



Department of Anatomy and Cell Biology

Hosted by Dr. Javier Vargas

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“The highs and the lows of Cryo-EM and its use in exploring cellular machinery”



Cryo-electron microscopy (cryo-EM) proves to be an increasingly powerful tool for studying macromolecular structures with near-atomic precision. While almost all high-resolution work is performed using the most expensive state-of-the-art instrumentation, we are exploring the resolution and size limits of lower tier microscopes. We show that it is possible to solve high-resolution structures of asymmetric, conformationally flexible specimens that are smaller than 100 kDa using conventional cryo-EM methodologies. We also demonstrate how these cryo-EM methodologies have been used to study AAA+ ATPase motors that are involved in a variety of cellular processes, including protein homeostasis and cytoskeletal transport.

Wednesday, November 28th, 2018

11:30 am

**Strathcona Anatomy Building
3640 University Street
Room 2/36**

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