

# THE 7TH MCGILL-KYOTO TRAINING COURSE & SYMPOSIUM



McGill



## Genomics and Data: The Future for Health Care

Training course: 27 Oct - 30 Oct 2019

Technology Lectures and Symposium: 30 Oct - 01 Nov 2019

### Human Genetics Technology Lectures & Symposium Schedule

#### Day 1: Wednesday, 30. October 2019 - Technology Lectures (Session 1, Salon Été)

13:00 - 13:30	<b>Recent advances in NGS technologies</b> Ioannis Ragoussis (McGill U.)
13:30 - 14:00	<b>RNA-seq by Nanopore</b> Spyridon Oikonomopoulos (McGill U.)
14:00 - 14:30	<b>ENSEMBL and UCSC: their structure, resources and how they annotate genes</b> Robert Syme (McGill U.)
14:30 - 14:45	<b>Break</b>
14:45 - 15:15	<b>The dbSNP, gnomad, clinvar, cosmic databases</b> Robert Eveleigh (McGill U.)
15:15 - 15:45	<b>RNA-seq analysis</b> Hamed Najafabadi (McGill U.)
15:45 - 16:00	<b>Break</b>
16:00 - 16:30	<b>ATAC-seq</b> Francesca Meschi (10x Genomics)
16:30 - 17:00	<b>Microscopy</b> Claire Brown (McGill U.)
17:00 - 17:30	<b>CRISPR/Cas9 genome editing technology and applications</b> Mitra Cowan (McGill U.)

#### Day 2: Thursday, 31. October 2019 - Technology Lectures (Session 2, Salon Été)

8:30 - 9:00	Light Breakfast
9:00 - 9:30	<b>Hi-C</b> Mathieu Blanchette (McGill U.)
9:30 - 10:00	<b>Somatic mutation detection from Single cell RNA-seq data</b> Veronique Lisi (McGill U.)
10:00 - 10:30	<b>Single cell RNA-seq tumor profiling</b> Claudia Kleinman (McGill U.)
10:30 - 10:45	<b>Break</b>
10:45 - 11:30	<b>Epigenetics and disease</b> Richard Gibbons (U. Oxford)

# Symposium Schedule

## Day 2: Thur., 31. October 2019 - Health Innovation through genomics (Salon Été)

11:30 - 12:15	<b>Proteomic analyses in tumour biology:</b> toward mechanistic insights, personalized diagnostics and novel therapy options Jörg Hoheisel (DKFZ)	<b>Session 1</b>
12:15 - 13:15	<b>Lunch (Foyer Été)</b>	
13:15- 14:00	<b>The Open Targets initiative</b> Ian Dunham (EMBL-EBI)	<b>Session 1</b>
14:00 - 14:45	<b>Genome cohort projects in Japan and biomedical analyses towards discoveries of disease-causing variants</b> Masao Nagasaki (Kyoto U.)	<b>Session 1</b>
14:45 - 15:00	<b>Break</b>	
15:00 - 15:45	<b>Recent progress of therapeutic strategy for a rare disease HTLV-1-associated myelopathy (HAM/TSP)</b> Yoshihisa Yamano (Marianna U.)	<b>Session 2</b>
15:45 - 16:30	<b>On the Origin of Cancer</b> Seishi Ogawa (Kyoto U.)	<b>Session 2</b>

## Day 3: Friday, 1. November 2019 - Health Innovation through genomics (Salon Été)

8:30 - 9:00	Light Breakfast	
9:00 - 9:45	<b>Clinical applications of genomics</b> Tomi Pastinen (Children's Mercy Hospital, Kansas City)	<b>Session 3</b>
9:45 - 10:30	<b>Genomics of cerebral small vessel disease</b> From population-based research to clinical innovation perspectives Stephanie Debette (U. Bordeaux)	<b>Session 3</b>
10:30 - 10:45	<b>Break</b>	
10:45 - 11:30	<b>Working together to catalyse the discovery of new medicines</b> Chas Bountra (U. Oxford)	<b>Session 3</b>
11:30 - 12:30	<b>Lunch (Foyer Été)</b>	
12:30 - 13:15	<b>Watson for Genomics and Beyond</b> Takahiko Koyama (IBM Research)	<b>Session 4: Quantum computing &amp; AI in a health context</b>
13:15 - 14:00	<b>Machine learning methods to decipher human disease</b> Anna Goldenberg (U. Toronto)	<b>Session 4: Quantum computing &amp; AI in a health context</b>
14:00 - 14:15	<b>Break</b>	
14:15 - 15:00	<b>Quantum Computing: Overview and Potential Applications</b> Gilad Ben-Shach (IBM Q)	<b>Session 4: Quantum computing &amp; AI in a health context</b>
15:00 - 15:45	<b>Quantum machine learning on a general quantum computing platform</b> Jerome Gonthier (Zapata Computing)	<b>Session 4: Quantum computing &amp; AI in a health context</b>
15:45 - 16:00	<b>Closing remarks</b> M. Lathrop (McGill U.), F. Matsuda (Kyoto U.)	

### Venue

#### Technology Day and Symposium

The **Omni Hotel**, Salon Été, 1050 Sherbrooke St W, Montreal, QC H3A 2R6, adjacent to the McGill Main Campus.

#### Training Course

**McGill Executive Institute** 1001 Rue Sherbrooke, O Montréal, QC, H3A 1G5



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### Organisers

M. Lathrop (McGill U.), G. Bourque (McGill U.)  
F. Matsuda (Kyoto U.), I. Ragoussis (McGill U.)

### Registration and information

**visit:** [kyoto-mcgill.org/course2019](http://kyoto-mcgill.org/course2019)

- 4-day training course fee is \$350.00
- Technology Lectures and Symposium is free!

Advanced registration is required due to limited seating.