

MUTATED MONKEYPOX OUTBREAKS AND THE RETURN OF SMALLPOX VACCINE

by Barbara Loe Fisher

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A day before the July 4, 2024 holiday, *Business Insider* published an article warning that “Experts are racing to contain ‘the most dangerous’ monkeypox virus yet before it causes a global outbreak.”¹ A week earlier, *Reuters* reported that World Health Organization (WHO) scientists have called “for urgent action to contain a “dangerous” mutated clade Ib Central African monkeypox (mpox) that is spreading in 24 of 26 provinces in the Democratic Republic of the Congo with “fatality rates of around 5% in adults and 10% in children.”² On July 6, there was an announcement that neighboring Uganda was on “high alert” because the WHO had reported there have been 7,851 monkeypox cases with 384 deaths in the Congo in the first six months of 2024.³ On July 8, a researcher in Africa was quoted as warning that the mutated clade is more virulent and better adapted for human-to-human transmission, allowing it to spread silently between individuals and potentially sustain itself globally.⁴

Monkeypox outbreak reports this month follow the release of a June 11, 2024 investigation by the U.S. House Energy and Commerce Committee into a risky gain-of-function (GOF) experiment on monkeypox conducted with approval from the National Institute of Allergy and Infectious Diseases (NIAID).⁵ Controversy over GOF research to make animal viruses more lethal and transmissible dates back to 2011, when US scientists revealed they had conducted H5N1 avian influenza studies to create bird flu mutations enabling the RNA virus to spread easily among mammals, including humans.^{6 7} Today, mutated H5N1 is spreading among cattle in the U.S. and there are warnings that a bird flu pandemic could be coming.^{8 9}

Renewed interest in the dangers of GOF research were highlighted by a July 8, 2024 report published by the Heritage Foundation’s non-partisan Commission on China and COVID-19, which found the origin of the highly infectious and transmissible mutated SARS-CoV-2 virus “very likely stemmed from a research-related incident in China.” The report estimated that the COVID pandemic so far has cost the U.S. \$18 trillion in economic losses from excess deaths; lost income; chronic conditions like “long COVID,” as well as damage to mental health and education.^{10 11} Not factored into that equation was the damage done by the first genetically engineered mRNA lipid nanoparticle containing biological product ever to be injected into humans on a mass basis after the global pharmaceutical industry, in collaboration with the World Health Organization (WHO) and the U.S. and other governments, secured Emergency Use Authorization (EUA) to fast track the experimental product labeled a “vaccine” to market.¹²

In the meantime, after the milder West African clade II monkeypox outbreaks suddenly spread from the Congo to Europe, the U.S. and many other countries in 2022, drug companies and governments accelerated development of mRNA and other types of genetically engineered smallpox/monkeypox “vaccines” targeting DNA orthopoxviruses.^{13 14} Notably, on Mar. 26, 2024, the National Academies of Sciences, Engineering and

Medicine published a report *Future State of Smallpox Medical Countermeasures*¹⁵ and issued a press release warning that “action is needed to enhance U.S. readiness for smallpox and related diseases, as well as to improve diagnostics, vaccines, and therapeutics that could be used in case of an outbreak.”¹⁶

Monkeypox: First Identified in Lab Animals During Smallpox and Polio Vaccine Campaigns

The dreaded smallpox (variola) virus infection, which has been variously estimated to have plagued human populations for between 1,700 and 10,000 years, left many of those infected with permanent scars after suffering high fevers and lesions/pustules covering the body. There was an estimated 20 to 30 percent mortality rate or more among people with variola major infections common during the Middle Ages, especially for those who developed complications like encephalitis, pneumonia and sepsis and had no access to antibiotics, while people with variola minor that became more prevalent in the 19th century had less severe symptoms and a much lower one percent mortality.^{17 18}

For centuries, variolation or inoculation (scratching pus from a smallpox pustule onto a healthy person’s arm) was used to try to lessen the severity of smallpox. Beginning in the late 18th century, the practice of scratching cowpox pus onto a healthy person’s arm created the vaccinia virus, which is thought to be a human-cow or human-horse hybrid virus and serves as the foundation for live virus smallpox vaccines that were routinely administered in the U.S. until 1972 before the World Health Organization (WHO) declared smallpox eradicated in 1980.¹⁹

Monkeypox Virus 90 Percent Genetically Similar to Smallpox Virus

Smallpox (variola) is in a family of DNA orthopoxviruses, including cowpox, horsepox, camelpox, monkeypox, Alaskapox, Akhmeta virus and vaccinia virus.²⁰ [Chickenpox (varicella zoster) is a herpesvirus and not an orthopoxvirus, but it produces lesions/pustules that can sometimes be mistaken for monkeypox]. Virologists maintain that smallpox is the only orthopoxvirus that exclusively infects and is transmissible between humans, while monkeypox is transmissible from animals to animals and from animals to humans and, more recently, between humans.^{21 22} Monkeypox is thought to have emerged about 600 years ago in Africa and is 90 percent genetically similar to smallpox, which is why smallpox vaccines containing the vaccinia virus have been used to try to minimize the symptoms and spread of monkeypox.^{23 24}

The monkeypox virus, which is considered a zoonotic disease with an unconfirmed animal reservoir, was identified in 1958 in monkeys in a lab in Denmark during polio virus vaccine studies and, in 1970, the first human monkeypox infection was described in the medical literature in a nine-month old boy in the Democratic Republic of the Congo.^{25 26} Since then, monkeypox cases were confined to Africa until 2003, when there was a clade IIb outbreak in the U.S. that was traced to pet prairie dogs in the

Midwest reportedly infected by imported rodents from Africa, marking the first time that human monkeypox was found to occur outside of Africa.²⁷

Monkeypox Infection Reports on the Rise Since 2016

In 2018, there were reports that monkeypox cases were increasing in the Congo and other countries in Africa. Some public health officials have pointed to the cessation of smallpox vaccine campaigns in the 1980s, which they say presumably left the door open for orthopoxvirus infections like monkeypox to become more prevalent among humans as smallpox herd immunity waned.^{28 29 30}

In 2022, there were sudden outbreaks of West African clade IIb monkeypox reported in residents of the United Kingdom, Spain, Portugal, Sweden, Germany, France, Italy, Canada, the U.S. and other countries, primarily among men who have sex with men (MSM).^{31 32 33} Although thousands of suspected monkeypox cases have been reported in Africa annually for the past decade, the 2022 outbreak was global and included some 87,000 reported cases occurring in 110 other countries with 112 deaths.³⁴

According to the CDC, as of March 2024, there have been approximately 32,000 cases of monkeypox reported in the U.S. since 2022 with 58 deaths.³⁵

Smallpox and Monkeypox Have Similar Symptoms and Transmission Routes

Monkeypox symptoms, which can last two to four weeks, include rash, fever, chills, headache, muscle aches, fatigue, swollen lymph nodes, pain when swallowing, eye inflammation, oral sores and genital lesions, with complications including secondary bacterial infections of the skin, lungs and other organs, such as pneumonia and sepsis, as well as brain inflammation.^{36 37 38} Most monkeypox infections in humans so far have been caused by West African clade IIb, which is much milder than smallpox and has a one percent mortality rate. The majority of people recover, but those with HIV or other types of immune suppression and underlying health problems, people with a history of eczema, children under age one, and pregnant women are among those at higher risk for complications from monkeypox.³⁹

Not only are monkeypox symptoms very similar to smallpox symptoms but the main routes for monkeypox transmission are similar to smallpox transmission because people infected with orthopox viruses like variola, vaccinia and monkeypox can shed virus for several weeks in body secretions. [People who get live virus vaccines, like smallpox, oral polio, and nasal influenza⁴⁰ vaccines, also shed virus following vaccination.⁴¹] Transmission of monkeypox is through contact with an infected animal or close or direct contact with the skin lesions and body fluids of an infected person and through contact with inanimate objects like blankets, clothing and other objects that have come in contact with skin lesions or body fluids of an infected person. Exposure to larger respiratory droplets may also be involved in transmission.⁴²

Monkeypox, like many other infectious diseases, ⁴³ can be asymptomatic and there are outstanding questions about how many people are being infected but show few or no symptoms and then transmit the infection to others. ^{44 45}

One Monkeypox Strain Has Suddenly Mutated to Become More Virulent and Transmissible

There are two distinct phylogenetic clades of monkeypox viruses: West African (clade IIb) and Central African (clade Ib), with IIb being less severe than Ib. ⁴⁶

Until 2023, most of the monkeypox cases in Africa and all of those that had spread to other countries were associated with the milder clade II West African strain. In one paper published in 2022 analyzing the genetic diversity and evolutionary origin of the monkeypox virus, researchers explained that the West African clade IIb was responsible for a 2017-2018 outbreak in Africa and was also responsible for the 2022 outbreak that spread outside of Africa. However, they expressed surprise in discovering evidence that clade IIb had rapidly mutated between 2017 and 2022 to become more transmissible between humans for unclear reasons. ⁴⁷

Unlike coronavirus, which is an RNA virus and easily subject to rapid mutations, ⁴⁸ orthopox viruses, such as smallpox and monkeypox, are DNA viruses. DNA viruses are more stable and are not known to rapidly mutate. ⁴⁹

But in 2023, the Congo saw more than 19,000 monkeypox cases with 900 deaths caused by unexplained rapid mutation of the more serious Central African clade Ib, which is able to more easily infect and transmit between humans. Researchers note that one of the Central African clade Ib mutations may help the virus inhibit innate immune responses. ^{50 51}

The inhibition of innate immune responses is reminiscent of the lab mutated coronavirus (SARS-CoV-2) causing COVID-19 disease, which is known to cripple the human immune response and increase infectivity and transmission. ⁵²

Health Officials Say New Monkeypox Strain More Transmissible and Deadly

Global health officials are warning that the new mutated clade Ib monkeypox virus currently causing more deadly outbreaks in the Congo has the potential to cause a “global” outbreak because it is not only being spread by men who have sex with men and sex workers with multiple sexual partners, but is spreading within households, between mothers and their children, and in schools and workplaces in the Congo. ⁵³ A director of the Global Health Network at Oxford University alleges that in Africa there have been cases of person-to-person spread outside households and without sexual contact, giving rise to warnings by public health officials that the mutated monkeypox strain has pandemic potential. ⁵⁴

Public health officials in the Congo have asked the World Health Organization (WHO) and Gavi, the Vaccine Alliance, to expedite supplies of smallpox/monkeypox vaccines to at risk populations, but reportedly there are funding problems slowing down delivery. ⁵⁵

U.S. Congressional Committee Confronts NIH Agency for Monkeypox Gain-of-Function Research

While news about secret GOF research on monkeypox has become a recent topic of conversation in Congress and the media, evidence about the origin of the SARS-CoV-2 RNA virus causing COVID-19 disease ⁵⁶ continues to be debated within scientific circles and in the media, in many cases for political reasons. ⁵⁷ However, based on good evidence published in investigative reports, the majority of the informed public has already concluded that the suddenly mutated coronavirus responsible for so much pain and suffering ^{58 59} was created in biohazard labs by scientists, who were engaged in gain-of-function (GOF) research to make the coronavirus more deadly and transmissible using taxpayer money granted by the National Institutes of Health (NIH). ⁶⁰ There was a cover-up of that fact by the United Nation's WHO ⁶¹ and NIH official Dr. Anthony Fauci, ⁶² as the mutated coronavirus developed variants and efficiently spread through human populations between 2020 and 2023, and mutations and new variants continue to emerge today. ^{63 64}

At the same time, in late 2020, Big Pharma and government health officials fast-tracked release of a highly reactive mRNA biological product labeled a "vaccine" that hijacked cell function and, facilitated by oppressive COVID shot mandates and censorship of all criticism of the vaccine's risks, ^{65 66 67} has inflicted more pain and suffering on the people without preventing infection with and transmission of the mutated coronavirus. ^{68 69 70 71 72} Predictably, this inconvenient truth has compromised trust in the integrity and competence of scientists and public health officials. ^{73 74}

Now, the public is faced with yet another similar scandal involving the conducting of risky GOF research on monkeypox that, since 2015, was approved at the highest levels of the NIH. The story was broken by *Science* magazine in September 2022 in an article quoting an NIH scientist describing research to insert genes from the milder West African clade II monkeypox virus into the more dangerous Central African clade 1 virus to make it *less* virulent in mice, with plans to insert genes from clade I into clade II to make it *more* lethal for mice. The new hybrid virus would have the potential to evade the human immune system. ⁷⁵

In a special investigative report on monkeypox research published by the U.S. House Energy and Commerce Committee on June 11, 2024, it has become clear that scientists and public health officials at the highest levels of government failed to tell Congress and the public the whole truth about what they did to tinker with the monkeypox virus and for how long they have been doing it. ⁷⁶ In fact, government health officials are continuing to cover up exactly what kind of gain-of-function scientific experiments on monkeypox have been going on for eight years in an arrogant stonewalling of Congress and the

American people, ⁷⁷ who will be directly affected if the WHO and the CDC declare a mutated monkeypox pandemic in the future and call for universal orthopox vaccination.

Vaccinia Virus Smallpox Vaccines Repurposed to Tackle Monkeypox

The human/animal hybrid live vaccinia virus serves as the basis for smallpox vaccines that were used for two centuries in global eradication campaigns, ⁷⁸ and that orthopoxvirus is still being used today to try to control the spread of monkeypox. [The vaccinia virus has also been used by scientists as a vector to create other types of live virus vaccines.] ⁷⁹

Historically, smallpox (vaccinia) vaccines have always been notoriously reactive, especially among children, and that extreme reactivity provoked anti-mandatory smallpox vaccination campaigns in the 19th and early 20th centuries. ⁸⁰ More common reactions of smallpox (vaccinia) vaccination include high fevers (which can lead to febrile convulsions in young children), headache, swollen glands, fatigue and body aches, but the most serious complications that occur within three weeks are brain inflammation (encephalitis), ⁸¹ progressive vaccinia, and eczema vaccinatum. ⁸² Heart inflammation (myocarditis/pericarditis) ⁸³ was identified as a risk during smallpox vaccine vaccination programs mandated for U.S. military personnel instituted after Sept. 11, 2001. Soldiers were required to get vaccinia virus smallpox vaccine after U.S. government officials alleged that terrorists had “weapons of mass destruction” (WMD), including weaponized smallpox, ⁸⁴ although the rumored bioterrorism WMD were never found. ^{85 86}

There are two vaccinia virus vaccines currently licensed for use in the U.S.

- ACAM2000 is a second generation live replicating vaccinia virus vaccine that was licensed by the U.S. Food and Drug Administration in 2007 (when it was being manufactured by Acambis) and is recommended by the CDC for smallpox prevention, although ACAM2000 is also being used in some countries to try to prevent or lessen the severity of monkeypox and other orthopox viruses. ⁸⁷
- MVA-BN or JYNNEOS (also known as Imvamune or Imvanex) is a third generation live non-replicating genetically modified vaccinia virus vaccine licensed by the FDA in 2019 to prevent or lessen the severity of both smallpox and monkeypox. ⁸⁸

Differences Between Replicating and Non-Replicating Vaccinia Virus Vaccines for Smallpox and Monkeypox

A “replicating” vaccine is a live attenuated vaccine, such as vaccinia, measles, mumps rubella (MMR), oral polio vaccine (OPV), and chickenpox (varicella zoster), which contains a weakened form of a pathogen to stimulate an immune response that may replicate enough inside the body to cause unwanted disease symptom reactions. A “non-replicating” vaccine contains live, inactivated or genetically modified pathogens or

parts of pathogens and stimulates an immune response reportedly without replicating inside the body, although non-replicating vaccines can also provoke unwanted reactions. Live attenuated replicating vaccines have the reputation of stimulating stronger and longer lasting immunity than non-replicating vaccines.⁸⁹

ACAM2000:⁹⁰ The live virus replicating smallpox vaccine ACAM 2000 is manufactured by the U.S. biopharmaceutical company, Emergent Biosolutions, which also manufactures Biothrax anthrax vaccine in the Strategic National Stockpile. ACAM200 is derived from a clone of the same New York City Board of Health vaccinia strain that was grown on the skin of calves used to produce Dryvax vaccinia vaccine manufactured by Wyeth Laboratories and licensed by the U.S. Food and Drug Administration (FDA) in 1931.⁹¹ One dose using a bifurcated needle to pierce the skin is recommended by the CDC to prevent smallpox “for persons determined to be at high risk for smallpox infection,” although ACAM2000 is also being used in some countries to try to prevent monkeypox and other orthopox virus infections.

CDC officials state that:⁹²

“ACAM2000 is grown in African green monkey kidney (Vero) cells and tested to be free of known adventitious agents. Safety data from ACAM2000 clinical trials indicate a similar safety profile to Dryvax, including a risk for serious adverse events (e.g., progressive vaccinia, postvaccinial encephalitis, and eczema vaccinatum). Myopericarditis has also been associated with ACAM2000 and is estimated to occur at a rate of 5.7 per 1,000 primary vaccinees based on clinical trial data.”

The live ACAM2000 smallpox (vaccinia) vaccine ingredients include human serum albumin, sodium chloride, mannitol, trace amounts of neomycin and polymyxin B and diluent for ACAM2000 contains glycerin and, phenol. Contraindications for the use of ACAM2000 include a history of or current atopic dermatitis or other exfoliative skin conditions (eczema, burns, impetigo, chickenpox or herpes simplex virus infection, severe acne, severe diaper dermatitis, psoriasis); immune suppression (HIV/AIDS, leukemia, lymphoma, generalized malignancy); solid organ or stem cell transplant; high dose corticosteroids; autoimmune disease, such as lupus, with immunodeficiency; children under age one; pregnancy and breastfeeding, and underlying heart disease with or without symptoms. There is also a warning that “given the risk for vaccinia virus transmission from recently vaccinated persons through inadvertent inoculation, nonemergency use of ACAM2000 is also contraindicated in persons with household contacts” who have a history of those same conditions.⁹³

There is no information in the ACAM2000 product insert to indicate that any study was done to investigate carcinogenic or mutagenic potential or impairment of fertility, although the manufacturer warns the vaccine has not been studied in infants, children or pregnant or lactating women and that:⁹⁴

“ACAM2000 may rarely cause fatal infection, usually resulting in stillbirth or death” and “ACAM2000 live vaccinia virus vaccine may be transmitted to her infant causing

complications in the infants from inadvertent inoculation” and “ACAM2000 may be associated with an increased risk of serious complications in children, especially in infants younger than 12 months.”

In 2019, Emergent Biosolutions was awarded a 10-year \$2 billion contract with the Office of the Assistant Secretary for Preparedness and Response (ASPR) in the U.S. Department of Health and Human Services to provide ACAM2000 for the Strategic National Stockpile to “help protect against and respond to “an outbreak of smallpox related to accidental or intentional release of the virus.”⁹⁵

JYNNEOS (MVA-BN):⁹⁶ The live non-replicating JYNNEOS smallpox and monkeypox vaccine is manufactured by the Danish pharmaceutical company Bavarian Nordic A/S. It is derived from a genetically modified vaccinia virus (Vaccine Virus Ankara or MVA). Two doses using a regular (not bifurcated) needle are given at least four weeks apart either subcutaneously or intradermally (dose sparing) depending upon vaccine supply availability to persons aged 18 years and older who doctors determine to be at high risk for smallpox or monkeypox infection.

The CDC states:

“During the ongoing clade II MPXV outbreak (i.e., outbreak that began in 2022 affecting predominantly gay, bisexual, and other men who have sex with men), JYNNEOS has been the main vaccine used in the United States”⁹⁷ and recommends that “persons at risk for mpox exposure, who have not previously recovered from mpox (including certain gay, bisexual, and other men who have sex with men) complete the 2-dose JYNNEOS vaccination series.”⁹⁸

The product insert for JYNNEOS states:

“JYNNEOS is a live vaccine produced from the strain Modified Vaccinia Ankara-Bavarian Nordic (MVA-BN), an attenuated, non-replicating orthopoxvirus. MVA-BN is grown in primary Chicken Embryo Fibroblast (CEF) cells suspended in a serum-free medium containing no material of direct animal origin, harvested from the CEF cells, purified and concentrated by several Tangential Flow Filtration (TFF) steps including benzonase digestion.”

According to the manufacturer, JYNNEOS contains “infectious units of MVA-BN virus,” sodium chloride, protein, benzonase, gentamicin, ciprofloxacin and “may contain residual amounts of host-cell DNA.”

In human clinical trials of JYNNEOS, the majority of those vaccinated (51 to 85 percent) aged 18 to 40 years old experienced pain, redness and swelling at the injection site and over 30 percent reported muscle pain, headache and fatigue. Reported serious adverse events in clinical trials and post-marketing have included heart complications (myocarditis/pericarditis, tachycardia, palpitations); edema; rash; hives; dizziness and fainting; injection site vesicles; sarcoidosis (when the immune system overreacts and

leaves lumps/nodules on organs); Crohn's disease; and eye muscle paralysis. JYNNEOS was not tested in children or evaluated for carcinogenic or mutagenic potential or impairment of male fertility in animals. ⁹⁹

According to the manufacturer, the vaccine's effectiveness against smallpox "was inferred by comparing the immunogenicity of JYNNEOS to a licensed smallpox vaccine (ACAM2000)...and was supported by efficacy data from animal challenge studies: and the vaccine's effectiveness against monkeypox "was inferred from the immunogenicity of JYNNEOS in a clinical study and from efficacy data from animal challenge studies."¹⁰⁰ There are published reports of monkeypox breakthrough infections after receipt of JYNNEOS and researchers publishing a report of infection after two doses of the vaccine stated: "

"the level of circulating titers is not the only marker of protection conferred by mpox vaccinations. The role of innate and cell-mediated immunity in preventing MPXV infections is not known and the robustness of memory or recall response after an exposure might be more important determinants of disease outcome." ¹⁰¹

There are outstanding questions about the short and long-term effectiveness of JYNNEOS to prevent currently circulating monkeypox and the adequacy of pre-licensure testing of the vaccine. ¹⁰² In 2023, one researcher published an article pointing out that because ACAM2000 was approved by the FDA in 2007 using fast-tracked approval process that did not properly address clinical efficacy in preventing monkeypox, using ACAM2000 as a control to compare efficacy of JYNNEOS to prevent monkeypox is not scientifically sound. He said there is "incomplete understanding of the [monkeypox] virus, its current transmission and epidemiology," and "there is a clear need to better characterize JYNNEOS safety and the efficacy when used for pre- and post-exposure." ¹⁰³

According to the *New York Times*, the U.S. government invested more than \$2 billion over a period of 20 years beginning in 2003 to help Bavarian Nordic develop, test and manufacture an effective smallpox vaccine with fewer side effects than the live replicating vaccinia virus smallpox vaccines (Dryvax and ACAM2000). In a collaboration with the Biomedical Advanced Research and Development Authority (BARDA) in the U.S. Department of Health and Human Services (DHHS), Bavarian Nordic delivered millions of doses of JYNNEOS to the Strategic National Stockpile, even as by 2017, the majority of the product had expired. ¹⁰⁴

On Apr. 2, 2024, Bavarian Nordic announced that JYNNEOS, the only FDA-approved monkeypox vaccine, is now commercially available in the U.S. and not confined to the Strategic National Stockpile. From now on, doctors and other health care providers in private practice and in public health clinics, as well as pharmacies, can order JYNNEOS from wholesalers and distribution networks and make it available to patients. ¹⁰⁵

Here Come the mRNA Smallpox and Monkeypox Vaccines

Amid unanswered questions about why the monkeypox virus is suddenly mutating and becoming more virulent and transmissible among humans, it sure looks like the Public Health Empire is gearing up for a global monkeypox pandemic.¹⁰⁶ If it does come to pass, the solution they will offer is to make sure that everyone gets an orthopoxvirus vaccine, just like in the old days when every child was mandated to get the highly reactive smallpox vaccine without understanding just how lethal the side effects were and how many infants, children and adults would be injured or die from those side effects.

The difference between today and the old days is that people around the world are suffering with broad based immune dysfunction due to either infection with the lab mutated SARS-CoV-2 virus or injection with the lethal mRNA biological or both, and that makes the addition of another mRNA biological a potential prescription for disaster.

The mRNA platform used to make the COVID biological has not been proven to be safe or effective and yet, since the COVID biological was rushed to market without adequate testing, scientists all over the world have assumed that the mRNA platform is the one that should be used to create biological products targeting “every imaginable infectious disease”¹⁰⁷ and non-infectious disease¹⁰⁸ that has caused, is causing, or could cause human suffering in the future – including smallpox and monkeypox.^{109 110}

Scientists and vaccinologists inside and outside of governments anxious to jump on the mRNA “plug and play” platform bandwagon in 2022 began publishing articles in the medical literature extolling the virtues of using mRNA technology to quickly address the threat of a global monkeypox pandemic. Employees of Moderna, co-inventors with NIH (NIAID) of the fast-tracked mRNA Spikevax COVID shot, were among the first to publish. They noted the “imminent threat of additional zoonotic evens as well as the [monkeypox] virus’ evolving ability to drive human to human transmission” and “urgent need for the development of a MPXV-specific vaccine that is able to confer broad protection against evolving strains and related orthopoxviruses.”¹¹¹

In 2023, scientists in China published a paper on creation of multi-valent vaccines against monkeypox, stating:

“The swift responsible time and flexibility of mRNA vaccines provide an un-paralleled platform for rapid development of vaccines against any threat of pathogenic outbreaks. We developed an array of multi-valent MRNA vaccines that target monkeypox virus...”

¹¹²

In March of this year, vaccine developers at BioNTech, the German company that partnered with Pfizer to create and manufacture the mRNA Comirnaty COVID shot, published an article describing their creation of a multi-valent mRNA monkeypox virus vaccine (BNT166) that would protect against not only monkeypox but also related orthopoxviruses. They stated:

“The design of BNT166 draws extensively from the study of immune responses to live VACV [vaccinia virus] vaccines that formed the basis of the successful global campaign to eradicate smallpox.”

The Vacuum of Scientific Knowledge

The dream of every drug company marketing a biological product labeled a “vaccine” is that public health officials and lawmakers will mandate the purchase and use of that product for everyone,¹¹³ whether or not it causes injury and death or fails to prevent infection and transmission. Invoking the fear of smallpox and holding out the promise of eradication of orthopoxvirus disease, the way is being paved for the brave new world of genetically engineered mRNA orthopox “vaccines” that may well be fast tracked and mandated in the future without a real understanding of how much immune and brain dysfunction and death it will cause.

All you have to do is read the delusional article published on July 11 in the *New England Journal of Medicine* written by four well known vaccine risk denialists and forced vaccination proponents to appreciate just how huge the scientific knowledge gaps are when it comes to scientific understanding of how and why vaccines can injure and kill and who is at greater genetic, epigenetic and environmental risk for being harmed by vaccination.¹¹⁴ For more than 30 years, committees appointed by the National Academy of Sciences have repeatedly warned that there are not enough quality vaccine safety studies –studies that parents of vaccine injured children have been calling for since 1982 - to allow definitive conclusions to be made about causal relationships for the majority of reported vaccine complications causing harm, including those following receipt of COVID shots.¹¹⁵

The warnings by parents of smallpox vaccine injured children were ignored in the 19th century by the medical profession, government and industry,¹¹⁶ just like the warnings by parents of DPT vaccine injured children were ignored in the 20th century.¹¹⁷

So the band played on.

At this point, the public has good reason to be vaccine hesitant. We have good reason to question why there are so many pathogens suddenly mutating, like coronavirus and H5N1 avian influenza and monkeypox, which are prompting the accelerated development of more genetically engineered biological products called “vaccines” in a vacuum of scientific knowledge about how those products could compromise the biological integrity of humans.

References:

¹ McFall-Johnson M. [Experts are racing to contain ‘the most dangerous’ monkeypox virus yet before it causes a global outbreak](#). *Business Insider* July 3, 2024.

² Rigby J. [WHO, scientists call for urgent action on mpox strain](#). *Reuters* June 24, 2024.

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- ³ Times Now Digital. [Uganda On High Alert Over Monkeypox Outbreak in DR Congo; Know Symptoms and Preventive Measures](#). July 6, 2024.
- ⁴ Balocating T. [Emergence of new monkeypox strain heightens fears of global spread: Here's what to know](#). *National Post* July 9, 2024.
- ⁵ U.S. House Energy and Commerce Committee. [Interim Staff Report on Investigation Into Risky MPXV Experiment at the National Institute of Allergy and Infectious Diseases](#). June 11, 2024.
- ⁶ Piper K. [Biologists are trying to make bird flu easier to spread. Can we not?](#) *Vox* Feb. 17, 2019.
- ⁷ Kaiser J. [Making Trouble](#). *Science* Oct. 19. 2022.
- ⁸ Fisher BL. [Bird Flu Outbreaks and the WHO IHR Pandemic Treaty Push](#). *The Vaccine Reaction* Apr. 23, 2024.
- ⁹ Mallapaty S. [Bird flu could become a human pandemic. How are countries preparing?](#) *Nature* July 12, 2024.
- ¹⁰ Revell E. [Commission finds COVID pandemic causes \\$18 trillion in economic damage to U.S.](#) *Fox Business* July 8. 2024.
- ¹¹ Ratcliffe J. [Holding China Accountable for Its Role in the Most Catastrophic Pandemic of Our Time: COVID-19](#). *Heritage Foundation* July 8, 2024.
- ¹² Fisher BL. [Coronavirus Vaccines on a Fast Track as WHO Declares a Global Public Health Emergency](#), *National Vaccine Information Center* Feb. 5, 2020. In: [NVIC Coronavirus \(COVID-19\) Pandemic Special Report Series](#). National Vaccine Information Center.
- ¹³ Lozano JM, Muller S. [Monkeypox: potential vaccine development strategies](#). *Trends in Pharmacol Sci* 2023; 44(1).
- ¹⁴ Rcheulishvili N, Mao J, Papukashvili D et al. [Development of a Multi-Epitope Universal mRNA Vaccine Candidate for Monkeypox, Smallpox, and Vaccinia Viruses: Design and In Silico Analyses](#). *Viruses* 2023; 15.
- ¹⁵ National Academies of Sciences, Engineering and Medicine. [Future State of Smallpox Medical Countermeasures](#). *The National Academies Press* 2024.
- ¹⁶ National Academies of Sciences, Engineering and Medicine. [Action needed to improve U.S. Smallpox Readiness and Diagnostics, Vaccines and Therapeutics Says New Report](#). Mar. 26, 2024.
- ¹⁷ Mayo Clinic. [Smallpox](#). Apr. 7, 2023.
- ¹⁸ Centers for Disease Control & Prevention (CDC). [History of Smallpox](#). May 1, 2024.
- ¹⁹ Lee JJ. [Vaccinia](#). *Medscape* Jan. 12, 2012.
- ²⁰ Babkin IV, Bankina IN, Tikunova NV. [An update of orthopoxvirus molecular evolution](#). *Viruses* 2022; 14(2).
- ²¹ Zahmatyar M, Fazlollahi A, Motamedi A et al. [Human monkeypox: history, presentations, transmission, epidemiology, diagnosis, treatment, and prevention](#). *Front Med (Lausanne)* 2023; 10.
- ²² Cleveland Clinic. [Orthopoxvirus](#). Mar. 15, 2024.
- ²³ Babkin IV, Bankina IN, Tikunova NV. [An update of orthopoxvirus molecular evolution](#). *Viruses* 2022; 14(2).
- ²⁴ Reina J, Iglesias C. [Vaccines against monkeypox](#). *Med Clin* 2023; 160(7): 305-309.
- ²⁵ Ibid.

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- ²⁶ Ladnyj ID, Ziegler P, Kima E. [A human infection caused by monkeypox virus in Busankusu, Territory, Democratic Republic of the Congo](#). *Bull Wild Hlth Org* 1972; 46: 593-597.
- ²⁷ CDC. [Monkeypox Past US Cases and Outbreaks: 2003 Outbreak from Imported Mammals](#). Aug. 28, 2023.
- ²⁸ Masterson A. [Health authorities issue warning on monkeypox outbreak](#). *Cosmos* Mar. 19, 2018.
- ²⁹ Caceres M, Fisher BL. [Smallpox-like Disease Spreading in Africa](#). *The Vaccine Reaction* July 8, 2018.
- ³⁰ Khamees A, Awadi S, Al-Shami K et al. [Human monkeypox use in the shadow of the COVID-19 pandemic](#). *J Infect Public Health* 2023; 16(8): 1149-1157.
- ³¹ World Health Organization (WHO). [Multi-country monkeypox outbreak: situation update](#). June 4, 2022.
- ³² Angelo KM, Smith t, Campbrubi-Ferrer D et al. [Epidemiological and clinical characteristics of patients with monkeypox in the Geo Sentinal Network: a cross sectional study](#). *The Lancet Infect Dis* 2023; 23(2): 195-206.
- ³³ Crosato V, Formenti B, Gulletta M. [Perception and Awareness about Monkeypox and Vaccination Acceptance in an At-Risk Population in Brescia, Italy: An Investigative Survey](#). *AIDS and Behavior* 2024; 28: 1594-1600.
- ³⁴ WHO. [Mpox \(Monkeypox\)](#). Apr. 18, 2023.
- ³⁵ CDC. [Ongoing 2022 Global Outbreak Cases and Data](#). Mar. 5, 2024.
- ³⁶ WHO. [Multi-country monkeypox outbreak: situation update](#). June 4, 2022.
- ³⁷ Billioux BJ, Mbaya OT, Sejvar J et al. [Neurologic Complications of Smallpox and Monkeypox: A Review](#). *JAMA Neurol* 2022; 79(11): 1180-1186.
- ³⁸ CDC. [Key characteristic for identifying mpox](#). Aug. 30, 2023.
- ³⁹ CDC. [About Mpox](#). Apr. 18, 2024.
- ⁴⁰ Jackson D, Pitcher M, Hudson C et al. [Viral Shedding in Recipients of Live Attenuated Influenza Vaccine in the 2016–2017 and 2017–2018 Influenza Seasons in the United Kingdom](#). *Clin Infect Dis* 2020; 70(12): 2404-2413.
- ⁴¹ Fisher BL. [The Emerging Risks of Live Virus & Virus Vectored Vaccines: Vaccine Strain Virus Infection, Shedding and Transmission](#). *National Vaccine Information Center* 2014.
- ⁴² WHO. [Mpox \(monkeypox\)](#). Apr. 18, 2023.
- ⁴³ Craig R, Kunkel E, Crowcroft NS et al. [Asymptomatic Infection and Transmission of Pertussis in Households: A Systematic Review](#). *Clin Infect Dis* 2020; 70(1).
- ⁴⁴ Schirring L. [Study heightens concerns about asymptomatic monkeypox spread](#). *CIDRAP* Aug. 16, 2022.
- ⁴⁵ Reda A, El-Qushayri AE, Shah J. [Asymptomatic monkeypox infection: a call for greater control of infection and transmission](#). *The Lancet* Oct. 6, 2022; 4(1).
- ⁴⁶ McCollum AM, Damon IK. [Human Monkeypox](#). *Clin Infect Dis* 2014; 4(58).
- ⁴⁷ Desingu PA, Nagarajan K. [Genomic regions insertion and deletion in Monkeypox virus causing multi-country outbreak – 2022](#). *bioRxiv* June 28, 2022.
- ⁴⁸ Akkiz H. [Implications for the Novel Mutations in the SARS-CoV-2 Genome for Transmission, Disease Severity and the Vaccine Development](#). *Front Med (Lausanne)* 2021; 8.

-
- ⁴⁹ Bush E, Bendix A. [Smallpox vaccines can protect against monkeypox, and U.S. has 100 million doses](#). *NBC News* May 23, 2022
- ⁵⁰ Dai Y, Teng X, Hu D et al. [A peculiar evolutionary feature of monkeypox viruses](#). *bioRxiv* June 19, 2022.
- ⁵¹ Hollingham R. [What is mpox and why is it spreading?](#) *BBC* May 20, 2024
- ⁵² Leslie M. [How SARS-CoV-2 Battles Our Immune System](#). *Science* Oct. 13, 2022.
- ⁵³ Cullinan M. [New strain of monkeypox causes miscarriages and spreads rapidly without sexual contact, experts warn](#). *The Telegraph* June 24, 2024.
- ⁵⁴ McFall-Johnson M. [Experts are racing to contain 'the most dangerous' monkeypox virus yet before it causes a global outbreak](#). *Business Insider* July 3, 2024.
- ⁵⁵ Rigby J. [Congo authorities approve mpox vaccines to try to contain outbreak](#). *Reuters* June 27, 2024.
- ⁵⁶ Aamot C. [4 Years Later, CDC Documents on COVID-19's Origin in China Emerge As Oversight Wanes](#). *The Daily Signal* July 3, 2024.
- ⁵⁷ Mateus B. [The Wuhan "lab leak" fraud: A public witch-hunt against science and public health](#). *World Socialist Web Site* July 3, 2024.
- ⁵⁸ Lopez-Leon B, Wegman-Ostrosky T, Perelman C et al. [More than 50 long-term effects of COVID-19: a systematic review and meta-analysis](#). *Scientific Reports* 2021; 11(16144).
- ⁵⁹ Davis HE, McCorkell L et al. [Long COVID: major findings, mechanisms and recommendations](#). *Nature Reviews Microbiology* 2023; 21: 133-146.
- ⁶⁰ Christensen J. [NIH official finally admit taxpayers funded gain of function research in Wuhan – after years of denials](#). *New York Post* May 16, 2024.
- ⁶¹ United Nations. [COVID-19 'extremely unlikely' to have come from a lab, experts say](#). Feb. 9. 2021.
- ⁶² Britschgi C. [Anthony Fauci Gives Misleading, Evasive Answers About NIH-Funded Research at Wuhan Lab](#). *Reason Magazine* June 4, 2024.
- ⁶³ Carabelli AM, Peacock TP, Thorne LG et al. [SARS-CoV-2 variant biology: immune escape, transmission and fitness](#). *Nature Rev Microbiol* 2023; 21: 152-177.
- ⁶⁴ Katella K. [3 things to Know About FLiRT and LB.1, the new coronavirus strains](#). *Yale Medicine* June 28, 2024.
- ⁶⁵ Fisher BL. [Forced Vaccination Was Always the End Game](#). *National Vaccine Information Center* Sept. 22, 2021.
- ⁶⁶ Fisher BL. [Weaponizing COVID to Promote Collectivism](#). *National Vaccine Information Center* Sept. 15, 2022.
- ⁶⁷ Fisher BL. [Blacklisting and Censorship Violates Freedom of Thought, Speech and Conscience](#). *National Vaccine Information Center* Nov. 1, 2023.
- ⁶⁸ Bettini E, Locci M. [SARS-CoV-2 mRNA Vaccines: Immunological Mechanism and Beyond](#). *Vaccines* (Basel) 2021; 9(2).
- ⁶⁹ Verbeke R, Hogan MJ et al. [Innate immune mechanisms of mRNA vaccines](#). *Immunity* 2022; 55(11): 1993-2005.
- ⁷⁰ George J. [Rare Syndrome After COVID Vaccines Described – "Long vax" events often include neurologic symptoms](#). *MedPage Today* Dc. 1, 2023.
- ⁷¹ [MedAlerts.org](#). Search of Vaccine Adverse Event Reporting Database (VAERS) where VACCINE targets COVID-19 (COVID19 or COVID19-2) and Pfizer/BioNTech

(984,394 cases) and Moderna (559,776 cases) for a total of 1,544,170 adverse event reports as of June 28, 2024.

⁷² Sherman A. [Biden says that vaccinated people can't spread COVID. That's not what CDC says.](#) *Politifact* Dec. 22, 2021.

⁷³ Kennedy B, Tyson A, Funk G. [Americans' Trust in Scientists, Other Groups Declines.](#) *Pew Research* Feb. 15, 2022.

⁷⁴ NPR. [Poll Finds Public Health Has A Trust Problem.](#) May 14, 2021.

⁷⁵ Kupferschmidt K. [Moving Target.](#) *Science* Sept. 15, 2022.

⁷⁶ U.S. House Energy and Commerce Committee. [Interim Staff Report on Investigation Into Risky MPXV Experiment at the National Institute of Allergy and Infectious Diseases.](#) June 11, 2024.

⁷⁷ Kupferschmidt K. [House Republicans fault NIH for evasive answers on risky monkeypox virus study.](#) *Science* June 11, 2024.

⁷⁸ CDC. [Smallpox Vaccine Basics.](#) Aug. 8, 2022.

⁷⁹ Fisher BL. [The Emerging Risks of Live Virus & Virus Vected Vaccines: Vaccine Strain Virus Infection, Shedding and Transmission.](#) *National Vaccine Information Center* 2014.

⁸⁰ Fisher BL. [The Vaccinators Persecute Anyone Who Opposes Mandatory Vaccination.](#) In: It's Time to Declare Our Independence from the Vaccinators. *National Vaccine Information Center* June 29, 2023.

⁸¹ Miravalle A, Roos KL. [Encephalitis Complicating Smallpox Vaccination.](#) *Arch Neurol* 2003; 60(7): 925-928.

⁸² Vellozzi C, Lane JM, Averhoff F et al. [Generalized Vaccinia, Progressive Vaccinia and Eczema Vaccinatum Are Rare Following Smallpox \(Vaccinia\) Vaccination: United States Surveillance, 2003.](#) *Clin Infect Dis* 2003; 41(5).

⁸³ Halsell JS, Riddle JR, Atwood JE. [Myopericarditis Following Smallpox Vaccination Among Vaccinia-Naïve US Military Personnel.](#) *JAMA* 2003; 289(24): 3282-3289.

⁸⁴ Aibek K. [Smallpox: a disease and a weapon.](#) *Int J Infect Dis* 2004; 6(Suppl 2): 3-8.

⁸⁵ Fisher BL. [Smallpox & Forced Vaccination: What Every American Should Know.](#) *The Vaccine Reaction* Dec. 31, 2002

⁸⁶ Leitenberg M. [Biological Weapons and "Bioterrorism" in the First Years of the 21st Century.](#) *Conference on "The Possible Use of Biological Weapons by Terrorist Groups: Scientific, Legal and International Implications"* Apr. 3, 2003.

⁸⁷ CIDRAP. [FDA approves Acambis smallpox vaccine.](#) Sept. 4, 2007.

⁸⁸ U.S. Food and Drug Administration. [FDA approves first live, non-replicating vaccine to prevent smallpox and monkeypox.](#) Sept. 24, 2019.

⁸⁹ The College of Physicians of Philadelphia. [What Do Vaccines Do? Different Types of Vaccines.](#) Apr. 18, 2022.

⁹⁰ FDA. [Highlights for Prescribing Information for ACAM2000 \(Smallpox \(Vaccinia\) Vaccine, Live\).](#) March 2018.

⁹¹ FDA. [ACAM2000 \(Smallpox Vaccine\) Questions and Answers.](#) Aug. 19 2022.

⁹² CDC. [Use of Vaccinia Virus Smallpox Vaccine in Laboratory and Health Care Personnel at Risk for Occupational Exposure to Orthopoxviruses – Recommendations of the Advisory Committee on Immunization Practices \(ACIP\), 2015.](#) *MMWR* Mar. 18. 2016. 65(10): 257-262.

⁹³ Ibid.

-
- ⁹⁴ FDA. [Highlights for Prescribing Information for ACAM2000 \(Smallpox \(Vaccinia\) Vaccine, Live\)](#). March 2018.
- ⁹⁵ Emergent Biosolutions, Inc. [Emergent Biosolutions Announces the Executive of a Contract Option to Deliver ACAM2000 \(Smallpox \(Vaccinia\) Vaccine Live\) into the Strategic National Stockpile](#). May 20, 2023.
- ⁹⁶ FDA. [Highlights of Prescribing Information for JYNNEOS \(Smallpox and Monkeypox Vaccine, Live, Non-Replicating\)](#). 2023.
- ⁹⁷ CDC. [Interim Clinical Considerations for Use of JYNNEOS Vaccine for Mpox Prevention in the United States](#). Apr. 22, 2024.
- ⁹⁸ CDC. [Notes from the Field: Clade II Mpox Surveillance Update – United States, October 2023–April 2024](#). *MMWR* May 23, 2024; 73(20): 474-476.
- ⁹⁹ FDA. [Highlights of Prescribing Information for JYNNEOS \(Smallpox and Monkeypox Vaccine, Live, Non-Replicating\)](#). 2023.
- ¹⁰⁰ Ibid.
- ¹⁰¹ Guagliardo SAJ, Kracalik I, Carter RT et al. [Monkeypox Virus Infections After 2 Preexposure Doses of JYNNEOS Vaccine — United States, May 2022–May 2024](#). *MMWR* May 23, 2024.; 73(20): 450-466.
- ¹⁰² Pittman PR, Hahn M, Lee HS et al. [Phase 3 Efficacy Trial of Modified Vaccinia Ankara as a Vaccine against Smallpox](#). *NEJM* 2019; 381: 189701908.
- ¹⁰³ Sun W. [Monkeypox, smallpox, FDA, and accelerated approval of vaccines – A regulatory perspective](#). *Vaccine* 2023; 41(25): 3681-3682.
- ¹⁰⁴ Goldstein J. [How the U.S. Let 20 Million Doses of Monkeypox Vaccine Expire](#). *New York Times* Aug. 1, 2022.
- ¹⁰⁵ Bavarian Nordic A/S. [Bavarian Nordic Announces Commercial Launch of Mpox Vaccine in the U.S.](#) Apr. 2, 2024.
- ¹⁰⁶ Roper RI, Garzino-Demos A, Del Rio C et al. [Monkeypox \(Mpox\) requires continued surveillance, vaccines, therapeutics and mitigating strategies](#). *Vaccine* 2023; 4(20): 3171-3177.
- ¹⁰⁷ Penn Medicine. [World-Changing mRNA Vaccines from Penn Medicine](#). 2024.
- ¹⁰⁸ Boyle P. [mRNA technology promises to revolutionize future vaccines and treatments for cancer, infectious diseases](#). *AAMC News* Mar. 28, 2021.
- ¹⁰⁹ Ankrah PK, Ilesanmi A, Akinyemi A et al. [Clinical Analysis and Applications of mRNA Vaccines in Infectious Diseases and Cancer Treatment](#). *Cureus* 2023; 15(10).
- ¹¹⁰ Natami M, Gorgzadeh A, Gholipour A et al. [An overview on mRNA-based vaccines to prevent monkeypox infection](#). *J Nanobiotechnology* 2024; 22:86.
- ¹¹¹ Freyn AW, Atyeo C, Earl PL et al. [A monkeypox mRNA-lipid. Nanoparticle vaccine targeting virus binding, entry, and transmission drives protection against lethal orthopoxviral challenge](#). *bioRxiv* Dec. 19, 2022.
- ¹¹² Zhang N, Cheng X, Zhu Y et al. [Multi-valent mRNA vaccines against monkeypox enveloped or mature viron surface antigens demonstrate robust immune response and neutralizing activity](#). *Sci China Life Sci* June 1, 2023.
- ¹¹³ Fortune Business Insights. [Vaccines Market Size, Share and Industry Analysis 2024-2032](#). June 24, 2024.
- ¹¹⁴ Salmon DA, Orenstein WA, Plotkin SA, Chen RT. [Funding Postauthorization Vaccine Safety Science](#). *N Eng J Med* 2024; 391(2): 102-105.

¹¹⁵ Fisher BL. [Unknown Risks of COVID Shot Harm Revealed in New Report](#). *The Vaccine Reaction* May 13, 2024.

¹¹⁶ Fisher BL. [It's Time to Declare Our Independence from the Vaccinators](#). *National Vaccine Information Center* June 29, 2023.

¹¹⁷ Fisher BL. National Academy of Sciences Institute of Medicine Vaccine Safety Forum. Invited presentations to public workshops of the IOM Vaccine Safety Forum: [Vaccine Adverse Event Detection Methodologies](#) and [Vaccine Adverse Event Reporting and Data Collection](#) and [Adverse Event Response Methodologies](#) Nov. 6, 1995; [Vaccine Safety Research Needs: Perspective from Parents](#) Apr. 1, 1996; [Risk Communication and Vaccination](#) May 13, 1996. Invited oral presentation to Institute of Medicine Committee on Assessment of Studies of Health Outcomes Related to the Recommended Childhood Immunization Schedule: [Public Perspective on Scientific Studies Evaluating Health Outcomes of Children Who Have and Have Not Been Vaccinated According to the Federally Recommended Vaccine Schedule](#) Feb. 9, 2012.

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