Program at a Glance

Wednesday 30 March 2016

7:00 – 8:00   Registration (Colony Grande Foyer)

8:00 – 8:40   Poster Set-Up Time (Colony Grande, Giovanni and Armoury Rooms)

8:40 – 8:50   Opening Remarks (Colony Grande (Centre and East) Room)

Richard Frayne, PhD, University of Calgary, ImNO 2016 Scientific Committee Chair

8:50 – 10:40   Keynote Session 1 (Colony Grande (Centre and East) Room)

Chairs: Jerry Battista, David Holdsworth

Advances in MR-Guided IMRT

Daniel Low, PhD, Department of Radiation Oncology, University of California Los Angles, Los Angeles, California, USA

Quantitative Imaging of Osteoarthritis and its Relation to Function and Pain

Sharmila Majumdar, PhD, Department of Radiology, University of California San Francisco, San Francisco, California, USA

10:40 – 11:00   Poster Session & Coffee Break (Colony Grande, Giovanni and Armoury Rooms)

11:00 – 12:15 Oral Session 1 (Colony Grande (Centre) Room)	11:00 – 12:15 Oral Session 2 (Colony Grande (East) Room)
IMAGE GUIDED INTERVENTION - CANCER	NEW IMAGING APPROACHES
Chairs: Tom Purdie, John Schreiner	Chairs: Navneet Singh, Martin Yaffe
1.1–**Invited Talk** – Image Guidance and Intervention in Precision Radiotherapy - David Jaffray (OCAIRO)	2.1–Standardization Framework to Correct the Variability Between FLAIR Images in Large-Scale Studies - Brittany Reiche (MITNEC)
1.2–Monitoring electromagnetic tracking error in computer-navigated breast cancer surgery - Vinyas Harish (ITP)	2.2–Optimization Methods in MR-Guided Transcranial Focused Ultrasound - Alec Hughes (MITNEC)

1.3–Breast lumpectomy navigation using an open-source clinical application - Tamas Ungi (ITP)	2.3–Optimized Correlated Diffusion Imaging for Prostate Cancer Detection - Farzad Khalvati (SIP)
1.4–3D Ultrasound Guided Liver Ablation Therapy: Development Of Real-time Motion Compensation- Derek Gillies (ITP)	2.4–Improving Fluorescence Tomography using Imaging Priors from Intraoperative Cone-Beam CT - Michael Daly (SIP)
1.5–Automatic Registration Error Maps in Intraoperative CT-based Navigation - Michelle Arkhangorodsky (SIP)	2.5–^{89}Zr-Trastuzumab-DM1: A Novel Probe for Positron-Emission Tomography (PET) Imaging of the Delivery of T-DM1 (Kadcyla) to HER2-Positive Breast Cancer - Noor Alsaden (SIP)

12:15 – 1:15   Lunch (Colony Grande (West) Room)

1:15 – 2:45 Oral Session 3 (Colony Grande (Centre) Room)	1:15 – 2:45 Oral Session 4 (Colony Grande (East) Room)
IMAGING BIOMARKERS AND PATIENT-CENTERED STUDIES AND TRIALS	PERFUSION, METABOLISM, HYPOXIA AND NEW PROBES
Chairs: Robert deKemp , Paula Foster	Chairs: Ting Lee, Frank Prato
3.1–**Invited Talk** - Fluorine-19 Labeling of Peripheral Blood Mononuclear Cells for Clinical Cell Tracking - Paula Foster (SIP)	4.1–Characterization of Microvascular Function in Transgenic Rat Model of Alzheimer's Disease - Lewis Joo (MITNEC)
3.2–The Application of a Novel Multiplexing Staining Technology in the Breast Cancer Research - Dan Wang (SIP)	4.2–Effects of exercise on human calf muscle in vivo sodium single and triple Quantum filtered magnetic resonance spectroscopy - Alireza Akbari (MITNEC)
3.3–Modulating Nanoparticle Drug Delivery using Radiation and Heat - Shawn Stapleton (ITP)	4.3–Associations of hemodynamic load with impaired myocardial flow reserve: role of sex and hypertension - Robert deKemp (HF)
3.4–Reduced Brain Glutamine in Female Varsity Rugby Athletes after Concussion - Amy Schranz (MITNEC)	4.4–Gadolinium-Free Blood Pool Magnetic Resonance Imaging Contrast Agents for High Clinical Field at 3 Tesla: Comparative Studies of Two Manganese (III) Porphyrin Dimers - Hanlin Liu (SIP)
3.5–Web-based dashboards and other tools for quality assurance and quality control monitoring of multisite neuroimaging studies - Stephen Arnott (MITNEC)	4.5–Sparse-view quantitative CT perfusion imaging of liver - Esmaeil Enjilela (MITNEC)
3.6–Inflammation Imaged with [18F]-FDG PET/CTA is Related to the 3D Ultrasound Volumetric Phenotype of High-Risk Carotid Plaque: Sub-study of the Canadian Atherosclerosis Imaging Network (CAIN-2) - Myra Cocker (MITNEC)	4.6–Developing a combined contrast kinetic model for assessment of post-infarction inflammation using hybrid PET/MRI - Benjamin Wilk (HF)

2:45 – 3:30   Poster Session & Coffee Break (Colony Grande, Giovanni and Armoury Rooms)

3:30 – 5:00 Oral Session 5 (Colony Grande (Centre) Room)	3:30 – 5:00 Oral Session 6 (Colony Grande (East) Room)
PRE-CLINICAL IMAGING STUDIES	QUANTITATIVE IMAGING
Chairs: Giles Santyr, Michael Noseworthy	Chairs: Mihaela Pop, Eranga Ukwatta

5.1–Dual-Energy Micro-Computed Tomography in a Rat Hindlimb Model of Osteoarthritis - Justin Tse (B&J)	6.1–Changes in white matter structural connectivity and cortical functional connectivity over the healthy adult lifespan - Adrian Tsang (MITNEC)
5.2–Vascular contrast agent for preclinical dual energy computed tomography - Charmainne Cruje (B&J)	6.2–The Effect of T1 Signal Decay on Ventilation Mapping using Hyperpolarized Gas MRI during Multiple Breath Wash-out - Felipe Morgado (ITP)
5.3–A micro-CT-integrated radiolucent treadmill for fluoroscopic gait assessment in small-animal models - Adam Paish (B&J)	6.3– Mueller matrix polarimetry imaging using four photoelastic modulators for rapid wide-field analysis of biological tissues - Adam Gribble (SIP)
5.4– HDL-like Nanoparticles for Dual-Wavelength Cancer Imaging and Image-Guided Therapy - Marta Overchuk (ITP)	6.4–Spin-Lattice Relaxation Dispersion using Fast Field-Cycling Magnetic Resonance Relaxometry - Yonathan Araya (SIP)
5.5–High-content imaged-based screening of patient derived leukemia cells to identify novel treatments and to personalize therapy for chronic lymphocytic leukemia - Sina Oppermann (ITP)	6.5–Interleaved multi-frequency excitation for robust spectrally-selective 13C echo planar imaging - Justin Lau (SIP)
5.6–Tracking the rejection of 19F-labeled stem cells through signal quenching resulting from infiltrating iron-labeled immune cells - Jeff Gaudet (SIP)	6.6–Myocardial local frequency shift mapping - Junmin Liu (HF)

5:00 – 7:00   Poster Session and Cash Bar Reception (Colony Grande, Giovanni and Armoury Rooms)

Posters will be judged within their consortia. Judging will occur during this Poster Session and Reception. All Poster Presenters: Please ensure that you are available by your poster during this time.

Thursday 31 March 2016

7:00 – 8:00   Registration (Colony Grande Foyer)

8:00 – 8:50   Poster Session (Colony Grande, Giovanni and Armoury Rooms)

8:50 – 10:40   Keynote Session 2 (Colony Grande (Centre and East) Room)
                    Chairs: Richard Frayne, Graham Wright

                    Brain Structures, Anatomical Variability and an Application in Multiple Sclerosis
                    Louis Collins, PhD
                    Departments of Neurology and Neurosurgery and Biomedical Engineering, McGill University, and
                    McConnell Brain Imaging Centre at Montreal Neurological Institute

                    Imaging the Anatomic Substrate for Reentrant Arrhythmia
                    Saman Nazarian, MD, PhD
                    Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA

10:40 – 11:00   Poster Session & Coffee Break (Colony Grande, Giovanni and Armoury Rooms)

11:00 – 12:15 Oral Session 7 (Colony Grande (Centre) Room)	11:00 – 12:15 Oral Session 8 (Colony Grande (East) Room)
IMAGE GUIDED INTERVENTION - CARDIAC	IMAGE MONITORING OF TREATMENT RESPONSE

Chairs: Maria Drangova, Rebecca Thornhill	Chairs: Stuart Gaede, Ivan Yeung
7.1–**Invited Talk** – Cardiac Arrhythmia Network of Canada (CANet): Mission, Goals and Imaging Research Opportunities - Allan Skanes (CANet)	8.1–Detection of local cancer recurrence after stereotactic ablative radiotherapy (SABR) for lung cancer: physician performance versus radiomic assessment - Sarah Mattonen (ITP)
7.2–Analysis of activation-recovery intervals from intracardiac electrograms in porcine hearts - Mihaela Pop (CANet)	8.2–Focused ultrasound hyperthermia mediated drug delivery using thermosensitive liposomes and visualized with in vivo two-photon microscopy - Marc Santos (ITP)
7.3–Guidewire puncture forces related to magnetic resonance imaging signatures for peripheral arterial disease plaque types - Noor Shaikh (ICDI)	8.3–Development of a predictive radiomics signature for response to immune checkpoint inhibitors (ICIs) in patients with recurrent or metastatic squamous cell carcinoma of the head and neck (RM-SCCHN) - Paul Dufort (ITP)
7.4–Intrinsic MRI visualizes RF lesions within minutes after MR-guided ablation - Philippa Krahn (ICDI)	
7.5– Automated Segmentation of Scoliotic Lumbar Spine using Statistical Shape Models - Sinthu Sivanesan (B&J)	8.4–A generalized approach towards multi-parametric response mapping using principal component analysis - Anthony Lausch (OCAIRO)
	8.5–Chemical Exchange Saturation Transfer metrics for assessing early response to stereotactic radiosurgery in human brain metastases - Kimberly Desmond (SIP)

12:15 – 1:15   LUNCH (Colony Grande (West) Room)

1:15 – 2:30 Oral Session 9 (Colony Grande (Centre) Room)	1:15 - 2:30 Oral Session 10 (Colony Grande (East) Room)
VISUALIZATION AND IMAGE ANALYSIS I	IMAGING/SIMULATION FOR THERAPY PLANNING
Chairs: David Holdsworth, Emily Lalone	Chairs: Jerry Battista, Aaron Ward
9.1–**Invited Talk** – Biomedical Imaging within a Transdisciplinary Musculoskeletal Research Program - David Holdsworth (B&J)	10.1– Standardized interpretation of Tc-99m-SPECT perfusion images in a multi-center study of MITNEC (Medical Imaging Trials Network of Canada) - Jennifer Renaud (MITNEC)
9.2– Simulating Heat Transfer in Bone During Magnetic Resonance Image-guided Focused Ultrasound Therapy - Alexander Chisholm (B&J)	10.2– Semi-automatic segmentation of high-dose-rate prostate brachytherapy needles using 3D ultrasound - William Hrinivich (ITP)
9.3– Image Processing Software for Designing Custom Craniofacial Implants - Amani Ibrahim (B&J)	10.3–Localizing Fiducial Markers using Undersampled co-RASOR MRI for Radiation Therapy Planning - Evan McNabb (MITNEC)
9.4– Left Atrial Wall Segmentation using Hierarchical Max-Flow - Jiro Inoue (CANet)	10.4–Development of a CZT-Based Gamma Camera for Simultaneous Molecular and MR Breast Imaging - Ashley Tao (MITNEC)
9.5– Augmented Reality for Improved Ultrasound Guidance in Central Venous Access- Golafsoun Ameri (ICDI)	10.5–Validating internal and external correlation during respiratory gated VMAT using on-board kV imaging - Ilma Xhaferllari (OCAIRO)

2:30 – 3:30   Poster Session & Coffee Break (Colony Grande, Giovanni and Armoury Rooms)

3:30 – 4:45 Oral Session 11 (Colony Grande (Centre) Room)	3:30 – 4:45 Oral Session 12 (Colony Grande (East) Room)
INSTRUMENTATION AND DEVICES	VISUALIZATION AND IMAGE ANALYSIS II
Chairs: Johanthan Thiessen, Tamas Ungi	Chairs: David Gobbi, Terry Peters
11.1–**Invited Talk** - Simultaneous PET/MRI with Clinical and Preclinical Systems - Jonathan Thiessen (HF)	12.1–Differentiation of arterioles from venules in mouse histology images using machine learning - Sachi Elkerton (SIP)
11.2–Enhanced electromagnetic catheter tracking with application in high-dose-rate brachytherapy - Elodie Lugez (OCAIRO)	12.2–Retrospective motion correction in MRI using spherical navigator echoes - Patricia Johnson (MITNEC)
11.3–Development of improved gel dosimeter vessels for low stray light optical CT scanners - Kurtis Dekker (OCAIRO)	12.3–Discovery Radiomics via Layered Random Projection (LaRP) Sequencers for Prostate Cancer Classification - Audrey Chuung (SIP)
11.4–Whole-Slide Digital Pathology via Lens-free Spectral Light-field Fusion Microscopy - Farnoud Kazemzadeh (SIP)	12.4–Dynamic management of segmented structures in 3D Slicer - Csaba Pinter (OCAIRO)
11.5–MRI-Compatible Remote Catheter Navigation System with 3-Degrees-of-Freedom - Mohammad Tavallaei (ICDI)	12.5–An Image Analysis Pipeline for Machine Learning applied to Pathologist Annotations of Prostate and Pancreatic Cancer Specimens - Trevor McKee (OCAIRO)

4:45 – 5:00   Awards and Closing Remarks (Colony Grande (Centre) Room)
                   Chairs: Aaron Fenster, Richard Frayne, Graham Wright

5:00 – 5:30   Poster Take Down (Colony Grande, Giovanni and Armoury Rooms)

Poster Session Abstracts

Listed by first author last name. Posters P1-P43 are located in the Colony Grande (West) Room. Posters P44-P103 are located in the Giovanni Room. Posters P104-118 are located in the Armoury Room.

Image Guided Intervention

Found in Colony Grande (West) Room.

P1–Functional Medical Software
David Adair (MITNEC)

P2–On-Demand Dynamic Updating of the Temporal Resolution of Interleaved PRFS and T2 Temperature Mapping Methods for MR-HIFU
Steven Engler (SIP)

P3–In Situ Ultrasound Calibration
Azharhosein Faraz (ICDI)

P4–An inexpensive system for competency-based pericardiocentesis training
Vinyas Harish (MITNEC)

P5–Central Venous Catheterization Curriculum Development via Objective Performance Metrics
Matthew Holden (SIP)

P6–Simultaneous Estimation of Feature Correspondence and Stereo Object Pose with Application to Ultrasound-Augmented Robotic Laparoscopy
Uditha Jayarathne (MITNEC)

P7–A Robust Method for Tracking Lung Tumors during External Beam Radiation Therapy
Elham Karami (ITP)

P8–Cranial ultrasound in 2D and 3D to guide treatment in preterm neonates with posthemorrhagic ventricular dilatation
Jessica Kishimoto (ITP)

P9–A Simple MRI Scanner Control Technique for Device Localization During MRI-Guided Percutaneous Procedures
Matthew MacDonald (ICDI)

P10–Hands-Free Dynamic Contrast Control for MRI-Guided Percutaneous Procedures
Matthew MacDonald (ICDI)

P11–System for objectively evaluating colonoscopy procedural skills using motion analysis
Kyle MacNeil (ITP)

P12–How does prostate biopsy guidance error impact pathologic cancer risk assessment?
Peter Martin (SIP)

P13–Development of a Three Dimensional Ultrasound System for Guidance of Permanent Breast Seed Implantation In the Treatment of Breast Cancer
Justin Michael (ITP)

P14–Hidden Markov Models for Characterization of Temporal Ultrasound Data in Prostate Cancer
Layan Nahlawi (ITP)

P15–Minimally invasive mitral valve repair using tracked 3D ultrasound navigation
Adam Rankin (ICDI)

P16–3D Transrectal Ultrasound Needle Guidance System for High-Dose-Rate Interstitial Gynaecological Brachytherapy
Jessica Rodgers (ITP)

P17–Electromagnetically-guided catheter insertions in breast phantoms for brachytherapy
Thomas Vaughan (OCAIRO)

P18–Mouse brain developmental outcomes after whole brain vs focal irradiation
Kiran Beera (ITP)

Image Monitoring of Treatment Response

Found in Colony Grande (West) Room

P19–Early Detection of Tumour Response using volumetric DCE CT and DCE-MRI in Metastatic Brain Patients Treated with Radiosurgery
Catherine Coolens (ITP)

P20–Hybrid PET-MRI Imaging of Acute Radiation Induced Cardiac Toxicity
Omar El-Sherif (ITP)

P21–Developing 19F-MRI for Clinical Cell Tracking
Jeff Gaudet (SIP)

P22–The Effect of the Chemotherapy Agent Methotrexate on the Developing Brain
Leigh Spencer Noakes (ITP)

P23–Vertebral landmark visualization with portable ultrasound imaging in scoliosis monitoring
Christina Yan (B&J)

P24–In-vivo Detection of Acute Intracellular Acidification in Glioblastoma Multiforme Following a Single Dose of Cariporide
Mohammed Albatany (SIP)

P25–Dichloroacetate Induced Intracellular Acidification in Brain Tumor: In-Vivo Detection Using AACID-CEST MRI at 9.4Tesla
Mohammed Albatany (SIP)

P26–Prediction of Intracerebral Hemorrhage Secondary to Acute Ischemic Stroke: Multi-Parametric CT Perfusion is Optimal
Connor Batchelor (MITNEC)

P27–In Vivo MRI Detection of Cucurbit[6]uril Xenon Cage HyperCEST Effect in Rat Abdomen
Tao Li (MITNEC)

P28–Diminished image resolution lead to reduced sensitivity in infarct mass determined by T1 mapping for stratifying patient risk for ventricular arrhythmias
Eranga Ukwatta (ICDI)

P29–Measurement of tumor hypoxia in patients with advanced pancreatic cancer based on 18F-fluoroazomyin arabinoside (18F-FAZA) uptake
Ivan Yeung (ITP)

Imaging/Simulation for Therapy Planning

Found in Colony Grande (West) Room

P30–Real-time self-calibration of a handheld augmented reality overlay system
Zachary Baum (SIP)

P31–Can intratreatment PET CT based adaptive radiotherapy reduce treatment margins in Head and Neck Cancers?
Georges Farha (OCAIRO)

P32–4D Monte Carlo simulation for verification of dose delivered to a moving anatomy
Sara Gholampourkashi (OCAIRO)

P33–Evaluating Electron Density Measurements and Dosimetry Surrounding Metallic Implants using Co-60 Computed Tomography
Christopher Jechel (OCAIRO)

P34–Is it possible to use simultaneous MRI (scar) and PET (sympathetic innervation) to select patients for Radio-Frequency Ablation of Atrial Fibrillation?
Ali K Saeid (CANet)

P35–Patient-specific calibration of Cone-Beam Computed Tomographic Images for radiotherapy

plan adaptation
Michael MacFarlane (OCAIRO)

P36–Analysis of dose volume histogram deviations using different voxelization parameters
Kyle Sunderland (OCAIRO)

Instrumentation/Devices

Found in Colony Grande (West) Room (P37-P43) and Giovanni Room (P44-45)

P37–Micro-CT Compatible Load-Controlled Knee Motion Simulator
Alexandra Blokker (B&J)

P38–Quantifying clinical detector performance to ensure lower patient exposures
Terenz Escartin (ITP)

P39–Control of Rewarming Rate following Rapid Selective Brain Cooling
Mohammad Fazel Bakhsheshi (ICDI)

P40–Novel flexible polarimetric probe for enhanced urologic cystoscopy
Sarah Forward (SIP)

P41–In Vitro Evaluation of a Novel Catheter Contact-Force Controller for Cardiac Ablation Therapy
Daniel Gelman (ICDI)

P42–Virtual design of patient specific neuroendoscopic tools for pineal region masses
Margaret Hess (OCAIRO)

P43–Geometric calibration phantom for MRI and CT
David Holdsworth (B&J)

P44–Development and validation of a system for high-frequency vibration of live cells during real-time microscopy
Daniel Lorusso (B&J)

P45–Designing and testing a perfusion phantom for validating cerebral blood-flow measurements made with deconvolution techniques
Eric Wright (MITNEC)

Patient-centered Imaging Studies and Trials

Found in the Giovanni Room

P46–An Update from the Quantitative Imaging for Personalized Cancer Medicine (QIPCM) Initiative
Brandon Driscoll (ITP)

Perfusion, Metabolic and Hypoxia Imaging

Found in the Giovanni Room

P47–Novel Dual-Echo Planar Imaging Sequence for Hyperpolarized Carbon-13 Magnetic Resonance

Imaging Distortion Correction
Benjamin Geraghty (SIP)

P48–Towards assessing therapeutic response of glioblastoma in a rat model of cancer using novel multi-modality imaging
Trung Le (SIP)

P49–Estimating Ex Vivo Total and 13C-Lactate Concentration in Rat Tumour using NMR Spectroscopy
Casey Lee (SIP)

P50–Tracer kinetics of histone deacetylase and its metabolites in epigenetic tumors
Fiona Li (SIP)

P51–Monitoring changes in pH gradient using two different magnetic resonance imaging techniques
Patrick Lim (SIP)

P52–Clearance of Indocyanine Green by the Liver during Hemodialysis as a Measure of Hepatic Function
Raanan Marants (MITNEC)

P53–Numerical Optimization Accuracy & Performance of a Perfusion Kinetic Modeling Algorithm using Volumetric DCE CT
Igor Svistoun (ITP)

P54–Optimal strategy for quantifying hypoxia from static PET imaging
Edward Taylor (ITP)

P55–Effects of respiratory gated 18F-FAZA PET-CT on hypoxic fraction in patients and phantom
Douglass Vines (ITP)

P56–Evaluating the non-small cell lung cancer between pre- and post- radiation therapy
Dae-Myoung Yang (SIP)

Preclinical Imaging

Found in the Giovanni Room

P57–Effects of the acquisition window length on articular cartilage sodium MR image quality
Alireza Akbari (MITNEC)

P58–In vivo sodium (23Na) magnetic resonance imaging of human knee using a pseudo-random k-space sampling scheme
Alireza Akbari (MITNEC)

P59–Assessing the Effects of Inflammation and Fibrosis using Inert Fluorinated Gas MRI
Marcus Couch (MITNEC)

P60–Dependence of Signal-to-Noise Ratio on Radiofrequency Coil and Static Magnetic Field Strength for Preclinical Hyperpolarized 129Xe Gas

MRI of the Brain
Yonni Friedlander (MITNEC)

P61–Characterizing the role of stress and Neuropeptide Y in breast cancer metastasis
Jenna Kara (SIP)

P62–Detecting Hippocampal Changes in Mice on a Diet of 2'-Fucosyllactose Using Chemical Exchange Saturation Transfer Magnetic Resonance Imaging
Wilfred Lam (SIP)

P63–Dependence of Hyperpolarized 129Xe Lung MRI Morphometry on Diffusion Time, Pressure and Gas Composition
Andras Lindenmaier (SIP)

P64–Diffusion Tensor Imaging in a Rodent Model of Amyotrophic Lateral Sclerosis
Patrick McCunn (MITNEC)

P65–Interrogation of neurovascular coupling in an optogenetic mouse model using electrophysiology and two-photon fluorescence microscopy
James Mester (MITNEC)

P66–Investigating cancer cell dormancy with cellular MRI
Donna Murrell (SIP)

P67–The development of a multimodality imaging model to monitor breast cancer metastasis
Katie Parkins (SIP)

P68–Micro-CT Validation of 3D-Printed Patient-Specific Components
Joseph Umoh (B&J)P69–Gas Exchange Quantification using Hyperpolarized 129Xe and a Clinical MRI System
Brandon Zanette (SIP)

Quantitative Imaging

Found in the Giovanni Room

P70–Performance evaluation of a peripheral cone-beam computed tomography scanner
Rudy Baronette (B&J)

P71–A novel energy-dependent subtraction method for cardiac imaging: signal and noise analysis
Christiane Burton (HF)

P72–Fractal Analysis of the brain blood oxygenation level dependent (BOLD) signal of mild traumatic brain injury (mTBI) patients
Olga Dona (MITNEC)

P73–Radiomics Features Analysis for Tumor Characterization in Pancreatic Ductal

Adenocarcinoma
Armin Eilaghi (SIP)

P74–Performance of reduced dose compressed sensing-based sparse view CT myocardial perfusion imaging – a simulation study
Esmaeil Enjilela (MITNEC)

P75–19Fluorine cellular magnetic resonance imaging to monitor in vivo therapeutic cell migration
Corby Fink (SIP)

P76–Quantitative Evaluation of Tumour Associated Macrophages in Breast Cancer Using Fluorine-19 and Iron Based MRI Cell Tracking
Ashley Makela (SIP)

P77–Deformable Registration of Dynamic Contrast Enhanced Breast MRI: The Influence of Sampling Percent on Enhancement Curves and Computation Time
Matthew Mouawad (ITP)

P78–In vivo Quantitative Fluorescence Imaging Enabled by Spatial Frequency Domain Imaging for Enhanced Resection of Brain Tumors
Mira Sibai (SIP)

P79–Clinical Workflow for Spinal Curvature Measurement with Portable Ultrasound
Reza Tabanfar (B&J)

P80–Quantification of Vertebral Trabecular Bone Strain Via Feature Based Image Registration
Hoi-Ki Tong (B&J)

P81–Carotid Atherosclerosis Imaging with Quantitative Susceptibility Mapping
Chaoyue Wang (MITNEC)

P82–Radiomics Feature Clusters and Prognostic Signatures Specific for Lung Cancer
Yucheng Zhang (SIP)

Targeted Probe Development

Found in the Giovanni Room

P83–MagA-derived MR Contrast Persists Despite Cellular Differences in Iron Metabolism
Donna Goldhawk (HF)

P84–Formulation of a GMP Quality Kit for the Preparation of 111In-DTPA-NLS-Trastuzumab Injection: An Auger Electron-Emitting Theranostic Agent for HER2-Positive Breast Cancer
Vanessa Prozzo (ITP)

P85–Improving the Relaxivity of Non-Gadolinium Magnetic Resonance Imaging Contrast Agents:

Tuning the Electron Spin of Manganese(III) Porphyrin
Henry Tieu (SIP)

Visualization and Image Analysis

*Found in the Giovanni Room (P86-P103) and
Armoury Room (P104-P118)*

P86–Contrast Optimization for Prostate Cancer
Tumours in vivo at 3T
Christopher Abraham (SIP)

P87–Validation of 3D Slicer Based Gel Dosimetry
Analysis
Kevin Alexander (OCAIRO)

P88–Coded Hemodynamic Imaging for Non-Contact
Detection of Abnormal Blood Pulse Waveforms
Robert Amelard (CANet)

P89–Cyclic Continuous Max-Flow for MRI Phase
Processing
John Baxter (MITNEC)

P90–A Unified Reconstruction Framework for
Compensated Magnetic Resonance Imaging
Ameneh Boroomand (SIP)

P91–Accuracy of Melanoma Classification using
Dermal Radiomic Sequences
Daniel Cho (SIP)

P92–In vitro study of the effects of vessel stiffening
on carotid artery hemodynamics using particle image
velocimetry
Amanda DiCarlo (MITNEC)

P93–Subject-Specific Patched-Based Denoising for
Contrast-Enhanced Cardiac MR Images
Mehran Ebrahimi

P94–Single-click lung nodule contouring method
using hierarchical conditional random fields
Shahid Haider (SIP)

P95–Automatic Prostate Cancer Mapping on Digital
Histopathology Imaging
Wenchao Han (SIP)

P96–Large scale segmentation free analysis of 3D
microscopy data
Santosh Hariharan (SIP)

P97–Preservation of fine detils in 7 T phase images
by processing channel phase data prior to
combination
Zahra Hosseini (MITNEC)

P98–Seamless Reconstruction of Preview Images in
Digital Pathology
Mahdi Hosseini (MITNEC)

P99–Quality Assessment in Digital Pathology Images
Keyvan Kasiri (ITP)

P100–Cross Modality Label Fusion in Multi-Atlas
Segmentation of Brain MRI
Keyvan Kasiri (ITP)

P101–Noise in parallel MRI: how to determine
whether single-coil assumptions still hold (they
don't)
Jesse Knight (MITNEC)

P102–Discovery Radiomics for Lung Cancer
Classification
Devinder Kumar (SIP)

P103–Toward breast cancer histopathology image
diagnosis using local color binary pattern
Xingyu Li (SIP)

P104–Imaging scar with two-point bipolar Dixon MRI
Junmin Liu (CANet)

P105–Web-application Based Ultrasound Bone
Segmentation Evaluation
Matt Lougheed (SIP)

P106–Automatic pipeline of lesion classification on
breast 3D MRI data
YingLi Lu (SIP)

P107–Apodized Aperture Pixel design: A novel x-ray
detector with increased detective quantum
efficiency and reduced aliasing
Tomi Nano (ITP)

P108–Single Slice US-MRI Registration for
Neurosurgical MRI-Guided US
Utsav Pardasani (MITNEC)

P109–Method for global thresholding in Metal
Artifact Reduction (MAR)
Ivailo Petrov (ICDI)

P110–Validation of the prostate segmentation on
MRI: manual vs computer-assisted methods
Maysam Shahedi (SIP)

P111–Scattering Wavelet Representation of fMRI
BOLD data
Saurabh Shaw (MITNEC)

P112–Cartan frames for characterizing myofiber
geometry in pig hearts from diffusion tensor imaging
(DTI)
Kaleem Siddiqi (HF)

P113-Computer-Assisted Prostate Cancer
Characterization on Multi-Parametric MRI
Derek Soetemans (SIP)

P114–Max-tree\Watershed Combination for Medical
Image Segmentation
Roberto Souza (MITNEC)

P115–Virtual electrophysiological study using T1
mapping techniques improves sensitivity in

predicting adverse arrhythmic events in post-infarction patients
Eranga Ukwatta (CANet)

P116–Prediction of the spatial distribution of deformable image registration error in lung 4DCT's
Jason Vickress (OCAIRO)

P117–Automated 3D morphometry of the vasculature derived from whole-slide digital histology
Yiwen Xu (SIP)

P118–Evaluating rigid and deformable registration of brain images before and after temporal lobectomy
Yujun Zeng (MITNEC)

Sponsoring Consortia and Acknowledgements

The Annual Meeting of Imaging Network Ontario (ImNO) promotes Canada's role as a leader in medical imaging innovation by cultivating synergy among consortia and partnerships between Ontario and other Canadian imaging entities.

The 2016 ImNO Symposium is supported financially by eight consortia. These consortia are:

- Cardiac Arrhythmia Network of Canada (CANet)
- Development of Novel Therapies for Bone and Joint Diseases (B&J)
- Heart Failure: Prevention Through Early Detection Using New Imaging Methods (HF)
- Imaging for Cardiovascular Device Intervention (ICDI)
- Medical Imaging Trial Network of Canada (MITNEC)
- Ontario Consortium for Adaptive Interventions in Radiation Oncology (OCAIRO)
- Ontario Institute for Cancer Research Imaging Translation Program (ITP)
- Ontario Institute for Cancer Research Smarter Imaging Program (SIP)

In addition, financial and in-kind support was received from the following:

The ImNO meeting organizers wish to acknowledge and thank all for their support.