

COVID-19 Vaccines Likened to 'Software Updates' for Your Body

Analysis by Dr. Joseph Mercola



STORY AT-A-GLANCE

- > Moderna describes mRNA products as "gene therapy technology" in its SEC filing. BioNTech's SEC filing also specifies that in the U.S. and Europe, mRNA therapies are classified as "gene therapy medicinal products"
- > mRNA technology has, since the start, been recognized as a form of gene therapy, but one that doesn't permanently alter your DNA. However, some medical experts worry that mRNA injections might be able to reverse-transcribe into your genome and in fact alter your DNA on a more permanent basis
- > A study by MIT and Harvard scientists demonstrates that segments of RNA from SARS-CoV-2 are reverse-transcribing into the human genome, likely becoming a permanent fixture in human DNA. This has been thought impossible for the same reasons used to assure us that vaccine RNA cannot alter DNA
- In a 2017 TED Talk, Dr. Tal Zaks, chief medical officer of Moderna, describes the company's mRNA vaccines as "information technology," and likens mRNA to your body's operating system. As such, mRNA injections are human "software updates," thereby ushering in transhumanism
- A Peruvian research professor warns that transhumanism is part and parcel of the Great Reset and the Fourth Industrial Revolution agendas, which are being rolled out at a furious pace under the auspices of the COVID-19 pandemic

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I've discussed why COVID-19 vaccines are in fact gene therapies and not vaccines in several previous articles. However, despite being a recognized form of gene therapy since its inception, vaccine makers are now frantically trying to deny that this mRNA technology is gene therapy. One reason for this, suggested by David Martin, Ph.D.,¹ might be because as long as they're considered "vaccines," they will be shielded from liability.

Experimental gene therapies do not have financial liability shielding from the government, but vaccines do, and that includes pandemic vaccines, even in the experimental stage, as long as the emergency use authorization is in effect. And now that Pfizer's BioNTech "vaccine," Comirnaty, has been officially approved by the FDA,² it will have the conventional vaccine liability shield — IF the fact that it was introduced and defined as gene therapy is ignored.

The thing is, more and more people are beginning to understand just what these gene therapies do. As Bloomberg put it,³ the mRNA is genetically programmed to:

"... immunize people ... by harnessing human cells to become miniature vaccine factories in their own right. Instead of virus proteins, the vaccines contain genetic instructions that prompt the body to produce them. Those instructions are carried via messenger RNA, or mRNA."

Another reason why the gene therapy makers don't want these jabs recognized as such might be because they fear people won't line up for them if they're identified as an experimental gene therapy. "Gene therapy" simply has a very different connotation in people's minds (as it should).

A third possibility is that they know full well that you cannot, ethically, mandate gene therapy in the way you can mandate vaccines. Mandatory public health measure directives are typically based on the idea that it's acceptable for some individuals to be harmed as long as the measure benefits the collective.

Well, the COVID-19 "vaccines" are only designed to lessen symptoms of COVID-19. They do not prevent infection or spread, and since the vaccinated individual is the only one receiving a potential benefit, "the greater good" argument falls apart.

Who knows, there may be other factors at play that we've not realized as of yet, but whatever the reason, they really do not want you to think of these injections as gene therapy. They want you to accept them as any other conventional vaccine.

mRNA-Based Medicines Designed to Not Irreversibly Alter DNA

Try as they might, though, they cannot get rid of mRNA's gene therapy label. For starters, Moderna describes its product as "gene therapy technology" in its SEC filings. On page 70, they also provide the following specifics:⁴

"Currently, mRNA is considered a gene therapy product by the FDA. Unlike certain gene therapies that irreversibly alter cell DNA and could act as a source of side effects, mRNA-based medicines are designed to not irreversibly change cell DNA; however, side effects observed in gene therapy could negatively impact the perception of mRNA medicines despite the differences in mechanism."

In other words, it's a form of gene therapy, but one that doesn't enter and permanently alter your actual DNA. Instead, the mRNA stays in the cellular fluid where ribosomes read the code and create the protein per the mRNA's coding.

The difference between vaccine mRNA and your natural mRNA is that your natural mRNA resides in the nucleus of the cell where your cellular DNA resides — it can be likened to a reverse photocopy of your DNA — and exits the nucleus when a protein needs to be made.

This is in stark contrast to mRNA from vaccines, which is synthetic and enters the cell from the outside and is not designed to enter the nucleus. Additionally, your own mRNA is rapidly degraded by enzymes, but the one from the vaccine is protected in a liposome

that will protect it from degradation and keep on producing spike proteins. How long? No one knows because it has never been tested.

Can Vaccine mRNA Reverse-Transcribe Into Genome?

However, some doctors still worry that mRNA injections might be able to reverse-transcribe into your genes and alter your DNA on a permanent basis. One is Dr. Richard Urso, an ophthalmologist, who shared his concerns on a December 2020 episode of The Shepard Ambellas Show.^{5,6}

He claimed the mRNA of retroviruses (which are part of our genome) have been shown to have the ability to transcribe into your DNA, and if it can do that, vaccine mRNA might be able to do this as well. According to Urso, if this turns out to be correct, the result of mRNA vaccination might be lifelong COVID-19.

66 A new study by MIT and Harvard scientists demonstrates that segments of the RNA from the coronavirus itself are most likely becoming a permanent fixture in human DNA. This was once thought near impossible, for the same reasons which are presented to assure us that an RNA vaccine could accomplish no such feat. ~ Dr. Doug Corrigan ??

Another skeptic is Dr. Doug Corrigan, who in a March 16, 2021, blog reviewed the findings of recent research^{7,8} showing SARS-CoV-2 RNA can reverse-transcribe into the human genome:⁹

"In my previous blog, 'Will an RNA Vaccine Permanently Alter My DNA?'10 I laid out several molecular pathways that would potentially enable the RNA in an mRNA vaccine to be copied and permanently integrated into your DNA.

I was absolutely not surprised to find that the majority of people claimed that this prospect was impossible ... After all, we've been told in no uncertain terms that it would be impossible for the mRNA in a vaccine to become integrated into our DNA, simply because 'RNA doesn't work that way.'

Well, this current research which was released not too long after my original article demonstrates that yes, indeed, 'RNA does work that way'... Specifically, a new study^{11,12} by MIT and Harvard scientists demonstrates that segments of the RNA from the coronavirus itself are most likely becoming a permanent fixture in human DNA.

This was once thought near impossible, for the same reasons which are presented to assure us that an RNA vaccine could accomplish no such feat. Against the tides of current biological dogma, these researchers found that the genetic segments of this RNA virus are more than likely making their way into our genome.

They also found that the exact pathway that I laid out in in my original article is more than likely the pathway being used (retrotransposon, and in particular a LINE-1 element) for this retro-integration to occur.

And, unlike my previous blog where I hypothesize that such an occurrence would be extremely rare (mainly because I was attempting to temper expectations more conservatively due to the lack of empirical evidence), it appears that this integration of viral RNA segments into our DNA is not as rare as I initially hypothesized ...

To be fair, this study didn't show that the RNA from the current vaccines is being integrated into our DNA. However, they did show, quite convincingly, that there exists a viable cellular pathway whereby snippets of SARS-CoV-2 viral RNA could become integrated into our genomic DNA. In my opinion, more research is needed to both corroborate these findings, and to close some gaps."

A January 2020 Phys.org article,¹³ "Modified RNA Has a Direct Effect on DNA," also notes that "it has now been revealed that RNA has a direct effect on DNA stability," and

this too may or may not play a role in mRNA therapy for COVID-19.

Vaccine Makers Fear Negative Perception of Gene Therapy

Getting back to Moderna's SEC filing, in it, they also admit that public perception of other types of gene therapy may negatively impact perception of mRNA medicines. The problem, they admit, is that irreversible gene therapies have side effects, and knowing this, people might shun mRNA medicines too. The SEC filing goes on to note:14

"Because no product in which mRNA is the primary active ingredient has been approved, the regulatory pathway for approval is uncertain. The number and design of the clinical trials and preclinical studies required for the approval of these types of medicines have not been established, may be different from those required for gene therapy products, or may require safety testing like gene therapy products."

Well, the pandemic allowed them to sneak mRNA gene therapy under the proverbial radar so that they don't have to conduct more stringent gene therapy safety testing. Instead, they were handed the global population for the largest testing imaginable, and all without liability when something goes wrong — provided it's viewed as a "vaccine," that is.

And now that it's widely accepted that the gene therapies are waning after only a few months, 15 technically speaking, boosters — or "software updates" — to the mRNA jab could become as regular as software updates on your smartphone or computer.

mRNA Therapies Classified as Gene Therapy in Europe and US

The SEC filing¹⁶ for BioNTech (BioNTech's mRNA technology is used in the Pfizer vaccine) is equally clear, stating on page 21: "Although we expect to submit BLAs for our mRNA-based product candidates in the United States, and in the European Union, mRNA therapies have been classified as gene therapy medicinal products, other jurisdictions

may consider our mRNA-based product candidates to be new drugs, not biologics or gene therapy medicinal products, and require different marketing applications."

So, in the U.S. and Europe, mRNA therapies, as a group, are classified as "gene therapy medicinal products." The crux here, again, appears to be the idea that mRNA therapy does not cause permanent DNA alterations. On page 35 of the BioNTech SEC filing, they further clarify the alleged difference between other, irreversible, gene therapies and mRNA gene therapy:

"There have been few approvals of gene therapy products in the United States and other jurisdictions, and there have been well-reported significant adverse events associated with their testing and use.

Gene therapy products have the effect of introducing new DNA and potentially irreversibly changing the DNA in a cell. In contrast, mRNA is highly unlikely to localize to the nucleus, integrate into cell DNA, or otherwise make any permanent changes to cell DNA.

Consequently, we expect that our product candidates will have a different potential side effect profile from gene therapies because they lack risks associated with altering cell DNA irreversibly."

Hacking the Software of Life

Company executives and scientists familiar with mRNA technology have, for years, been referring to this new technology as gene therapy. The video above features a TED Talk by Dr. Tal Zaks, chief medical officer of Moderna, given in 2017, more than two full years before COVID-19.

In it, he points out that they were, at that time, already working on a variety of vaccines, including an mRNA vaccine for influenza and individualized cancer vaccines based on the genetic sequence of the patient's tumor, stressing that this vaccine would not act like any previous vaccine ever created.

"We've been living this phenomenal digital scientific revolution, and I'm here today to tell you that we are actually hacking the software of life, and that it's changing the way we think about prevention and treatment of disease," Zaks said.

"In every cell there's this thing called messenger RNA or mRNA for short, that transmits the critical information from the DNA in our genes to the protein, which is really the stuff we're all made out of. This is the critical information that determines what the cell will actually do. So, we think of it as an operating system ...

So, if you could change that ... if you could introduce a line of code, or change a line of code, it turns out that has profound implications for everything, from the flu to cancer ... Imagine if instead of giving [the patient] the protein of a virus, we gave them the instructions on how to make the protein, how the body can make its own vaccine," he said.

How mRNA Vaccines Work

Zaks further differentiates conventional vaccines and mRNA vaccines by explaining that when using a conventional vaccine, you have viral protein floating around outside the cell, whereas the mRNA approach reprograms the cell to create that viral protein inside of itself.

"What's more alarming?" he asks. "A stranger prowling the neighborhood, or somebody who just broke into your ground floor and tripped the alarm? That's what happens with an mRNA vaccine. You've tripped the alarm wire and now the cell is dialing 911, it's calling the police — at the same time that it's making the protein, saying 'That's the bad guy.' That's how an mRNA vaccine works."

Zaks also refers to the company's mRNA shots as "information therapy," which is just another way of saying gene therapy because mRNA is a carrier of genetic code. (For clarification, code in your natural mRNA matches your DNA, whereas vaccine mRNA has no equivalence inside your genome since it's coming from the outside. Vaccine mRNA

still carries "genetic code," though, just not anything found in your body before.) As explained on genome.gov:¹⁷

"Messenger RNA (mRNA) is a single-stranded RNA molecule that is complementary to one of the DNA strands of a gene. The mRNA is an RNA version of the gene that leaves the cell nucleus and moves to the cytoplasm where proteins are made.

During protein synthesis, an organelle called a ribosome moves along the mRNA, reads its base sequence, and uses the genetic code to translate each three-base triplet, or codon, into its corresponding amino acid.

mRNA, are one of the types of RNA that are found in the cell. This particular one, like most RNAs, are made in the nucleus and then exported to the cytoplasm where the translation machinery, the machinery that actually makes proteins, binds to these mRNA molecules and reads the code on the mRNA to make a specific protein.

So in general, one gene, the DNA for one gene, can be transcribed into an mRNA molecule that will end up making one specific protein."

mRNA Technology Ushers in Transhumanism

In true technocratic, transhumanist Fourth Industrial Revolution fashion, Zaks and other mRNA pushers view the body as your hardware, your genetic code as software and, as I suggested earlier, these mRNA injections as software updates. As noted by Patrick Wood in a recent Technocracy News article:18

"Pure and simple, this is unvarnished, raw transhumanism ... Scientists think they can rewrite the genetic code [his words, not mine, for all you out there who still don't believe these mRNA vaccines change the genetic code just because some 'fact checker' says they don't], believing they can improve on a person's God-given genetic makeup is entering dangerous territory ...

These scientists truly believe that the human body is nothing more than a machine that can be hacked into and reordered according to some programmer's instructions ... Who's to say they won't correct one problem and create something far worse?"

What Is Transhumanism?

What exactly is transhumanism? Technocracy News describes¹⁹ it as "a twisted philosophy that believes in the use of high technology to transform humans into immortal beings ... Furthermore, they seek to use genetic engineering to create a new master race of sorts, that will shed all of the 'unseemly' characteristics of humans." Britannica defines²⁰ it as a:

"... social and philosophical movement devoted to promoting the research and development of robust human-enhancement technologies. Such technologies would augment or increase human sensory reception, emotive ability, or cognitive capacity as well as radically improve human health and extend human life spans.

Such modifications resulting from the addition of biological or physical technologies would be more or less permanent and integrated into the human body."

Great Reset Is a Transhumanist Agenda

Miklos Lukacs de Pereny, research professor of science and technology policy at the Peruvian University San Martin de Porres, has given presentations²¹ and interviews²² in which he warns that transhumanism is part and parcel of the Great Reset and the Fourth Industrial Revolution agendas, which are being rolled out at a furious pace under the auspices of the COVID-19 pandemic. As reported by Life Site News, November 10, 2020:²³

"The COVID-19 pandemic was manufactured by the world's elites as part of a plan to globally advance 'transhumanism' — literally, the fusion of human beings with technology in an attempt to alter human nature itself and create a superhuman being and an 'earthly paradise,' according to a Peruvian academic and expert in technology.

This dystopian nightmare scenario is no longer the stuff of science fiction, but an integral part of the proposed post-pandemic 'Great Reset,' Dr. Miklos Lukacs de Pereny said at a recent summit on COVID-19.

Indeed, to the extent that implementing the transhumanist agenda is possible, it requires the concentration of political and economic power in the hands of a global elite and the dependence of people on the state, said Lukacs.

That's precisely the aim of the Great Reset, promoted by German economist Klaus Schwab, CEO and founder of World Economic Forum, along with billionaire 'philanthropists' George Soros and Bill Gates and other owners, managers, and shareholders of Big Tech, Big Pharma, and Big Finance who meet at the WEF retreats at Davos, Switzerland, contended Lukacs.

Transhumanists ... seek to 'relativize the human being' and 'turn it into a putty that can be modified or molded to our taste and our desire and by rejecting those limits nature or God have placed on us' ...

Indeed, WEF's Schwab has been promoting the Great Reset as a way to 'harness the Fourth Industrial Revolution' ... which, he declared in January 2016, 'will affect the very essence of our human experience.' Schwab described the Fourth Industrial Revolution then as 'a fusion of technologies that is blurring the lines among the physical, digital and biological spheres' ...

Those technologies include genetic engineering such as CRISPR genetic editing, artificial intelligence (A.I.), robotics, the Internet of Things (IoT), 3D printing, and quantum computing. 'The Fourth Industrial Revolution is nothing other than the implementation of transhumanism on a global level,' emphasized Lukacs."

mRNA Technology Is Still Gene Therapy

In an earlier article, I provided even more background information showing that mRNA "vaccines" are in fact gene therapy, and how this technology has been viewed and presented as gene therapy in the past.

The fact is, everywhere you look, mRNA technology, mRNA therapy and mRNA medicines — anything mRNA — have been, for years, treated as a form of gene therapy. Take the 2015 paper²⁴ "mRNA: Fulfilling the Promise of Gene Therapy" in the journal Molecular Therapy. In this paper, the authors point out that in vitro-transcribed mRNA has the potential to play a role in gene therapy previously only envisioned for DNA.

Back in 2009, the paper²⁵ "Current Prospects for mRNA Gene Delivery" in the European Journal of Pharmaceutics and Biopharmaceutics noted that while "replication-deficient viruses have been used most successfully in the field of gene therapy ... mRNA has ... emerged as an attractive and promising alternative in the nonviral gene delivery field," and a 2019 paper²⁶ in Frontiers in Oncology discussed the therapeutic prospects of "mRNA-based gene therapy for glioblastoma."

If they want to call it "temporary gene therapy," I'm OK with that — provided they can prove that it is in fact temporary, how long the effects last, and that vaccine mRNA cannot reverse-transcribe into the human genome like SARS-CoV-2 RNA apparently can.

But to deny that it's gene therapy altogether and insist that it's simply an updated form of vaccine technology is simply impossible, as it does not perform any of the functions of an actual vaccine (i.e., prevent infection and spread).

Do You Want to Update Your Software?

Now, if our genetic makeup is to be viewed as "the software of life," as Zaks puts it, then should we not have the sole authority to decide for ourselves whether we actually want a "software update," be it temporary or permanent?

"If we truly live in a free society, wouldn't it stand to reason that we would want to have an energetic debate over how to answer that question?" Wood asks.²⁷

"Contrary to what some scientists believe, we are not machines. We are human beings with bodies, souls and free wills. Anyone who tries to mandate the acceptance of an experimental gene-altering treatment is going against the international Nuremberg Codes, which require informed consent of any experimental treatment."

What to Do if You've Had a Change of Heart

If you already got the vaccine and now regret it, you may be able to address your symptoms using the same strategies you'd use to treat actual SARS-CoV-2 infection.

Also, if you got the vaccine and are having side effects, please help raise public awareness by reporting it. The Children's Health Defense is calling on all who have suffered a side effect from a COVID-19 vaccine to do these three things:²⁸

- 1. If you live in the U.S., file a report on VAERS
- 2. Report the injury on VaxxTracker.com, which is a nongovernmental adverse event tracker (you can file anonymously if you like)
- 3. Report the injury on the CHD website

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