



SPP-ARCIing Connections Outside Academia

May 6th, 2024

Lister Conference Centre
University of Alberta

SPP-ARC
Striving for Pandemic Preparedness
The Alberta Research Consortium

Table of Contents

ABOUT SPP-ARC	2
EVENT SCHEDULE	3
PARTICIPATING ORGANIZATIONS	4
KEYNOTE SPEAKER.....	8

About SPP-ARC

Striving for Pandemic Preparedness – The Alberta Research Consortium (SPP-ARC) is an initiative funded by the Government of Alberta, Ministry of Technology and Innovation. Our objective is to develop capabilities that support innovative R&D efforts for better protection against emerging pathogens and future pandemics. The discovery, development, and assessment of medical countermeasures is an important cornerstone in this regard. We aim to achieve our goals through research and training of highly qualified personnel. Our training program provides resources and programming for our trainees to develop an interdisciplinary skillset that will not only complement their research efforts but will also develop them into leading candidates in the present job market.

SPP-ARC investigators cover a broad range of complementary expertise in the areas of virology, immunology, biochemistry, medicinal chemistry, and structural biology. Hence, our trainees are exposed to an interdisciplinary environment aligned with world-class efforts in the development of vaccines and antiviral drugs. “SPP-ARCing Connections” provides an outstanding opportunity to exchange and interact with entities outside academia in a rapidly evolving bioinnovation landscape.

Event Schedule

TIME	DESCRIPTION
11:00 – 11:15 AM	Welcome Address
11:15-12:00 PM <i>Maple Leaf Room</i>	Keynote Presentation from Chris Procyshyn, former CEO of Vanrx • <i>“Biomanufacturing & Canada: we need to make the products of our discoveries”</i>
12:00 – 12:45 PM <i>Glacier Room</i>	Lunch
12:45 – 2:15 PM <i>Maple Leaf Room</i>	Roundtable Sessions with Organization Leaders
2:15 – 3:00 PM	Break (+ additional networking time with industry representatives)
3:00 PM – 4:15 PM <i>Maple Leaf Room</i>	Panel Discussion: The landscape of biotechnology research in Canada <ul style="list-style-type: none"> ○ Lisa Wise-Milestone (Moderna) Strategic Lead, Pandemic Preparedness ○ David Staszak (Amii) Lead Machine Learning Scientist ○ Hubert Eng (Alberta Government) Technology Commercialization
4:15 – 4:30 PM <i>Maple Leaf Room</i>	Concluding remarks

Participating Organizations

48Hour Discovery

48Hour Discovery, headquartered in Edmonton, is a pioneering biotechnology company that specializes in rapid drug discovery through its revolutionary phage display peptide platform. By harnessing state-of-the-art technologies, the company quickly identifies and optimizes drug candidates providing an innovative approach to tackling unmet medical needs. Founded in 2017, 48Hour Discovery has validated its technology through strategic partnerships with over 25 companies, including working with 3 of the top 5 global pharmaceutical leaders and is on track to reach over \$4M in sales in 2024. Beyond our client programs we also have a dedicated focus on developing radiopharmaceutical assets, where the company is at the forefront of advancing precision medicines for the diagnosis and treatment of various cancers.

Innovotech

Innovotech Inc. is publicly traded (TSXV:IOT) biotech company that creates technologies, products and services to improve health by reducing the burden of infection. The company applies creativity, scientific rigor and the highest global standard for quality in all that it does. The strategy results in uniquely effective, high impact scientific and commercial outcomes.

Innovotech began with a focus on studying and combating microbial biofilms. The work has expanded to support contract research services for major medical device manufacturers, production and support for laboratory consumables for biofilm growth as well patented antimicrobial compounds, InnovoSIL™ silver. Innovotech is accredited by CALA (Canadian Association for Laboratory Accreditation Inc.) to ISO/IEC 17025 (testing accreditation number A4146 for Enumerating Bacteria – Solids and Enumerating Bacteria – Liquid). The company supports on-going services and product sales work alongside an internal R&D program to advance technologies and new offerings to clients.

Entos Pharmaceuticals

A new reality in genetic medicine lies ahead, one that will be ushered in with the advent of safe, effective, and re-dosable nucleic acid delivery technologies. Since its inception in 2016, Entos® has been dedicated to advancing next-generation genetic medicines using our proprietary Fusogenix™ PLV™ drug delivery system. The Fusogenix PLV platform is formulated with FASTTM proteins to enable the delivery of nucleic acid to target cells through direct fusion. Entos is pioneering the development of life-changing medicines for patients and has partnered with global companies, such as Eli Lilly, to accelerate and expand the impact of our platform. Entos Pharmaceuticals Inc. is headquartered in Edmonton, Canada, with its wholly owned U.S. and U.K. subsidiaries based in San Diego, California, and London, United Kingdom, respectively.

GSK

GSK is a global biopharma company with a purpose to unite science, technology and talent to get ahead of disease together. We make innovative vaccines and specialty medicines to prevent and treat disease. Our R&D focuses on the science of the immune system, human genetics and advanced technologies. We aim to positively impact the health of 2.5 billion people over the next 10 years. Find out more at gsk.ca.

Providence Therapeutics

Providence Therapeutics has developed an mRNA medicines platform and has established itself as a competitive player within the mRNA scene for the last 10 years. Consisting of a clinically proven mRNA platform and a next-generation lipid-nanoparticle (LNP) platform, the company developed to enhance immune responses to cancers and infectious diseases. Along with this, Providence also has manufacturing and regulatory platforms that are capable of producing drugs for personalized vaccines up to pandemic scale amounts. Providence has a robust pipeline consisting of preclinical and clinical oncology, infectious diseases and animal health programs. These programs have been developed internally and in collaboration with academic and industry partners that specialize in many different fields.

Sanofi

Sanofi is an innovative global healthcare company, driven by one purpose: we chase the miracles of science to improve people's lives. Our team, across some 100 countries, is dedicated to transforming the practice of medicine by working to turn the impossible into the possible. We provide potentially life-changing treatment options and life-saving vaccine protection to millions of people globally, while putting sustainability and social responsibility at the center of our ambitions.

In Canada, we employ over 2,000 people. We invest 20% of our revenue annually in biopharma research (representing \$1.2 billion CAD in R&D investment over the last decade) creating jobs, business, and opportunities throughout the country. We are also on track to deliver over \$2 billion CAD in new infrastructure investments by 2028, including two new vaccine manufacturing facilities at our Toronto Campus.

In 2024, we are celebrating 110 years of heritage dedicated to developing innovative health solutions for Canadians. What started as a small laboratory in May of 1914, recognized for having advanced some of the greatest contributions to public health, both nationally and globally, has evolved to become the largest biomanufacturing facility in Canada.

API

API is Alberta's largest not-for-profit life sciences organization dedicated to catalyzing growth in the sector by addressing key challenges that hold companies and innovators back from commercializing pharmaceuticals, natural health products, medical devices, diagnostics, and more. API aims to bridge the gap between academia and industry by providing the technical and scientific capacity for innovators, institutions, and academics to translate scientific knowledge into practical applications.

With an interdisciplinary network of over 100 pharmaceutical scientists, clinicians, regulatory, patent, and market experts, API has attracted over 75 commercial projects, created over \$500M in value to the companies they have incubated, and supported over 50 SMEs, scale-ups, and spinoffs.

With a commitment to building an unparalleled life sciences sector that drives economic prosperity for all, API collaborates with government, academia and industry on several initiatives and programs to accelerate research to market and foster talent development in the life sciences.

Moderna

At Moderna, our mission is to deliver the greatest possible impact to people through messenger RNA (mRNA) medicines. Our mRNA platform aims to help people use their own bodies' mechanisms to help protect against disease. For more than a decade, we have been pioneering the potential of mRNA to develop therapeutics and vaccines for infectious disease, immune-oncology, rare diseases, cardiovascular disease and autoimmune diseases. Notably, these capabilities contributed to the approval of one of the earliest and most effective vaccines against the COVID-19 pandemic. Moderna is currently constructing a manufacturing facility in Quebec to provide onshore access to mRNA respiratory vaccines.

Gilead

Gilead Sciences is a biopharmaceutical company that has pursued and achieved breakthroughs in medicine for more than three decades, with the goal of creating a healthier world for all people. The company is committed to advancing innovative medicines to prevent and treat life-threatening diseases, including HIV, viral hepatitis, COVID-19, and cancer. Gilead operates in more than 35 countries worldwide, with headquarters in Foster City, California.

Our ambitions have led us to a cure for hepatitis C and to helping transform the treatment and prevention of HIV. We continue to set our sights on curing more viral diseases and even certain cancers. Our decades of antiviral expertise and significant internal resources enabled us to deliver the first approved treatment for COVID-19; a treatment that has been received by over 13 million people globally.

Gilead's research and GMP facility in Edmonton is involved in the development of chemical and analytical methods for our small molecule programs and ensures an uninterrupted supply of active pharmaceutical ingredients for clinical and commercial use. The facility has ~370 employees, including ~200 process and analytical chemistry scientists, in addition to manufacturing, engineering, and quality assurance staff.

BD Biosciences

At BD, advancing the world of health is our purpose. BD is one of the largest global medical technology companies in the world and is advancing the world of health by improving medical discovery, diagnostics and the delivery of care. We supply medical devices and drug delivery systems, as well as innovations in life sciences such as clinical diagnostic assays and flow cytometry tools.

Our Canadian team supports local researchers, hospitals, and clinics; most R&D operations are based out of global headquarters in the United States. We have thousands of associates worldwide, with backgrounds in medicine and nursing, laboratory science, engineering, and business.

Merck

At Merck, known as MSD outside of the United States and Canada, we are unified around our purpose: We use the power of leading-edge science to save and improve lives around the world. For more than 130 years, we have brought hope to humanity through the development of important medicines and vaccines. We aspire to be the premier research-intensive biopharmaceutical company in the world – and today, we are at the forefront of research to deliver innovative health solutions that advance the prevention and treatment of diseases in people and animals. We foster a diverse and inclusive global workforce and operate responsibly every day to enable a safe, sustainable and healthy future for all people and communities. For more information, visit www.merck.ca and connect with us on Twitter and LinkedIn.

Thermo Fisher Scientific

Thermo Fisher Scientific is the world leader in serving science. Our Mission is to enable our customers to make the world healthier, cleaner, and safer. Whether our customers are accelerating life sciences research, improving patient health through diagnostics or the development and manufacture of life-changing therapies, we are here to support them through our industry-leading brands, including Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific, and Unity Lab Services.

The Fisher Scientific channel, which I represent is the premier scientific marketplace. We offer over 2.5 million products and extensive support services to the research, production, healthcare and science education markets. We have partnered with the University of Alberta as the preferred supplier for research products for over 30 years.

Fisher Scientific Canada takes pride in hiring research scientists with the majority of our employees are with BSc., MSc, and PhD. Degrees, and we are always open to recruit to our diverse divisions, and help graduates join the industry.

Janssen

Janssen Inc. (now Johnson & Johnson Innovative Medicine) is a pharmaceutical company that has been an innovator in the Canadian healthcare industry for over 50 years. Janssen comprises companies with nearly 40,000 employees in more than 150 countries around the world. We work within and beyond our communities, globally, to bring innovative treatments for serious unmet medical needs. With our unique model of innovation, Janssen has built an industry-leading pipeline. We are developing treatments for patients in six important therapeutic areas of healthcare, including: cardiovascular & metabolism, immunology, infectious diseases and vaccines, neuroscience, oncology, and pulmonary hypertension.

Amii

The Alberta Machine Intelligence Institute (Amii) is one of Canada's three centres of AI excellence as part of the Pan-Canadian AI Strategy. We're an Alberta-based non-profit institute that supports world-leading research in artificial intelligence and machine learning and translates scientific advancement into industry adoption. We grow AI capacity through advancing leading-edge research, delivering exceptional educational offerings and providing business advice – all with the goal of building in-house AI capabilities. Over its twenty-year history, and thanks to forward-looking investments by Alberta Innovates and the Government of Alberta, Amii has built a world-class team of researchers at the University of Alberta and affiliated institutions. Since our inception, we have increased research capacity in AI/ML nearly nine-fold, starting with four co-founding members at the University of Alberta and now funding the research of 28 Fellows (including 23 Canada CIFAR AI Chairs) and eight Canada CIFAR AI Chairs at universities across Western Canada.

Keynote Speaker



Chris Procyshyn is the former founder & CEO of Vanrx Pharmsystems, a pharmaceutical robotics company focused on advanced drug product manufacturing technology that is now part of Cytiva. With over nearly thirty years' experience in the pharmaceutical industry, Chris has led teams in the development of complex injectable products in the fields of ophthalmology, oncology, and reproductive health. Globally experienced, he has negotiated the implementation of new technologies with many major regulatory agencies. Previously with QLT Inc., a pioneering Canadian biopharmaceutical company,

he led the Manufacturing, Engineering and Process Sciences groups in the development of many advanced pharmaceutical processes and their implementation into manufacturing facilities in multiple countries. He was a member of the Canadian Covid-19 Vaccine Task Force, is a current member of the Council of Expert Advisors, the Government of Canada's foremost advisory body on matters related to enhancing Canada's biomanufacturing, biopharmaceuticals and life sciences sectors. Chris is a microbiologist by education and training, and a graduate of the University of Saskatchewan.