

Savita Dhanvantari

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EDUCATION/TRAINING			
DEGREE	INSTITUTION AND LOCATION	FIELD OF STUDY	YEAR
University of Guelph	B.Sc (Hons)	06/88	Zoology
Western University	MSc	04/92	Biology
University of Toronto	PhD	09/97	Physiology
National Institutes of Health, USA	PDF	09/02	Cell Biology

A. Description of Research Program

My area of expertise is molecular imaging of metabolic disease, and I have formed a number of multidisciplinary research teams to tackle this challenge. In collaboration with imaging physicists and radiochemists at Lawson, we have developed strategies to image pancreatic islets in vivo using diagnostic imaging modalities, positron emission tomography (PET) and single photon emission computed tomography (SPECT). We have established a number of “firsts” in the field of islet imaging, including being the first group to develop a transgenic mouse in which beta cells were engineered for PET tracer uptake. I have also established a program of cardiac molecular imaging research, targeting the ghrelin receptor (GHS-R) as a possible biomarker for heart failure. In collaboration with Dr. Leonard Luyt (Department of Chemistry), Dr. Gerald Wisenberg (Division of Cardiology), and the Cardiac Care unit of LHSC, we are generating and characterizing fluorescent and PET ligands that target GHS-R in vivo in the human heart. Our goal is to translate our imaging technology to the clinic to predict the onset of heart failure.

B. Positions

2016-18 Co-Deputy Director, Biomedical Imaging Research Centre, Western University
 2016-19 Program Leader, Metabolism and Diabetes Program, Lawson Health Research Institute
 2009-19 Director, Collaborative Graduate Program in Molecular Imaging, Western University
 2007- Assistant Professor, Department of Pathology and Laboratory Medicine (cross-appointed), Western University
 2004- Assistant Professor, Department of Medical Biophysics, Western University
 2003- Scientist, Imaging Program, Lawson Health Research Institute
 2002- Scientist, Metabolism and Diabetes Program, Lawson Health Research Institute

C. Executive Committee Membership

2017- Medical Biophysics Executive
 2015- Medical Biophysics Undergraduate Education Committee
 2015- BIRC Operational Committee
 2014- Lawson Research Executive
 2012-19 Schulich Graduate Affairs Executive
 2011-18 Chair, Lawson Internal Research Fund Review Committee
 2011-15 Chair, Organizational Committee, Diabetes Research Day

D. Publications and Citations (past 5 years)

Number of peer-reviewed research articles: 13 (34 total)
 Number of citations: 444 (1407 total)
 h-index: 12 (20 overall)

E. Grants Currently Held

NSERC Discovery Grant 2016-2021 \$140,000 “Molecular Mechanisms of Proglucagon Sorting to the Regulated Secretory Pathway”. Principal Applicant: S Dhanvantari

CIHR Collaborative Health Research Grant (CHRP) 2015-2018 \$445,616 “Hybrid Molecular Imaging in the Diagnosis of Heart Disease”. Principal Applicants: S Dhanvantari, LG Luyt. Co-Applicant: FS Prato. Knowledge User: G Wisenberg

F. St. Joseph’s Health Care Foundation Support:

Title: Autoradiographic System Needed to Dramatically Improve New Molecular Imaging Procedures for Early Detection of Disease. \$500,000 (approved May 2017, funds received). This custom-built system is scheduled to be installed in May 2018. Principal Investigators: FS Prato, S Dhanvantari

Title: Confocal Microscope – Pathway to a core microscopy facility. \$571,535 (approved Nov 2017, funds in progress). This state of the art confocal microscope was installed in January 2018. Principal Investigators: S Dhanvantari, D O’Gorman, L Hoffman, J Burton

Title: “Protecting a Fragile Heart”. Cardiac Care: Improving Patient Outcomes for Children, Men and Women. Foundation Award. \$35,000 Principal Investigators: T Drysdale (CHRI), N Tzemos (LHSC), S Dhanvantari (SJHC)