

Anna Celler, PhD, 1951–2020

Anna Celler, PhD, an extraordinary colleague, mentor, educator, and pioneer in medical imaging, passed away on December 24, after a more than 2-year battle with uterine cancer. Born and raised in Poland, she received her MSc in 1974 and her PhD in 1980 from the University of Warsaw, where she became an expert in nuclear physics. After spending time in research laboratories in Poland, France, and Finland, she moved to Canada with her husband and joined the Charge Exchange Group at TRIUMF (Canada's national particle accelerator center, in Vancouver) in 1984. In 1991, Dr. Celler joined the nuclear medicine department at the Vancouver General Hospital (VGH) as a clinical medical imaging physicist. Soon she was overseeing the quality assurance program for 12 nuclear medicine departments around the Lower Mainland. In 1995, she was certified as a member of the Canadian College of Physicists in Medicine (CCPM) in recognition of her competence in physics as applied to medicine. She became a fellow of the CCPM 1 year later.

Dr. Celler's passion for research led her to create the Medical Imaging Research Group in 1991 at the VGH/University of British Columbia (UBC). Her research interests were related to image quantification using diagnostic nuclear medicine imaging modalities, particularly with SPECT. She is considered a pioneer in quantitative and dynamic SPECT, as well as a leading expert in dosimetry for radiopharmaceutical therapies using SPECT. As an example, Siemens implemented a "profile attenuation correction system" in their medical equipment that was a method fully developed by Dr. Celler. She was a professor emerita in the Department of Radiology at UBC, having also served as an adjunct professor in the Department of Mathematics at Simon Fraser University and an associate member of the Department of Physics and Astronomy at UBC. She was the



author of more than 350 peer-reviewed articles, abstracts, and book chapters.

In 2012, Dr. Celler received the Sylvia Fedoruk Prize from the Canadian Organization of Medical Physicists (COMP) for her work in dual-isotope imaging with PET. She was also part of a multi-institutional and multidisciplinary team led by researchers at TRIUMF who developed methods of producing ^{99m}Tc with a cyclotron. This method received Health Canada's approval in early December 2020 and will make it possible to avoid shortages of this vital radioisotope used in more than 80% of nuclear medicine diagnostic procedures. This work was awarded the Brockhouse Canada Prize for Interdisciplinary Research in Science

and Engineering from the Natural Sciences and Engineering Research Council of Canada in 2015. Her work has also found multiple applications in the development of personalized patient dosimetry for radiopharmaceutical therapies.

Over the last 3 decades, Dr. Celler supervised numerous trainees in medical physics, including postdoctoral fellows, graduate students, undergraduate students, and nuclear medicine residents. Many of her trainees now have leading positions in academia, industry, and health care. In recognition of her contributions to clinical practice, teaching, and research, Dr. Celler was awarded the COMP Gold Medal in 2018, the highest distinction given by this organization.

What stood out profoundly with Anna was that she valued human beings. She cared deeply about her trainees and the people around her and created and led a lively work and research environment. She will be tremendously missed. Her family has asked that donations in her memory be directed to the BC Cancer Foundation: <http://donate.bccancerfoundation.com/goto/aceller>.

Arman Rahmim, PhD
Carlos Uribe, PhD
Alex MacKay, PhD
Glenn Wells, PhD