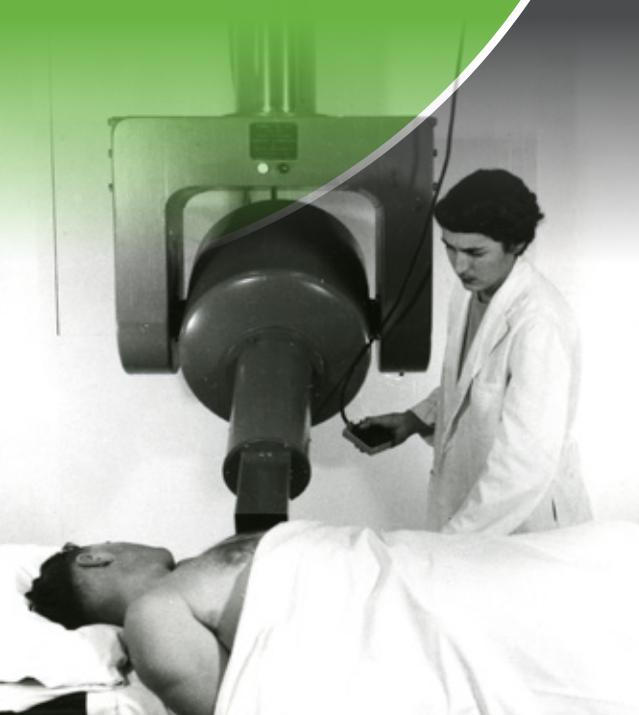


## Nuclear Innovation: Past, Present and Future

Saskatchewan is one of the world's leading suppliers of uranium. The province's contributions in nuclear medicine and nuclear physics research include the development of the world's first successful cobalt-60 radiation therapy unit, an innovation that has saved the lives of millions.

Today, led by the Sylvia Fedoruk Canadian Centre for Nuclear Innovation, Saskatchewan academic institutions and researchers are working to build on the province's history of nuclear achievement. In partnership with industry and experts from across Canada and around the world, the Fedoruk Centre is placing Saskatchewan among global leaders in nuclear research, development and training in the areas of nuclear medicine, social and environmental aspects of nuclear development, energy production including small modular reactors, and materials research – creating a vital hub for nuclear innovation.



## Universities: The Core of Nuclear Innovation



### UNIVERSITY OF SASKATCHEWAN

The University of Saskatchewan is a leader in biomedical research, with colleges and faculties in all of the health and life science disciplines—medicine, veterinary medicine, pharmacy, toxicology, and plant and animal sciences. “Energy and Mineral Resources: Technology and Public Policy for a Sustainable Environment” is a signature area of the university's research. Wide-ranging energy research expertise includes computer simulation of nuclear fuels and testing of materials for nuclear applications. The campus is home to some of Canada's top research facilities, including the Canadian Light Source synchrotron, the new Saskatchewan Centre for Cyclotron Sciences, the Social Sciences Research Laboratories' and the country's only tokamak for fusion research.



### UNIVERSITY OF REGINA

The University of Regina's Faculty of Engineering and Applied Science has an active research portfolio based on the concept of systems engineering in the areas of Petroleum, Electronics, Environmental, Industrial and Software Systems. The University's Physics Department is active in international nuclear and particle physics consortia including TRIUMF and Jefferson National Laboratory. The Johnson-Shoyama Graduate School of Public Policy, operated jointly by both universities, is delivering policy impacts in the areas of science, technology and innovation, Aboriginal relations and northern development, and transnational regulation.

Working with Saskatchewan's research community, national and international partners, the Fedoruk Centre is establishing a research and innovation capacity to support a vibrant nuclear sector. Find out more at [www.fedorukcentre.ca](http://www.fedorukcentre.ca)



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The Fedoruk Centre is an independent, not-for-profit corporation of the University of Saskatchewan funded by Innovation Saskatchewan.



Building Nuclear  
Innovation In  
Saskatchewan,  
Canada and Globally



Medicine  
Materials  
Energy  
Environment

## ● Saskatchewan Centre for Cyclotron Sciences

The newly completed Saskatchewan Centre for Cyclotron Sciences is unique in Canada as a user facility for nuclear imaging research, with a state-of-the-art cyclotron, radiopharmaceutical production facility and laboratories. It is focused on innovations in the production, synthesis and detection of radioisotopes to enable fundamental and applied research into biological processes and diseases in humans, animals and plants, as well as supplying clinical radiopharmaceuticals.

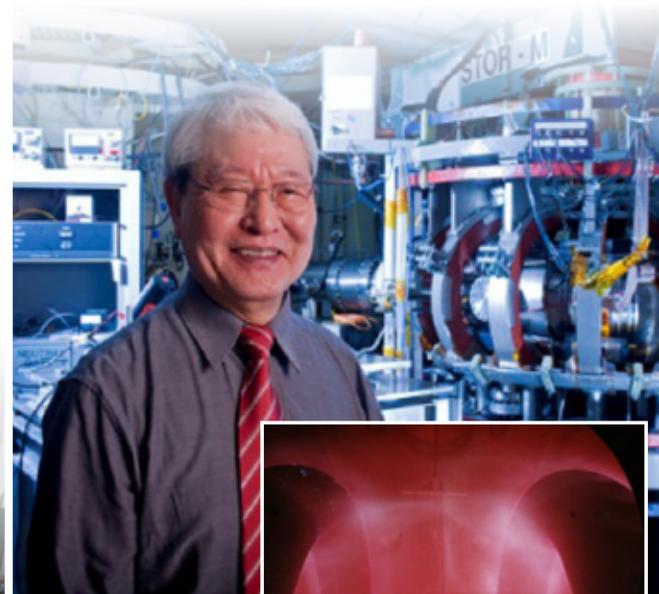


## ○ Canadian Light Source Medical Isotope Project

The Medical Isotope Project is the world's first linear accelerator facility dedicated to medical isotope production using high-energy X-rays instead of a nuclear reactor fuelled with highly-enriched uranium.

## ● Plasma Physics Laboratory

The University of Saskatchewan Plasma Physics Laboratory is home to Canada's only tokamak fusion reactor, conducting international-calibre research into fuelling and control systems for future fusion power plants.



## ● Social Sciences Research Laboratories

The Social Sciences Research Laboratories at the University of Saskatchewan is a constellation of seven laboratories and specialized infrastructure to conduct cutting-edge social science research related to public opinion, decision-making, social networking and spatial analysis.



## ● SLOWPOKE-2

The Saskatchewan Research Council's SLOWPOKE-2 reactor in Saskatoon is used for neutron activation analysis of geological and environmental samples, as well as for training and research.

