could just stand next to someone who was making insulin, freeing themselves from painful insulin injections. Or people with sickle cell disease could just stand next to someone making normal hemoglobin; no longer requiring frequent hospitalizations for blood transfusions.

The Centner Academy

- Centner's prohibition of vaccinated teachers and students from school shows just how easily people can be seduced by magical thinking. Indeed, one math and science teacher at the Centner School urged students not to hug their vaccinated parents for more than 5 seconds to avoid the "shedding" problem.

COVID Myth #8:

COVID vaccines cause people to become magnetic

Dr. Sherri Tenpenny

Sheri Tenpenny testifies in front of Ohio lawmakers claiming that COVID-19 vaccines make people magnetic

The Proof

COVID-19 vaccines and magnetism

- mRNA vaccines contain lipids, potassium chloride, monobasic potassium phosphate, sodium chloride, dibasic sodium phosphate dihydrate, and sucrose. None of which are paramagnetic.

- Physicist Michael Coey has stated, “you would need about one gram of iron metal to attract and support a permanent magnet at the injection site, something you would easily feel if it was there.”

- Joe Schwarcz, PhD, from McGill University, stated, “our liver, which is loaded with iron, isn’t ripped out of our body when we get an MRI scan. And people who get iron injections or take iron supplements, which do contain ferrous or ferric ions that are paramagnetic, do not become magnetized.”

Joe Schwarcz, PhD, Office of Science and Society, McGill University


WE HAVE MET THE ENEMY AND HE IS US.
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Programs for classrooms
vaccinemakers.org

Game and info for children
vaxpackhero.org