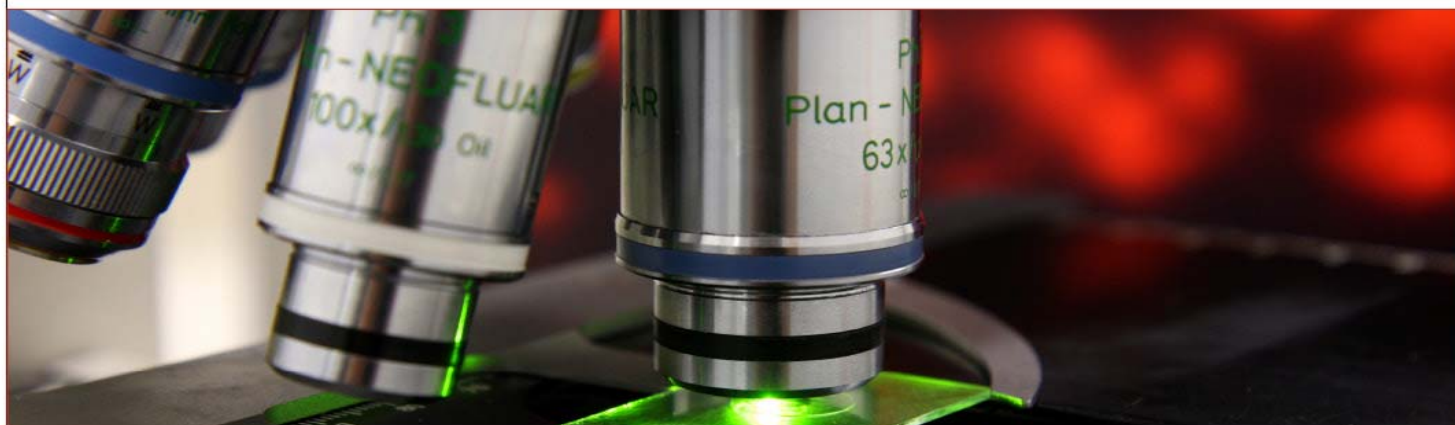


SÉMINAIRES ET CONFÉRENCES



Note: Candidate for IVADO Principal Investigator position in computational biology and its applications in biology and medicine (Ste-Justine & Biochemistry)

Martin Smith

Garvan Institute of Medical Research in Sydney, Australia

« Dissecting genome biology, one molecule at a time »

Despite its realization almost 20 years ago, the human genome still harbours mysteries, as evidenced by about 80% of disease-associated mutations that lie outside of protein-coding regions. High-throughput transcriptomic and epigenomic studies have substantiated the prevalence and dynamics of regulatory regions in the human genome, including the surprising diversity and contentious function of long non-coding RNAs. What additional layers of complexity can single-cell and single-molecule sequencing technologies unravel? How will the observation of native molecules in real-time improve our understanding of health and disease?

I will present bioinformatics algorithms, data mining, and machine learning applications for functional genome annotation. I will describe molecular and computational strategies that exploit the latest genomic technologies to apprehend the complexities of gene expression regulation and cellular dynamics, while realising the promise of precision medicine and portable genomic applications.



Faculté de médecine
Département de biochimie
et médecine moléculaire

Université 
de Montréal

Le Mercredi 17 avril 2019, 11h30

Pavillon Roger-Gaudry

Salle : G-615

Adrian Serohijos

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