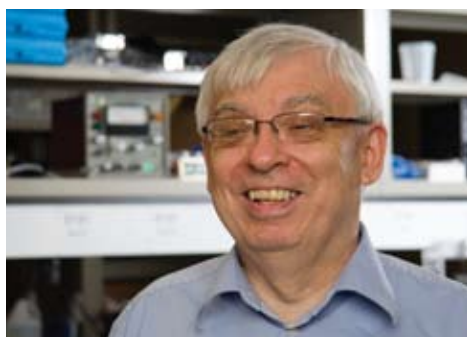


Bringing Discovery to Life

Scientist Biography



John A. Rowlands, PhD., FCCPM
Founding Scientific Director

EDUCATION

- B.Sc. Special Studies Physics, First Class Honours, Leeds University, 1967
- Ph.D. Physics, Leeds University, 1971

APPOINTMENTS AND AFFILIATIONS

- Professor, Department of Physics, Lakehead University
- Senior Scientist, Imaging Research, Sunnybrook Health Sciences Centre (SHSC), Toronto, Ontario
- Head of Medical Physics Research, Odette Cancer Centre, SHSC, Toronto, Ontario
- Professor, Radiation Oncology, Medical Biophysics and Medical Imaging, University of Toronto, Ontario
- Professor, Electrical and Computer Engineering, University of Waterloo, Ontario

RESEARCH AREAS OF FOCUS

Throughout Dr. Rowlands' research and professorial experience, medical imaging and physics have been a common thread. His most significant recent contribution to research/practice is a novel optical detector for Positron Emission Tomography (PET) based on avalanche multiplication in amorphous selenium. This is an outcome of his investigations of the fundamental x-ray imaging properties of amorphous selenium for application in digital radiography and fluoroscopy.

Other projects that Dr. Rowlands will guide at the Thunder Bay Regional Research Institute include a novel approach to incisionless surgery made possible by the guidance of high-intensity focused ultrasound with MRI (magnetic resonance imaging) as a means of treating cancerous tumours deep in the body using heat instead of conventional surgery.

**Thunder Bay Regional
Research Institute**

In partnership with
Thunder Bay Regional Health Sciences Centre