

# TRIUMF INNOVATIONS

Translating scientific discovery  
into commercial opportunities



**TRIUMF**  
INNOVATIONS

## DOING BUSINESS WITH CANADA'S PARTICLE ACCELERATOR CENTRE

TRIUMF's network of innovators is constantly developing new tools and techniques that push the frontiers of knowledge. These scientific innovations hold immense promise for the world beyond the lab – including the marketplace.

The dedicated team of technology transfer professionals at TRIUMF Innovations, TRIUMF's commercialization arm, connects scientific inventions and ideas from particle detectors to isotope manufacturing systems – and the innovators behind them – to opportunities in the private sector.

## TRAINING OUR COMMUNITY IN THE BUSINESS OF INNOVATION

TRIUMF Innovations is spearheading a comprehensive training program to equip students, scientists, technicians, and entrepreneurs in the TRIUMF network with the skills and tools they need to become the next generation of industry leaders.

In partnership with the University of British Columbia's Sauder School of Business, the TRIUMF Innovations Training Program provides entrepreneurship training and coaching to individuals seeking to increase the commercial impact of their work. Through a variety of courses, workshops, networking events, and mentorship, the TRIUMF community can gain access to myriad opportunities to build business skills and strengthen connections with industry.

## DEVELOPING AN ECOSYSTEM THAT CATALYZES ENTREPRENEURIAL SUCCESS

TRIUMF Innovations helps TRIUMF start-ups succeed by:

- Identifying commercial opportunities
- Navigating intellectual property issues, patent filings, and disclosures
- Advising on raising capital, generating early revenue, and acquiring new customers
- Helping with talent recruitment and development
- Identifying and cultivating strategic partnerships from our global network

TRIUMF Innovations also streamlines industry access to world-class expertise, ideas, and infrastructure across the TRIUMF network, which includes the laboratory's 20 member universities, diverse industry partners, and international collaborators.

To date, TRIUMF Innovations has successfully established and brought five spin-off companies to market, with more in the pipeline.

## LINKING DISCOVERY SCIENCE TO COMMERCIAL MARKETS

Deeply embedded in an international network of pioneers and inventors, TRIUMF Innovations has a unique vantage point when it comes to identifying new ideas in physics and accelerator science. Here is a cross-section of our portfolio:

### STRESS-TESTING AVIONICS AND SPACE-RELATED TECHNOLOGIES

TRIUMF's proton and neutron irradiation facilities provide commercial access to particle beams that simulate radiation exposures in both space and terrestrial environments, allowing telecommunications and technology companies to stress-test mission-critical components or space-bound equipment. TRIUMF Innovations plays an important role in brokering relationships between the lab and its irradiation services customers.

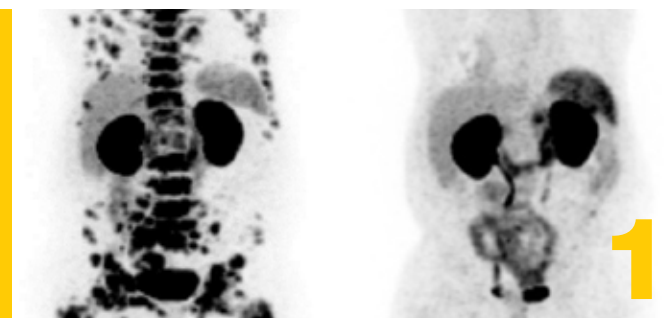
### PROVIDING CRITICAL MEDICAL ISOTOPES

In partnership with BWX Technologies (BWXT), TRIUMF Innovations continues to build on TRIUMF's decades-long legacy as a key global supplier of medical isotopes. Every week, the TRIUMF-BWXT relationship supplies over 35,000 diagnostic and treatment doses of critical medical isotopes for cancer, cardiac diseases, and other illnesses.

### APPLYING PARTICLE DETECTORS FOR A GREENER TOMORROW

TRIUMF Innovations has brought to market two companies that apply particle detection technology to improve environmental outcomes in several industries: Frontier Sonde, which uses neutron detectors to improve efficiency in oil and gas surveying; and CRM Geotomography, which uses muon detectors to reduce the cost and environmental impact of geological exploration.

## IDENTIFYING BUSINESS OPPORTUNITIES AT THE FRONTIER OF KNOWLEDGE



### ACCELERATING THE DEVELOPMENT OF LIFE-SAVING CANCER THERAPIES

With its fleet of particle accelerators, TRIUMF has the potential to produce world-leading amounts of <sup>225</sup>Ac, a rare radioisotope that has shown great promise in clinical trials for the treatment of cancer. TRIUMF Innovations is working to bring <sup>225</sup>Ac and other life-saving therapies from bench to bedside.



### AMPLIFYING THE IMPACT OF TRIUMF'S TWO FLAGSHIP ISOTOPE SCIENCE FACILITIES

As TRIUMF hones its focus on isotope science, TRIUMF Innovations will seek to maximize the economic return from these investments:

- The Institute for Advanced Medical Isotopes (IAMI) will provide academic and industry partners with world-leading capacity for new isotope research and clinical applications
- The Advanced Rare Isotope Laboratory (ARIEL) will supercharge TRIUMF's science output, together with its potential for commercial impact



### DEVELOPING CANADA'S THRIVING NATIONAL DATA AND ARTIFICIAL INTELLIGENCE INDUSTRIES

TRIUMF Innovations will bring world-leading expertise and training to support Canada's thriving data and artificial intelligence industries by:

- Collaborating with national and international partners to establish a network to provide quantum computing tools across multiple sectors
- Developing nation-wide data science training programs to help scientists translate their data science skills into industry jobs



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Learn more about TRIUMF and  
our Five-Year Plan 2020-2025

<https://fiveyearplan.triumf.ca>

Connect with TRIUMF Innovations

**triumfinnovations.ca**



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**Discovery,  
accelerated**