

Court File No. CV-22-00691880-0000

**ONTARIO**  
**SUPERIOR COURT OF JUSTICE**

B E T W E E N:

Dr. BYRAM BRIDLE

Plaintiff

and

UNIVERSITY OF GUELPH, JEFFREY WICHTEL, LAURIE ARNOTT,  
CHARLOTTE YATES, SCOTT WEESE, GLEN PYLE, ANDREW  
PEREGRINE, DOROTHEE BIENZLE, AMY GREER, DAVID FISMAN, NICK  
DULEY, JANE OR JOHN DOE JUNIOR SCIENTIST

Defendants

**SUPPLEMENTARY MOTION RECORD OF**  
**DEFENDANT DAVID FISMAN**  
**(Returnable November 19, 2024)**

VOLUME I OF II

July 20, 2023

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-2-

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AND TO: **JANE OR JOHN DOE JUNIOR SCIENTIST**

Defendant

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Defendants

**SUPPLEMENTARY AFFIDAVIT OF DR. DAVID FISMAN**

I, Dr. David Fisman, of the City of Toronto, in the Province of Ontario, MAKE OATH

AND SAY:

1. I am one of the Defendants in this proceeding, and, as such, have knowledge of the matters contained in this Affidavit.
2. I swear this affidavit in supplement to my previous affidavit sworn May 24, 2023.

**Online Criticism of Dr. Bridle**

3. In addition to the articles appended to my previous affidavit, in and around June 2021, several articles published online were critical of Dr. Bridle's opinions on vaccine efficacy and safety.

-2-

4. Attached hereto as **Exhibit “A”** is a copy of an article titled “Claims that Covid vaccine spike proteins are harmful are unevidenced” dated June 17, 2021 published on the website [fullfact.org](http://fullfact.org).

5. Attached hereto as **Exhibit “B”** is a copy of an article titled “No proof for researcher claim that COVID-19 vaccines’ spike protein is a ‘toxin”” by Tom Kertscher dated June 7, 2023 published on [politifact.com](http://politifact.com).

6. Attached hereto as **Exhibit “C”** is an article dated June 8, 2021 from [healthfeedback.org](http://healthfeedback.org) titled “Byram Bridle’s claim that COVID-19 vaccines are toxic fails to account for key differences between spike protein produced during infection and vaccination, misrepresents studies”.

7. Attached hereto as **Exhibit “D”** is an article titled “This professor spreads false information about the consequences of corona vaccinations” by Jan Russezki and Max Biederbeck from AFP Germany published on June 17, 2021.

8. Attached hereto as **Exhibit “E”** is an article titled “Immunologist Byram Bridle Misinterprets Data on COVID-19 Vaccines” published on [boomlive.in](http://boomlive.in) on June 26, 2021.

9. Attached hereto as **Exhibit “F”** is an article titled “FALSE: Conspiracy theory that COVID-19 vaccines’ spike proteins are ‘cytotoxic’ debunked by experts” by Russell Falcon dated August 15, 2021 published on [wfla.com](http://wfla.com).

10. Attached hereto as **Exhibit “G”** is a copy of an article titled “‘Toxic’ spike protein claims misinterpret vaccine study” dated June 22, 2021 published on [aap.com/au](http://aap.com/au).

**Constitutional Rights Centre Inc.**

11. I understand that Rocco Galati, Dr. Bridle's lawyer, is the Executive Director and Founder of Constitutional Rights Centre Inc.

12. A copy of the Constitutional Rights Centre's list of cases from their website is attached hereto as **Exhibit "H"**.

13. A copy of the Constitutional Rights Centre's Newsletter archives from their website is attached hereto as **Exhibit "I"**.

14. I swear this affidavit in support of my motion to dismiss the Claim under s. 137.1 of the *Courts of Justice Act* and for no improper purpose.

**SWORN BEFORE ME** by Dr. David Fisman of the City of Toronto, in the Province of Ontario, on July 20, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.



\_\_\_\_\_  
Commissioner for Taking Affidavits  
(or as may be)



\_\_\_\_\_  
(Signature of deponent)

This is Exhibit “A” referred to in the Affidavit of Dr. David Fisman sworn by Dr. David Fisman at the City of Toronto, in the Province of Ontario, before me on July 20, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.



---

Commissioner for Taking Affidavits (or as may be)

**KATHERINE R. COSTIN**



HEALTH / CORONAVIRUS

## Claims that Covid vaccine spike proteins are harmful are unevicenced

17 JUNE 2021

**WHAT WAS CLAIMED**

The spike protein generated by a Covid-19 vaccine can leave the site of injection and enter the bloodstream, which could possibly be causing deaths and vaccine injuries.

**OUR VERDICT**

There is some evidence that the spike proteins generated by the Moderna Covid-19 vaccine leave the site of injection. There is also evidence that the spike protein on the actual virus can damage cells that line blood vessels. However, the two different spike proteins behave very differently in the body, and so the assumption that spike proteins generated by the vaccine could also harm cells in the bloodstream is unevicenced.

An article published by website [The Conservative Woman](#) reports on an interview with a Canadian scientist who claimed researchers had made a "big mistake" and were "inadvertently inoculating" people with a "toxin" via the Covid-19 vaccines.

In an [interview](#) with a Candian broadcaster on 28 May 2021, [Dr Byram Bridle](#)—a viral immunologist at the University of Guelph in Ontario, Canada—claimed the spike protein generated by the Covid-19 is capable of damaging the cardiovascular system.

But the claim is based on assumptions not supported by evidence.

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### What is the spike protein and what has it to do with vaccines?

As we have [written before](#), there is a protein on the surface of the SARS-CoV-2 virus (the virus which causes Covid-19), called a spike protein. This spike protein helps the virus enter cells and is also one of the ways the human body's immune cells recognise a virus and attack it.

The Covid-19 vaccines [approved for use in the UK](#) work by giving the body instructions on how to make the spike protein, so that if the person is later infected, their immune system can generate a response that attacks the virus (via the spike protein) faster and more effectively.

### Dr Bridle's claims

Dr Bridle's concern rests on two claims. Firstly, that the spike proteins generated by the vaccine cause cardiovascular damage if they get into the bloodstream. Secondly, that the spike protein produced by the vaccine does not just act locally, at the site of the jab, but gets into the bloodstream and is carried to many other sites in the body.

Scientists who reviewed Dr Bridle's claims for fact checker [Health Feedback](#) have described these assertions as misleading, as they "misrepresented the results from scientific studies and [were] based on cherry-picked information".

There have been some studies showing that SARS-CoV-2 can damage endothelial cells, which line the blood vessels. [One study](#) found signs of endothelial damage and fragments of SARS-CoV-2, including the spike protein, in the brains of 13 people who had died of Covid-19. Researchers injected the spike protein into mice and found that the animals displayed neurological symptoms similar to those seen in Covid-19 patients.

But as the [Health Feedback](#) article sets out, Dr Bridle's claim rests on the assumption that if the viral spike protein can cause damage to the cardiovascular system, then the spike protein generated in vaccinated people should be capable of the same.

In actual fact, the two spike proteins [behave very differently](#) in the body. According to [Health Feedback](#), the spike proteins generated by Covid-19 vaccines differ in three key ways to those attached to SARS-CoV-2. Firstly, in the case of the vaccines, the cells mostly break down the spike proteins into [fragments](#). Secondly, the spike protein generated by a Covid-19 vaccine doesn't assemble into new viral particles, unlike the spike protein from SARS-CoV-2. Thirdly, the spike protein in Covid-19 vaccines is genetically modified to enhance the immune response and to stop it binding to cell receptors in the same way the SARS-CoV-2 spike protein would.

Dr Byram's claim that the spike protein leaves the site of the Covid-19 injection and enters the bloodstream, accumulating in other parts of the body, is based on a purportedly leaked Pfizer study carried out by Japanese researchers, which Dr Bridle said is backed up by a small study consisting of 13 participants who had received the Moderna vaccine and provided blood samples.

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Okay

British Columbia [told Health Feedback](#) that "nothing about being detrimental is mentioned in the publication".

American fact checking organisation [PolitiFact](#) contacted Dr Bridle directly to ask for more evidence to back up his claim that the Covid-19 vaccine spike proteins are toxins. In an automated email response he sent [a document](#) with further claims and questions about the vaccines, and said he planned to write a "comprehensive public report".

PolitiFact said Dr Bridle had not directly produced any evidence to back up his claim.

### Covid-19 vaccine safety

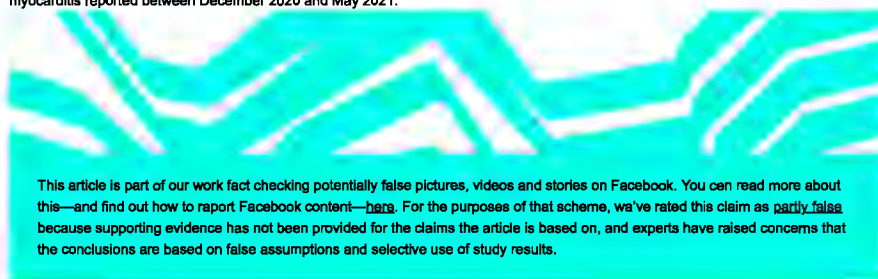
At the time of writing, more than [40 million](#) people in the UK have had at least one dose of a Covid-19 vaccine. To date, the [Medicines and Healthcare products Regulatory Agency](#) (MHRA) has received reports of 406 UK reports of suspected adverse reactions to the Pfizer/BioNTech vaccine in which the patient died shortly after vaccination, 863 reports for the Oxford/AstraZeneca vaccine, four for the Moderna vaccine and 22 where the brand of vaccine was unspecified.

As we have [written before](#), the Yellow Card system for reporting adverse events is based both on medic reports and patients self-reporting, and an adverse event that occurs after vaccination did not necessarily occur because of it.

In April the MHRA said there was a [possible link](#) between the Oxford/AstraZeneca Covid-19 vaccine and incidents of rare blood clots with lowered platelets. As of [2 June](#), the MHRA had received Yellow Card reports of 372 cases of these specific blood clots.

As we have [recently reported](#), researchers in Israel have found a possible link between mild myocarditis (inflammation of the heart muscle) in young men and getting the second dose of the Pfizer/BioNTech vaccine.

The Israeli government's health department said there had been [275 cases](#) of myocarditis reported between December 2020 and May 2021.



By **Sarah Turnnidge**

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This is Exhibit “. ” referred to in the Affidavit of Dr. David Fisman sworn by Dr. David Fisman at the City of Toronto, in the Province of Ontario, before me on July 20, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.



---

Commissioner for Taking Affidavits (or as may be)

**KATHERINE R. COSTIN**

# No proof for researcher claim that COVID-19 vaccines' spike protein is a 'toxin'

[politifact.com/factchecks/2021/jun/07/facebook-posts/no-proof-researcher-claim-covid-19-vaccines-spike-/](https://politifact.com/factchecks/2021/jun/07/facebook-posts/no-proof-researcher-claim-covid-19-vaccines-spike/)

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## I would like to contribute

Pfizer COVID-19 vaccines are administered at Providence Edwards Lifesciences vaccination site in Santa Ana, Calif., on May 21, 2021. (AP/Hong)

By Tom Kertscher June 7, 2021

### If Your Time is short

Experts say there is no evidence that the vaccines produce a toxin that could cause heart problems and neurological damage, as Canadian viral immunologist Byram Bridle maintained.

Bridle has not produced evidence to prove his claim, which has been widely shared on social media.

[See the sources for this fact-check](#)

A university expert claimed on talk radio that he has new evidence that COVID-19 vaccines produce a "toxin."

The credentials of Byram Bridle, a viral immunologist at the University of Guelph in Ontario, Canada, include research funding from the Canadian government and the Canadian Cancer Society, as well as dozens of publications in research journals.

But experts told PolitiFact that, despite a document Bridle cites, there is no evidence to back his claim that what is known as the vaccines' spike protein produces a toxin that could cause heart problems and neurological damage.

"There is no data that the spike is a toxin," said Dr. Drew Weissman, a vaccine expert and professor of medicine at the University of Pennsylvania. "The document he cites is an anti-vaxxer product with no real scientific data supporting its claims."

Bridle's interview sparks social media burst

Bridle began a Canadian talk show interview with a dramatic warning: "I'll forewarn you and your listeners that the story I'm about to tell is a bit of a scary one."

Describing himself as "very much pro-vaccine," Bridle said he had assembled scientific information that he intends to make public, but "your listeners are going to be the first to hear the public release of this conclusion."

He claimed the information shows that the spike protein produced by the vaccines, which is intended to prevent the coronavirus from infecting the body, does not remain in the shoulder muscle but gets into the blood — and can lead to clotting, bleeding, heart problems and neurological damage.

"In short, the conclusion is, we made a big mistake," Bridle said. "We didn't realize it until now. We thought the spike protein was a great target antigen. We never knew the spike protein itself was a toxin, and was a pathogenic protein. So, by vaccinating people, we are inadvertently inoculating them with a toxin. Some people, this gets into circulation, and when that happens in some people, they can cause damage, especially in the cardiovascular system. And I have many other legitimate questions about the long-term safety, therefore, of this vaccine."

The interview led to claims widely shared on websites and social media, including posts that linked to an article from the website of the Hal Turner Radio Show, which uses internet and radio broadcasts to float conspiracy theories and hate speech. The article carried this headline:

"Doctor on COVID Vax: 'We Screwed-Up. We didn't realize the Spike Protein is a TOXIN' Does this mean everyone vaccinated is manufacturing their own Spike Protein Toxins in their own bodies?"

The post was flagged as part of Facebook's efforts to combat false news and misinformation on its News Feed. (Read more about our partnership with Facebook.)

## Explaining "spike proteins"

COVID-19 mRNA (messenger RNA) vaccines use the human body's natural immune response to its advantage. The shot contains the recipe for making the molecule known as the spike protein, which the COVID-19 virus uses to bind to cells. Once the cell receives these instructions, it creates the protein and displays it on its surface. The immune system then spots the unknown protein and makes antibodies to fight it.

The technology in the vaccines made by Pfizer-BioNTech and Moderna stems from research that began in the early 1990s, said Weissman. He and his colleague Katalin Karikó, a senior vice president of BioNTech, are credited with the breakthrough discovery that enabled these vaccines to be safe and highly effective.

## Featured Fact-check

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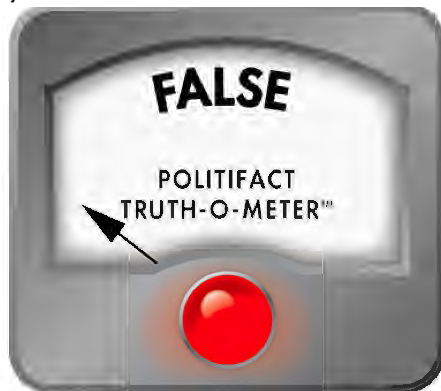


TikTok posts

stated on May 14, 2023 in an Instagram post

"A European study has found COVID vaccines could be causing 'long-term brain damage.'"

 true



The federal Centers for Disease Control and Prevention, which calls the spike protein harmless, says: "Our immune systems recognize that the protein doesn't belong there and begin building an immune response and making antibodies, like what happens in natural infection against COVID-19. At the end of the process, our bodies have learned how to protect against future infection."

Bridle's evidence seen lacking

PolitiFact emailed Bridle on June 3 asking for the evidence to back his statement, and received an automated reply from him. The reply said that the radio interview led to "vicious attacks," including a website that emerged May 28 bearing his name. Bridle's email said that he believes the website — which anonymously critiques Bridle's claims — to be libeling him.

Also in the email, Bridle cited a document that he said supports what he said in the interview, and that he would be writing a more comprehensive public report.

The document claims that "recent studies suggest that the spike protein produced in response to vaccination" could result "in damage to various tissues and organs. This risk, no matter how theoretical, must be investigated prior to the vaccination of children and adolescents."

On that point, the document links to one Journal of Respiration article published Dec. 31, days after the U.S. Food and Drug Administration gave emergency use authorization to the Pfizer-BioNTech and Moderna vaccines. The article describes how the spike protein in the coronavirus affects lung cells and says that because the spike protein will be administered in vaccines, "it is critical to understand the biological effects of this protein on human cells to ensure that it does not promote long-term adverse health consequences."

Weissman said Bridle's conclusion that the vaccines are toxic is off-base, especially given that the vaccines do not deliver spike protein to the lungs.

"Reports of spike protein trouble are interesting and important for coronavirus infection, but they do not mean that the vaccines themselves are going to cause similar problems," said a May 4 commentary in Science Translational Medicine, a publication of the American

Association for the Advancement of Science.

The commentary notes that "the spike protein is not released to wander freely through the bloodstream," and says the fact that the vaccines "are aimed at the spike means that they're protective in more ways than we even realized."

Despite the widespread administration of the vaccine, Dr. Walter Orenstein, professor and associate director of Emory University's Emory Vaccine Center, said he is "not aware of any data to support the allegations" made by Bridle.

"It would be nice to have any direct evidence if this were true," said Dr. Paul Offit, director of the Vaccine Education Center and an attending physician in the Division of Infectious Diseases at Children's Hospital of Philadelphia.

"We are at nearly 300 million doses given (in the United States) and a robust surveillance system in a population that is certainly not shy about reporting problems" about vaccines to public health authorities, Offit said.

Our ruling

A post widely shared on social media claims a viral immunologist said COVID-19 vaccines' spike protein means people are being inoculated "with a toxin."

Experts say there is no evidence that the spike protein produced by the vaccines is a toxin that could cause heart problems and neurological damage. The Canadian viral immunologist who made the claim has not produced evidence to back it up.

We rate the claim False.

## Our Sources

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Hal Turner Radio Show, "Doctor on COVID Vax: 'We Screwed-Up. We didn't realize the Spike Protein is a TOXIN.' Does this mean everyone vaccinated is manufacturing their own Spike Protein Toxins in their own bodies?", May 31, 2021

OMNY.FM, "On Point with Alex Pierson" interview with Byram Bridle (8:25), May 27, 2021

PolitiFact, "Debunking the anti-vaccine hoax about 'vaccine shedding.'" May 6, 2021

PolitiFact, "Ask PolitiFact: How can COVID vaccines be safe when they were developed so fast?", March 29, 2021

U.S. Centers for Disease Control and Prevention, "Understanding mRNA COVID-19 Vaccines," March 4, 2021



Canadian Covid Care Alliance, "Why Parents, Teens, and Children Should Question the COVID-19 Vaccine," accessed June 3, 2021

ByramBridle.com, accessed June 3, 2021

Email, Dr. Drew Weissman, vaccine expert and professor of medicine at the University of Pennsylvania, June 3, 2021

Email, Dr. Walter Orenstein, professor and associate director of Emory University's Emory Vaccine Center, June 3, 2021

Email, professor Joe Schwarcz, director of the McGill Office for Science and Society at McGill University in Montreal, June 3, 2021

Journal of Respiration, "SARS-CoV-2 Spike Protein and Lung Vascular Cells," Dec. 31, 2020

Science-Based Medicine, "The 'deadly' coronavirus spike protein (according to antivaxxers)," May 24, 2021

Science Translational Medicine, "Spike Protein Behavior," May 4, 2021

Interview, Dr. Paul Offit, director of the Vaccine Education Center and an attending physician in the Division of Infectious Diseases at Children's Hospital of Philadelphia, June 3, 2021

## **Read About Our Process**

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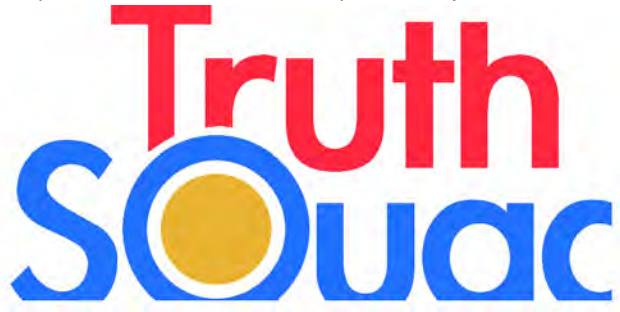
The Principles of the Truth-O-Meter

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This is Exhibit “C” referred to in the Affidavit of Dr. David Fisman sworn by Dr. David Fisman at the City of Toronto, in the Province of Ontario, before me on July 20, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.

---


Commissioner for Taking Affidavits (or as may be)

**KATHERINE R. COSTIN**

# Byram Bridle's claim that COVID-19 vaccines are toxic fails to account for key differences between the spike protein produced during infection and vaccination, misrepresents studies

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## CLAIM

"Terrifying new research finds vaccine spike protein unexpectedly in [the] bloodstream. The protein is linked to blood clots, heart and brain damage"

## VERDICT ?

MISLEADING

## DETAILS

**Unsupported:** Findings from recent studies suggested that the spike protein from the virus that causes COVID-19 might damage blood vessels, but data are still preliminary. The effect of spike protein in infected animals can't be extrapolated to vaccine-derived spike protein in humans.

**Misrepresents source:** None of the studies reported harmful effects from spike protein produced by COVID-19 vaccination. On the contrary, one study suggested that COVID-19 vaccines targeting the spike protein might prevent blood vessel damage.

from spike protein produced during infection. While some spike protein produced through vaccination might enter the bloodstream, it is at a much lower level compared to the amount associated with damage in infected animals.

#### KEY TAKE AWAY



The spike protein of SARS-CoV-2 allows the virus to bind to and infect cells, making it an ideal target for vaccine development. Recent studies suggested that the spike protein produced during infection alone might cause cardiovascular damage in COVID-19 patients. While the three COVID-19 vaccines authorized for emergency use in the U.S. induce the cells to produce the spike protein, the protein generated through vaccination behaves differently from the spike protein produced in infection. Clinical trials and ongoing vaccination campaigns, which have vaccinated more than 890 million people worldwide, demonstrated that COVID-19 vaccines are very safe and effective at preventing the disease.

FULL CLAIM: "The infamous spike protein of the coronavirus gets into the blood where it circulates for several days post-vaccination and then accumulated in organs and tissues including the spleen, bone marrow, the liver, adrenal glands, and in quite high concentrations in the ovaries"; "a large number of studies has shown that the most severe effects of SARS-CoV-2, the virus that causes COVID-19, such as blood clotting and bleeding, are due to the effects of the spike protein of the virus itself"

## REVIEW

In late May 2021, the claim that COVID-19 vaccines could cause blood vessel damage to vaccinated people went viral on social media platforms, including Facebook, Instagram, Reddit, and Twitter. Many posts and articles (see examples here (<https://archive.is/x6yzW>) and here (<https://archive.is/3l2Df>)), like this article (<https://archive.is/dV4T4>) from LifeSiteNews, based this claim on a 28 May 2021 radio interview (<https://archive.is/w7e0F>) between the Canadian broadcaster Alex Pierson and the immunologist Byram Bridle (<https://ovc.uoguelph.ca/pathobiology/people/faculty/Byram-W-Bridle>). The interview received

CrowdTangle.

During the interview, Bridle claimed that the spike protein produced through COVID-19 vaccination, which generates immunity against the disease, enters the bloodstream and can damage the blood vessels and brain. Scientists who reviewed this claim for Health Feedback found it misleading because it misrepresented the results from scientific studies and was based on cherry-picked information.

Bridle's claim was based on three assumptions:

1. The spike protein from SARS-CoV-2 alone is the main cause of blood vessel damage in COVID-19 patients.
2. The vaccine-derived spike protein damages the body in the same way as the spike protein produced during viral infection.
3. The vaccine-derived spike protein enters the bloodstream and accumulates at harmful levels in tissues, such as the spleen, bone marrow, liver, adrenal glands, and ovaries.

In this review, we explain why these three assumptions are unsupported by current evidence.

## What is the spike protein?

Coronaviruses are a large family of viruses that cause respiratory illnesses in animals and humans (<https://www.cdc.gov/coronavirus/types.html>). They receive their name from a crown (*corona*, in Latin) of spikes made of protein that cover the surface of the virus when observed under an electron microscope. The spike protein allows the virus to enter the cells by binding to a receptor called angiotensin-converting enzyme 2 (<https://theconversation.com/what-is-the-ace2-receptor-how-is-it-connected-to-coronavirus-and-why-might-it-be-key-to-treating-covid-19-the-experts-explain-136928>) (ACE2) that sits on the surface of some cells<sup>[1]</sup>.

An immune response against the spike protein could eliminate infected cells while preventing the virus from entering the cells and producing more viral particles. That is why the majority of COVID-19 vaccines (<https://www.sciencedirect.com/science/article/pii/S0753332221000391>) target this protein<sup>[2]</sup>. These vaccines work by exposing the body to the spike protein of SARS-CoV-2, the virus that causes COVID-19, thereby training the immune system to respond more rapidly and effectively when it encounters the virus in the future.

None of the COVID-19 vaccines (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines.html>) authorized for emergency use by the U.S. Food and Drug Administration (FDA) contains the spike protein. Instead, they instruct the cells to produce the protein on their own. Viral vector-based COVID-19 vaccines (Johnson & Johnson (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/janssen.html>) and the Oxford-AstraZeneca (<https://www.ema.europa.eu/en/medicines/human/EPAR/vaxzevria-previously-covid-19-vaccine-astrazeneca>) vaccine, authorized for emergency use in the European Union and other countries but not in the U.S.) deliver the genetic instructions for making the protein in the form of DNA (<https://www.genome.gov/genetics-glossary/Deoxyribonucleic-Acid>). The genetic instructions are delivered within a modified harmless version of an adenovirus (<https://www.the-scientist.com/news-opinion/vector-based-vaccines-come-to-the-fore-in-the-covid-19->

vaccines (Pfizer-BioNTech (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/Pfizer-BioNTech.html>) and Moderna (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/Moderna.html>)) use mRNA (<https://www.genome.gov/genetics-glossary/messenger-rna>) carried within fat droplets called lipid nanoparticles.

### **Evidence that the spike protein from SARS-CoV-2 cause cardiovascular damage is preliminary**

Although COVID-19 is primarily a respiratory disease (<https://www.cdc.gov/coronavirus/2019-ncov/your-health/about-covid-19/basics-covid-19.html>), several studies showed that the disease causes cardiovascular damage (<https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/heart-problems-after-covid19>) in many patients. Complications such as irregular heartbeat, blood clots, heart failure, and stroke can occur even after the patient recovers<sup>[3]</sup>. Bridle claimed that the spike protein alone is responsible for most of these vascular complications in COVID-19 patients. He based his claim on several studies that we discuss below, which evaluated the effect of the spike protein on blood vessels. However, these studies provide insufficient data to support this claim.

Some studies found that SARS-CoV-2 can indeed infect and damage endothelial cells (<https://www.cancer.gov/publications/dictionaries/cancer-terms/def/endothelial-cell>)<sup>[4-6]</sup>. These cells line the inside of blood vessels and have the ACE2 receptors, making them susceptible to SARS-CoV-2 infection.

One of these studies (<https://www.sciencedirect.com/science/article/pii/S1092913420302288?via%3Dihub>) found signs of endothelial damage and fragments of SARS-CoV-2, including the spike protein, in the brains of 13 deceased COVID-19 patients<sup>[5]</sup>. When the researchers injected the spike protein into mice, the animals developed neurological symptoms and brain inflammation similar to that observed in COVID-19 patients.

Later, a small study (<https://www.ahajournals.org/doi/10.1161/CIRCRESAHA.121.318902>) by Lei *et al.* at the Salk Institute reported endothelial damage in the lungs of hamsters injected with an engineered pseudovirus (<https://www.the-scientist.com/news-opinion/what-pseudoviruses-bring-to-the-study-of-sars-cov-2-68457>), a particle that carried the SARS-CoV-2 spike protein on its surface<sup>[6]</sup>. In an email to Health Feedback, Peter Hotez (<https://www.baylor.edu/biology/index.php?id=960757>), an expert in vaccinology and professor at Baylor College of Medicine, explained that this study "looks at cellular mechanisms of how viral spike protein works, not the immune response from a vaccine".

Julie Bettinger (<https://www.bcchr.ca/jbettinger>), an associate professor at the Vaccine Evaluation Centre at the University of British Columbia, pointed out to Health Feedback [read Bettinger's comment in full below]:

*The Lei et al. study actually concludes by stating, 'vaccination-generated antibody and/or exogenous antibody against S protein not only protects the host from SARS-CoV-2 infectivity but also inhibits S protein-imposed endothelial injury'. That is, COVID-19 vaccines may actually prevent vascular damage.'*

Therefore, COVID-19 vaccines targeting the spike protein might protect the cells not only from SARS-CoV-2 infection but also from the endothelial damage caused by the spike protein if the infection occurs, contradicting Bridle's claim.

Although the findings from both studies suggest that the spike protein of SARS-CoV-2 could damage blood vessels, they don't provide evidence that this does occur in COVID-19 patients. Abraham Al-Ahmad (<https://orcid.org/0000-0001-7463-3204>), an assistant professor of pharmaceutical sciences at the Texas Tech University, highlighted several limitations of this study in his response to Health Feedback [read Al-Ahmad's comment in full below].

The first limitation is that the authors of the study didn't provide information about the type of pseudovirus they used in their study, which determines the behavior of the pseudovirus and how similar it is to the spike protein from SARS-CoV-2.

The second limitation is that we don't know the viral load, which is the amount of virus, injected into the animals and how it compares with the viral load in COVID-19 patients. The third limitation is that results from animal studies often don't reflect what happens in human patients and require further validation in humans. Al-Ahmad explained:

*"We have some indications that SARS-CoV-2 can be detrimental to endothelial cells, but at this point, we are lacking two important pieces of information:*

- 1) What is the blood/plasma viral load we need in a patient to show signs of endothelial cell damage (we only know these patients died from COVID-19 complications)?*
- 2) How does this viral load compare to the amount of spike protein displayed on [pseud]viruses, based on the experimental data presented in the study?"*

Therefore, Bridle's claim that the spike protein from SARS-CoV-2 is alone responsible for blood clotting and other vascular symptoms in COVID-19 patients remains unsupported at this point in time. The potential of the spike protein to cause vascular damage in COVID-19 patients requires further investigation.

### **Vaccine-derived spike proteins differ from the spike protein produced in infection and behave differently in the body**

Bridle's claim rests on the assumption that if the viral spike protein causes cardiovascular toxicity in COVID-19 patients, the spike protein produced in vaccinated people should be toxic as well. However, this assumption is incorrect because there are important differences between the spike



While both mRNA vaccines and viral vector vaccines carry the instructions to produce the entire spike protein, the cells break down (https://twitter.com/manorlaboratory/status/1388756734714413057) much of the protein into small fragments. Furthermore, unlike infection, the spike protein from COVID-19 vaccination doesn't get assembled into new viral particles. Instead, it contains a component that makes it attach to the cell surface as it would do to the viral surface. Finally, the spike protein produced by the U.S. FDA-authorized COVID-19 vaccines is genetically modified to enhance the immune response and prevent its binding to ACE2 receptors, based on methods developed in an earlier study<sup>[7]</sup>.

Contrary to Bridle's assumption, these differences suggest that vaccine-derived and infection-derived spike protein "behave very differently" in the body, as the Salk Institute stated (https://www.salk.edu/news-release/the-novel-coronavirus-spike-protein-plays-additional-key-role-in-illness/) in a press release.

Al-Ahmad explained:

*"When it comes to COVID19 vaccines, cases of thrombosis (clotting) following COVID19 vaccines have been reported with the Oxford-AstraZeneca and the Johnson & Johnson vaccines [However,] the incidence of thrombosis following immunization is very likely to be below or similar to the background occurrence of such events in the population. The EMA made it clear: the benefits still outweigh the very small perceived risk when it comes to clotting and cerebral venous thrombosis."*

In contrast, COVID-19 makes infected individuals more likely to develop blood clots (https://www.genengnews.com/news/sars-cov-2-d614g-mutation-stabilizes-spike-protein-may-explain-faster-spread/), which affect up to 50% of hospitalized COVID-19 patients<sup>[8]</sup>.

### **Most of the spike protein generated by vaccination remains at the injection site; protein levels in the blood are very low**

COVID-19 vaccines are injected in the upper arm muscle, where they instruct the muscle cells to produce the spike protein. Most of the vaccine remains around the injection site (https://blogs.sciencemag.org/pipeline/archives/2021/01/21/mrna-vaccines-what-happens), either in the muscle cells or in the lymph nodes responsible for the immune response.

Bridle claimed that this assumption is wrong, and the spike protein from COVID-19 enters the bloodstream, accumulating in tissues such as the spleen, bone marrow, liver, adrenal glands, and ovaries. Bridle based this claim on a small study (https://doi.org/10.1093/cid/ciab465) by Ogata *et al.* that examined blood samples from people who received the Moderna COVID-19 vaccine and detected spike protein in 11 out of 13 vaccinated people<sup>[9]</sup>.

Bettinger explained that the sample size of this study was very small. Besides reporting that part of the vaccine-derived spike protein enters the blood, "nothing about being detrimental is mentioned in the publication," she added.

reported in animal studies, as Uri Manor (<https://www.salk.edu/scientist/uri-manor/>), one of the authors of the study in hamsters, pointed out (<https://www.salk.edu/scientist/uri-manor/>) on Twitter. The blog Deplatform Disease (<https://www.deplatformdisease.com/blog/spike-protein-circulating-in-the-vaccinated-what-does-it-mean>) calculated that the amount of spike protein that the authors found in vaccinated people was about 100,000 times lower than the levels of viral spike protein shown to cause harm. This is "a situation that could hypothetically occur in severe COVID-19 patients, pending studies confirming it, but not achievable in vaccinated people, at least for those who received the Moderna vaccine, and unlikely to occur for the other vaccines", explained Al-Ahmad.

While some of the vaccine might end up in the bloodstream, the body breaks it down (<https://www.chop.edu/centers-programs/vaccine-education-center/video/what-stops-body-continuing-produce-covid-19-spike-protein-after-getting-mrna-vaccine>) over time. The European Medicines Agency (EMA) explained ([https://www.ema.europa.eu/en/documents/other/reply-open-letter-concerning-vaccines-covid-19\\_en.pdf](https://www.ema.europa.eu/en/documents/other/reply-open-letter-concerning-vaccines-covid-19_en.pdf)) in a 23 March 2021 letter that the proportion of vaccine that enters the bloodstream is very small and almost all of that ends up in the liver:

*"The uptake of the mRNA in the vaccine occurs mainly in macrophages and dendritic cells of the immune system at the site of injection and draining lymph nodes [...] It was found that the vaccine's mRNA, formulated inside lipid nanoparticles, remains mainly at the injection site and only small amounts can reach other tissues, such as the liver."*

*Regarding the COVID-19 AstraZeneca vaccine, upon administration of the same vector carrying another virus protein, it was found that most of the injected viral vector remained at the injection site, and only low amounts were detected in other tissues.*

*The non-clinical studies performed with the three COVID-19 vaccines did not identify any safety concerns linked to their tissue distribution in the animal model under the experimental conditions used."*

Al-Ahmad debunked (<https://scientistabe.wordpress.com/2021/05/31/sciences-pharmacokinetics-do-nano-particles-of-the-pfizer-covid-19-vaccine-cross-the-blood-brain-barrier-and-infect-your-brain-with-mrna-or-will-fritz-your-gonads/>) in his blog Bridle's claim that mRNA vaccines cross the blood-brain barrier (<https://www.cancer.gov/publications/dictionaries/cancer-terms/def/blood-brain-barrier>) causing damage to the brain and other organs. The claim is based on a purportedly leaked report from Pfizer about the distribution of lipid nanoparticles, like those carrying the COVID-19 vaccine, in mice. Al-Ahmad explains that, despite the extremely high doses injected, the levels observed in the brain and other organs were very low.

Adverse Event Reporting System (<https://vaers.hhs.gov/index.html>) to make other misleading and unsupported claims. One example is the implication that the spike protein produced by COVID-19 vaccines caused thousands of adverse events "including the 4,000 deaths, and nearly 15,000 hospitalizations". It also stated that mRNA COVID-19 vaccines caused hundreds of cases of blood clots. Such claims are unsubstantiated.

Besides the lack of evidence for any harmful effect of the spike protein produced by COVID-19 vaccines, VAERS reports alone don't provide evidence that COVID-19 vaccines caused an adverse event, as Health Feedback explained in previous reviews here (<https://healthfeedback.org/claimreview/vaers-reports-alone-dont-demonstrate-that-the-covid-19-vaccines-caused-adverse-events-evidence-does-not-indicate-vaccines-caused-bells-palsy-and-deaths/>), here (<https://healthfeedback.org/claimreview/misinterpretation-of-vaers-database-leads-tucker-carlson-to-wrongly-suggests-that-covid-19-vaccines-are-linked-to-higher-mortality-on-fox-news/>), and here (<https://healthfeedback.org/claimreview/covid-19-vaccines-are-safer-than-the-risk-of-covid-19-infection-for-people-of-all-ages-wendy-bell-radio/>). Therefore, VAERS reports of blood clotting don't prove that any component of the COVID-19 vaccines, including the spike protein derived from them, damage blood vessels.

### Conclusion

The claim that the spike protein from COVID-19 vaccination can cause vascular damage in vaccinated people is unsupported and misleading. While the potential effect of the spike protein produced during infection on blood vessels deserves further investigation, the claim that COVID-19 vaccines will cause similar problems is unsubstantiated. In fact, the available evidence contradicts this claim, instead suggesting that COVID-19 vaccines targeting the spike protein might not only protect against viral infection but also against vascular damage. Al-Ahmad concluded:

*"COVID-19 vaccines have been given to over 100 million Americans and have been shown to be extremely safe, associated with a dramatic decrease in fatal COVID-19 cases, hospitalization, and probably contribute to the overall decrease in transmission within the community. These are undeniable facts that contradict any claims made until now of vaccines causing blood clots [...], infertility [...], or brain/heart damage."*

The study by Ogata *et al.* published in *Clinical Infectious Diseases* reports that part of the spike protein enters the blood<sup>[9]</sup>. However, nothing about being detrimental is mentioned in the publication. These findings are also based on a small sample size.

## SCIENTISTS' FEEDBACK

**Julie Bettinger (<https://www.bcchr.ca/jbettinger>), Associate Professor, University British**

The study by Lei *et al.* published in *Circulation Research*, done in hamsters, actually concludes by stating that "vaccination-generated antibody and/or exogenous antibody against S protein not only protects the host from SARS-CoV-2 infectivity but also inhibits S protein-imposed endothelial injury"<sup>[6]</sup>. That is, COVID-19 vaccines may actually prevent vascular damage.

So the problem here is linking two completely unrelated studies. And the fact that the clots have only been found with viral vector vaccines. There is a massive leap between the two studies, and the LifeSiteNews article is cherry-picking what is presented.

**Abraham Al-Ahmad (<https://orcid.org/0000-0001-7463-3204>), Assistant Professor, Texas Tech University Health Sciences Center:**

**Is the spike protein toxic to endothelial cells, causing blood clots, heart, and brain damage?**

An interesting pattern with the anti-vaccine crowd is the inappropriate use of scientific literature or the cherry-picking of poor studies to make bold claims in an attempt to vilify vaccines, as seen in this latest instance citing a rapid communication from Lei and colleagues published in *Circulation Research*<sup>[6]</sup>.

The latest trend amongst anti-vaccine groups is the claim that the spike (S) protein produced by COVID-19 vaccines is a toxin, and it damages various tissues, including endothelial cells. What is the science behind the claim, and how does it hold up under scrutiny? In this rebuttal, I will specifically address the claim with regards to the endothelial cell perspective.

### **1. COVID-19 and vasculitis/endothelial cells damage: still a work-in-progress situation**

Endothelial cells are a type of cells lining the inside of our blood vessels, from big caliber arteries to fine microvessels deep inside our tissues. It is a type of cell that emerges early during development from a mesoderm lineage (the same embryonic lineage that will give rise to connective tissues, including muscles and bones).

Endothelial cells play important roles as a physical and chemical filter between the circulating blood and the peripheral tissues. As a mesh, they retain blood cells and plasma proteins inside the blood vessels and participate in the regulation of blood pressure by secreting relaxing factors (e.g., nitric oxide, endothelium-derived hyperpolarizing factor) for the muscle cells lining blood vessels. In certain tissues (e.g., brain, eyes, or testis), such endothelial cells can be further specialized, resulting in a much more tightened barrier phenotype that acts as a strict barrier, such as the blood-brain barrier (<https://www.cancer.gov/publications/dictionaries/cancer-terms/def/blood-brain-barrier>) (BBB) observed in the brain.

However, endothelial cells are very fragile cells that can be damaged by various agents. One of these potential hazardous agents may be SARS-CoV-2 itself, the virus responsible for the COVID-19 pandemic.

The first high-impact study that documented possible vascular endothelial damage in patients was the study from Varga and colleagues, published last year in *The Lancet* journal<sup>[4]</sup>, which reported the presence of endothelial lesions in both classical histological (stained tissues with

such studies have limitations, as reported in a letter to the editor a few weeks following its publication<sup>[10]</sup>, highlighting a few limitations and caveats of such observations.

Another study by Nuovo and colleagues also reported endothelial cell damage<sup>[5]</sup> before the *Circulation Research* study by Lei and colleagues<sup>[6]</sup>. Nuovo and colleagues reported similar observations in post-mortem tissues of 13 deceased COVID-19 patients, as well as neurological alterations in mice infected with spike protein via IV infusion (full-length or S1 fraction) at a dose considered very high (3 micrograms/150 microliters or 20 micrograms/milliliter per mouse).

This study also reported endothelial cell damage in the blood vessels of the brain on post-mortem tissues, but fell short of indicating the presence of fully functional virions (the authors reported the presence of pseudovirions, lacking the presence of SARS-CoV-2 RNA in most preparations).

At this point, we have some indications that SARS-CoV-2 can be detrimental to endothelial cells, but we are lacking two important pieces of information:

- 1) What is the blood/plasma viral load we need in a patient to show signs of endothelial cell damage (we only know these patients died from COVID-19 complications)?
- 2) How does this viral load compare to the amount of spike protein displayed on [pseudo]viruses, based on the experimental data presented in the study?

We must consider whether any studies showing the transport and/or toxicity of spike protein reflect an amount that can be achieved realistically in COVID-19 patients.

## **2. The Lei *et al.* rapid communication in *Circulation Research***

Rapid/short communications are a type of scientific article commonly encountered in the literature when you have a discovery that is so important that it needs to be shared, but you have not been able to conduct a significant number of experiments to have a study as a whole.

Short communications are essential to break important findings, but they also come with the peril encountered by preliminary studies: we are lacking confirmatory experiments, we are often having a limited number of experiments done that can show similar outcomes with different approaches, and more dangerously, they can be interpreted by non-scientists as irrefutable evidence. Quite often, these short communications provide more questions than answers, and due to their limited word count, often leave important information out.

One of the problems of working with the SARS-CoV-2 virus is the high risk associated with manipulating such a virus. It is highly infectious and easily spread via aerosols and droplets, making its manipulation in cell culture a high-risk activity for the researcher. As of now, any work involving the culture and maintenance of infectious SARS-CoV-2 requires the use of a Biosafety Level 3 (<https://www.phe.gov/s3/BioriskManagement/biosafety/Pages/Biosafety-Levels.aspx>) (BSL-3) research facility to conduct such experiments, including the culture of functional viruses. As a comparison, HIV only requires a BSL-2+ laboratory. Bacteria such as *Mycobacterium tuberculosis* (which is the causative agent of tuberculosis) requires a BSL-3 facility. These laboratories require special facilities and engineering controls to avoid biological agents escaping outside the lab, in addition to trained personnel for manipulating these agents.

that express spike protein on their viral shell. Here is the first caveat: we don't have any information about the type of pseudoviruses used. Are these aggregates of spike proteins like the Novavax vaccine candidates? Are these adenoviruses encoding for the spike protein? Are these Syrian hamster-specific viruses used for that purpose since the animals infected are Syrian hamsters?

The second caveat is we don't know what the viral load given to the animals is. Furthermore, is the expression of spike protein by these pseudoviruses comparable to SARS-CoV-2 virions?

And the third, the use of Syrian hamsters. It is always dangerous to jump from animals to humans assuming it will be comparable. Translation from the bench to the bedside remains an extremely dangerous and risky procedure, as most interventions and drug candidates fail to translate efficacy observed on the bench into clinically relevant therapy.

It is important to note that the authors reported an inoculum of  $10^8$  PFU [acronym for "Plaque-Formation Unit (<https://www.virology.ws/2009/07/06/detecting-viruses-the-plaque-assay/>)"], which represents the number of infectious or live viruses in a preparation] per mL (100 million/mL), using only a very small size (N=3 animals per experiment) for *in vivo* studies. Usually, a minimum number of N=8 per group is not unheard of for animal studies to achieve a minimal statistical significance. We don't have any idea how this inoculum compares to clinical information. Is that viral load comparable to humans? If yes, at which clinical stage?

We also know that the *in vitro* studies were conducted in the presence of recombinant S1 protein, a genetically-produced viral protein, not the natural and full-form of the protein present in viral particles. This is important because it also means that the use of recombinant proteins may miss the sugar-branching or glycosylation found in the natural form of the protein as found in SARS-CoV-2 viruses<sup>[11]</sup>.

The amount used was 4 microgram [one millionth of a gram]/mL, which also appears pretty excessive. To put this into perspective, Buzhdygan and colleagues<sup>[12]</sup> used 10 nanomolar [10 nanomoles per liter, which equals  $10^{15}$  molecules of protein, per liter] of the recombinant spike protein S1 domain in cultured human brain endothelial cells, a concentration considered sufficient to observe statistically significant damage in brain endothelial cells. If we assume a molecular weight of ~76 kDa, it would result in a concentration of 760 microgram per liter (or 760 nanograms/mL).

A recent study by Ogata and colleagues<sup>[9]</sup> reported the detection of spike protein in the plasma of patients following immunization with the Moderna vaccine, which was barely over the limit of detection. The authors noted values up to 6812 picograms [one thousand billionth of a gram] per mL (peak concentration) during the first week after the first injection. No subsequent peak and detection above detection levels were observed after the second injection. No full-length spike protein was detected at any time, and no nucleocapsid protein was detected in either of the patients, which allows us to rule out any shedding from COVID-19 naturally.

It is important to compare the values: we indicate possible damage if you expose cells and animals to 4-760 micrograms/mL (with a study injecting 20 micrograms/mL in mice). These values have yet to be compared to values observed in patients' plasma/serum, but they are at least 59 times

1,000 times that concentration to see actual damage in humans (in vitro on cultured brain endothelial cells). A situation that could hypothetically occur in severe COVID-19 patients, pending studies confirming it, but not achievable in vaccinated people, at least for those who received the Moderna vaccine, and unlikely to occur for the other vaccines.

### 3. What about the clotting?

In the article, Bridle makes the following statement: *"when that happens it can do one of two things: it can either cause platelets to clump, and that can lead to clotting. That's exactly why we've been seeing clotting disorders associated with these vaccines. It can also lead to bleeding."*

Here is a conundrum of the statement: you cannot be the coagulopathic agent that is prothrombotic (generate blood clots and stop blood flow in a vessel) and be antithrombotic (which results in bleeding) at the same time. The ACE2 receptor appears to exert an antithrombotic activity under normal conditions, therefore we can assume tampering with such a receptor can contribute to clot formation<sup>[13]</sup>.

What we know for now is that there is a high incidence of clotting events in COVID-19 cases. There are various reports which indicate that up to 50% (50 out of 100) of hospitalized COVID-19 patients present signs of coagulation (clotting issues)<sup>[8]</sup>.

When it comes to COVID-19 vaccines, cases of thrombosis (clotting) following COVID-19 vaccination have been reported with the Oxford-AstraZeneca and Johnson & Johnson vaccines. By early spring 2021, several cases of coagulopathy resulting in cerebral venous thrombosis (CVT) were documented in various countries utilizing such vaccines (both of which are non-mRNA vaccines).

CVT accounts for 0.5% of all stroke admissions, according to Bousser and Ferro<sup>[14]</sup>. To put these into perspective, the European Union (EU) experienced 1.12 million stroke events in 2017<sup>[15]</sup>, which would give us an estimate of 509 stroke events per 100,000 people. Hence, the number of CVTs occurring in the EU population could be estimated by 2.5 per 100,000 persons.

According to the European Medicines Agency (<https://www.ema.europa.eu/en/news/covid-19-vaccine-astrazeneca-benefits-still-outweigh-risks-despite-possible-link-rare-blood-clots>), 18 cases of CVT were reported following the immunization of 20 million people with the Oxford-AstraZeneca COVID-19 vaccine. This number brings us to an estimate of 0.09 per 100,000 people. In other words, the incidence of CVT following immunization is very likely to be below or similar to the background occurrence of such events in the population. The EMA made it clear: the benefits still outweigh the very small perceived risk when it comes to clotting and CVT.

### 4. What about the heart and brain? What about the distribution of the vaccine in the body?

Earlier reports commented on heart anomalies in young patients, around 12 to 16 years old, following immunization with the Pfizer-BioNTech COVID-19 vaccine. So far, the reports of this myocarditis (heart damage) are rare, mostly mild, and still under monitoring. However, the incidence of these cases doesn't seem to be above (<https://www.cdc.gov/vaccines/acip/work->

CDC\_AA\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fvaccines%2Facip%2Fwork-groups-vast%2Ftechnical-report-2021-05-17.html) the baseline rate.

When it comes to the distribution of the COVID-19 vaccines in the body (and damage to the brain and other organs), the LifeSiteNews article goes even further into fear-mongering, giving a platform to Stephanie Seneff, a computer scientist at the Massachusetts Institute of Technology, who is a well-known anti-genetically modified organisms (GMO) activist. Seneff is known for her questionable claim

([https://blogs.sciencemag.org/pipeline/archives/2014/12/30/autism\\_and\\_glyphosate](https://blogs.sciencemag.org/pipeline/archives/2014/12/30/autism_and_glyphosate)) that *"half of all children will be autistic by 2025"* (spoiler alert: the incidence of autism in the general population in 2020 was 1 in 54 people, based on 2016 data), citing the use of glyphosate, a common herbicide used in agriculture for the past 50 years, as the main culprit.

Such a bold and unsubstantiated claim has even been denounced by certain GMO skeptics, questioning the credibility of Seneff as an authority figure on that topic<sup>[16]</sup>. In the LifeSiteNews article, Seneff went as far as to claim that *"the results of this leaked Pfizer study tracing the biodistribution of the vaccine mRNA are not surprising, but the implications are terrifying"*.

I have personally discussed (<https://scientistabe.wordpress.com/2021/05/31/sciences-pharmacokinetics-do-nano-particles-of-the-pfizer-covid-19-vaccine-cross-the-blood-brain-barrier-and-infect-your-brain-with-mrna-or-will-fritz-your-gonads/>) these biodistribution data (as obtained by Bridle and colleagues) on my blog, as I teach pharmacokinetics to pharmacy students. The data is pretty clear: the number of vaccines needed to be injected in a 12-year old to reproduce the findings observed in rats and reported as "terrifying" would be equivalent to 60,000 doses given at once, to reproduce the number of nanoparticles used in that study.

At this point, neurological damage from COVID-19 vaccines remains to be documented, but neurological damage from COVID-19 (<https://www.health.harvard.edu/blog/the-hidden-long-term-cognitive-effects-of-covid-2020100821133>) itself is common. Such damage can be multifactorial, and it remains unclear what the contributing factors are. The high expression of ACE2 in the nasal cavity could be one point of entry for the virus to invade the brain<sup>[17]</sup>, the hypoxemia (decreased oxygen saturation in the blood) that is a major issue encountered in COVID-19 patients (since neurons are extremely susceptible to hypoxic injury), and the systemic inflammation associated with COVID-19 that can activate the brain endothelium and possibly drive some neuroinflammation.

## 5. Concluding remarks

Here is the great peril of anti-vaccine and fear-mongering disinformation spreaders: twist and exaggerate claims. These studies are reflecting a near-impossible scenario that requires a ridiculous amount of spike protein that has yet to match clinically relevant concentrations, yet much higher than values observed in small studies.

COVID-19 vaccines have been given to over 100 million Americans and have been shown to be extremely safe, associated with a dramatic decrease in fatal COVID-19 cases, hospitalization, and probably contribute to the overall decrease in transmission within the community. These are



(coagulopathy occurs in a much higher number of COVID-19 patients than COVID-19 vaccinated patients and seems limited to the use of adenovirus-based vaccines such as the Oxford-AstraZeneca vaccine), infertility (several cases of pregnancies occurred in volunteers enrolled in the Pfizer-BioNTech and Moderna clinical trials, no detrimental effects were observed in pregnant women vaccinated) or brain/heart damage (such damage has yet to be reported in the vaccinated population, at a rate above baseline, whereas damage from COVID-19 is well-documented).

## READ MORE


Derek Lowe (<https://blogs.sciencemag.org/pipeline/about-derek-low>), a chemist and specialist in drug discovery, discussed (<https://blogs.sciencemag.org/pipeline/archives/2021/05/04/spike-protein-behavior>) in his blog in *Science Translational Medicine* the lack of evidence supporting that COVID-19 vaccines cause vascular damage.

David Gorski (<https://wsusurgery.com/?faculty=david-gorski>), a professor of surgery at Wayne State University and an editor at Science-Based Medicine, addressed (<https://respectfulinsolence.com/2021/05/31/antivaxxers-and-the-deadly-sars-cov-2-spike-protein/>) in his blog Respectful Insolence many of the alleged dangers attributed to the spike protein produced by COVID-19 vaccination.

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Dr. BYRAM BRIDLE  
Plaintiff

-and- UNIVERSITY OF GUELPH et al.  
Defendants

Court File No. CV-22-00691880-0000

**ONTARIO**  
**SUPERIOR COURT OF JUSTICE**

PROCEEDING COMMENCED AT TORONTO

**SUPPLEMENTARY MOTION RECORD OF**  
**DEFENDANT DAVID FISMAN**  
**(Returnable November 19, 2024)**

VOLUME I OF II

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Court File No. CV-22-00691880-0000

**ONTARIO**  
**SUPERIOR COURT OF JUSTICE**

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CHARLOTTE YATES, SCOTT WEESE, GLEN PYLE, ANDREW  
PEREGRINE, DOROTHEE BIENZLE, AMY GREER, DAVID FISMAN, NICK  
DULEY, JANE OR JOHN DOE JUNIOR SCIENTIST

Defendants

**SUPPLEMENTARY MOTION RECORD OF  
DEFENDANT DAVID FISMAN  
(Returnable November 19, 2024)**

VOLUME II OF II

July 20, 2023

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AND TO: **JANE OR JOHN DOE JUNIOR SCIENTIST**

Defendant

Court File No. CV-22-00691880-0000

**ONTARIO**  
**SUPERIOR COURT OF JUSTICE**

**B E T W E E N:**

**Dr. BYRAM BRIDLE**

**Plaintiff**

**and**

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CHARLOTTE YATES, SCOTT WEESE, GLEN PYLE, ANDREW  
PEREGRINE, DOROTHEE BIENZLE, AMY GREER, DAVID FISMAN, NICK  
DULEY, JANE OR JOHN DOE JUNIOR SCIENTIST**

**Defendants**

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This is Exhibit “D” referred to in the Affidavit of Dr. David Fisman sworn by Dr. David Fisman at the City of Toronto, in the Province of Ontario, before me on July 20, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.



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Commissioner for Taking Affidavits (or as may be)

**KATHERINE R. COSTIN**



This professor spreads false information about the consequences of corona vaccinations (AFP /)

# This professor spreads false information about the consequences of corona vaccinations

Jan Russezki, Max Biederbeck, AFP Germany



Published on Thursday 17 June 2021 at 10:45

Updated on Tuesday 29 June 2021 at 11:28 am

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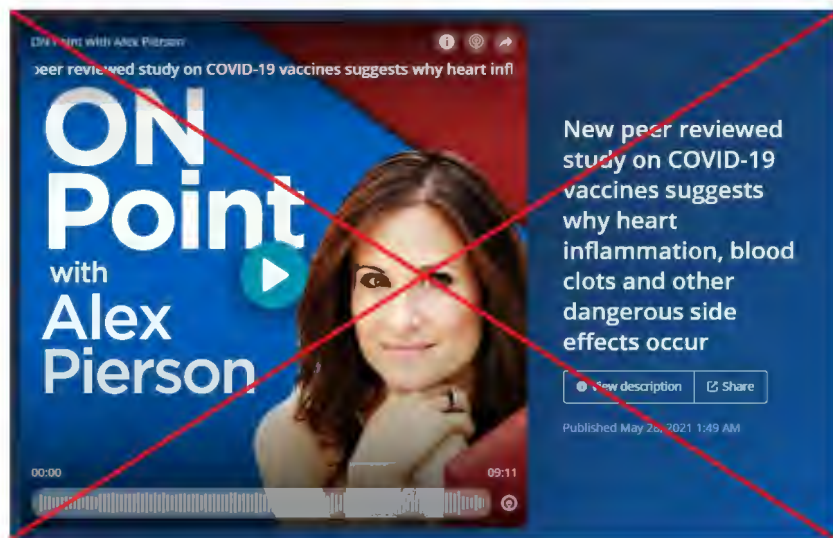
**Social media users worldwide have shared a radio interview in which immunologist Byram Bridle claims to have discovered "scary" dangers of mRNA vaccinations against Covid-19 with alleged scientific sources. The professor at Canada's Guelph University said at the end of May that a vaccination allegedly leads to the spread of toxic spike proteins in the bloodstream, which in turn triggers accumulations in organs, blood clotting, infertility and brain damage. Breastfed infants are also at risk through breast milk. However, the source cited by Bridle himself does not allow for this conclusion. International authorities and experts contradict his claims.**

For the authors of well-known German anti-corona blogs, the interview provides evidence of a vaccination scandal. "[Reitschuster](#)", "[Alschner Klartext](#)", "[Uncut News](#)" and others

hundreds of thousands of users on Telegram ([here](#) , [here](#) , [here](#) ).

All of these posts cover a May 28 conversation by Canadian researcher Byram Bridle with radio station [Global News](#) . Bridle, together with other scientists, claims to have had access to a previously allegedly unpublished Japanese Pfizer study. Bridle states that it presents the previous safety assessment of the mRNA vaccines against Covid-19 by Biontech/Pfizer and Moderna as an error. Based on this, he makes the following claims:

"The spike protein enters the blood, circulating in the blood for several days after vaccination. It accumulates once it enters the blood and lodges in a variety of tissues, such as the spleen, bone marrow, liver, adrenal glands and, what is of particular concern to me, it accumulates in the ovaries in fairly high concentrations." The supposedly scientifically proven danger by further studies: blood clots, heart problems, brain damage, infertility and transmission of the danger to infants via breast milk.



Global News Screenshot: 06/11/2021 (AFP /)

### Who is Byram Bridle?

Byram Bridle is Professor of Viral Immunology at [Guelph University](#) , Canada . Publications in the [scientific database PubMed](#) show that he is indeed active in cancer and virology research.

Bridle also appears several times as an expert at a [medical association](#) associated with the Corona-critical " [Front Line Covid-19 Critical Care Alliance](#)" (FLCCC) . AFP has already checked this in [this fact check](#) .

of researchers does not have to correspond to the attitude of the university. She went on to email: "The university strongly encourages anyone who is eligible to be vaccinated to be vaccinated."

AFP also asked Canada's Science Up First initiative on June 10 for an opinion on Bridle. "[Science Up First](#)" is an association of researchers, healthcare providers and science communicators who, with the support of the Canadian government, are debunking misinformation about Covid-19 online. A spokeswoman wrote in an email: "While we have no connection with Byram Bridle, we are aware of the misinformation he and the Alliance are spreading and we are working to disprove it." ([Here](#) are the first results of this work)

Bridle promised in the Global News interview that he would provide the sources for the claims he made there. However, no further sources could be found on the radio page until the publication of this test. Neither Bridle nor Global News responded to an AFP request. [A document by Bridle](#) with similar claims and a few additional sources can be found on the website of the Medical Association .

### **The Japanese "Study" and What It Investigated**

[AFP first looked for the original study](#) mentioned and wrote to the pharmaceutical manufacturer Pfizer about the background and origin of the study. Pfizer spokeswoman Maki Yamaguchi said in an email to AFP on June 17 that the "study" is a "common technical document." This is an international [standard format in the approval process](#) for prescription drugs. "The document is part of the data submission made by Pfizer to the Japan [Medicines and Medical Devices Administration \(PMDA\)](#) for review," Yamaguchi said. Specifically, the report mentioned is an inspection of the important substances [ALC-0315](#) and [ALC-015](#)the Corona vaccination from Biontech/Pfizer. (more on that soon)

A complete [English translation](#) of the control report has so far only been provided by unknown persons.

However, the PDMA had already published the results of the reports in 2020. The European Medicines Agency (EMA) already assessed them in a detailed and publicly available summary of several reports and studies on the Pfizer vaccine on [February 19, 2021](#) . The British Department of Health also presented a summary of the results on [December 11, 2020](#) . The US drug agency FDA had already described the Japanese report on [December 10, 2020](#) .

of mice. Put simply, the scientists injected mice with a radioactively labeled mRNA mixture that also contained the ALC substances listed above. This label allowed the researchers to monitor the distribution of the mRNA in the animals' bodies.

To independently corroborate the report's contents, AFP hired neurologist [Dr. Amane Koizumi](#) from the National Institute of Natural Sciences in Japan was interviewed about the content of the Japanese document. On June 15, he confirmed the above summary of the study content.

**False claim: "The spike protein spreads throughout the body via the bloodstream"**

Bridle now claims this document shows that spike protein travels through the bloodstream and accumulates in the spleen, bone marrow, liver, adrenal glands and ovaries. Blog articles on the interview should also support his statement with a table from the Pfizer document, in which the tissue mentioned was highlighted in yellow.

2.6.5.5B. PHARMACOKINETICS. ORGAN DISTRIBUTION CONTINUED

Test Article: [3H]-Labelled LNP-mRNA formulation containing ALC-0315 and ALC-0159

Report Number: 183350

Species (Strain):		Rat (Wistar Han)															
Sex/Number of Animals:		Male and female/3 animals sex/sexpoint (21 animals sex total for the 50 µg dose)															
Feeding Condition:		Fed ad libitum															
Method of Administration:		Intramuscular injection															
Phase:		50 µg [3H]-08-A01-CO <sub>2</sub> (nc # NC-0552-1)															
Number of Doses:		1															
Detection:		Radioactivity quantitation using liquid scintillation counting															
Sampling Time (hour):		0.25, 1, 2, 4, 8, 24, and 48 hours post-injection															
Sample	Mean total lipid concentration (µg lipid equivalent/g (or mL) (males and females combined))								% of administered dose (males and females combined)								
	0.25 h	1 h	2 h	4 h	8 h	24 h	48 h	0.25 h	1 h	2 h	4 h	8 h	24 h	48 h			
Adipose tissue	0.057	0.100	0.125	0.128	0.093	0.084	0.181	-	-	-	-	-	-	-	-		
<b>Adrenal glands</b>	<b>0.271</b>	<b>1.48</b>	<b>2.72</b>	<b>2.59</b>	<b>6.90</b>	<b>13.3</b>	<b>18.2</b>	0.001	0.007	0.010	0.015	0.035	0.066	0.106			
Bladder	0.041	0.130	0.146	0.107	0.146	0.247	0.365	0.000	0.001	0.001	0.001	0.001	0.002	0.002			
Bone (femur)	0.091	0.195	0.266	0.276	0.340	0.342	0.681	-	-	-	-	-	-	-			
<b>Bone marrow (femur)</b>	<b>0.479</b>	<b>0.960</b>	<b>1.24</b>	<b>1.24</b>	<b>1.84</b>	<b>2.49</b>	<b>3.37</b>	-	-	-	-	-	-	-			
Brain	0.045	0.100	0.138	0.115	0.073	0.069	0.068	0.007	0.013	0.020	0.016	0.011	0.010	0.009			
Eyes	0.010	0.035	0.032	0.067	0.059	0.091	0.112	0.000	0.001	0.001	0.002	0.002	0.002	0.003			
Heart	0.282	1.03	1.40	0.987	0.790	0.451	0.546	0.018	0.036	0.084	0.060	0.042	0.027	0.030			
Injection site	128	394	311	338	215	195	165	19.9	52.6	31.6	28.4	21.9	29.1	24.6			
Kidneys	0.391	1.16	2.05	0.924	0.590	0.426	0.425	0.030	0.124	0.211	0.109	0.075	0.054	0.037			
Liver	0.013	0.048	0.093	0.287	0.649	1.10	1.34	0.008	0.023	0.065	0.192	0.405	0.692	0.762			
<b>Liver</b>	<b>0.737</b>	<b>4.63</b>	<b>11.0</b>	<b>16.5</b>	<b>25.3</b>	<b>19.2</b>	<b>24.3</b>	0.602	2.87	7.33	11.9	18.1	15.4	16.2			
Lung	0.492	1.21	1.83	1.50	1.13	1.04	1.09	0.052	0.101	0.178	0.169	0.122	0.101	0.101			

However, this claim is false for several reasons - AFP explains them below. Before doing so, it is important to know how mRNA vaccination works. Explained here in the video:



### **1. Japanese document shows no proliferation of spikes in the body**

As already explained in the EMA summary, in the study described in the Japanese document, mice and rats were only injected with a [radioactively labeled lipid-nanoparticle-mRNA \(LNP\) mixture](#) .

The results in the table therefore do not show the distribution of spike proteins, but of the LNP/mRNA mixture. The study team only found that the LNP mixture circulated primarily at the injection site (in the muscle) and in the liver of the mice. The amounts were also recognizable in their spleen, adrenal glands and ovaries, but the concentration was significantly lower.

This is also confirmed by the Japanese scientist Amane Koizumi, who read the Pfizer document for AFP: "**The experiment does not test whether the spike protein, which is produced by mRNA in cells, circulates in the blood** . It is not possible to say that the spike protein circulates itself." The table also does not show any spikes: "It shows the distribution and the time course of the distribution of [lipids](#) from injected LNP within each organ. The left side shows the absolute concentration, the right side the percentage of the total amount injected."

[Prof. Dr. Daniel Sauter](#) , research leader of the "Mechanisms of innate antiviral immunity" group at the University of Tübingen, wrote in an email to AFP on June 11: "Nowhere in the document is the deposition or concentration of spike protein in the test animals examined. The methodological approach of the study does not allow this conclusion."

AFP also spoke to [Frank Kirchhoff](#) on June 11 . He is Director at the Institute for Molecular Virology at the University Hospital in Ulm. He explained: "Just because I radioactively label vesicles of an mRNA vaccination and then observe them in other places in the body, does not mean that spike proteins are also present there, let alone freely moving spike proteins."

whether this happens."

Nevertheless, Bridle speaks of an accumulation of the supposed spike proteins in the organs. What he omits: According to the EMA summary, the LNP mixture examined only accumulates for a certain period of time and is then excreted from the body. The highest concentration in the blood plasma was reached less than two hours after administration. 24 hours after the injection only one percent of the concentration was found in the plasma.

## **2. Animal testing cannot be safely transferred to humans**

Animal studies can provide information on the tolerability and function of vaccines (more on this [here](#) ). According to virologist Kirchhoff, it is unclear whether the Japanese study can be transferred to humans. He explained: "This can only provide a first indication, but cannot be extrapolated to humans. An injection into human muscles is easier and more effective to give. Rats are smaller, their muscles are smaller, the distances in the body are shorter and the metabolism faster."

Also, according to the EMA summary, the mRNA injection dose was not comparable to the vaccine dose used in humans. The dose administered to the mice was 300-1000 times higher than that of humans vaccinated.

## **3. Vaccination damage should already be visible**

If spikes were to spread throughout the body, accumulate in the organs and cause the damage Bridle claimed, they should already be visible in vaccinated people around the world. The accumulation and the undesirable effects it triggers should begin shortly after vaccination, when the concentration of mRNA and the spike production it triggers is high, explained Kirchhoff. Most vaccination campaigns began in December 2020. In the meantime, many millions of people have been treated with mRNA vaccines and the effectiveness and side effects have been intensively studied (see [here](#) , [here](#) ). The results so far would prove a high level of effectiveness and safety, says Kirchhoff.

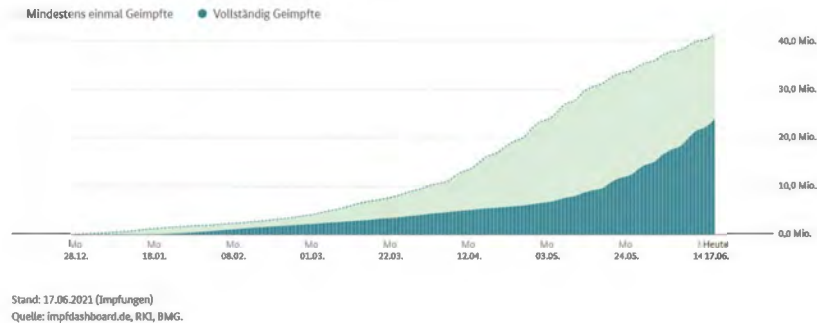
[The Paul-Ehrlich-Institut \(PEI\) recorded 79,106 reported suspected cases](#) of side effects in connection with all four vaccines in Germany by May 31, 2021 in around [40.5 million people who had been vaccinated for the first time](#) and around 22 million people who had been fully vaccinated . A causal connection has not yet been established. The most frequently reported side effects are "General disorders and administration site conditions". In other words: reactions to



reporting group. Vascular diseases and diseases of the genital organs are negligible in the overview of the PEI.

### Geimpfte Personen

Die COVID-19-Impfkampagne läuft in Deutschland seit **174 Tagen**.  
Mindestens eine Impfdosis haben seitdem **41.225.811 Personen** erhalten. Davon sind **23.916.490 Personen** bereits vollständig geimpft.



Vaccination dashboard screenshot: 06/17/2021 ( PEI/AFP / )

Bridle also addresses alleged heart problems as a result of vaccination. According to media reports, there could actually have been inflammation of the heart muscle in rare cases after mRNA vaccinations ([here](#), [here](#)). According to the Israeli Ministry of Health, such inflammations occurred as a possible side effect, especially after the second vaccination. It is still unclear whether the number of people with such a disease is unusually high. The majority of the sick were discharged from the hospital "in good condition". A causal connection is likely, but still needs to be checked ([here](#), [here](#)). The Paul Ehrlich Institute observed a few similar cases in Germany ([here](#)). What exactly triggers such an inflammation is not yet known.

#### 4. Even the eventual production of spikes would not be dangerous

A study on the spike protein active [in the corona virus in the journal "Circulation Research"](#) actually showed in April that spikes can cause damage to the body in severe infections. Even then, opponents of vaccination claimed that Covid vaccinations based on spike proteins were dangerous. [AFP had already refuted this](#), arguing, among other things, that spikes do not circulate freely in the body after vaccination.

It is precisely this circulation that Bridle now wants to have confirmed, even if the study he cited does not allow this conclusion to be drawn. But even if there were such a production, the Tübingen researcher Daniel Sauter explains: "The detection of free spike protein outside the injection site would not necessarily be associated with side effects or toxicity and therefore not worrying in itself. Hundreds of thousands of proteins circulate in the organism that be

associated with toxic effects."

Peter Murray, research group leader on immune regulation at the Max Planck Institute, made a similar statement to AFP in an email on June 2. He added that foreign substances are always removed from the body. Exceptions are, for example, food tolerated from an early age, intestinal bacteria, clothing on the body. However, the spike protein is not one of these exceptions. "That means no matter what happens, it's going to be captured and removed," Murray explained.

Only very large amounts of spike proteins, which are not reached after vaccination, can have a toxic effect, more on that in the next chapter.

### **interim conclusion**

The Japanese document cited by Bridle does not prove any spike protein circulation in the body, merely the presence of an overdosed and labeled mRNA mix in the body of mice. This was included in the assessments of European health services and rated as harmless. The Pfizer report does not provide any evidence of a dangerous accumulation of spike proteins in the body. Even if free spike proteins were circulating in the body, that wouldn't be a problem. According to experts, the danger depends on a critical amount that is not reached after vaccination. According to the Japanese report, there is no accumulation of spikes in the tissue, the body would simply break down the small amount of proteins again.

### **Misleading claim: "Spike proteins are toxic and dangerous"**

In his interview, Bridle misleadingly combines two claims: On the one hand, he says that spike proteins are toxic. On the other hand, he claims that, according to a study, spike proteins were found in the blood of eleven out of 13 vaccinated health workers. However, Bridle misinterpreted the study result and overestimated the toxicity of spike proteins.

In an interview, Bridle cites a [second study](#) by researchers from Harvard University to support his thesis on the alleged spread of spike proteins. It examined 13 healthcare workers who had been vaccinated with Moderna. Allegedly, spike proteins were found in the bloodstream of eleven out of 13 vaccinated people.

AFP interviewed Harvard Medicine School pathology professor [David Walt](#) about the study he helped collaborate on. He wrote in an email on June 11: "**Bridle takes our findings**

Walt explained that the aim of the study was to demonstrate antigen circulation. Parts of spike proteins were found in the blood plasma of eleven vaccinated persons and complete spikes in only three vaccinated persons. Exactly why this happens is only speculated in the study. However, the researchers found that the concentration of Sars-Cov-2 proteins decreased while the antibody concentration increased. In all vaccinates, the partial spikes have disappeared from the plasma after 14 days. The full spikes in the three vaccinees were only detectable after the first vaccination and also disappeared after the second dose.

Even if they quickly disappear from the body, the question arises: Should vaccinated people be worried about these spikes, which Bridles describes as poisonous?

Walt replied:

*"Bridle confuses the toxic effects of high levels of spike protein in some infected patients with the very low levels of spikes found in some of our vaccinated study participants. It is true that the spikes that occur in some severe infections are toxic. The levels we measure in some people after vaccination are incredibly low and we did not find full spikes in most vaccinated people. Our conclusion was that the vaccine is working as intended. The vaccine is incredibly safe!"*

Virologist Kirchhoff also confirmed the toxicity of spikes: "I doubt that the amounts of free spike protein that could possibly arise after a vaccination are sufficient to cause harmful side effects."

Christian Münz, Professor of Viral Immunobiology at the University of Zurich, confirmed this to AFP on May 6th. He wrote in an email: "In order for the spike protein to damage endothelial cells in blood vessels, large amounts would have to be present in the bloodstream." But that is not the case after vaccinations.

### **mRNA vaccines have been extensively evaluated and tested**

There is no evidence to support Bridle's claim. Quite the contrary: Pfizer conducted further repeated studies on the toxicity of the mRNA vaccine as part of the approval (study ID 38166 and 20GR142).

According to the EMA evaluation, it came out that the tested vaccine had no negative effects on the fertility and mortality of the vaccinated animals. It states: "The Committee for

based on conventional studies of repeated dose toxicity, toxicity to reproduction and development."

Pfizer's phase 3 mRNA vaccine trial also provided enough robust data to allow the vaccine to market. For 43,448 injections, the study found that serious adverse events were minor and similarly distributed in the vaccine and placebo groups. Those who were actually vaccinated with mRNA only reported short-term, mild to moderate pain at the injection site, fatigue and headaches.

According to a summary document from the British supervisory authority dated December 11, 2020, after the mRNA vaccination there were reactions at the injection site, the lymph nodes, in the bone marrow and in the spleen. This is "compatible with an immune response or inflammation at the injection sites" and "typical of the administration" of such mixtures. The US regulatory authority ([here](#)) also comes to the understanding of the Pfizer studies that the vaccines are not toxic.

#### **Additional claims without attribution**

Byram Bridle makes further claims in the interview without specifically stating the scientific basis for them. These theses also appear in the paper on the CCCA website. There, too, the sources are missing.

#### **False claim: "Spike proteins lead to blood clotting"**

The claim that spike proteins lead to cell death and blood clotting is false. AFP already checked this in February 2021 in connection with a study by the Paul Ehrlich Institute. In [this fact check](#), after numerous expert discussions, AFP came to the conclusion: "The corona vaccination, as confirmed by both the study leader and other experts at AFP's request, could not trigger such uncontrolled cell fusions at all. The alleged danger to life does not exist." Bridle has also currently proven nothing to the contrary.

#### **False claim: "mRNA is transmitted to infants via breast milk"**

Bridle claims, without citing any source, that mRNA and spikes from vaccinations are transmitted through breast milk from breastfeeding women to infants and can cause bleeding in the gastrointestinal tract.

AFP has previously examined this claim in the context of an alleged infant death in May 2021. In [this fact check](#), experts agree that mRNA from vaccinations cannot get into breast

migrate through the body in large quantities also applies here.

**False claim: "Spike proteins breach the blood-brain barrier and cause brain damage"**

Bridle further claims without source that the spike proteins would breach the blood-brain barrier and cause neurological damage. [AFP refuted this claim in a fact check in French in May](#) .

In it, [Daniel Dunia](#) , head of research at the French Center for Scientific Research CNRS, told AFP that the claim was "absolutely fake news". "The mRNA vaccine is injected into the muscle, and expression of the spike protein is confined to the cells that are designed to induce the immune response. The mRNA is unstable and rapidly degraded," he wrote.

"Even during a natural and strong Covid infection, there is no direct evidence of damage to the blood-brain barrier that is directly related to the virus," he continued. On June 14, Dunia confirmed again to AFP in an email that there is currently no scientific basis for the claim that mRNA vaccines cause neurodegenerative diseases.

[A study with mice](#) , shared by [Bundestag member Karl Lauterbach \(SPD\)](#), is circulating on social media . In it, parts of spikes in the brains of the animals were detected. According to the study, this means crossing the blood-brain barrier, but this cannot be transferred to humans: " **It is important to note that (...) this may not be the case in humans.**"

The researcher Dunia wrote about this study that the consequences of a Sars-Cov-2 infection or the administration of large amounts of artificial spike proteins into the vein (as in the study) are not comparable to an mRNA vaccination into the muscle.

**Conclusion**

Canadian researcher Byram Bridle's claims in an interview with Global News are false. The study he cited proves no accumulation of spike proteins in the body. Even if there were free spikes after vaccination, they would not be dangerous. Bridle's other claims in relation to a Harvard study are also misleading to the point of being false. His conclusions cannot be held scientifically, as several experts confirmed to AFP.

This is Exhibit “E” referred to in the Affidavit of Dr. David Fisman sworn by Dr. David Fisman at the City of Toronto, in the Province of Ontario, before me on July 20, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.



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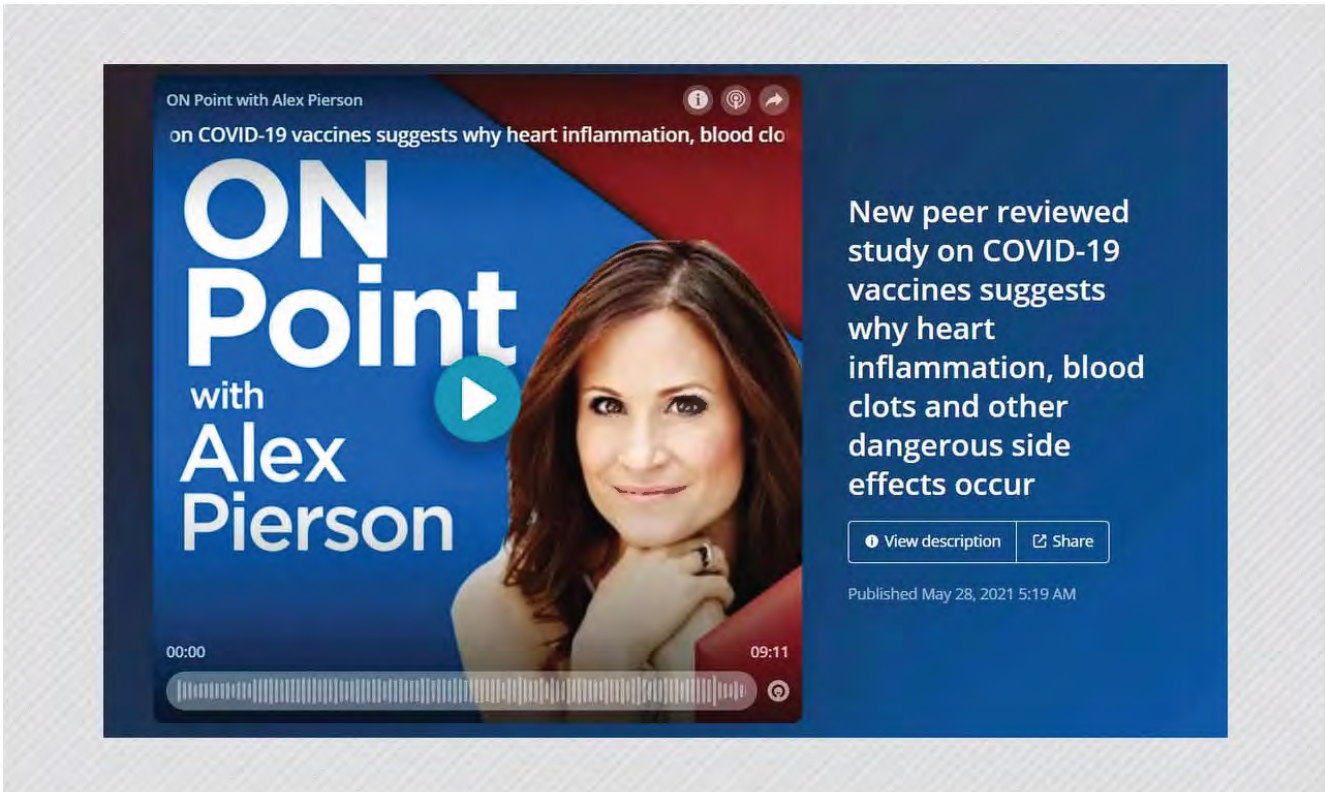
**KATHERINE R. COSTIN**

# Immunologist Byram Bridle Misinterprets Data On COVID-19 Vaccines

[boomlive.in/world/immunologist-byram-bridle-misinterprets-data-on-covid-19-vaccines-13667](https://boomlive.in/world/immunologist-byram-bridle-misinterprets-data-on-covid-19-vaccines-13667)

AFP

June 26, 2021



Social media users are sharing a radio interview in which a Canadian immunologist claims that widely used COVID-19 vaccines are dangerous. But a pharmaceutical company document and Harvard study presented by the professor as evidence have been misinterpreted, and experts said the jabs are working safely and effectively as intended.

## **Also Read: Guest On Steve Bannon's Show Falsely Claims Pandemic Was Staged By Philanthropists**

"The story I'm about to tell is a bit of a scary one. This is cutting-edge science," says Byram Bridle, an associate professor at the University of Guelph, in a May 27, 2021 radio interview on Global News 980 CFPL. It has been shared more than 22,000 times on Facebook, according to the social media monitoring tool CrowdTangle.



Screenshot taken from omny.fm on June 21, 2021

In the segment, Bridle claims studies show that the spike protein from SARS-CoV-2, the virus responsible for COVID-19 disease, is circulating via the bloodstream, supposedly posing a health risk to people who choose to be vaccinated.

The mRNA vaccines developed by Pfizer-BioNTech and Moderna differ from previously administered inoculations. Instead of confronting the immune system with part of a virus in a weakened or deactivated form to build antibodies, they give it a "blueprint" of a part of the virus (the spike protein) that the body can then recognize and fight when confronted by it later.

Bridle warns: "We made a big mistake... We never knew the spike protein itself was a toxin and was a pathogenic protein. So by vaccinating people, we are inadvertently inoculating them with a toxin."

Experts, including those with Canada's #ScienceUpFirst initiative, disagree.

The group, which is partially supported by the Canadian government to debunk misinformation about COVID-19 online, wrote a Twitter thread to explain that spike proteins induced by the vaccines are different from those present on the surface of the SARS-CoV-2 virus, and that they are not dangerous.



The Bridle interview was shared throughout the world, leading to misleading claims debunked by AFP in [France](#) and [Germany](#).

Contacted by AFP, Bridle did not reply, but he has [claimed](#) that he experienced "harassment" from colleagues who do not share his controversial views on the safety of COVID-19 mRNA vaccines.

More than [318 million doses](#) of the COVID-19 vaccines -- mostly mRNA jabs -- have been administered in the United States, and more than [32.5 million](#) shots have been given to Canadians.

### **Also Read: No, Profusa's Biosensors Are Not Inserted Into Humans Via COVID-19 Vaccines**

AFP Fact Check examines Bridle's claims in detail.

### **Claim: Japanese Pfizer "study" shows spike protein circulates in the blood**

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Bridle claims: "The spike protein gets into the blood, circulates through the blood in individuals over several days post-vaccination. Once it gets into the blood, it accumulates in a number of tissues such as the spleen, the bone marrow, the liver, the adrenal glands. One that is of particular concern to me, it accumulates at quite high concentrations in ovaries."

AFP has debunked false and misleading claims about the impact of COVID-19 on [fertility here](#) and [here](#).

To support his claim, the Canadian professor claims to have gained access to a Pfizer study from Japan. But this document is not new, nor is it a "study," according to the pharmaceutical company.

Maki Yamaguchi, a Pfizer spokeswoman, told AFP on June 17 that Bridle is referring to a "Common Technical Document," a [standard international format](#) in the approval process for prescription drugs. "The document is part of the data submitted by Pfizer to the (Japanese) [Pharmaceuticals and Medical Devices Agency](#) for review," she said.

These documents had also been evaluated by the [European Medicines Agency](#) (EMA) and by its [British](#) and [American](#) counterparts, which have all authorized this vaccine for emergency use.

In the original [report](#) in Japanese, Pfizer studied the circulation of its vaccine by injecting mice with a mixture containing [lipid nanoparticles](#), the small capsules that carry messenger ribonucleic acid (RNA) molecules to cells where they deliver the genetic information that creates the spike protein. These were "radioactively marked" to follow their path in the body of the mice.



Watch Video At: <https://youtu.be/NGjppkdEYHc>

The Pfizer document does not prove that the spike protein spreads throughout the body, according to experts. Only the lipid nanoparticles -- and not the spike protein -- circulated, mainly in the muscle where they were injected and in the liver. They were also found, in lower concentrations, in the spleen and ovaries.

**Also Read: Dr Sherri Tenpenny Repeats COVID-19 Misinfo In Ohio State Testimony**

Japanese neurologist Amane Koizumi, who read the Pfizer document for AFP, confirmed on June 15 that the experiment "does not test whether the spike protein, produced by mRNA inside cells, is circulating in the blood. In this experiment, it is not possible to say that the spike protein itself is circulating."

Daniel Sauter, research leader of the "Mechanisms of Innate Antiviral Immunity" group at the University of Tübingen, agreed.

He said on June 11: "At no point in the document is the depositing or concentration of spike protein in the experimental animals examined. The methodological approach of the study does not allow this conclusion."

Frank Kirchhoff, director of the Institute for Molecular Virology at the University Hospital in Ulm, Germany, also said that the presence of lipid nanoparticles in certain organs "does not mean that spike proteins, let alone freely moving spike proteins, are also present there."

He said on June 11 that "for that to happen... the vaccine would first have to fuse with the cells there, and radioactive labeling alone doesn't show whether that happens."

What Bridle leaves out in his claims is that, according to the EMA summary, the lipid nanoparticles only accumulate for a certain amount of time and then are broken down by the body. Thus, the highest concentration in blood plasma was reached shortly after administration but fell to only one percent 24 hours later.

According to the EMA summary, the dose of mRNA injection used was also not comparable to the vaccine dose given to humans. It was 300 to 1,000 times higher.

This does not mean that these vaccines are not associated with any side effects. Health authorities in Canada, Europe and the United States are carefully monitoring COVID-19 vaccines for adverse reactions. But both the US Centers for Diseases Control and Prevention (CDC) and Health Canada consider the shots safe and effective.

People wait for their COVID-19 vaccine in Mississauga, Ontario, Canada, on May 15, 2021  
(AFP / Cole Burston)

### **Claim: Harvard study shows spike protein found in vaccinated people's blood**

Bridle further claims that a study "found the spike protein in circulation, in the blood of 11 of... 13 health care workers that had received the vaccine," and that it could pose a risk to the health of vaccinated individuals.

David Walt, who worked on the Harvard University study, said that the Canadian professor "is taking our results and completely misinterpreting them."

Walt explained that the goal of the research was to collect scientific data on the circulation of antigens, proteins specific to the SARS-CoV-2 that allow the production of antibodies.

**Also Read: Fake Graphic Claims 10,000 Deaths Caused By COVID-19 Vaccines in Europe**

In the study, parts of spike proteins were found in the blood plasma of 11 vaccinated people and complete spikes in only three, he said.

The study could not explain why this happened, but it found that the concentration of SARS-CoV-2 proteins progressively decreased while the antibody concentration increased. Partial spikes disappeared from the plasma of all vaccinated individuals after 14 days, and complete spikes observed in the three vaccinated workers were detectable only after the first vaccination and disappeared after the second dose.

These results do not mean that the presence of the spike protein is dangerous, according to Walt.

"Bridle is confusing the toxic effects of high concentrations of spike protein in some infected patients with the very low concentrations of spike found in some of our vaccinated study participants," he said.

"Our conclusion was that the vaccine is working as intended," he added.

Ulm University Hospital's Kirchhoff confirmed this, saying: "I doubt that the amounts of free spike protein that could potentially occur after vaccination would be sufficient to cause harmful side effects."

Only very high concentrations of spike protein could cause damage in the body, but this is not the case after vaccination, Christian Münz, professor of viral immunobiology at the University of Zurich in Switzerland, previously told AFP on May 6.

Pfizer's pre-market phase 3 clinical trials administered 43,448 injections, with half of participants getting the vaccine and the other half a placebo. Serious side effects were rare and equally distributed between the vaccine and placebo groups.

**Baseless claims**

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During the interview, Bridle makes other claims without mentioning their scientific basis. Some of them have been previously examined by AFP Fact Check.

Bridle claims, without citing sources, that mRNA from vaccines would be transferred from breastfeeding mothers to infants via breast milk, causing bleeding in the gastrointestinal tract.

AFP previously examined (in German) this claim after the death, reported in May 2021 in the United States, of a baby whose mother had been vaccinated. Experts agreed that the mRNA from the vaccines cannot pass into breast milk, especially because spike proteins cannot migrate through the body in large quantities.

Bridle goes on to claim, without citing sources, that the spike proteins can break through the blood-brain barrier and cause neurological damage. AFP also examined this claim (in French) in May.

Daniel Dunia, head of research at the French National Center for Scientific Research (CNRS), said at the time that "the messenger RNA vaccine is injected locally into the muscle and the expression of the spike protein will be restricted to the cells initially targeted to trigger the immune response. The messenger RNA is unstable and will be rapidly degraded."

He added: "Even when a person suffers a serious Covid infection, there is no direct evidence of blood-brain barrier damage directly related to the virus."

**Also Read: Toronto COVID-19 Clinic Did Not Lure Kids With Ice-cream To Vaccinate Them**

Contacted again on June 14, Dunia confirmed in an email that there is currently no scientific basis for the claim that mRNA vaccines cause neurodegenerative diseases.

AFP Fact Check examined numerous false or misleading claims about the COVID-19 vaccines here.

(Except for the headline, this story has not been edited by BOOM staff and is published from a syndicated feed.)

This is Exhibit “F” referred to in the Affidavit of Dr. David Fisman sworn by Dr. David Fisman at the City of Toronto, in the Province of Ontario, before me on July 20, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.



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Commissioner for Taking Affidavits (or as may be)

**KATHERINE R. COSTIN**



NATIONAL

## FALSE: Conspiracy theory that COVID-19 vaccines' spike proteins are 'cytotoxic' debunked by experts

*This illustration, created at the Centers for Disease Control and Prevention (CDC), reveals ultrastructural morphology exhibited by coronaviruses. Note the ...*  
**Read More**

by: [Russell Falcon](#)  
Posted: Aug 15, 2021 / 02:36 PM EDT  
Updated: Aug 15, 2021 / 02:36 PM EDT

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(KXAN) — Misinformation alert: A video that's currently circulating social media claims the spike proteins contained in COVID-19 vaccines kill or damage your body's cells — but medical experts say there's no evidence to support the statement.

That video from a Canadian talk radio show purports to reveal that spike proteins in the vaccines break down cells, allowing the proteins bind and infect the vaccinated. Some such claims are even made by Dr. [Robert Malone](#), the self-proclaimed "inventor of mRNA technology" (*more on that later*).

But recent fact-checks by experts, published by [The Poynter Institute's PolitiFact](#), [Reuters](#), and [the Associated Press](#) dismantle the video's claims.

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“toxins” that can travel to the brain. In his often-cited quote, Bridle said, *“We made a big mistake. We didn’t realize it until now, we thought the spike protein was a great target antigen.”* But countless researchers dispute this.

### | [FBI warns about penalties for making, using fake COVID-19 vaccination cards](#) >

The biggest strike against the claim is simple: None of the vaccines currently authorized in the U.S. (Pfizer, Moderna, and Johnson & Johnson) even contain live COVID-19 or its spike proteins. Instead, the Pfizer and Moderna vaccines use messenger RNA (mRNA) to tell the body how to attack spike proteins by creating **small amounts afterward**. Medical researchers and doctors say these amounts are nearly insignificant and not unlike other existing vaccines.

Another of Bridle’s claims is that the vaccines — *and the proteins experts agree they **don’t** have* — can travel from the shoulder and to other areas of the body, causing damage.

Dr. Adam Ratner, pediatric infectious disease specialist at NYU Langone Health, [explained to AP](#): “What was said in the radio show was completely inaccurate... the amounts [of spike proteins] that are made after the mRNA is injected are very small and it almost exclusively stays locally. It is nowhere near the amount he was talking about.”

Additionally, the [Centers for Disease Control and Prevention](#) explains: *“Our immune systems recognize that the protein doesn’t belong there and begin building an immune response and making antibodies, like what happens in natural infection against COVID-19. At the end of the process, our bodies have learned how to protect against future infection.”*

### **Viral anti-vaccine video**

A Facebook search for “spike proteins” and “toxic” retrieved hundreds and hundreds of variations on the video’s claims, including others advancing the theory, claiming the spike proteins are a “bioweapon.” That video has over 51,000 views.

### | [Do face masks work? Here are 49 scientific studies that explain why they do](#) >

Several photos of a Nature Neuroscience study are widely shared on Facebook and other platforms feature a fake title of the study, [“The S1 protein of SARS-CoV-2 crosses the blood–brain barrier in mice,”](#) and instead is doctored to read, “Spike as Toxin.” The mice study from December 2020 is *real*, but found that proteins from the virus — **not the vaccine** — could enter the brain of mice injected with SARS-CoV-2.

The study’s lead author, Dr. William A. Banks, concluded that this could possibly add more context as to why COVID-19 patients have trouble breathing, saying that the virus — **not the vaccine** — likely enters respiratory centers in the brain. Banks also explained to the peer-reviewed [Psychiatric Times](#) that protein entry could also explain why some recovered COVID-19 patients experience brain fog.



A widely circulated screenshot of a December 2020 S1 protein study contains a false title and misleads readers of the study’s findings.

[Based on recent data](#), researchers are increasingly understanding how COVID-19 infection affects the brain — though some more recent findings suggest it can be more difficult for the virus to access the brain than previously thought.



labeled it as “misinformation.” Meanwhile, postings parroting its claims proliferate. One such Facebook post reads:

*“THE FDA WAS ALERTED MONTHS AGO THAT THE SPIKE PROTEIN IN THE COVID VACCINES ARE CYTOTOXIC. CYTOTOXIC: TOXIC TO CELLS. THE FDA DID NOTHING AND STILL ALLOW PEOPLE TO CONTINUE BEING INJECTED WITH A CYTOTOXIC SUBSTANCE. FACT CHECK THAT!!!”*

This above claim is in reference to Malone saying he sent “manuscripts” to the U.S. Food and Drug Administration about spike protein threat. The FDA says it determined his claim didn’t have enough proof to back it up.

As for Malone, while he was certainly instrumental in mRNA tech development, research shows he did not exactly act alone in the research. In an August 12 article for [The Atlantic](#), author Tom Bartlett lays out some less-known elements of Malone’s backstory, including allegations from fellow mRNA research icon Katalin Karikó that Malone threatened her via email after she received notoriety for her work in helping produce the COVID-19 vaccine.

### | [The Vaccine Scientist Spreading Vaccine Misinformation](#) >

Karikó asserts that Malone’s ownership of the title of “inventor” of mRNA tech is overinflated, saying “hundreds of scientists” contributed more to mRNA vaccines than he did. Over the years, and especially through the pandemic, he’s become increasingly polarizing among his peers, with many noting his seeming hunger for the spotlight, personal grievances, and/or sensationalist views.

Malone, who insists he is not antivaccinations, denies he meant his statements to Karikó as a threat. Associated Press reached out to Bridle but did not hear back.

### **Is your information real? Fighting bogus news**

While conspiracy theories and false claims will continue to replicate across the internet, there are several actions readers can take to stop it.

Cornell University Library has an entire section of resources in its [Fake News, Propaganda, and Disinformation: Learning to Critically Evaluate Media Sources](#), which offers a wealth of material to consider.

The university explains that one of the first items to check is the URL. Is it unusual? URLs ending with .com.co or l-o aren’t likely to be legitimate news sites. How “good” does the site look? Evaluate whether the website you’re looking at appears professional. Additionally, any real news article will list its sources.

- **Read more than the headline** — Sometimes headlines are sensational and don’t represent the whole story. Other times, complex stories are hard to distill in such a short amount of space
- **Do your own research** — “Your own research” should include investigating a site’s trustworthiness and biases, identifying where the author’s information came from, finding out who the author is
- **Know before you share** — Just because a family member, friend or someone you consider to be too smart to fall for fake news shares something doesn’t mean you can trust it
- **Look within** — Do you have your own biases or preconceived notions about the topic? Ask yourself if you’re open to changing your opinion
- **Find expert opinions** — While your mom, your spouse, or your best friend may give great advice, if they’re not an expert, get a second opinion!

Finally, you can easily verify stories by scouring the many trusted [fact-checking websites](#), including [PolitiFact](#), [FactCheck.org](#), [Snopes](#), and the [Fact Check from Duke Reporter’s Lab](#).

This is Exhibit “G” referred to in the Affidavit of Dr. David Fisman sworn by Dr. David Fisman at the City of Toronto, in the Province of Ontario, before me on July 20, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.



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Commissioner for Taking Affidavits (or as may be)

**KATHERINE R. COSTIN**

## 'Toxic' spike protein claims misinterpret vaccine study

[aap.com.au/factcheck/toxic-spike-protein-claims-misinterpret-vaccine-study/](https://aap.com.au/factcheck/toxic-spike-protein-claims-misinterpret-vaccine-study/)

June 22, 2021



*mRNA vaccines produce a "small amount" of spike protein to illicit protection against COVID-19.*

### The Statement

A new medical study is being cited as evidence that COVID-19 vaccines can cause serious harm by spreading "toxic" spike proteins into a recipient's bloodstream and internal organs.

On June 4, Facebook page [Ross Walter Nutritionist & Naturopath](#) published a post that refers to a recent US study of health workers who received the Moderna mRNA vaccine. The study detected the spike protein for SARS-CoV-2, the virus that causes COVID-19, in the blood of 11 of the 13 participants.

The post then quotes a Canadian immunologist as saying the study shows that by vaccinating people, "we are inadvertently inoculating them with a toxin that gets into circulation". **AAP FactCheck** has previously debunked several false or misleading claims

about vaccines published by the same Australia-based page (see [here](#), [here](#), [here](#) and [here](#)).

Similar claims have been shared in New Zealand, where one website published a [lengthy blog post](#) under the headline: “New study shows potential for serious harm in COVID-19 vaccinated.”

A [Facebook post](#) from the NZ Outdoors Party, [which attracted 3256 votes in the 2020 election](#), draws on the same study to suggest mRNA vaccines “take over cells to manufacture the deadly (spike protein) toxin and this spread throughout much of the body”.

**"This has serious implications for people for whom the SARS coronavirus 2 is not a high risk pathogen, and that includes all of our children".**

**"In short, the conclusion is we made a big mistake, we didn't realise it until now, we thought the spike protein was a great target antigen".**

**"We never knew the spike protein antigen was a toxin and a pathogenic protein".**

**"By vaccinating people, we are inadvertently inoculating them with a toxin that gets into circulation (ie bloodstream) and when that happens, in some people it can cause damage, especially to the cardiovascular system".**

**"I have many legitimate questions about the long-term safety of this vaccine, for example, the spike protein accumulating in the ovaries, one of my questions is "will we be rendering young people infertile?".**

- Dr Byram Bridle, Associate Professor of Viral Immunology, University of Guelph (Ontario, Canada). May 28, 2021.

**Ross Walter Nutritionist & Naturopath**  
 June 4 at 7:55 AM · 🌐

My full article on this will be posted to my Patreon platform (details below) as it might trigger FBI!

Several renowned virologists have given public messages and warnings of the current pandemic and the vaccines being used. One of them is Dr Byram Bridle, who is an Associate Professor of Viral Immunology at the University of Guelph (Ontario, Canada) and a viral immunologist with a particular interest in cancer research (University of Guelph, 2021).

In a very recent interview, Dr Bridle was commenting on the results of a newly published study which found that in the majority of people (85% in this small sample study) who had the Moderna mRNA vaccine, the spike proteins were found in the bloodstream and various organs and tissues of the body, which was a concern. Other findings of the study included (Ogata et al., 2021).

- The study was only of healthy people, being healthcare workers themselves, which isn't a true sample of the population.
- mRNA translation occurs very quickly after injection.
- Just 3 out of 13 participants showed levels of the virus spike protein in the blood after the first injection - a pretty low response rate of 23%, taking at least 5 days and an average of 8 days.
- But levels of the spike protein lasted an average of 15 days but in one person these lasted for 29 days.
- Antibody levels for the spike protein increased in all participants, but only for the short-term IgA antibodies.

A Facebook post includes a series of claims about a new study and mRNA vaccines for COVID-19.

## The Analysis

Despite the claims circulating online, a co-author of the study cited in the posts said the research did not suggest COVID-19 vaccines posed serious risk of harm – adding that its results had been misinterpreted.

[David R. Walt](#), an expert in diagnostic testing from the Department of Pathology at [Brigham and Women's Hospital](#) in Boston, Massachusetts, said the [study he jointly authored](#), which has been accepted for publication by the journal *Clinical Infectious Diseases*, was intended to see if researchers could use an ultra-sensitive test to detect circulating antigens produced by mRNA vaccines.

“We found we could detect extremely low concentrations of S1 (a subunit of the spike protein) in 11 of 13 healthy vaccinated individuals and the full spike in 3 of 13,” Dr Walt told **AAP FactCheck** in an email.

However, he added that the presence of “minute” quantities of spike protein did not mean mRNA vaccines had the potential to cause serious harm.

“We actually found that within a few days of the antigen appearing, the individuals developed antibodies that removed the antigen from the bloodstream. Our conclusion was that the vaccine is working as intended,” he said.

An Australian biotechnology expert also told **AAP FactCheck** that the study has been misconstrued. University of Queensland (UQ) professor Trent Munro, who was involved in UQ’s development of a COVID-19 vaccine candidate last year, said in an email: “The (mRNA vaccine) dose used is very small, and is specifically designed to ensure a small amount of spike protein is produced from the injected RNA.

“During development, several dose levels were tested to identify a dose that is sufficient to provide the most robust immune response and protection against COVID-19 disease... There is no known ‘toxic’ effect of this process after mRNA vaccination, and studies will continue to monitor for any potential safety signals.”

The theory that the study discovered “toxic” spike proteins circulating in the bloodstream has been fuelled by comments made in a radio interview by Canadian immunologist Byram Bridle, an associate professor at Ontario Veterinary College.

Referring to the new research, Dr Bridle said there was now “clear-cut evidence” that the vaccine spike protein spreads into the bloodstream, where it has the potential to damage organs.

“In short, the conclusion is, we made a big mistake,” he said. “We never knew the spike protein itself was a toxin and was a pathogenic protein, so by vaccinating people we are inadvertently inoculating them with a toxin.”

However, multiple vaccine experts have challenged Dr Bridle’s characterisation of how the vaccine works, saying the spike protein created by the vaccine acts differently to the spike protein of a live virus.

Adam Ratner, a paediatric infectious disease specialist at NYU Langone Health, told Associated Press that Dr Bridle’s analysis of the research is “completely inaccurate” and vaccines are mostly concentrated at the site of injection or the local lymph nodes.

“There is no spike protein in the vaccines first of all. The amounts that are made after the mRNA is injected are very small and it almost exclusively stays locally. It is nowhere near the amount he was talking about,” Dr Ratner said.

US fact checking website Health Feedback, which uses experts to verify claims about health science, said Dr Bridle’s statement “rests on the assumption that if the viral spike protein causes cardiovascular toxicity in COVID-19 patients, the spike protein produced in

vaccinated people should be toxic as well”.

However, Health Feedback said this assumption was incorrect: “While both mRNA vaccines and viral vector vaccines carry the instructions to produce the entire spike protein, the cells break down much of the protein into small fragments. Furthermore, unlike infection, the spike protein from COVID-19 vaccination doesn’t get assembled into new viral particles.”

Prof Munro told **AAP FactCheck** that mRNA vaccines were “proving to be incredibly effective and safe” in protecting both the recipients and others from COVID-19, backing up clinical trials which “consistently demonstrated an excellent safety profile”.

## The Verdict

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Claims about “toxic” spike proteins spreading into the bloodstream and organs are based on a misinterpretation of a legitimate scientific study looking at the circulation of vaccine antigens. A co-author of that study has told **AAP FactCheck** that the results do not reveal any cause for alarm and in fact showed that the vaccine was working as intended.

Multiple vaccine experts in Australia and the US agree the study has been misunderstood or misconstrued, and that it does not show mRNA vaccines will cause harm.

**False** – Content that has no basis in fact.

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This is Exhibit “H” referred to in the Affidavit of Dr. David Fisman sworn by Dr. David Fisman at the City of Toronto, in the Province of Ontario, before me on July 20, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.

---

Commissioner for Taking Affidavits (or as may be)

**KATHERINE R. COSTIN**

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## CRC-CDC CASES

### CONSTITUTIONAL RIGHTS CENTRE INC.

31. [Dr. Byram Bridle v. University of Guelph, et al](#) # CV-22-00691880-0000  
(Expert vaccinologist and viral immunologist, Dr. Byram Bridle sues U of G and professors).
30. [Action4Canada, et al vs. Dr. Bonnie Henry, Justin Trudeau, Premier Horgan, et al](#) British Columbia Superior Court # VLC-S-S-217586  
(Action against BC and Federal Government over various COVID measures).
29. [M.A. and L.A., et al vs. Eileen De Villa, et al](#)  
Ontario Superior Court # CV-21-00661284-0000 (Application with respect to school lockdowns and other school COVID measures).
28. [Sgt. Julie Evans, et al v. AG of Ontario, et al](#)  
Ontario Superior Court # CV-21-00661200-000 (Court DENIAL of government's request to summary dismissal of application)
27. [Sgt. Julie Evans, et al v. AG of Ontario, et al](#)  
Ontario Superior Court # CV-21-00661200-000 (Police action against Ontario Government over enforcement of COVID Measures.)
26. [Vaccine Choice Canada \(VCC\), et. AL. \(and others\) v. Justin Trudeau, et.al. \(and others\)](#) Ontario Superior Court # CV-20-00643451-0000  
(Constitutional challenge to legislative and Executive Covid-19 measures, at Federal, Provincial, and Municipal levels).
25. [Vaccine Choice Canada \(VCC\), et. AL. \(and others\) v. Her Majesty the Queen, et.al. \(and others\)](#) Ontario Superior Court # CV-00629810-0000 (Constitutional challenge to statutory hurdles to obtaining exemption to medical treatment, without informed consent, with respect to vaccines).

• Above lists are current (On-Going) Cases

24. [Galati et al v. Harper et al. \(A-541-14\)](#) (Appeal on Costs following Nadon application)
23. [Rocco Galati and Constitutional Rights Centre Inc. v. His Excellency the Right Honourable Governor General David Johnston](#) (A-52-15)  
(Appeal from Bill C-24 Ruling)
22. [Galati v. Canada \(Governor General\)](#) [2015] F.C.J. No. 79 (Challenge to Bill C-24)
21. [Renvoi sur l'article 98 de la loi constitutionnelle de 1867 \(Dans l'affaire du\)](#), [2014] Q.J. No 14417
20. [Quebec \(Attorney General\) v. Canada \(Attorney General\) \("Mainville Reference"\)](#), 2015 SCC 22
19. [Galati v. Canada \(Prime Minister\)](#), [2016] S.C.C.A. No. 152 (SCC)
18. [Galati v. Canada \(Prime Minister\)](#), [2016] F.C.J. No. 123 (FCA)
17. [Galati v. Canada \(Prime Minister\)](#), [2014] F.C.J. No. 1225
16. [Reference Re Supreme Court Act, \("Nadon Reference"\)ss. 5 & 6](#), 2014 SCC 21
15. [Serrano Lemus v. Canada \(Citizenship & Immigration\)](#) 2012 FC 1274  
– [J.M.S.L. v. Canada \(Minister of Citizenship & Immigration\)](#) 2014 FCA 114
- Constitutional Rights Centre Inc. as (co) Applicant
14. [Wong v. Attorney General of British Columbia](#), (Superintendent of Motor Vehicles) [2013] BCSC 2091
13. [Shahid v. Canada; Tabingo v. Canada](#) [2013] F.C.J. No. 410 (FC)  
– [Tabingo v. Canada \(Minister of Citizenship & Immigration\)](#) 2014 FCA 191 (Federal Court of Appeal)



11. *Slansky v. Canada* [2011] F.C.J. No. 594 (Federal Court)  
– *Slansky v. Canada* [2011] F.C.J. No. 1775 (Federal Court)  
– *Slansky v. Canada* [2013] F.C.J. No. 996 (Federal Court of Appeal)  
– *Slansky v. Canada* 2014 CanLII 5977; Docket No.: 35606 (SCC)
10. *Sivak v. Canada* [2011] F.C.J. No. 513 (Federal Court)
9. *Baltrusaitis v. Ontario* [2011] O.J. No. 351 (Ontario Superior Court)  
– *Baltrusaitis v. Ontario* [2011] O.J. No. 4144 (Ontario Court of Appeal)  
– *Baltrusaitis v. Ontario* [2011] S.C.C.A. No. 493 (SCC)
8. *USA v. Pakulski* [2011] O.J. No. 2633 (Ontario Superior Court)
7. *Horne v. Canada* [2010] F.C.J. No. 1585 (Federal Court of Appeal)  
– *Horne v. Canada (Minister of Citizenship & Immigration)* [2010] S.C.C.A. No. 335 (Supreme Court of Canada)
6. *Ndungu v. Canada* [2009] F.C.J. No. 1612 (Federal Court)  
– *Ndungu v. Canada; Toussaint v. Canada*  
[2011] F.C.J. No. 636 (Federal Court of Appeal)
5. *Felipa v. Canada* [2010] F.C.J. No. 39 (Federal Court)  
– *Felipa v. Canada* [2011] F.C.J. No. 1355 (Federal Court of Appeal)  
(Deputy Judges Case)
4. *Huntley v. Canada* [2010] F.C.J. No. 497 (Federal Court)  
– *Canada v. Huntley* [2011] F.C.J. No. 1382 (Federal Court of Appeal)  
– *Huntley v. Canada (Citizenship & Immigration)* [2011] S.C.C.A.  
No. 522 (Supreme Court of Canada)
3. *Mitchell v. Canada* [2008] F.C.J. No. 1147 (Federal Court)
2. *Ebonka v. Canada* [2008] F.C.J. No. 1098 (Federal Court)
1. *Geza v. Canada* [2006] F.C.J. No. 477 (Federal Court of Appeal)

**\*Note:** The above list of reported cases does not include the many cases in which the CRC Inc. has provided advice, consultation, guidance and/or co-counsel where the cases settled or where no reported case ensued.



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The constitution of Canada does not belong either to Parliament, or to the Legislatures; it belongs to the country and it is there that the citizens of the country will find the protection of the rights to which they are entitled.

– *Nova Scotia (A.G.) v. Canada (A.G.)*  
[1951] S.C.R. 31

After all, the Constitution is a document for the people and one of the most important goals of any system of dispute resolution is to serve well those who make use of it.

– *Reference Re Residential Tenancies Act*  
[1996] 1 S.C.R. 186, @ p. 210

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PUBLISHED : JULY 28, 2021

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This is Exhibit “I” referred to in the Affidavit of Dr. David Fisman sworn by Dr. David Fisman at the City of Toronto, in the Province of Ontario, before me on July 20, 2023 in accordance with O. Reg. 431/20, Administering Oath or Declaration Remotely.



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Commissioner for Taking Affidavits (or as may be)

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## NEWSLETTER

On March 24, 2023 / [NEWSLETTER](#)



Published : MARCH 25, 2023 | Vol. | Issue: 37

## [Patients Take Ontario Medical Regulator to Court.](#)

PUBLISHED: MARCH 25, 2023 | by the Constitutional Rights Centre

On Monday, March 27 a virtual and in-person press conference will be held regarding a Court challenge of national importance involving an unprecedented violation of privacy in Canada.

### *Speakers at press conference:*

- Leslie Peel – Named Patient on behalf of Patient Group (100+ patients)
- Rocco Galati – Legal Counsel for Ms. Peel and Patient Group
- A Canadian citizen concerned about medical privacy rights

[\*Click to Register Today!\*](#)

[\*Click to watch our Live Podcast – Mon., March 27, 2023 @ 11am \(EST\)\*](#)

Rocco Galati, BA, LLB, LLM, Executive Director

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**FOR IMMEDIATE RELEASE**

**PATIENTS TAKE ONTARIO MEDICAL REGULATOR TO COURT**

Patients of an Ontario physician filed a legal challenge against the College of Physicians & Surgeons of Ontario (CPSO) for unlawful investigation against their family doctor and unconstitutional demand for their medical records in Toronto.

**MONDAY MARCH 27, 2023 @ 11am (EST)**

**LIVE Q&A** 



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On December 22, 2022 / [NEWSLETTER](#)

**N E W S L E T T E R**

**Constitutional Rights Centre Inc.  
Centre De Droit Constitutionnel Inc.**

*Incorporated November, 2004*

## **Dr. Byram Bridle sues University of Guelph, their professors, and others for Tortious conduct against him.**

PUBLISHED: DECEMBER 22, 2022 | by the Constitutional Rights Centre

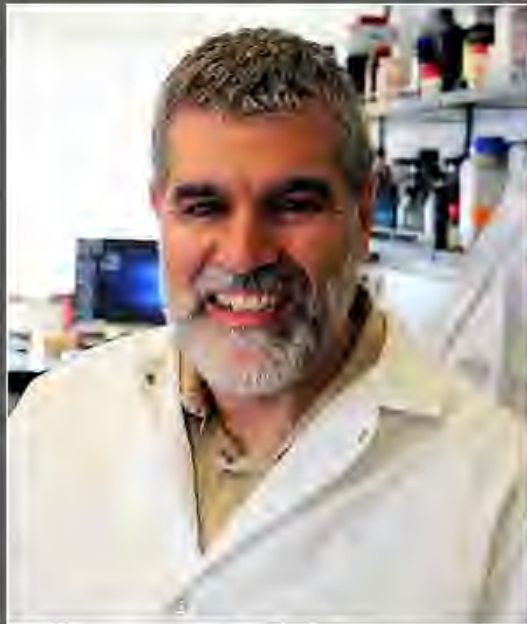
Dr. Byram Bridle sues University of Guelph, their professors, and others for Tortious conduct against him.

On December 19th, 2022, Dr. Byram Bridle issued a Statement of Claim in Ontario Superior Court. The expert vaccinologist, and viral immunologist, states that he has been viciously and falsely attacked by some of his colleagues, with the complicity of the University administration. Some of the Defendants include the President of University of Guelph, Dean Wichtel, Administrator Arnott, Professor Pyle, Professor Weese, and Dr. David Fisman at the University of Toronto.

[Click here for the PDF Statement of Claim.](#)

Rocco Galati, BA, LLB, LL.M, Executive Director

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# **Dr. Byram Bridle**

## **Sues University of Guelph**

**ROCCO GALATI** BA, LLB, LL.M, E  
CRC - EXECUTIVE DIRECTOR

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On July 24, 2022 / [NEWSLETTER](#)



Published : JULY 25, 2022 | Vol. 1 | Issue 35

## Action4Canada & Rocco Galati – July 20th, 2022

PUBLISHED: JULY 25, 2022 | by the Constitutional Rights Centre

Tanya Gaw of Action4Canada, interviews Rocco Galati, July 20th, 2022.

Rocco Galati, BA, LLB, LL.M., Executive Director

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0:00 / 1:00:21



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On July 21, 2022 / [NEWSLETTER](#)



# Vaccine Choice Canada & Rocco Galati Summary Update ~ July 13, 2022

PUBLISHED: JULY 21, 2022 | by the Constitutional Rights Centre

Rocco Galati and Ted Kuntz, president of Vaccine Choice Canada (VCC), discuss update on litigation, at large, on Covid-19 measures, July 13th, 2022.

Rocco Galati, BA, LLB, LL.M, Executive Director

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**PUBLISHED: OCT 29, 2019**

Rocco Galati Statement at V.C.C.'s Medical Choice Rally Queens Park

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**PUBLISHED: MAY 8, 2015**

B.O.C. Rocco Galati CBC News Amanda Lang Exchange

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**PUBLISHED: JUN 25, 2014**

Lawyer Rocco Galati Challenges Bill C-24 Citizenship Reforms

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**PUBLISHED: MAR 21, 2014**

Lawyer's Victory as Supreme Court rejects Marc Nadon's appointment

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**PUBLISHED: OCT 9, 2013**

CBC News - Justice Marc Nadon's eligibility to SCC



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Dr. BYRAM BRIDLE  
Plaintiff

-and- UNIVERSITY OF GUELPH et al.  
Defendants

Court File No. CV-22-00691880-0000

**ONTARIO**  
**SUPERIOR COURT OF JUSTICE**  
PROCEEDING COMMENCED AT TORONTO

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RCP-F 4C (September 1, 2020)

Dr. BYRAM BRIDLE  
Plaintiff

-and- UNIVERSITY OF GUELPH et al.  
Defendants

Court File No. CV-22-00691880-0000

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**SUPERIOR COURT OF JUSTICE**

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**SUPPLEMENTARY MOTION RECORD OF**  
**DEFENDANT DAVID FISMAN**  
**(Returnable November 19, 2024)**

VOLUME II OF II

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