

2015 Research Award Recipients

MANNING INNOVATION PRINCIPAL AWARD, ERNEST C. MANNING AWARDS FOUNDATION

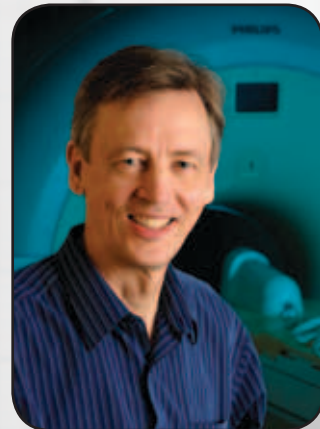
Dr. Paul Santerre's

research focuses on design and synthesis of novel degradable biologically active polymers for use in tissue engineering, drug delivery and implantable device fabrication. He received the Principal Award from the Ernest C. Manning Awards Foundation for his development of surface modifying macromolecules that effectively prevent blood clots when built into plastic medical tubing and other medical devices. The macromolecules, known by the trade name Endexo™, eliminate the need to coat plastic with anticoagulants after manufacturing and reduce clots by up to 87%.



J. Paul Santerre, MScE, PhD, FBSE, FAIMBE, FAAAS, FCAHS
Professor, Faculty of Dentistry and Institute of Biomaterials and Biomedical Engineering

RAYLEIGH AWARD, INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS



Dr. Kullervo Hynnen

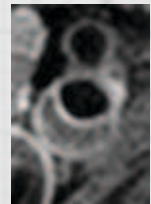
received the Rayleigh Award from the IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society "for outstanding accomplishment in the development of image guided therapeutics, and in particular for pioneering the use of focused ultrasound as a means of noninvasively ablating brain tissue and reversibly opening the blood brain barrier."

Kullervo Hynnen, PhD
Professor, Department of Medical Biophysics
Senior Scientist, Sunnybrook Research Institute,
Sunnybrook Health Sciences Centre

ALEXANDER R. MARGULIS AWARD FOR SCIENTIFIC EXCELLENCE, RADIOLOGICAL SOCIETY OF NORTH AMERICA

The Alexander R. Margulis Award recognizes the best original scientific article published in *Radiology* during the award year.

Dr. Anna Zavodni demonstrated that arterial MRI predicts cardiovascular events in asymptomatic adults. By examining the neck vessels for wall thickness and plaque composition, her team improved the traditional risk model for identifying individuals at risk for heart disease and stroke.



Cross-section of common carotid artery showing wall thickening and presence of lipid-containing plaque



Anna Zavodni, MD, MHSc, FRCPC
Assistant Professor, Department of Medical Imaging
Affiliate Scientist, Sunnybrook Research Institute, and
Clinician Investigator, Sunnybrook Health Sciences Centre

MARY MATTHEWS PATHOLOGY / TRANSLATIONAL RESEARCH AWARD, INTERNATIONAL ASSOCIATION FOR THE STUDY OF LUNG CANCER

Dr. Ming-Sound Tsao's

career contributions to the molecular understanding of lung cancer were recognized with the Mary Matthews Pathology Award, given for outstanding lifetime scientific achievement in translational and pathology research of thoracic cancers. Dr. Tsao's research aims to identify genes and proteins that may predict poor prognosis after lung cancer tumor resection, as well as biomarkers of cancer drug resistance. His research also explores the molecular basis of pancreatic cancer.



Ming-Sound Tsao, MD, FRCPC
Professor, Department of Laboratory
Medicine and Pathobiology
Senior Scientist, Princess Margaret Cancer Centre, UHN

LEADERS IN INNOVATION AWARD, SOCIETY OF INTERVENTIONAL RADIOLOGY FOUNDATION



Photo: GJ Baylon

Dr. Kieran Murphy

received the Leaders in Innovation Award for his many innovative contributions to interventional neuroradiology. Dr. Murphy's research focuses on radiological approaches to complex spine, neurovascular and cerebral spinal fluid pathologies, including imaging techniques to guide surgical intervention. He has filed over 60 patents on medical devices and founded six medical device companies. He continues to encourage innovation as director of clinical research faculty for UHN's Techna Institute.



Globally issued non Luer lock cement low pressure delivery system, 7 patents issued of 8 filed globally

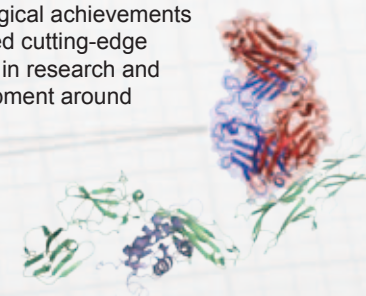
Kieran Murphy, MB, BCh, BAO, FRCPC, FSIR
Professor, Department of Medical Imaging
and Joint Department of Medical Imaging
at UHN, Mount Sinai Hospital
and Women's College Hospital

CHRISTIAN B. ANFINSEN AWARD, PROTEIN SOCIETY



Dr. Sachdev Sidhu

was awarded the Christian B. Anfinsen Award in recognition of his achievements in protein engineering. Dr. Sidhu's work has significantly advanced phage display technology for the efficient production of antibodies; pioneered the use of synthetic human antibody libraries; and developed methods to engineer ubiquitin. His technological achievements have provided cutting-edge tools for use in research and drug development around the world.



Therapeutic inhibition of KIT receptor activation with a synthetic antibody. Dr. Sidhu in collaboration with Dr. J. Schlessinger and Koltan Pharmaceuticals

Sachdev Sidhu, PhD
Professor, Donnelly Centre
for Cellular and Biomolecular Research
Senior Investigator, Ontario Institute
for Cancer Research

KHURSHED JEEJEEBHOY AWARD FOR BEST APPLICATION OF CLINICAL NUTRITION FINDINGS TO CLINICAL PRACTICE, CANADIAN NUTRITION SOCIETY

Dr. Deborah O'Connor's

translational research program in maternal and infant nutrition has impacted the health of families around the world. Based on her research investigating the role of folate in prevention of birth defects, folate is now added to the food supply globally. Dr. O'Connor co-invented a widely used milk fortifier that allows very low birthweight infants to consume their own mother's milk and she has contributed to improvements to preterm infant formulas. She continues to assess nutritional solutions for low birth weight infants, including the use of donor human milk, as well as examining the impact of maternal diet and metabolism on breast milk composition and infant health.



Deborah O'Connor, PhD, RD
Professor, Department of Nutritional Sciences
Senior Associate Scientist, SickKids Research
Institute, The Hospital for Sick Children

AWARD FOR INNOVATION IN LABORATORY MEDICINE, CANADIAN SOCIETY FOR CLINICAL CHEMISTS



Dr. Khosrow Adeli

leads the Canadian Laboratory Initiative on Pediatric Reference Intervals (CALIPER), which was recognized by the Canadian Society of Clinical Chemists for its innovative approach to improving the accuracy of pediatric laboratory test results. The national multi-centre initiative has developed a comprehensive database of gender- and age-specific reference intervals for over 100 laboratory biomarkers of pediatric disease, which have been adopted by hospitals in Canada, the USA, and around the world.



Khosrow Adeli, PhD, FCACB, DABCC, FACB
Professor, Department of Laboratory Medicine and Pathobiology
Senior Scientist, SickKids Research Institute, and Division Head of
Clinical Biochemistry, The Hospital for Sick Children

MERCK IRVING S. SIGAL MEMORIAL AWARD, AMERICAN SOCIETY FOR MICROBIOLOGY

The Merck Irving S. Sigal Memorial Award recognizes excellence in basic research in medical microbiology and infectious diseases.

Dr. Jeffrey Lee received the award for his work on the molecular mechanisms underlying the relationship between retroviruses and host immune responses. Dr. Lee uses cutting-edge X-ray technologies to examine viral surface glycoproteins, which mediate viral entry into cells, and the mechanisms by which the human immune system recognizes and restricts the impact of viruses.

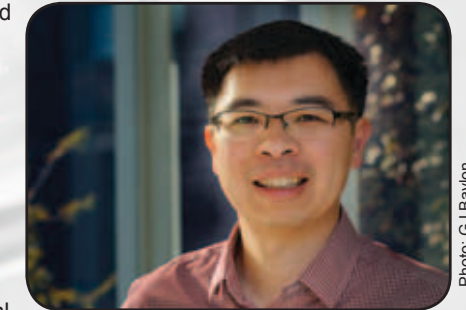


Photo: GJ Baylon

Jeffrey Lee, PhD
Associate Professor,
Department of Laboratory
Medicine and Pathobiology

BOUNDLESS INNOVATION

YOUNG INVESTIGATOR AWARD FOR BASIC SCIENCE, AMERICAN GASTROENTEROLOGICAL ASSOCIATION

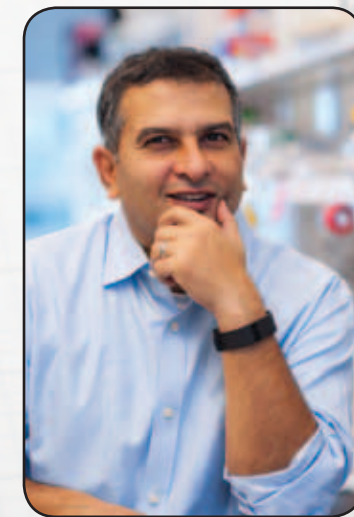


Photo: GJ Baylon

Dr. Aleixo Muise

was awarded the AGA Young Investigator Award for Basic Science, which recognizes originality and innovative insight into a major scientific problem in gastroenterology. Dr. Muise's research focuses on the role of genetics in the pathogenesis of Very Early Onset Inflammatory Bowel Disease. It has led to groundbreaking insights into mutations that contribute to the disease and to novel curative treatments.

Aleixo Muise, MD, PhD, FRCPC
Associate Professor, Department of Paediatrics
Scientist, SickKids Research Institute, and
Co-Director, Inflammatory Bowel Disease Centre,
The Hospital for Sick Children

IN MEMORIAM

2014 MARGARET HAY EDWARDS ACHIEVEMENT MEDAL, AMERICAN ASSOCIATION FOR CANCER EDUCATION 20 FACES OF CHANGE, THE CHANGE FOUNDATION



Dr. Pamela Catton,

a visionary leader of cancer education research and practice, was recognized this year for establishing ELLICSR, an innovative research centre at Princess Margaret Cancer Centre focused on optimizing health and wellness for people with cancer and their families. The centre offers resources to cancer survivors and aims to make new contributions to survivorship research and care delivery through collaboration between survivors, researchers, clinicians and community organizers. Dr. Catton is remembered as a dedicated clinician and passionate innovator in medical education.

Pamela Catton, MD, MPHE, FRCPC (1953 - 2014)
Professor, Department of Radiation Oncology
Medical Director, Breast Cancer Survivorship Program,
Princess Margaret Cancer Centre, UHN