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One Flu Over the Cuckoo's Nest

A letter from David A. Brenner, MD, President and CEO of Sanford Burnham Prebys

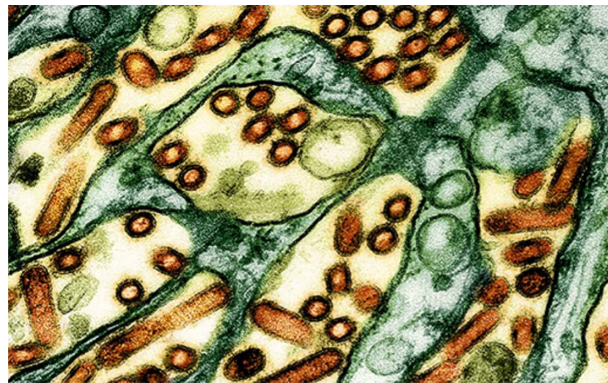
It's safe to say that researchers and research institutions in the United States were not prepared for the breadth and depth of the Trump administration's assault on science, from radical cuts in funding support to eliminating diversity and opportunity to driving scientists, young and older, to change careers.

Now, it seems, the rest of us may be less prepared for the next pandemic, or the next flu season.

In May, the Department of Health and Human Services (HHS) notified the pharmaceutical company Moderna that it was [canceling a nearly \\$600 million contract](#) with the company to develop, test and license vaccines for flu subtypes that could trigger future pandemics, including the H5N1 bird flu virus, of which there have already been [70 confirmed cases](#) in the U.S., and one death.

Currently, the bird flu primarily afflicts animals, mostly cattle and poultry, with humans becoming infected through close proximity to infected animals. There are no known cases of person-to-person spread, at least in the U.S.

But that will likely change because viruses notoriously change, constantly evolving to improve their abilities to move from host to new host, to infect and survive. H5N1 has the potential to be highly contagious. And what most worries public health officials is that the H5N1 virus is notably virulent. It has a case-fatality rate (CFR) of 50 percent, meaning that if there are 100 confirmed cases of the disease, 50 will result in death.



Between 2003 and February 2025, the [World Health Organization](#) recorded 972 confirmed cases of H5N1 influenza in humans, leading to 468 deaths.

CFRs vary over time and by place. They are dynamic. In the early stages of the COVID-19 pandemic, for example, the CFR for the SAR-CoV-2 virus was upwards of 20 percent — one in five persons infected died — but as understanding, testing and treatments improved and the virus evolved to be less pathogenic but more infectious, the CFR dropped to as low as 0.7 percent.

But that's small solace in the beginning. COVID-19 killed millions in the year or so before effective treatments emerged and more importantly, vaccines like those produced by Moderna and Pfizer became widely available. A bird flu pandemic would be comparably devastating, maybe more so.

The HHS cancellation of its Moderna contract reflects a deep distrust and misunderstanding of science and public health policy. Led by U.S. Health Secretary Robert F. Kennedy, the Trump Administration has advanced the entirely debunked and disreputable position that [vaccines pose a broad and unacceptable danger to humans](#).

Lacking any training or expertise, Kennedy is openly skeptical of vaccines. He has ordered the Centers for Disease Control and Prevention (CDC) to [no longer recommend COVID-19 shots](#) for healthy people during childhood or pregnancy, a major safeguard against the pandemic returning.

And this week took the extraordinary step of [firing the expert panel](#) that advises the CDC on immunizations, alleging the action was needed to restore faith in vaccine science. The [panel](#), all distinguished physicians and scientists, are charged with reviewing data on vaccines, debating evidence and voting on who should get shots and when. Insurance companies and government programs like Medicaid are required to cover vaccines recommended by the panel.

Kennedy claimed the panel fueled division and undermined public trust, that it was a creature of politics, noting that two-thirds of the panel had been appointed by the Biden administration. He has since named [eight replacements](#), four of whom have previously spoken out against vaccination in some way, including [Robert Malone, MD](#), who once falsely claimed to be the inventor of mRNA before becoming an inflammatory and misinformed anti-vaccine conspiracy theorist.

Kennedy's thinking (it can't rightly be called a rationale since that implies a set of reasons or a basis in logic) is deeply flawed, absolutely political and borders on irresponsible.

"I don't think there's any way to put this, other than saying that (the panel's firing) is an unmitigated public health disaster," Sean O'Leary, MD, chair of the infectious disease committee for the American Academy of Pediatrics, told [The New York Times](#).

As in the past, Kennedy is lashing out at those who challenge his "facts" and assertions, going so far as to recently suggest that government scientists should be [foreclosed from publishing](#) their work in prestigious medical journals like *Science*, *Nature*, *The Lancet* and *The New England Journal of Medicine*. Kennedy claims these journals have been "corrupted" by the pharmaceutical industry.

That's ridiculous. To be sure, scientific journals have their shortcomings and make mistakes. But for most journals, especially those considered high impact, the peer review and editorial processes are incredibly rigorous as befits the stringent requirements of science. And as I can attest as an editor, article selection is completely separate from the commercial support of the journal.

And certainly the pharmaceutical industry has its issues. There are plenty of problems to complain about, but vaccine development is not one of them. Moderna and Pfizer, along with other companies, rushed into the breach in the early days of the COVID-19 pandemic, leveraging a new mRNA technology to create effective vaccines with unprecedented speed.

“Never in the history of mankind have such monumental scientific discoveries been made and deployed into practice in such a rapid and effective way,” wrote Michael Saag, MD, associate dean for global health and a professor of medicine at the University of Alabama at Birmingham in a post-pandemic review published in the journal [Physiology Review](#).

It’s my guess that Kennedy missed the article.

Kennedy and the National Institutes of Health have actively and intentionally moved away from promising technologies like mRNA vaccines — without any sound scientific reasons. (See my March 26 letter: Shot Sighted). The Moderna contract cancellation is just the latest, egregious act of ignorance.

Moderna was already in the midst of a Phase I/II clinical trial of its mRNA-based H5N1 vaccine. It had reported [early encouraging results](#): The vaccine generated a quick and robust response, with 97.8 percent of trial participants showing antibody levels believed to be protective three weeks after a second dose. (The vaccine would need to be given in two doses because humans do not have immunity to bird flu viruses.)

Adding injury to injury, the HHS also canceled a [\\$176 million contract](#) with Moderna, only signed last year, to develop mRNA-based vaccines to head off other future viral outbreaks.

Trump Administration officials insist these actions are in the name of public health and safety — and maybe saving some money.

“After a rigorous review, we concluded that continued investment in Moderna’s H5N1 mRNA vaccine was not scientifically or ethically justifiable,” wrote Andrew Nixon, director of White House Communications, in an email.

“This is not simply about efficacy — it’s about safety, integrity and trust,” Nixon continued. “The reality is that mRNA technology remains undertested, and we are not going to spend taxpayer dollars repeating the mistakes of the last administration, which concealed legitimate safety concerns from the public.”

It’s not clear what those safety concerns were. Integrity appears to mean something different in the Trump administration, which appears adamant about making new mistakes all by itself. When the next pandemic invariably arises, we can all expect to pay a heavy and deadly price.

Sincerely,

A handwritten signature in black ink that reads "David A. Brenner". The signature is written in a cursive, flowing style.

David A. Brenner, MD
President and Chief Executive Officer
Donald Bren Chief Executive Chair