19TH ANNUAL LONDON IMAGING DISCOVERY DAY (LIDD)
KING'S UNIVERSITY COLLEGE
THURSDAY, JUNE 6, 2024

Overall Learning Objectives:
By the end of this program, participants will be able to:
1. Recognize the research being conducted trainees, residents, and graduate students.
2. Identify opportunities for collaboration between residents, graduate students, technologists, nurses and admin to improve patient outcomes.
3. Appraise and discuss the scientific presentations with respect to methodology and clinical applicability.
4. Identify emerging fields in Medical Imaging and consider their impact on clinical practice.

7:15am - 8:00am	Scientific Presentation Set-up		
7:30 am	REGISTRATION		
8:00 am – 12:00 pm	ORAL SCIENTIFIC PRESENTATIONS – 47 talks (7 mins + 3 min Q & A) (Labatt Hall)		
8:00 am	Neuroradiology (LH100)	Body Imaging (LH101)	Molecular Imaging and Theranostics (LH103)
9:00 am	COFFEE BREAK (LH105) Frugal Biomedical Innovations program at Western		
9:30 am	Neuroradiology 2 / Vascular & Interventional (LH100)	Breast / Musculoskeletal Imaging (LH101)	Clinical Diagnostic Stream (LH103)
10:30 am	COFFEE BREAK (LH105) Frugal Biomedical Innovations program at Western		
11:00 am	Cardiovascular (LH100)	Artificial Intelligence (LH101)	Clinical Diagnostic Stream 2 (LH103)
12:00 pm – 1:10 pm	LUNCH (highlighted below) (Darryl J. King Student Life Centre – Main Floor Common Area)		
	• Frugal Biomedical Innovations program at Western		
1:10 pm – 4:45 pm	KEYNOTE LECTURE SERIES ON IMAGE GUIDED INTERVENTIONS AND THERAPEUTICS (Auditorium)		
1:10 pm	Dr. Narinder Paul & Dr. Aaron Fenster	Welcome & Introduction	
1:20 pm	Jaron Chong 25 min talk + 5 Q&A	Large-Language Models and Vision-Language Models: What They Can Do, Can't Do, and Why It Matters By the end of this session, participants will be able to: **Objective 1:** Compare and contrast the past and present hype cycle of CNN to Transformer networks on Clinical Applications. **Objective 2:** Review Transformers architecture, self-supervised learning definitions, and	

		LLM/VLM data training and compute requirements. **Objective 3:** Discuss current proposed clinical radiology and research applications, and discuss the implications of these applications on local strategic initiatives and infrastructure.
1:50 pm	Jean Theberge 25 min talk + 5 Q&A	Computer-Assisted Treatment Selection in Unipolar vs Bipolar Disorder: The Birth of Psychoradiology? By the end of this session, participants will be able to: **Objective 1:** Identify the main challenges associated with differentiating unipolar depression from bipolar depression in patients presenting to medical attention experiencing a first episode of depression. **Objective 2:** Describe introductory concepts of resting-state fMRI and resting-state brain networks. **Objective 3:** Describe introductory concepts in classification algorithms and the role of machine learning in predicting the medication class of response in first episode depression.
2:20 pm	**COFFEE BREAK** (Main Floor Common Area)	
2:40 pm	Ali Khan 25 min talk + 5 Q&A	Unfolding Insights: Novel Machine Learning and Computational Approaches in Neuroimaging By the end of this session, participants will be able to: **Objective 1:** Describe how novel machine learning approaches in computational anatomy of the hippocampus can yield new insights and drive clinical advancements. **Objective 2:** Evaluate the potential of advanced diffusion MRI for quantifying brain connectivity and microstructure, and the role of machine learning in enhancing efficiency. **Objective 3:** Identify the challenges and pitfalls encountered when applying machine learning to neuroimaging.
3:10 pm	Bekim Sadikovic 25 min talk + 5 Q&A	DNA Methylation Episignatures: Epigenomic Biomarkers for Rare Diseases and Beyond By the end of this session, participants will be able to: **Objective 1:** Define and describe biological concepts related to DNA methylation profiles associated with genetic and clinical etiologies in rare diseases **Objective 2:** Outline genomic data-driven approaches involving advanced bioinformatic and machine-learning approaches for development of clinical biomarkers. **Objective 3:** Identify large-scale national and international clinical trials and research studies focused on implementation and validation of DNA methylation episignatures as diagnostic biomarkers
3:40 pm	**COFFEE BREAK** (Main Floor Common Area)	
4:00 pm	25 Minutes	Panel: AI in Medical Imaging By the end of this session, participants will be able to: **Objective 1:** Define and describe how AI impacts Medical Imaging currently. **Objective 2:** Identify how AI can impact Medical Imaging in the future and shape changes. **Objective 3:** Identify where AI can be used to strengthen certain aspect of Medical Imaging.
4:25 pm – 5:15 pm	**AWARDS PRESENTATIONS** (Auditorium)	
5:10 pm	Dr. Narinder Paul & Dr. Aaron Fenster	Closing Remarks
5:15 pm	Finish	Evaluation forms to be E-mailed out the following week - *Thank you*

25% of this program is dedicated to participant interaction.

For RCPSC (MOC Section 1)
This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, and approved by Continuing Professional Development, Schulich School of Medicine & Dentistry, Western University. You may claim a maximum of 5.75 hours (credits are automatically calculated).

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