



MONDAY NOON SEMINAR

Child Health and Human Development Program



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MARCH 16, 2020 12-1 PM

RI-MUHC, BLOCK E

CRUESS AMPHITHEATRE, ROOM S1.1129

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Kidney Disease in the Era of Genomic Medicine

Chronic kidney disease affects one out of ten Canadians. While genetic causes are individually rare, their combined disease burden is significant. The current mainstay of treating patients with end-stage renal disease is associated with significant patient morbidity and mortality, while exerting a strenuous cost on the health care system. This highlights the need for new strategies and tools for the identification of patients at risk for disease prevention, as well as, for novel treatment approaches for patients with renal failure. Genomic diagnostic tools combined with new technologies, such as CRISPR/Cas9 gene editing and single-cell RNA sequencing, have led to a rapid increase in our understanding of the genetic contribution to kidney disease, while enabling the identification of novel targets for personalized treatment approaches. We will discuss how genetic information has already benefited patient care, but also how current research can address some of the remaining challenges to the successful implementation of genomic information in management of chronic kidney disease.