

EDWARD LLEWELLYN, FRSC

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**Leon Katz**  
**1909-2004**



Like many other citizens of Saskatchewan, Leon Katz started life in Eastern Europe. He was born in Lutsk, Poland on August 9, 1909 where he lived for the first eleven years of his life. He moved to Canada in 1920 to rejoin his father, who had immigrated to Canada in 1914. His primary and secondary educations were received in Toronto. With the aim of becoming an electrician, he enrolled in Toronto's Central Technical School, which had an experimental program with Queen's University. Leon Katz was one of the five students selected to join this science-based program. To make ends meet during the early years of the depression, he combined work in a battery factory with studies, graduating with a BSc from Queen's University in 1934. It was during this period that he met his wife, Georgina Caverly.

He continued his studies at Queen's, where his talents for research became evident, and obtained an MSC in 1937. With Professor Clark he measured ratios of specific heats of gases with such reproducibility and accuracy that their results were regarded as a standard for many years. Leon Katz was awarded a scholarship to the California Institute of Technology where he received a PhD with distinction. His academic career was interrupted by World War II, when he worked as a research engineer with the Westinghouse Electric Company in Pittsburgh designing radar equipment for aircraft.

In 1946 Dr. Katz returned to academic life, joining the Physics Department at the University of Saskatchewan as an Associate Professor. Almost immediately, he undertook another successful major change in his field of interest, this time to nuclear physics. He joined with Dr. Newman Haslam, another convert to experimental nuclear physics, and Dr. Harold Jolms, a specialist in cancer radiotherapy, in bringing a 25 MeV betatron to Saskatchewan in 1948. For over a decade that machine was used to treat patients from the Cancer Clinic and for high-quality research in nuclear physics. Many scientists received graduate training with Dr. Katz using the betatron. Among these was Harvard's A.G.W Cameron, the first PhD from the University of Saskatchewan.

Dr. Katz next turned his efforts to obtaining an intermediate-energy electron linear accelerator for the University of Saskatchewan. Although many cooperated in this work, the University would not have obtained this world-class linear accelerator without his drive and perseverance. He was Director of the Linear Accelerator Laboratory from its opening in 1964 until 1975 and Head of the Department of Physics from 1965 to 1975.

After the linear accelerator started producing significant results in nuclear physics, Dr. Katz began to devote his attention to the field of science policy. He was one of the first members of the Science Council of Canada and a founding member of the Canadian Association of the Club of Rome. He helped the provincial government lay the groundwork for a science policy for Saskatchewan. In 1975 he took a leave of absence from the University and moved to Regina to become the first Director of the Science Policy Secretariat and Secretary to the Saskatchewan Science Council. After his term in these offices was completed, he returned to Saskatoon and the University as Professor Emeritus of Physics.

The team Dr. Katz had assembled at the University of Saskatchewan, with his guidance and advice, were able to develop a storage ring that enhanced the duty cycle of the Linear-Accelerator and allowed many new experiments in nuclear physics. However, the real result of his foresight is the Canadian Light Source at the University of Saskatchewan that builds on the storage ring knowledge and uses the original linear-accelerator as the electron injector for the

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CLS. This was opened in November 1999 by the then Prime Minister Jean Chrétien and a new Board room was named in Leon Katz's honour. He passed away on March 11, 2004, a true leader of the Canadian scientific community who will be sorely missed by his many colleagues, graduate students, and a family that included three sons and a daughter.

That the work of Dr. Katz has been widely recognized is evident from the honours conferred on him: an officer of the Order of Canada, a Fellow of the Royal Society of Canada (1952), a fellow of the American Physical Society, he also served as President of the Canadian Association of Physicists.

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*(Author's title given as of the time of writing)*