BC CANCER RESEARCH SEMINAR SERIES presents a seminar on

“Engineering multi-layer synthetic circuits in human cells: challenges and solutions”

by

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Monday, Jan. 8th, 2018
12:00pm to 1:00pm
Gordon & Leslie Diamond Family Theatre
BC Cancer Research Centre
675 W.10th Ave.

Dr. Knapp completed his PhD in the Terry Fox Laboratory with Prof. Connie J Eaves on a research program focused on applying single-cell methods to investigate the roles and degree of co-ordinated control of molecular signaling, epigenetic and transcriptional states in underpinning the functional properties of human hematopoietic stem cells with long-term regenerative activity. As a postdoctoral fellow at the Weatherall Institute in Oxford his research is now focused on the development and application of new genome editing technologies to clinically relevant stem cell populations, and their use to probe the foundation of cellular identity. His seminar will discuss the construction of multi-layer synthetic transcriptional circuits in mammalian cells that would be useful both in the development of next-generation cell therapies and provide useful tools for understanding cell function, but has been made difficult because actuation of such circuits exploiting CRISPR-Cas9 methods does not enable the guide-RNA component of the Cas9 to be expressed in a sufficiently precise and controlled manner. He will discuss his latest results from high throughput mutational screening experiments using a stringent test system that are leading to strategies to circumvent this problem.

Host: Dr. Connie Eaves

Videolinked to: FVC - room 2035, VIC - room #3, CSI - Shuswap room, CN - Salmon room,
UBC Biomedical Research Centre - room 351, Michael Smith Labs - room 226, C&W - room K4-142

*A recording of this presentation can be viewed at:

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