



TESTIMONY: Aldevron

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SB 2384

Right now, members of the North Dakota legislature are attempting to progress Senate Bill No. 2384, which would ban any person from being able to “provide or administer a vaccine developed using messenger ribonucleic acid technology (mRNA) for use in an individual or any other mammal in this state”. In doing so, they are going against the overwhelming evidence gathered, evaluated, and scrutinized by regulatory and independent agencies that have concluded mRNA technology is safe and effective.

Scientists around the world have long seen the therapeutic value of mRNA since its discovery in 1961 (5). Every cell of your body produces and uses thousands of mRNA transcripts every second as instructions for the proteins your body needs to function properly (1). By leveraging these existing natural processes, an mRNA vaccine can provide instructions to make a protein (such as the COVID-19 spike protein) foreign to your body, resulting in a lasting immune response that helps your body fight subsequent infection by that virus. This technology is not new; it has been in development for 15 years, and after countless hours, experiments, breakthroughs and the combined efforts of thousands of people, the mRNA COVID-19 vaccines from Pfizer-BioNTech and Moderna helped the entire world overcome one of the deadliest pandemics in history (3).

The data shows that the mRNA vaccines were remarkably effective at doing this. According to the CDC, over 600 million vaccines have been administered in the United States alone, saving lives, preventing even more hospitalizations, and ultimately saving the United States healthcare system upwards of a trillion dollars in medical costs from COVID-19 infections (2). During this time, the CDC has received preliminary reports and are actively investigating the less than 20,000 deaths that may be associated with COVID-19 vaccination, representing only 0.0028% of the total vaccine-receiving population in the United States (6). Any and every therapeutic drug has a risk-benefit profile that is carefully weighed by the Food and Drug Administration (FDA) prior to its approval, and both mRNA vaccines currently available have

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been fully approved by that agency, owing to the robust and thorough clinical trial data that has been produced showing that the COVID-19 mRNA vaccines are both safe and effective.

These trials are also paving the way for future medical innovations, as several upcoming mRNA vaccines are in development, both building upon the success of the COVID-19 vaccines, as well as to mitigate some of the most widespread diseases, such as seasonal influenza, HIV, and even cancer (4). mRNA vaccines are also in development to help advance veterinary medicine. By preventing the administration and use of any mRNA vaccine, the North Dakota legislature risks the public safety of its own citizens and animals alike and undermines the belief and trust in the scientific process that has paved the way for hundreds of lifesaving therapies.

1. <https://www.nature.com/scitable/topicpage/gene-expression-14121669/>
2. <https://www.commonwealthfund.org/blog/2022/two-years-covid-vaccines-prevented-millions-deaths-hospitalizations>
3. <https://www.visualcapitalist.com/history-of-pandemics-deadliest/>
4. <https://www.nature.com/articles/s41587-022-01294-2>
5. <https://www.sciencedirect.com/science/article/pii/S0960982215006065>
6. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/adverse-events.html>

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