

Department of Anatomy and Cell Biology

Seminar Series

KARIM MEKHAIL, PhD

University of Toronto

Associate Professor, Department of Laboratory Medicine & Pathobiology

Hosted by: Dr. Chantal Autexier



Wednesday, May 15, 2019

11:30 am

Room 1/12

Strathcona Anatomy Building 3640 University Street

"Roles for nuclear microtubule filaments and non-coding RNAs in nuclear compartmentalization and DNA repair"

The non-random organization of eukaryotic genomes within the three-dimensional nucleus is critical to gene expression and cell survival. First, I will show how an interest to understand how telomeric DNA is repaired has allowed us to uncover that intranuclear microtubule filaments, molecular motors and phase separation cooperate to re-mould the three-dimensional genome and drive DNA repair in budding yeast. Second, I will present human data supporting a role for a critical competition, which occurs between different types of long intergenic non-coding RNAs, in the regulation of nuclear compartmentalization and its role in global protein synthesis.