



Photographers capture and share the beauty of physics as part of the Global Physics Photowalk 2015.

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BY THE NUMBERS

FISCAL YEAR 2014-2015 AT A GLANCE

TRIUMF's member universities:

Alberta | British Columbia | Calgary | Carleton
Guelph | Manitoba | McGill | McMaster | Montréal
Northern British Columbia | Queen's | Regina
Saint Mary's | Simon Fraser | Toronto | Victoria
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Follow us at TRIUMFLab



TRIUMF is Canada's national laboratory for particle and nuclear physics and accelerator-based science. We are an international centre for discovery and innovation, advancing fundamental, applied, and interdisciplinary research for science, medicine, and business.

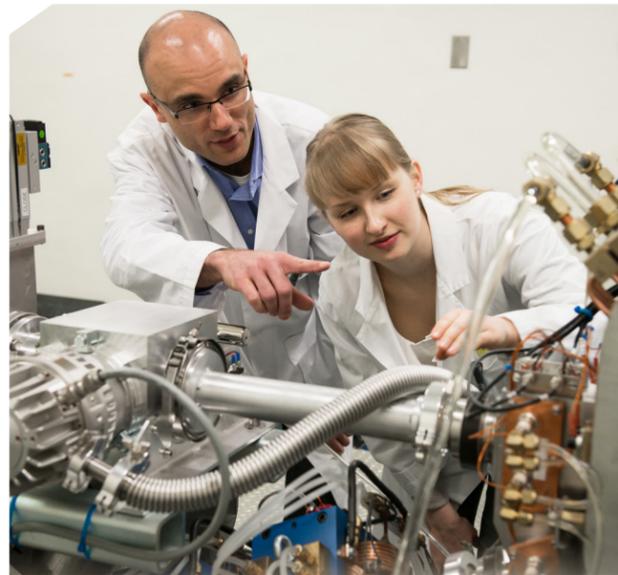
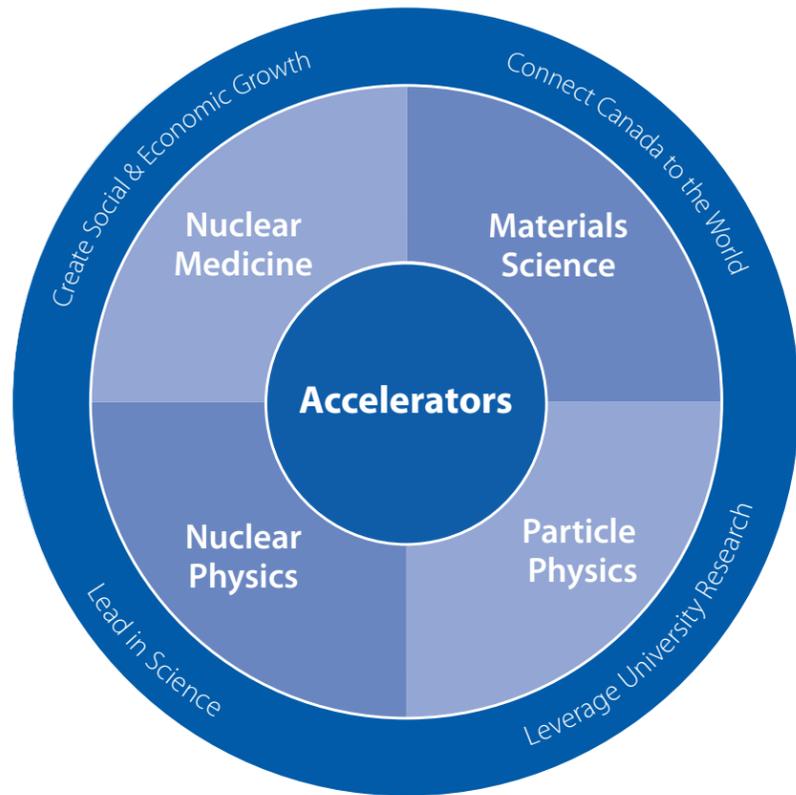
Owned and operated by a university consortium, TRIUMF trains and inspires future leaders in science and technology. Our laboratory is a hub for inquiry and ingenuity, a Canadian centre of excellence deeply integrated into the global scientific community.

TRIUMF's multidisciplinary team of over 500 staff and trainees collaborates with Canadian and international users who visit the laboratory to leverage our world-class facilities. Together, we drive compelling research and develop ideas and innovations that benefit humanity.



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TRIUMF is one of the world's leading subatomic physics laboratories. We bring together dedicated researchers and interdisciplinary talent, sophisticated technical resources, and commercial partners in a way that has established our centre as a global model of success. Our large user community is composed of Canadian and international teams of scientists, postdoctoral fellows, and graduate and undergraduate students. We work together to pursue compelling research and to advance ideas and innovations for the benefit of society.



Creating Leaders

Shared the laboratory on over **630 public tours**, for over **4,683 visitors**, 11 VIP visitors, including Col. Chris Hadfield

Provided direct experiences for **5 high school**,

71 undergraduate, and **30 graduate students**, as well as **40 postdoctoral fellows**

Established the Society of Graduate Students and Postdocs, with monthly programming

offering professional and academic development opportunities

Awarded TRIUMF's inaugural Patron of Science Award to Dr. Emanuele Fiore, Scientific Attaché of the Embassy of Italy, for his selfless contributions to the organization

Provided expert advice: Dr. Lia Merminga serves on U.S. P5, the Particle Physics Project Prioritization Panel; Dr. Tom Ruth served as Vice-Chair of a

U.S. National Academy of Science committee examining the state of Mo-99 production, and; Dr. Reiner Kruecken served on the Writing Group for the Long Range Plan of the U.S. Nuclear Science Advisory Committee

Received recognition for achievements: **TRIUMF-led team was awarded the 2015 NSERC Brockhouse Prize** for developing a cyclotron-based solution for the production of Tc-99m;

Dr. Pierre Savard was awarded the 2015 CAP-TRIUMF Vogt Medal for Contributions to Subatomic Physics; ARIEL engineers received the 2014 Vancouver Regional Construction Association Silver Award of Excellence, and; **Dr. Jens Dilling was awarded the Membership Award of the GSI Exotic Nuclei Community** in Darmstadt, Germany



Advancing Knowledge

Hosted **460+ visiting scientists** from **19 countries**

Invited to **present 39 lectures** on ATLAS and ISAC research topics, **84** for subatomic physics overall

Authored or co-authored **236 scientific peer-reviewed publications**

Operated the main cyclotron for **5,182 hours** (94.2% of scheduled performance)

Supported **27 scientific experiments** for subatomic physics, **58** for molecular and materials science, and **15** for life sciences

Delivered **4,273 hours** of radioactive-isotope beams to experiments and for beam developments and **4,505 hours** of stable-isotope beams to scientific experiments in its ISAC facility

High uptime across the beamlines led to a record year of availability with **12,973 hours of beam delivered**

Used the TR13 cyclotron to produce **858 runs of medical isotopes delivered to hospitals** for research including **15 runs for medical isotopes to the BC Cancer Agency for the diagnosis of cancer patients**



Driving Growth

Hosted the second **Innovations and Industrial Partnerships Workshop** for knowledge mobilization among the member universities and beyond

Generated nearly **\$3M in commercial revenue**, including **~\$0.6M from 60 companies in North America and Europe** for access to the PIF & NIF irradiation facilities

Produced up to **1.7 million patient doses** (in partnership with Nordion Inc.) of **medical isotopes for commercial sale** and provided secondary, back-up supply of **F-18 isotope to BCCA**

Treated **7 cancer patients using proton therapy** in cooperation with the BC Cancer Agency

TRIUMF and its innovation partner **Advanced Applied Physics Solutions Inc.** were **approved and registered under the Controlled Goods Program**

Received over **\$2M in fees and royalties** from Nordion—the largest payment in the history of the 36-year relationship