

MISHA KUDRYASHEV, PhD

Max Planck Institute of Biophysics



Wednesday, May 8, 2019

11:30 am

Room 1/12

Strathcona Anatomy Building
3640 University Street

“Structure of ion channels in membranes by cryo-EM”

Ion channels open and close in response to the external stimuli allowing ion flow in and outside of the cells. They are often regulated by auxiliary proteins, specific lipid composition and transmembrane gradients. These native conditions are often difficult to introduce into structural analysis by cryo-EM or X-ray crystallography of purified proteins. In my talk I will introduce an approach to determine structures of ion channels in near native settings by cryo electron tomography and subtomogram averaging, will give an overview of the workflow and will show its applications to voltage-gated ion channels and calcium release channels involved in muscle contraction.