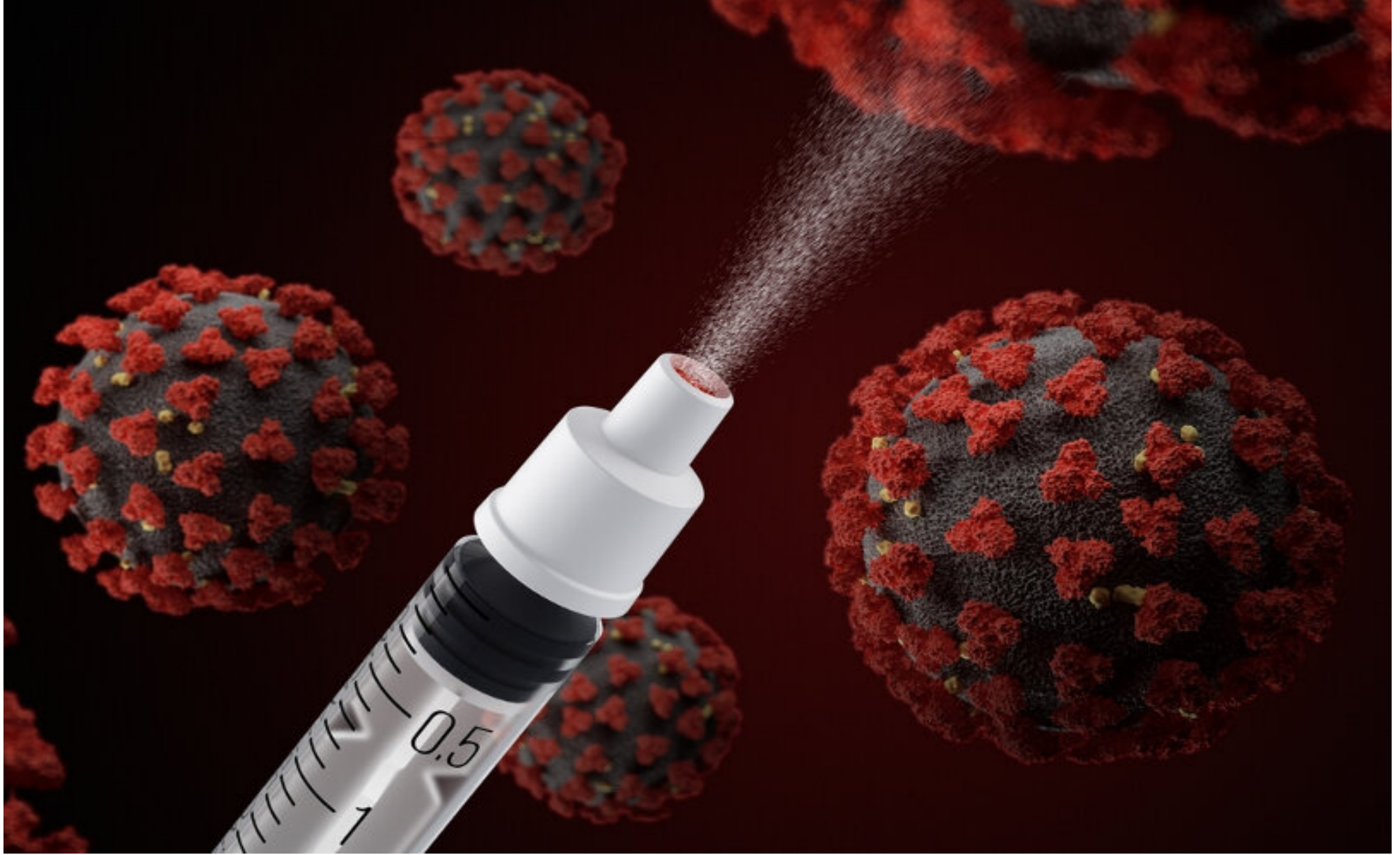


*OPINION*

New 'air vax' delivers  
mRNA right to your  
lungs, raising serious  
bioethical concerns

Researchers say this new 'air vax' method could 'radically change the way people are vaccinated,' but it could also be used to rapidly vaccinate the masses without their knowledge or consent.



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## STORY AT-A-GLANCE

- Yale University researchers have developed an airborne method for delivering mRNA right to your lungs.
- In a study on mice, the scientists created polymer nanoparticles to encapsulate mRNA, making it inhalable.
- Researchers say this “new method of delivery could ‘radically change the way people are vaccinated,’” making it easier to vaccinate people in remote areas or those who are afraid of needles.

- An airborne mRNA product could be used to rapidly vaccinate the masses, without their knowledge or consent.
- Academic endorsement exists for the use of compulsory, covert bioenhancements, including drugs and vaccines, on the public; the U.S. government also has a history of covert bioweapon experiments.

(Mercola) — Yale University researchers have developed a new airborne method for delivering mRNA right to your lungs. The team has also used the method to vaccinate mice intranasally, opening the door for human testing in the near future.

While scientists are hailing the creation as an easy way to vaccinate the masses, critics wonder if the development of an airborne vaccine could be used for nefarious purposes, including covert bioenhancements, which have already been recommended in academic literature.

## **Yale team develops airborne mRNA, delivers it to lungs**

In a study on mice, Yale scientists created polymer nanoparticles to encapsulate mRNA, making it inhalable so it can reach the lungs. Courtney Malo, editor with *Science Translational Medicine*, which published the study, explained:

The ability to efficiently deliver mRNA to the lung would have applications for vaccine development, gene therapy, and more. Here, Suberi et al. showed that such mRNA delivery can be accomplished by encapsulating mRNAs of interest within optimized poly(amine-co-ester) polyplexes [nanoparticles].

Polyplex-delivered mRNAs were efficiently translated into protein in the lungs of mice with limited evidence of toxicity. This platform was successfully applied as an intranasal SARS-CoV-2 vaccine, eliciting robust immune responses that conferred protection against subsequent viral challenge. These results highlight the potential of this delivery system for vaccine applications and beyond.

The team, led by cellular and molecular physiologist Mark Saltzman, explained that the inhalable mRNA vaccine successfully protected against SARS-CoV-2, which “opens the door to delivering other messenger RNA (mRNA) therapeutics for gene replacement therapy and other treatments in the lungs.”

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For the study, mice received two intranasal doses of nanoparticles carrying mRNA COVID-19 vaccines, which proved to be effective in the animals. In the past, lung-targeted mRNA therapies had trouble making it into the cells necessary to express the encoded protein, known as poor transfection efficiency.



“The Saltzman group got around this hurdle in part by using a nanoparticle made from poly(amine-co-ester) polyplexes, or PACE, a biocompatible and highly customizable polymer,” a Yale University news release explained. In a previous study, Saltzman had tried a “prime and spike” system to deliver COVID-19 shots, which involved injecting mRNA shots into a muscle, then spraying spike proteins into the nose.

It turned out the injection portion may be unnecessary, and Saltzman has high hopes for the airborne delivery method, beyond vaccines:

In the new report, there is no intramuscular injection. We just gave two doses, a prime and a boost, intranasally, and we got a highly protective immune response. But we also showed that, generally, you can deliver different kinds of mRNA. So it's not just good for a vaccine, but potentially also good for gene replacement therapy in diseases like cystic fibrosis and gene editing.

We used a vaccine example to show that it works, but it opens the door to doing all these other kinds of interventions.

**Air vax could 'radically change' how people are vaccinated**

Saltzman says this “new method of delivery could ‘radically change the way people are vaccinated,’” making it easier to vaccinate people in remote areas or those who are afraid of needles. But that’s not all. An airborne vaccine makes it possible to rapidly disseminate it across a population.

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By releasing the vaccine in the air, there’s no need to inject each person individually – which is not only time-consuming but difficult if an individual objects to the shot. This isn’t the case with an airborne vaccine, which can be released into the air without consent or even the public’s knowledge.

A similar strategy is being used with mRNA in shrimp, which are too small and numerous to be injected individually. Instead, an oral “nanovaccine” was created to stop the spread of a virus. Shai Ufaz, chief executive officer of ViAqua, which developed the technology, stated:

Oral delivery is the holy grail of aquaculture health development due to both the impossibility of vaccinating individual shrimp and its ability to substantially bring down the operational costs of disease management while improving outcomes...

While the Yale scientists are targeting an intranasal mRNA product, the outcome is the same – get as many exposed as possible with the least amount of cost and effort. According to the Yale study:

An inhalable platform for messenger RNA (mRNA) therapeutics would enable minimally invasive and lung-targeted delivery for a host of pulmonary diseases. Development of lung-targeted mRNA therapeutics has been limited by poor transfection efficiency and risk of vehicle-induced pathology.

Here, we report an inhalable polymer-based vehicle for delivery of therapeutic mRNAs to the lung. We optimized biodegradable poly(amine-co-ester) (PACE) polyplexes [nanoparticles] for mRNA delivery using end-group modifications and polyethylene glycol. These polyplexes achieved high transfection of mRNA throughout the lung, particularly in epithelial and antigen-presenting cells.

We applied this technology to develop a mucosal vaccine for severe acute respiratory syndrome coronavirus 2 and found that intranasal vaccination with spike protein–encoding mRNA polyplexes induced potent cellular and humoral adaptive immunity and protected susceptible mice from lethal viral challenge. Together, these results demonstrate the translational potential of PACE polyplexes for therapeutic delivery of mRNA to the lungs.

**U.S. government has history of bioweapons release**

When you put the pieces of the puzzle together, a disturbing picture emerges. As reported by *The Epoch Times*, we have a history of the U.S. government taking extreme measures to mandate and promote COVID-19 shots to the public. Now, researchers have developed an airborne mRNA vaccine, offering a vehicle by which to rapidly vaccinate the masses without their knowledge or consent.

Is there proof that the government or another entity has plans to covertly release an air vax on the population? No. But there is a history of it carrying out secret bioweapon simulations on Americans. In 1950, the U.S. Navy sprayed *Serratia marcescens* bacteria into the air near San Francisco over a period of six days.

**READ: [New survey finds most Americans don't plan on getting new COVID shot](#)**

Dubbed “Operation Sea Spray,” the project was intended to determine how susceptible the city was to a bioweapon attack. *Serratia marcescens* turns whatever it touches bright red, making it easy to track. It spread throughout the city, as residents inhaled the microbes from the air. While the U.S. military initially thought *Serratia marcescens* wouldn’t harm humans, an outbreak occurred, with some developing urinary tract infections as a result.

At least one person died “and some have suggested that the release forever changed the area’s microbial ecology,” *Smithsonian Magazine* reported. This wasn’t an isolated incident, as the U.S. government carried out many other experiments across the U.S. over the next 20 years. So, while it’s disturbing to think of an air vax experiment being conducted on an unsuspecting public, it’s not unprecedented.



# Bioethics study promotes covert, compulsory bioenhancement

Adding to the story is academic endorsement of the use of compulsory, covert bioenhancements. Writing in the journal Bioethics, Parker Crutchfield with Western Michigan University, Homer Stryker M.D. School of Medicine, discusses moral bioenhancements, which refers to the use of biomedical means to trigger moral improvements.

Drug treatments, including vaccines, and genetic engineering are potential examples of bioenhancements. Further, according to Crutchfield:

It is necessary to morally bioenhance the population in order to prevent ultimate harm. Moral bioenhancement is the potential practice of influencing a person's moral behavior by way of biological intervention upon their moral attitudes, motivations, or dispositions.

The technology that may permit moral bioenhancement is on the scale between nonexistent and nascent, but common examples of potential interventions include infusing water supplies with pharmaceuticals that enhance empathy or altruism or otherwise intervening on a person's emotions or motivations, in an attempt to influence the person's moral behavior.

**READ: 'Definite causal link' between COVID vaccine rollouts and peaks in all-cause mortality, new study finds**

Some argue that moral bioenhancements should be compulsory for the greater good. Crutchfield believes this doesn't go far enough. He also wants them to be covert:

I take this argument one step further, arguing that if moral bioenhancement ought to be compulsory, then its administration ought to be covert rather than overt. This is to say that it is morally preferable for compulsory moral bioenhancement to be administered without the recipients knowing that they are receiving the enhancement.

He even goes so far as to suggest “a covert compulsory program promotes values such as liberty, utility, equality and autonomy better than an overt program does.” So here we have evidence of academic support for covertly releasing drugs and other bioenhancements onto the public. This, combined with the creation of an airborne mRNA vaccine and the government’s history of experimenting on the public, paints an unsettling picture of the future.

**Problems with mRNA COVID shots persist**

Aside from the concerns of airborne delivery, mRNA COVID-19 shots are associated with significant risks – no matter how you're exposed. People ages 65 and older who received Pfizer's updated (bivalent) COVID-19 booster shot may be at increased risk of stroke, according to an announcement made by the U.S. Centers for Disease Control and Prevention and the Food and Drug Administration.

**READ: Dr. Robert Malone: How the US gov't manipulated data and language to coerce COVID shots**

Further, a large study from Israel revealed that Pfizer's COVID-19 mRNA jab is associated with a threefold increased risk of myocarditis, leading to the condition at a rate of 1 to 5 events per 100,000 persons. Other elevated risks were also identified following the COVID jab, including lymphadenopathy (swollen lymph nodes), appendicitis and herpes zoster infection.

At least 16,183 people also say they've developed tinnitus after receiving a COVID-19 shot. The reports were filed with the CDC's Vaccine Adverse Event Reporting System (VAERS) database. But considering only between 1 percent and 10 percent of adverse reactions are ever reported to VAERS, the actual number is likely much higher.

It's because of risks like these that informed consent is essential for any medical procedure, including vaccinations. The development of airborne mRNA jabs, however, makes the possibility of informed consent being taken away all the more real.

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