

Department of Anatomy & Cell Biology Seminar Series

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AMPK directs small RNA traffic to adjust gene expression during energy stress

The response to energy stress in many organisms hinges upon the activation of AMP-activated protein kinase (AMPK), which is critical to modify cellular processes to limit energy consumption and enhance energy production. In *C. elegans*, the activation of AMPK in neurons results in a modification of intracellular trafficking that facilitates the generation of specific vesicles that may contain small RNAs. These cargo-containing vesicles leave the neurons to make their way to the germ cells where they transmit a pro-quiescence signal to modify germline-specific gene expression. This RNA-mediated inter-tissular communication is essential to preserve the integrity of the germline stem cells over the long term, thereby ensuring reproductive competence following the period of duress.



Wednesday, Feb. 22, 2023
11:30am - 12:30pm

Hosted by: Mike Strauss, PhD



Room 1/12 - Strathcona
Anatomy and Dentistry
Building



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