




VACCINE AND INFECTIOUS DISEASE ORGANIZATION

A photograph of three individuals standing in a laboratory, wearing full white protective suits (hazmat suits) with hoods and face shields. They are smiling at the camera. The background shows laboratory equipment and a clean, clinical environment.

ESTABLISHING CANADA'S CENTRE FOR PANDEMIC RESEARCH



UNIVERSITY OF
SASKATCHEWAN



Message from VIDO's Director and CEO

Since its inception, the Vaccine and Infectious Disease Organization (VIDO) has focused on the rapid response to emerging infectious diseases.

COVID-19 has demonstrated how a single emerging disease can impact the lives of ~7.8 billion people in very profound and personal ways.

Our team has been at the forefront of COVID-19 research and development. **This includes being the first Canadian organization to isolate the virus, the first to develop an animal model of infection and the first university organization in Canada to have a vaccine in clinical trials.** At the same time, we are supporting the development of vaccines, antivirals, and therapeutics for organizations in Canada and around the world.

COVID-19 highlights the need for a paradigm shift in the way we respond to emerging diseases. By establishing VIDO as Canada's Centre for Pandemic Research, we will be able to rapidly respond and help stop these infectious diseases before they cause the devastating impacts witnessed during this pandemic.

VIDO already operates Canada's largest high containment facility, one of the most advanced in the world, and we are constructing one of Canada's most advanced vaccine production facilities. By becoming Canada's Centre for Pandemic Research, we will use and expand this unique infrastructure to develop new vaccines from research to production. Through recruitment of global experts and training of future infectious disease researchers, we will be able to better prepare Canada and the world for future emerging diseases.

Thank you for your support of this critical work.

Dr. Volker Gerdts
Director and CEO



Establishing a National Centre for Pandemic Research

The COVID-19 pandemic has highlighted the enormous socioeconomic impact that emerging infectious diseases have on humans, animals, communities, and our world. This virus has claimed the lives of millions of people worldwide, overloaded our healthcare system, placed a significant strain on our economy, and has impacted every aspect of our lives as we knew it.

Canada, along with the rest of the world, was not sufficiently prepared to deal with this emerging disease. Inconsistent funding of vaccine research worldwide has left us racing against the clock to complete work identified as imperative almost 15 years ago. Our health, our economy and our global food security remains at risk until we can establish critical research capacity to rapidly combat these threats.

New infectious diseases emerge every year, but we have the ability to not only address these diseases, but to *predict* them before they have a chance to become a substantial threat.

As a global leader in the research of infectious diseases and the development of vaccines for humans and animals, the world needs VIDO now, more than ever.

With experience in developing vaccines for emerging diseases and constructing a high-containment manufacturing facility to complement its already world-class infrastructure, VIDO is well-positioned to lead Canada's effort to address emerging diseases and become a National Centre for Pandemic Research.

To become a national centre, VIDO will need to expand both our specialized infrastructure, as well as the number of global-leading researchers on our team.

As the world raced to find a vaccine for COVID-19 in 2020, the developers that were able to respond the fastest were those that were the most self-sufficient. By not having to rely on outside sources for research, testing, and manufacturing, the process can be accelerated to save time, and in the face of a pandemic, every second counts.

Vaccine Manufacturing Facility: a Canadian first

Construction is underway at VIDO to build Canada's only containment level 3 manufacturing facility, one of a few in the world. Funding from the Government of Canada and Government of Saskatchewan will ensure this facility can be certified to Good Manufacturing Practice specifications, a requirement for human vaccine production and animal vaccine production outside North America.

When construction and certification is complete, the facility will contribute to domestic vaccine production and be able to make millions of vaccine doses in-house each year.

This facility will close the gap in Canada's vaccine innovation system—strengthening existing vaccinology infrastructure, accelerating promising vaccine products, and enabling Canada to capitalize on the growing contract vaccine manufacturing market.

Upgrade of Containment Infrastructure and Construction of Additional Animal Housing

Currently, VIDO has a containment level 2 and 3 infrastructure, which allows us to work on threats such as Zika Virus, Middle East Respiratory Syndrome, African Swine Fever, and COVID-19.

By upgrading to containment level 4, VIDO will have the ability to research all infectious diseases in the world and will significantly increase Canada's research capacity.

Fortunately, we have spaces already built to containment level 4 standards: three existing animal rooms, one large laboratory, plus adjacent equipment rooms. Because of this, the cost to physically transition the space to level 4 containment would be minimal.

VIDO's ability to work with alternative animal species is critical to understanding emerging pathogens and developing treatments, as more than 70 per cent of emerging diseases originate in animals.

The new animal housing facility will allow us to work with exotic species. In particular, bats have been at the center of many recent emerging diseases, and the ability to study them and understand the origins of these viruses is critical. Having immediate access to these animals would accelerate research and enable rapid development of novel solutions.

Equipment

With these advancements, we will require additional equipment, like imaging facilities such as CT and x-ray machines. This will allow researchers to take images of the disease in the animal's organs and identify the severity of the disease, which is critical in understanding the potential risk to both humans and animals, and examining the results of vaccines and therapeutics being developed.

“We need as much domestic capacity for vaccine production as possible,”

Prime Minister Trudeau said during a news conference in Ottawa on Feb. 2, 2021, when he announced the “good news” that VIDO is projecting to produce up to 40 million vaccines annually, once the new manufacturing facility is built.

World-Class Research

VIDO's research efforts are well supported by an environment of research excellence and collaboration at the University of Saskatchewan (USask). USask has the broadest diversity of research-intensive colleges relevant to infectious disease research in Canada, including medicine, veterinary medicine, and agriculture. It is also home to world-class facilities such as the Global Institute for Food Security, the Canadian Light Source (synchrotron) and a full-service Clinical Trial Support Unit.

By recruiting the world's leading scientists to work with the highest-level infrastructure available, we can truly establish Canada's Centre for Pandemic Research in our province. We will also double the number of scientists working at VIDO within the next 10 years, expanding the team of pandemic experts for Canada and the world.

Research Chairs in Emerging Disease Research

With your support, we will establish a team of Research Chairs in emerging and infectious diseases, and lead the charge on protecting Canadians from emerging diseases that pose a threat to both human and animal populations. These Research Chairs will identify future disease threats, lead critical research on preventing the spread of detrimental diseases, and work with decision makers to develop sustainable policies to protect Canadians.

VIDO needs to recruit global experts to lead research teams on critical diseases such as:

- Novel viral diseases including COVID-19, Middle East respiratory syndrome, porcine epidemic diarrhea, etc.
- Bacterial infections of humans and animals including tuberculosis and salmonellosis
- Foreign animal disease affecting animal health and food security including African swine fever (ASF)

and highly pathogenic avian influenza

- Disease of the very young including Zika, Respiratory Syncytial Virus, Dengue, and Japanese Encephalitis virus

Fellowships

By providing a prestigious fellowship program, and highly competitive funding, we will attract some of the brightest and talented researchers in the world to work at VIDO on a short-term basis. This will enable us to advance our research and continue building our international network and reputation. International collaborations are essential to further expedite global responses to future pandemics, and this scholarship program will help us to establish these collaborations and better prepare the country for future pandemics.

GIVING OPPORTUNITIES

A variety of giving options exist to help fulfil our vision. You can choose to support the area that speaks to you, like critical vaccine research and development, building an inspiring facility, recruiting top researchers into Chairs and Fellowship positions, or state-of-the-art equipment.

Or, help address VIDO's greatest needs by making a donation of any size to our **Friends of VIDO fund** and join a group of dedicated supporters who believe in protecting Canadians' health, our economy, and food security by identifying and combating emerging disease threats.

NATIONAL CENTRE FOR PANDEMIC RESEARCH

	FUNDS REQUIRED	FUNDRAISING GOAL
Manufacturing Facility	Fully Funded	Fully Funded
Containment Level 4 & Animal Housing	\$66M	\$5M
Equipment	\$5M/10 years	\$500K annually
Research Chairs & Fellowships	\$50M/10 years	\$5M annually



How you can support leading pandemic research and response

VIDO has always been a leader in developing vaccines. Our world-class containment infrastructure enables our team to understand high-impact pathogens and develop vaccines and other therapeutics to help protect Canada and world from emerging threats—including this global pandemic.

New infectious diseases continue to emerge and Canada cannot afford to be unprepared again. In order to combat these diseases, we need to predict them before they have a chance to become a substantial threat. To do this, we need the support of partners and donors, like you.

We can establish a Canada's Centre for Pandemic Research at VIDO, but this vision will not be achieved alone. We need your help, right now. With your commitment, we will expand our facility to become fully self-sufficient in researching emerging diseases and developing and producing vaccines—from start to finish.

The world's top scientists belong at VIDO, a place where they can work with some of the most advanced infrastructure on life-changing and life-saving breakthroughs. We need supporters to help us bring these researchers to VIDO, and this vision to life.

The world needs quicker, and more efficient vaccine development.


The world needs rapid research that can not only identify threats, but predict the next emerging disease.

The world needs global leaders in infectious disease to educate, inform policy, and make critical breakthroughs when they're most needed.



**Lifesaving discoveries
are within our reach—
thanks to you.**

**Together, we can
be what the world needs.**



“VIDO is involved in the fight against COVID ... That being said, what we’ve learned also is we can’t take for granted there won’t be other pandemics and that there won’t be any other new diseases.”

“We want the best and the brightest working on it, making sure we can keep Canadians safe. That will be happening in Saskatoon.”

Melanie Joly, the federal Minister of Economic Development and minister responsible for Western Economic Diversification

BE WHAT THE WORLD NEEDS

vido.org

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