

THE UNIVERSITY OF MICHIGAN

Regents Communication

ACTION REQUEST

Subject: Report of Faculty Retirement

Action Requested: Adoption of Retirement Memoir

Larry E. Antonuk, Ph.D., professor of radiation oncology in the Medical School, retired from active faculty status on August 2, 2024.

Professor Antonuk received his B.Sc. degree in physics (1975) from the University of Calgary and his Ph.D. degree in nuclear physics (1981) from the University of Alberta. He was a research fellow with the University of South Carolina and the Université de Neuchâtel, Switzerland (1981-1984), a research associate with the University of Alberta working at Laboratoire National Saturne, France (1984-1987), and a research investigator with the University of Michigan (1987-1988). Professor Antonuk joined the faculty of the University of Michigan as an instructor in 1988, was promoted to assistant professor in 1990, associate professor in 1995, and professor in 2001.

Professor Antonuk's academic contributions were shaped by the radiation detection expertise he acquired during his post-doctoral research. He taught radiation physics courses to radiation therapy technologist students and radiation oncology medical residents and, for several years, provided clinical physics support. Funded by numerous NIH grants and various contracts, his lab pursued development of novel megavoltage and diagnostic x-ray imaging technologies. He co-conceived indirect detection, active matrix, flat-panel imagers (AMFPIs) and carried out research to extend their range of use. Due to the many benefits of AMFPIs, with Professor Antonuk's assistance, the university commercialized the technology on a worldwide basis. Indirect detection AMFPIs became ubiquitous in numerous medical applications, including radiation therapy (with one or two imagers installed on most treatment machines to allow more precise and accurate treatment delivery), radiography, mammography, fluoroscopy and cone-beam CT imaging as well as in other applications. Dr. Antonuk supervised at least eight physics and engineering Ph.D. students and 18 postdoctoral fellows as well as numerous undergraduate students. His research at Michigan has been published in over 75 peer-reviewed publications and over 185 abstracts associated with oral and poster presentation of his research at scientific meetings, two book chapters and at least 45 other publications. For his significant contributions to the field of x-ray imaging, Dr. Antonuk was named a fellow of the American Association of Physicists in Medicine (2004) and received the Dean's Award for Innovation from the Medical School (2006).

The Regents now salute this distinguished faculty member by naming **Larry E. Antonuk, professor emeritus of radiation oncology**.

Requested by:



Jon Kinsey

Vice President and Secretary of the University

July 2024