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CANADA

EXCLUSIVE: Health Canada Confirms Undisclosed Presence of DNA Sequence in Pfizer Shot

The health regulator says Pfizer did not disclose the presence of the Simian Virus 40 (SV40) DNA sequence in its mRNA COVID-19 vaccine at the time of filing.



A sign is displayed in front of Health Canada headquarters in Ottawa on Jan. 3, 2014. (Sean Kilpatrick/The Canadian Press)

By Matthew Horwood

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Health Canada has confirmed the presence of a Simian Virus 40 (SV40) DNA sequence in the Pfizer COVID-19 vaccine, which the manufacturer had not previously disclosed. There is debate among scientists with regards to the significance of the finding, with some saying it has the potential to cause cancer, and others saying it poses little to no threat.

"Health Canada expects sponsors to identify any biologically functional DNA sequences within a plasmid (such as an SV40 enhancer) at the time of submission," the agency said in an email to The Epoch Times.

"Although the full DNA sequence of the Pfizer plasmid was provided at the time of initial filing, the sponsor did not specifically identify the SV40 sequence."

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The regulator said that after scientists Kevin McKernan and Dr. Phillip J. Buckhaults publicly raised the presence of SV40 enhancers in the vaccines earlier this year, "it was possible for Health Canada to confirm the presence of the enhancer based on the plasmid DNA sequence submitted by Pfizer against the published SV40 enhancer sequence."

Both scientists have made waves after [discovering](#) plasmid DNA in the mRNA COVID-19 injections, warning it could potentially alter the human genome. However, the two share different degrees of concern about the significance of an SV40 sequence—which is used as an enhancer to drive gene transcription during the vaccine manufacturing process—being present in the shots.

Mr. McKernan, a former researcher and team leader for the Massachusetts Institute of Technology Human Genome Project, told The Epoch Times he suspects Pfizer didn't disclose the presence of the DNA sequence due to the association of SV40 with polio vaccines. He said while there is no evidence the sequence is carcinogenic, he has concerns about its integration into the human genome.

The polyomavirus Simian Virus 40, an [oncogenic](#) DNA virus, was previously removed from polio vaccines due to concerns about a link to cancers. Polio vaccines used in the late 1950s and early 1960s were found to be contaminated with SV40 as the virus was present in monkey kidney cells that were used to grow the vaccine.

Dr. Buckhaults, professor of cancer genomics and director of the Cancer Genetics Lab at the University of South Carolina, has tried to alleviate concerns about the presence of the SV40 enhancers, saying they pose a “small [cancer] hazard, but so do all the other pieces of plasmid DNA.

“It's important for the public to realize that the SV40 sequence in the vaccine is NOT the cancer-causing SV40 large T antigen, which would be a very significant cancer risk,” Dr. Buckhaults told The Epoch Times.

Dr. Buckhaults [said](#) on social media the SV40 enhancer sequence taken from SV40 is a “standard bit of molecular biology engineering to achieve high level expression of the Neo resistance marker” and that it's been “used for decades.”

“This little piece of DNA poses a much smaller but non-zero future cancer risk, same as all the other DNA sequences. Concern among regulators is appropriate, but panic among the public is not appropriate (and indeed harmful),” he told The Epoch Times.

Manufacturing Process

Dr. Patrick Provost, a professor in the Department of Microbiology, Infectious Diseases and Immunology at the Faculty of Medicine at Laval University, said the SV40 enhancer sequence was used in the vaccines because it's a component of the plasmid used for amplification of the vaccine mRNA.

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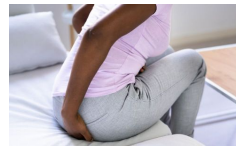
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According to Dr. Provost, the danger of the SV40 enhancers being present in the vaccine is their possible integration into a cell's DNA genome. "All it takes is a single integration at the wrong place in a single cell to initiate a cancerous process and kill a person," he said.

Dr. Provost said the SV40 enhancer could still be in the final product if the plasmid DNA was not sufficiently degraded by DNases, which are meant to cut large DNA pieces into smaller ones. He said that since the average length of the degraded DNA fragments found by Dr. Buckhaults was 100 base pairs, and the SV40 enhancer sequence is only 72 base pairs long, the chances of finding an intact, fully functional SV40 enhancer sequence in the mRNA vaccines is "relatively high, certainly not negligible."

Another issue Dr. Provost raised is the contaminating DNA fragments in the vaccines likely being encapsulated in lipid nanoparticles, which could facilitate their delivery into human cells. He warned this could make the thresholds set for contaminating DNA—which

was established for “naked” DNA not encapsulated in nanoparticles —“completely irrelevant.”

SV40 Sequence 'All Risk, No Reward'

The presence of the SV40 enhancer or promoter sequence in Pfizer monovalent and bivalent vaccines was first [discovered](#) by microbiologist Mr. McKernan back in April 2023. Using [several methods to assess](#) the nucleic acid composition of four vials of the Moderna and Pfizer vaccines, he determined that COVID-19 vaccines manufactured by Pfizer contained SV40 72bp enhancers and promoters.

Mr. McKernan said that because Pfizer's vaccines already contain an AmpR promoter similar to Moderna—which is used to drive the antibiotic resistance gene—the inclusion of the SV40 promoter was “completely redundant” and “all risk, no reward.”

Mr. McKernan [said](#) while the full 5kb SV40 virus was present in the polio vaccines, the presence of SV40 promoters was still concerning due to the risk of them integrating into the human genomes near oncogenes, which are genes that have the potential to cause cancer.

Angus Dalgleish, professor of oncology at St. George's Hospital Medical School in London, recently [wrote](#) in The Conservative Woman about a higher incidence of cancers following COVID-19 vaccination seen by himself and his colleagues, including an “epidemic of explosive cancers” with multiple metastatic spread.

He noted the potential “DNA plasmid and SV40 integration in promoting cancer development.”

These concerns remain hypothetical and have yet to be proven in scientific research and case studies.

Health Canada spokesperson Mark Johnson told The Epoch Times that based on the latest peer-reviewed scientific research, statistical evidence, and adverse event reports, the current data does not support the occurrence of the new phenomena of aggressive or “turbo cancers.”

While [Mr. Buckhaults said](#) on social media he was skeptical about reports of “turbo cancers” stemming from the COVID-19 vaccine, he said there are so many experts concerned with the idea that the scientific establishment “owes it to the public to investigate rigorously and report on it, even if [there are] negative results.”

“People have a right to have their concerns taken seriously and addressed by competent caring scientists, even if their concerns end up being invalidated. We should look for monsters under the bed and report results honestly,” he added.

'Hidden from the Regulators'

Dr. Janci Lindsay, the director of toxicology and molecular biology for Toxicology Support Services, said the SV40 promoters in the COVID-19 vaccines are oncogenes. She noted that while the full SV40 virus itself is not in the COVID-19 vaccines, [a nuclear localization sequence is present](#) to take the plasmids directly to the nucleus of human cells.

Dr. Lindsay, who holds a Ph.D. in Biochemistry and Molecular Biology from the University of Texas Graduate School of Biomedical Sciences, told The Epoch Times that if the SV40 promoters were integrated into the human genome—in a process known as insertional mutagenesis—that would then result in gene mutations that could cause cancers.

"Or you get a promoter, let's say from your plasmid, sitting above an oncogene and driving the expression of that gene in a crazy manner like you wouldn't have normally," she said.

Dr. Lindsay said because the SV40 promoter is such a strong promoter, it will "sit down anywhere." She said this heightens the risk of it hitting an oncogene and driving cancer-causing gene expressions, or landing on cancerous tumour suppression genes.

Dr. Lindsay questioned why Pfizer failed to disclose the SV40 promoter to regulators like the U.S. Food and Drug Administration, the European Medicines Agency, and Health Canada.

"They hid them. So it's not just the fact that they're there, it's the fact that they were purposefully hidden from the regulators," she said.

Pfizer did not respond to The Epoch Times' request for comment.

Health Canada maintains that based on its evaluation of the data and scientific information for the COVID-19 vaccine, "we have concluded that the risk/benefit profile continues to support the use of the Pfizer-BioNTech vaccine."

"Health Canada does not rely on the conclusions provided by vaccine manufacturers. Health Canada conducts an in-depth independent review of the required evidence provided by the manufacturer to ensure that our high standards for safety, efficacy and quality are met," the department added.

Noé Chartier contributed to this report.



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