

WEDNESDAY, MARCH 15, 2017

7:00	REGISTRATION OPEN	BALLROOM FOYER
8:00 – 8:40	POSTER SET-UP & LIGHT BREAKFAST	BALLROOM WEST
8:40 – 8:50	OPENING REMARKS <i>David Holdsworth, PhD</i> Western University, ImNO 2017 Scientific Committee Chair <i>Marlys Koschinsky, PhD</i> Robarts Research Institute, Scientific & Executive Director	BALLROOM EAST & CENTRE
	KEYNOTE SESSION <i>Chairs: Jerry Battista, Ali Khan</i>	BALLROOM EAST & CENTRE
8:50 - 9:35	<i>Inflammation: The Good, the Bad and the Ugly</i> Gediminas Čepinskas, DVM/PhD Lawson Health Research Institute, London, Ontario, Canada	
9:35 - 10:20	<i>Studying structure and function of the human cerebellum using MRI</i> Jörn Diedrichsen, PhD Western University, London, Ontario, Canada	
10:20 – 10:40	POSTER SESSION & NUTRITION BREAK	BALLROOM WEST
10:40 – 11:25	KEYNOTE SESSION <i>Chair: Charles McKenzie, PhD</i> <i>Perinatal Imaging: MRI, Optical, MEG and Informatics Innovations</i> Ellen Grant, MD Boston Children's Hospital, Boston, MA, USA	BALLROOM EAST & CENTRE
	BALLROOM EAST BRAIN: PATIENT-CENTERED STUDIES Chair: Keith St. Lawrence, PhD	BALLROOM CENTRE TISSUE CHARACTERIZATION Chair: Rebecca Thornhill, PhD
11:30 - 11:45	Bridging the gap between thoughts and actions: a functional near infrared spectroscopy study <i>Androu Abdalmalak</i>	Quantitative magnetic resonance characterization of calcified and lipid-laden blood clot in vitro at 3T <i>Spencer Christiansen</i>
11:45 - 12:00	Axonal damage and global hyperconnectivity persist 3-months after a concussion in young hockey players <i>Kathryn Manning</i>	Quantitative Cardiac B0, Fat Fraction, and R2* Mapping Using Pre-Channel-Combination Phase Processing <i>Zahra Hosseini</i>
12:00 - 12:15	Reduced Brain Choline in Male Adolescent Hockey Players after Concussion <i>Amy Schranz</i>	Comparison of a dual-modality intravascular ultrasound and optical coherence tomography imaging catheter to each imaging modality alone using cadaveric coronary artery specimens <i>Jill Weyers</i>
12:15 - 12:30	Does Transcranial Direct Current Stimulation Modify Glutamate: A 7 Tesla 1H MR Spectroscopy Study <i>Kayla Ryan</i>	Quantitative CT assessment of myocardial edema in acute myocardial infarction: a validation study <i>Lisa Hur</i>
12:30 - 12:45	Assessing Reperfusion in Ischemic Stroke Patients using CT Perfusion after Successful Intra-Arterial Therapy <i>Eric Wright</i>	Relationship between cardiac fat and microvascular dysfunction in non-obstructive coronary artery disease <i>Stephanie Skanes</i>
12:45 – 13:45	LUNCH	

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	BALLROOM EAST PERINATAL AND LUNG IMAGING Chair: Giles Santyr, PhD	BALLROOM CENTRE NEW IMAGING APPROACHES Chair: Jonathan Thiessen, PhD
13:45 - 14:00	Measurement of placental T2* in a guinea pig model of intrauterine growth restriction <i>Kevin Sinclair</i>	Assessing the integrity of the blood-brain barrier using dynamic contrast-enhanced NIRS <i>Daniel Milej</i>
14:00 - 14:15	Comparison between 2-point Dixon and Quantitative IDEAL for Magnetic Resonance Imaging of Fetal Adipose Tissue <i>Stephanie Giza</i>	A novel multi-echo GRE protocol for simultaneous fat/water separation and multi-parameter mapping <i>Junmin Liu</i>
14:15 - 14:30	Asthma Ventilation Abnormalities Measured using Fourier-Decomposition Free-breathing Pulmonary Proton MRI <i>Dante Capaldi</i>	A PET/MR Approach to Non-Invasive Quantification of Cerebral Blood Flow <i>Tracy Ssali</i>
14:30 - 14:45	Pulmonary Magnetic Resonance Imaging Ventilation Defects in Asthma: Stochastic or Deterministic? <i>Rachel Eddy</i>	Motion and B0 correction in MRI using FID-SNAVs <i>Patricia Johnson</i>
14:45 - 15:00	Ultra-Short Echo Time MRI Quantification of Airspace Enlargement in Bronchopulmonary Dysplasia and Alpha-1 Antitrypsin Deficiency: Parenchyma Destruction, Air trapping or Both? <i>Heather Young</i>	Time-Resolved Mapping of Arterial Pulse Wave Dynamics with High Frame Rate Ultrasound (HiFRUS) <i>Adrian J.Y. Chee</i>
15:00 – 15:45	POSTER SESSION & COFFEE BREAK	BALLROOM WEST
	BALLROOM EAST PRE-CLINICAL IMAGING STUDIES Chair: Paula Foster, PhD	BALLROOM CENTRE PERFUSION, METABOLISM, HYPOXIA Chair: Ting Lee, PhD
15:45 - 16:00	In Vivo Magnetic Resonance Imaging Investigating the Development of Experimental Brain Metastases due to Triple Negative Breast Cancer <i>Amanda Hamilton</i>	Ultrasound-triggered conversion of porphyrin microbubbles to nanobubbles: Extending cavitation activity beyond the vasculature <i>Carly Pellow</i>
16:00 - 16:15	A multimodality imaging model to study concomitant tumour resistance <i>Katie Parkins</i>	Preliminary study for personalization of renally excreted cancer drugs using pulse dye densitometry <i>Fiona Li</i>
16:15 - 16:30	Dual-Energy Micro-Computed Tomography on a Gantry-Based Micro-CT Scanner <i>Justin Tse</i>	Correcting PET images for tissue transport in order to accurately quantify hypoxia in tumours <i>Edward Taylor</i>
16:30 - 16:45	Lanthanide-based nanoparticles as vascular contrast agents in pre-clinical computed tomography <i>Charmaine Cruje</i>	Physics-based scatter correction for quantitative PET imaging of hypoxia <i>Jennifer Gottwald</i>
16:45 - 17:00	Patterns of Porcine Acute Myocardial Infarction: Dependence on Breed and Coronary Anatomy <i>Xiuling Qi</i>	Longitudinal Monitoring of Tumour pH Gradient with MRI <i>Heeseung (Patrick) Lim</i>
17:00 – 19:00	POSTER SESSION & CASH BAR RECEPTION	BALLROOM WEST

THURSDAY, MARCH 16, 2017

7:00	REGISTRATION	BALLROOM FOYER
8:00 – 8:50	POSTER SESSION AND LIGHT BREAKFAST	BALLROOM WEST
	KEYNOTE SESSION	BALLROOM EAST & CENTRE
	<i>Chairs: Terry Peters, PhD, David Holdsworth, PhD</i>	
8:50 - 9:35	<i>Multi-scale Computational Anatomy for Image Guided Interventions</i> David Hawkes, PhD University College, London, United Kingdom	
9:35 - 10:20	<i>Advances in Orthopedic MRI</i> Brian Hargreaves, PhD Stanford University, Palo Alto, California, USA	
10:20 – 10:40	POSTER SESSION & NUTRITION BREAK	BALLROOM WEST
	BALLROOM EAST HISTOLOGY: ANALYSIS AND VISUALIZATION	BALLROOM CENTRE MUSCULOSKELETAL: INSTRUMENTATION AND QUANTITATIVE IMAGING
	Chair: Tamie Poepping, PhD	Chair: Emily Lalone, PhD
10:40 - 10:55	Automated vascular segmentation, reconstruction, classification and simulation on whole-slide histology <i>Yiwen Xu</i>	Knee joint motion measurement during the timed up and go test using low-cost wearable sensors <i>Riley Bloomfield</i>
10:55 - 11:10	3D Lung Histology Reconstruction and Registration to in vivo Imaging <i>Sean Peninga</i>	Computational Evaluation of Glenoid Bone Loading using Micro-CT <i>Nikolas Knowles</i>
11:10 - 11:25	Automatic Prostate Cancer Detection and Contouring on Digital Histopathology Imaging <i>Wenchao Han</i>	Tomographic Analysis of Ectopic Mineralization in Diffuse Idiopathic Skeletal Hyperostosis <i>Dale Fournier</i>
11:25 - 11:40	Quantitative Dataset Similarity for Fusing Multi-Institutional Image Collections <i>Ryan Therrien</i>	Validation of a Micro-CT Compatible Load-Controlled Knee Motion Simulator <i>Alexandra Blokker</i>
11:40 - 11:55	Nuclei Detection and Proliferation Index Estimation on Ki-67 and Hematoxylin Stained Images <i>Peter Morreale</i>	T1rho and T2 Relaxation Changes in Tibiofemoral Articular Cartilage Following a Functional Loading Stimulus in Early Knee Osteoarthritis: Preliminary Findings <i>Hayden Atkinson</i>
11:55 - 12:10	A system for high-frequency vibration of live cells during real-time microscopy <i>Daniel Lorusso</i>	Evaluation of Wearable Sensors using a Robotic Knee Joint Phantom and 3D Motion Capture <i>Megan Fennema</i>
12:10 – 13:10	LUNCH	

THURSDAY, MARCH 16, 2017

	BALLROOM EAST	BALLROOM CENTRE
	VISUALIZATION AND IMAGE ANALYSIS	IMAGING FOR THERAPY AND DEVICES
	Chair: Graham Wright, PhD	Chair: Gabor Fichtinger, PhD
13:10 - 13:25	Novel integrative framework to augment real-time MR-guided EP studies with 3D predictive modelling <i>Mihaela Pop</i>	Evaluation of a mobile, real-time, tracked augmented reality display for surgical navigation <i>Zachary Baum</i>
13:25 - 13:40	Vurtigo: Updates to a Visualization Platform for Image-guided Procedures <i>Labonny Biswas</i>	Robotic Catheter Contact-Force Control for Cardiac Ablation Therapy: In Vivo Evaluation <i>Daniel Gelman</i>
13:40 - 13:55	Investigating the relationship of myelin and axonal white matter microstructure using longitudinal relaxation mapping and restricted diffusion <i>Jason Kai</i>	Registration of preoperative images for navigated brain surgery using ultrasound-accessible skull regions <i>Grace Underwood</i>
13:55 - 14:10	Virtual views controlled by surgical tools for computer assisted interventions <i>Thomas Vaughan</i>	Towards intra-operative needle guidance in interstitial gynecologic brachytherapy using 360 degree 3D transvaginal ultrasound <i>Jessica Rodgers</i>
14:10 - 14:25	Spinal cord tracts labelling via diffusion tensor imaging in the cervical spine verified against T1 MRI <i>Michael Hardisty</i>	An application of redundant sensors for intraoperative electromagnetic tracking error monitoring <i>Vinyas Harish</i>
14:25 – 15:30	POSTER SESSION & COFFEE BREAK	BALLROOM WEST
	BALLROOM EAST	BALLROOM CENTRE
	COMPUTER ASSISTED DIAGNOSIS/ IMAGE QUALITY / DOSE	NEW IMAGING APPROACHES IN CANCER RESEARCH
	Chair: Aaron Ward, PhD	Chair: Timothy Scholl, PhD
15:30 - 15:45	Discovery Radiomics via a Mixture of Expert Sequencers using Layered Random Projections (LaRP) for Prostate Cancer Classification <i>Amir-Hossein Karimi</i>	Whole mouse body fluorine-19 based MRI for detection of metastasis associated macrophages in the lung, lymph nodes and brain <i>Ashley Makela</i>
15:45 - 16:00	Flipping the Computer Aided Diagnosis Training Paradigm for Prostate Cancer: Using PI-RADS Reporting of Multi-Parametric MRI to Train a CAD System and then Validating with Pathology <i>Farzad Khalvati</i>	¹⁹ F-perfluorocarbon-labeled human peripheral blood mononuclear cells can be detected in vivo using clinical MRI parameters in a therapeutic cell setting <i>Corby Fink</i>
16:00 - 16:15	Computer-Assisted Characterization of Malignancy and Gleason Grade of Prostate Cancer on Multi-Parametric MRI <i>Derek Soetemans</i>	OATP1A1 as a novel clinical-field strength MRI reporter gene for cell tracking <i>Nivin Nystrom</i>
16:15 - 16:30	Improving Image Quality in X-Ray Images with the Apodized-Aperture Pixel (AAP) Design <i>Tomi Nano</i>	Optimization of Slow-Proton-Exchange (SPE) Magnetic Resonance pH Sensor and Application for Monitoring Enzyme Activity <i>Ryan Correa</i>
16:30 - 16:45	Evaluation of an iterative reconstruction algorithm for optical CT dosimetry of small radiation fields <i>Kurtis Dekker</i>	Characterizing an Orthotopic C6 Glioblastoma Rat Model with Multiparametric Magnetic Resonance Imaging and Bioluminescence Imaging <i>Trung (Adam) Le</i>
16:45 – 17:00	AWARDS AND CLOSING REMARKS	BALLROOM EAST & CENTRE
17:00 – 17:30	POSTER TAKE DOWN	