



BioND

**Bioscience Association of North Dakota
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March 3, 2023

Dear Chairman Monson and Members of the House Appropriations Government Operations Committee.

The following is testimony to this Committee in support of **SB 2009**, "A BILL for an Act to provide an appropriation for defraying the expenses of the agriculture commissioner; and to provide for a transfer", etc."

Most specifically I am here to testify in support of SECTION 3. TRANSFER - STRATEGIC INVESTMENT AND IMPROVEMENTS FUND TO BIOSCIENCE INNOVATION FUND - BIOSCIENCE INNOVATION GRANT PROGRAM; and SECTION 4. TRANSFER - LEGACY EARNINGS FUND TO BIOSCIENCE INNOVATION FUND - BIOSCIENCE INNOVATION GRANT PROGRAM. Pursuant to these two Sections the Bioscience Innovation Grant Program is to receive \$12 million dollars for the purpose of the bioscience innovation grant program under section 4.1-01-20.1 for the biennium beginning July 1, 2023, and ending June 30, 2025.

In partnership with the Department of Agriculture, the Bioscience Association expanded the Bioscience Industry in North Dakota through the Bio Innovation Grant program by making grants to companies either recruited from outside the State or by helping companies located in the State develop their technology and commercialize their products. To date, these companies have created or are projected to create 214 new jobs. The average salary for an employee in companies such as these is \$73,531 a year. Therefore, the State of North Dakota is slated to receive, or has received, at least \$15,735,634 a year in new salary benefits.

As Stated in an article published by the Greater Fargo Moorhead Economic Development Corp., December 19, 2022, By Meghan Feir Walker; "The Gross Regional Product (GRP) contributed by the bioscience industry in the Fargo-Moorhead MSA (alone) has grown from less than \$50 million in 2011 to over \$208 million in 2021. The growth of bioscience occupations in the FM metro has grown 40.9 percent in that same period, eclipsing the national growth rate of 23.4 percent."

But there is more to this story than the economic benefits that have resulted from supporting these companies. It is "WHAT" they are doing in this state that is having a nationwide, even a worldwide impact, and putting North Dakota on the Biotech map. I have selected three companies as examples. The first is Lincoln Therapeutics.

Lincoln Therapeutics came from Chicago, Illinois, and is developing and fielding "Intranasal Ketamine as a Non-Narcotic Far Forward Battlefield Analgesia/Anesthesia Solution." Lincoln Therapeutics is collaborating with the DOD and Thrifty White Pharmacy, a company that employs over 200 people in the Fargo Moorhead area, to develop

an Intranasal Ketamine as a non-Narcotic analgesic for far forward military use and civilian use. This creates an important countermeasure to the worldwide opioid epidemic. This collaboration will create the only GMP pharma production facility in ND. As a result, Thrifty White's current employee base will increase by the addition of 40 more jobs. A training program for Advanced Technology Pharmaceutical Training is also being developed in Fargo as part of this project. This project will collaborate with national emergency planners to stock intranasal non-narcotic analgesics and other vital medications from the Fargo factory into the Strategic National Stockpile (SNS). But more importantly it could reduce addiction rates and suicide rates among Veterans who have been wounded in combat and then given opioids. In many cases this leads to a lifetime of addiction and, in a lot of cases, suicide.

The second example is CorVent Medical, Inc. a privately held medical device startup, which is committed to developing and manufacturing versatile, lifesaving ventilators for critical care. Richard Walsh, President and CEO of CorVent, uprooted and transplanted his entire company from California to the NDSU Research Park in Fargo in January 2022. CorVent is currently working with ComDel, Inc., to develop and manufacture their product here in North Dakota, and currently employ 17 people in North Dakota. In three years CorVent hopes to have their own dedicated manufacturing facility, which Walsh says, "... will bring 100 jobs to the region." Currently, CorVent has furnished Humanitarian aid to the Ukraine. The company has donated over 1,100 life-saving resuscitation bags via the Ukrainian-American Crisis Response Committee and have sold 32 of their RESPOND ventilators with a 1-month reserve of disposable supplies via Nova Ukraine.

The third example is SafetySpect, Inc., a California-based bio-tech company, who moved their headquarters to Grand Forks, N.D. They currently employ 16 people. They are working with Dr. Kouhyar Tavakolian of UND's College of Engineering and Mines and School of Medicine & Health Sciences where they employ 7 graduate students. Their product is a CSI-D+ device which stands for "Contamination and Sanitization Inspection and Disinfection Plus." It is a device which detects, disinfects, and documents contaminants, as well as saliva and respiratory droplets without the use of chemicals. Right now they are engaged in multiple projects.

They are engaged in a project with the US Army, NASA, USDA-ARS and UND called the "SpaceAG" project. They are developing 1) A holistic food system technology platform for habitat and long duration space flight; 2) an autonomous growth chamber technology platform; and 3) Developing a handheld imaging and spectroscopy device platform using machine learning and Fusion AI for long duration ration assessment and food safety and quality analysis. In the Ag area, they are also developing a multimode imaging system that can be mounted on drones or permanently field-deployed to watch for and automatically identify plant diseases such as rust, root and stem rot, or leaf blight. They are also involved in the 1) Food Safety Area, i.e., Fast Food and Meat Production; 2) Transportation, i.e., united Airlines; 3) Health Care, Long Term Care facilities as Hospital Clean Rooms. Where they are engaged right now with Edgewood Management Groups in Grand Forks, in their long-term care facility.

These are just three of the companies we have either recruited to the state or which have expanded their commercialization, thanks to the help of this program. But we are still recruiting with a number of companies, including Imricor, Inc, from Burnsville, Minnesota. What they have done is developed a catheter which they run up your arm and over to your heart and perform a procedure to treat atrial fibrillation, a process called "Ablation." It uses small burns or freezes to cause some scarring on the inside of the heart to help break up the electrical signals that cause irregular heartbeats. This can help the heart maintain a normal heart rhythm. The difference between this treatment and standard ablation treatment is that they use an MRI machine instead of an X-ray machine to watch the catheter as it progresses through the body and into the heart. It also allows more proficient positioning of the catheter in order to perform its burning or freezing. The success rate now is about 40% using the standard old method. The success rate utilizing this system is 90%. Imricor will move its R&D and manufacturing from Burnsville to North Dakota. We anticipate this will create 40 to 50 new jobs.

The Bio Innovation fund presents an incentive to these companies to move and also encourages local companies to expand their operations within this State. \$5.5 million appropriated last session was utilized in the first year. We believe \$12 million will be utilized in less than 18 months.

It is the Association's hope that this Committee passes the Agricultural Budget with the \$12 million request to refund the Bio Innovation Fund program so that we can continue to expand and grow biotech companies.

Thank you for your time and attention.

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Bioscience Association of North Dakota

