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The COVID Jabs' Mechanisms of Injury

Analysis by Dr. Joseph Mercola ✔ Fact Checked | December 04, 2022

STORY AT-A-GLANCE

- In "Innate Immune Suppression by SARS-CoV-2 mRNA Vaccinations: The Role of G-quadruplexes, Exosomes and MicroRNAs," Stephanie Seneff, Ph.D., and Drs. Peter McCullough, Greg Nigh and Anthony Kyriakopoulos explain how the COVID shots suppress your innate immune function, and how they may cause neurological diseases
- Their landmark paper was the source of major controversy in that the prominent journal in which it was published receive much negative feedback and the editor of the journal was forced to resign although the paper has not been retracted at this time
- G4s are genome-wide targets of transcriptional regulation. The "G" stands for guanine. G4 is DNA sequence of four guanines, which plays an important role in diseases such as cancers and neurological disorders. The COVID jab spike protein produces far more G-quadruplexes (G4) than the virus. The G4 causes prion protein to misfold, which can result in prion diseases such as Creutzfeldt-Jakob disease and Alzheimer's
- Two specific microRNA have been found in people who got the jab, and these microRNA's interfere with Type 1 interferon response, which is a key part of your immune system. When Type 1 interferon is suppressed, you become more prone to infection and chronic disease
- The COVID jab produces high levels of immunoglobulin (IgG) antibodies, which are associated with autoimmune disease. It does not produce mucosal antibodies
- Antibodies against the spike protein may be responsible for cases in which patients developed highly aggressive prion disease after their second jab

In this interview, return guest Stephanie Seneff, Ph.D., a senior research scientist at MIT for over five decades,[1] discusses her paper,[2] "Innate Immune Suppression by SARS-CoV-2 mRNA Vaccinations: The Role of G-quadruplexes, Exosomes and MicroRNAs," published in the June 2022 issue of Food and Chemical Toxicology.

The paper was co-written with Drs. Peter McCullough, Greg Nigh and Anthony Kyriakopoulos. In May 2021, Nigh and Seneff published a paper[3] detailing the differences between the spike protein and the COVID jab spike protein.

In the "Innate Immune Suppression" paper, they and their other co-authors delve deep into the mechanisms of the COVID shots, showing how they suppress your innate immune system.

The paper caused quite a stir when it was first posted, prior to publication. A campaign was launched to have it retracted on the premise that it would discourage people from getting these life-saving shots — regardless of whether the mechanisms described were true or not.

Ultimately, the controversy led to the resignation of the editor of the journal. Many have also tried to discredit Seneff, and McCullough has since been stripped of his medical credentials.[4]

Understanding G-Quadruplexes

G-quadruplexes (G4) are genomewide targets of transcriptional regulation, and as such as a novel target for drug design. The "G" in G4 stands for guanine, so G4 is DNA sequence of four guanines. It's one of the four nucleotides — the basic code — in DNA, and it's known to play an important role in diseases such as cancers and neurological disorders.[5]

As explained by Seneff, prions, when misfolded, build beta sheets and precipitate out of the cytoplasm, causing plaque to form. This plaque is a hallmark of several neurodegenerative diseases in animals and humans, such as Mad Cow disease,

Creutzfeldt-Jakob disease, scrapie (which affects sheep) and chronic wasting disease in deer.

> *"So, there are all these debilitating neurodegenerative diseases that come out of the prion protein, and the prion protein actually binds to its own G4s, which are in its own RNA,"* Seneff explains. *"In so doing, it promotes [the prion protein] to misfold into the wrong shape ... [which] causes prion disease.*
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> *The [COVID jabs] produce a version of the messenger RNA (mRNA) that codes for the spike protein. Their version is enriched in guanines — it produces a lot more G4s than the original mRNA that the virus produces — so, it's a different form.*
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> *And there's lots of mRNA in the [COVID jab]. It's a big dose of this mRNA that is enriched in G4s ... which then ... causes the cell to produce the prion protein. So, the cell is producing the prion protein in the context of a situation with lots of G4s lying around from the mRNA from vaccine. That's a really dangerous situation for causing the prion protein to misfold and causing prion disease."*

How the COVID Jab Can Induce Autoimmune Disease

As explained by Seneff, the mRNA in the jab is taken into your lymph system and spleen, germinal centers where antibodies are produced, and in order to produce the antibodies, these germinal centers release exosomes. This can help explain the phenomenon of "shedding," but it also helps explain the immune destruction we see occurring. Seneff explains:

> *"The exosomes are part of the process by which the cells communicate to induce the antibody production, which is the goal of the [COVID jab]. The [jab] does a fantastic job of producing high levels of IgG [immunoglobulin] antibodies, which are the ones that are associated with autoimmune disease.*
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> *It doesn't make the mucosal antibodies. It makes IgG, which is actually much more dangerous if there are too many antibodies. They can cause autoimmune*

disease through molecular mimicry, and that's another aspect that I think is going on.

That's why you're getting this platelet problem where platelet count goes down to zero, because you get antibodies to the platelets by molecular mimicry, or even because the spike protein is binding to the platelets. They're getting antibodies to the complex and you're wiping out the platelets.

Some people are getting thrombocytopenia and VITT [vaccine-induced immune thrombotic thrombocytopenia], conditions that can be life-threatening. And there's a huge signal for thrombosis. The paper talks about thrombosis. We have ... seven tables for different aspects of the symptoms of the vaccine.

There's a table on the liver, there's a table on thrombosis, there's a table on cancer, there's a table on the vagus nerve, and all of the inflammations of the nerves because those exosomes are traveling up the vagus nerve, making their way to the heart, brain and liver.

They're causing disease in all of those organs, and you see that very clearly in the various databases — 98%, 99% of the [adverse event] reports in 2021 for these conditions were [from the] COVID shots and 1% was all the other vaccines combined."

Mechanism of Action

Swiss researchers recently reported finding elevated troponin levels in 100% of COVID jabbed individuals, indicating everyone is suffering some degree of heart damage, even if they're asymptomatic.[6,7] Seneff explains the mechanism by which the COVID shot damages your heart.

"I think the whole issue is the spike protein being released by the immune cells in the germinal centers — the lymph system and the spleen releasing these exosomes that then travel along their fibers and reach all these critical organs.

The spleen has a very good connectivity with the liver, heart, brain and gut via the nerve system, starting with the splanchnic nerve and then hooking up to the vagus nerve ... So, these exosomes are migrating along the vagus nerve and they're arriving at these organs and are getting taken up by cells there. And everywhere they go, they cause inflammation.

The spike protein is very good at causing inflammation. That's been shown in multiple studies ... It causes the immune cells to migrate to the heart, and that's how you get myocarditis, this inflammation in the heart.

You also get inflammation in the muscles. I was looking at myositis, which is muscle inflammation, and that's another issue. I've been in contact with multiple people who suffered severe muscle damage from the spike protein, even to the point of being debilitated because of [inflammation in the] muscles.

So, not just the heart, but the skeletal muscles are also affected in a really bad way. Inflammation in the brain also causes neurons to be damaged and that's causing cognitive disorders.

So, I think the long COVID is caused by the spike protein reaching the brain. Many papers have talked about long COVID, and they think it's the spike protein, not the virus, but the spike protein itself [that is causing it].”

The Role of MicroRNAs

Another piece of the puzzle is related to the role of microRNAs, which are embedded in the exosomes that travel to the tissues. MicroRNAs should not be confused with mRNA. They’re two different things. The microRNAs are short pieces of RNA, about 22 nucleotides long. Unlike mRNA, microRNA do not code for protein.

The mRNA in the jabs are designed to be extremely resilient. Normally, mRNA lasts a few hours, but the mRNA in the jabs stick around producing protein in cells for several months, at minimum primarily because of the substitution of the nucleotide uridine with pseudouridine.

Because the mRNA is so resilient, spleen cells have to try to cope with all the spike protein that they cannot stop making, and one way they do that is by pushing the spike protein out in the form of exosomes. Those exosomes also contain microRNAs. Indian researchers found two specific microRNAs in people who got the jab, and these microRNAs interfere with Type 1 interferon response.

> *"This is a big topic of our paper,"* Seneff says. *"We talk about innate immune suppression ... due to the effect of these microRNAs that are packaged up with the spike protein.*
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> *Everywhere [the exosomes] go, they deliver these microRNAs, which disrupt the immune cell's ability to respond to Type 1 interferon. These microRNAs actually have a very high-level controlling role in the regulatory process of biology. They control which genes are expressed."*

Hypothesis to Explain Post-Jab Sudden Death

Seneff goes on to cite animal research from 2005, in which mice were exposed to a virus that causes myocarditis. They wanted to see what would happen if the mice were suffering from myocarditis and then got a shot of adrenaline. So, the mice were infected with the myocarditis-inducing virus, and then, 120 days later, they injected them with adrenaline.

The dose given killed 70% of them. Meanwhile, control mice that did not have myocarditis suffered no ill effect when injected with the same dose of adrenaline. The mice that died, died of heart failure. Basically, their hearts were too damaged to withstand the adrenaline rush. Today, we're seeing a similar effect in athletes, who are dropping dead while exerting themselves.

Digging for other papers, Seneff found one that detailed the Type 1 interferon response in chromaffin cells, the cells that make adrenaline. Type 1 interferon inhibits and reduces their production of adrenaline.

Seneff's theory is that the COVID jabs interferes with your body's ability to respond to Type 1 interferon, thereby allowing too much adrenaline to be released. If your heart has been damaged by the spike protein, the outcome could be lethal, as we've seen.

> *"I think that could be what's going on with the sudden death problem, because we certainly are seeing lots of young people suddenly dying of heart issues,"* she says.

At the same time, microthrombi (micro blood clots) are activated by the spike protein, which could have lethal effects, and endothelial cells (the cells lining your blood vessels) are also inflamed. So, there's not just one mechanism by which the jabs could kill you.

Spike Protein Creates Incredibly Tough Blood Clots

According to Seneff, blood clots are also connected to the prion aspect. Many different proteins are amyloidogenic and can misfold, causing them to precipitate out, including proteins in your blood. Blood clots are tough to break down, and when you add spike protein into them, they become even tougher.

Seneff suspects the spike protein binds to fibrin, causing it then to misfold in a way that makes it very resistant to breaking down. The same thing happens with prion proteins. When they misfold, they create a gel that becomes denser over time, eventually becoming completely inaccessible to the water base.

> *"It just precipitates out as this thing that just sits there for the rest of your life,"* Seneff says. *"Nothing can get at it. The immune cells can't break it down. It just stays there. It can't be cleared."*

This is why I recommend taking fibrinolytic enzymes like lumbrokinase (which is the most effective), serrapeptase and nattokinase, several times a day one hour before or two hours after a meal, if you're struggling with long COVID, as they help break down the fibrin. To work, you have to take them between meals, on an empty stomach, or else they'll just act as a digestive enzyme to break down food.

Another technique is to use a near-infrared sauna, which will help address the misfolding of proteins by encouraging autophagy, your body's natural clean-out process.

The Role of Antibodies in Prion Disease

Antibodies may also play a role in the devastating side effects from the COVID jab. We know that prion protein is upregulated in cells that produce it under stress, and the COVID jab spike protein has been shown to cause cells to make more prion protein. One possibility is that antibodies to a particular part of the spike protein end up binding to the prion protein through molecular mimicry.

As explained by Seneff, researchers have discovered that if you produce antibodies to the C-terminal end of the prion protein, it can cause disease that looks a lot like prion disease but develops much faster.

As it turns out, the antibodies to the C-terminal end of the prion protein prevent the prion protein from going into the endoplasmic reticulum (ER), where it needs to go in order to do its job. Instead, the antibodies keep the prion in the cytoplasm.

Subsequently, the cell gets sick because of these antibodies. The late Luc Montagnier posted a case study with 26 people who developed symptoms of prion disease within the first month after their second vaccine. All died, many within three months of their diagnosis. All were dead within a year, from what was basically an extremely aggressive form of Creutzfeldt-Jakob disease (the human Mad Cow disease equivalent).

Seneff believes antibodies against the spike protein are to blame, because it didn't happen until they got their second dose. Antibodies developed after that first dose, which primed the cells. Then, after the second dose the cells started making loads of spike protein again, which the antibodies bound to.

This exosome package then traveled up the vagus nerve to the brain, where neurons took them up. Seneff suspects this explains the disease process on those 26 patients.

"It would be explained completely by this model of spike protein antibodies binding to the C-terminal domain and preventing the prion protein from going into the ER," she says, *"and then, it causes [the prion protein] to break down.*

It gets broken down by the proteasome and disappears. So, it's causing a loss of function problem for the prion protein in the neuron at a very accelerated rate, much faster than what goes on with the normal prion disease ...

Montagnier and his team identified a segment of the spike protein that they thought had characteristic prion-like features. Within that segment is a piece that has five amino acids, YQRGS.

The prion protein has [the same] piece ... Except for the middle one, the other four [amino acids] are all identical with this piece near the C-terminal end of the prion protein. So, it's really perfect. It's a place where, if you get antibodies to that, it's basically a death sentence."

COVID Jabs Impair Your Immune Function

To circle back to where we began, it seems the reason so many jabbed individuals are now contracting COVID and other infections, and are dying from them, is because Type 1 interferon is suppressed. That suppresses your immune function, making you more prone to contracting infections.

In the interview, Seneff also reviews how chronic exposure to glyphosate is a predisposing condition for bad COVID-19 outcomes, as glyphosate disrupts the immune system. For more details on that, please listen to the interview in its entirety. We also review how glycine supplementation can help displace glyphosate in your body, thereby limiting its damaging influence.

Sources and References

- [1] MIT Stephanie Seneff Bio
- [2] Food and Chemical Toxicology June 2022; 164: 113008

- [3] IJVTPR May 10, 2021: 2(1)
- [4] Rumble October 31, 2022
- [5] Cell Mol Life Science October 2021; 78(19-20): 6557-6583
- [6, 7] Daily Skeptic October 27, 2022