# Join the Machine Learning in Medical Imaging Consortium (MaLMIC) for an opportunity to network on machine learning

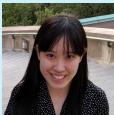


Monthly Virtual Forum Series on Zoom

Friday, January 22, 2021

## 3:30 to 5:00 p.m.

Dr. Lang, a radiation oncologist, will discuss the unmet clinical need followed by two researchers, Dr. Mattonen and Mr. Kazmierski, describing their machine learning research work in the area. This will be followed by discussion focused on opportunities to collaborate and share resources.



### Predictive modelling in head and neck cancer – a clinician's wish list

<u>Pencilla Lang</u>, BEng. MD. FRCPC. PhD Radiation Oncologist, London Health Sciences Centre Assistant Professor, Department of Oncology, Western University

Pencilla will review some of the clinical challenges faced by oncologists treating head and neck cancer, and outline some opportunities for predictive models, radiomics and AI to guide clinical decision-making.



#### Radiomics and machine learning for oropharyngeal cancer

#### <u>Sarah Mattonen</u>, PhD

Assistant Professor, Department of Medical Biophysics, Western University

Sarah will discuss preliminary work investigating radiomics and machine learning models to predict outcomes and toxicities in patients with oropharyngeal cancer treated with chemoradiotherapy. Sarah will also discuss efforts to validate existing models, and describe some challenges and opportunities for radiomics research in head and neck cancer.



#### Machine learning for prognostic modelling in head and neck cancer using multimodal data: lessons from the RADCURE Prognostic Modelling Challenge

### Michal Kazmierski, BSc

MSc Student, Department of Medical Biophysics, University of Toronto

Michal will discuss the results of a machine learning challenge for head and neck cancer (HNC) survival prediction with the aim of 1) developing an accurate prognostic model for HNC survival using clinical, demographic and routinely collected CT imaging data and 2) evaluating the true added value of CT radiomics compared to other prognostic factors.