



## Department of Anatomy and Cell Biology

Hosted by Dr. Huy Bui

### “Biological networks at high resolution”

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**McGill University**



Systems biology aims to build a working model of the cell by first mapping the network of interactions among proteins and other biomolecules in the cell. While highly successful, this network-based view of the cell often treats biomolecules and their interactions as nodes and edges with little atomic details. Such details are important because atomic-level changes in the molecular circuitry can lead to large differences in cell behaviour, as often happens in evolution and disease. Here, I will present recent work on constructing genome-scale structural models of nodes and edges within protein-protein interaction networks, in order to probe design principles of proteins and protein networks at the atomic level. I will show that this structural systems biology approach provides useful insights in molecular evolution, species interaction, human disease, and multicellular complexity.

**Wednesday, May 2<sup>nd</sup>, 2018**

**11:30 am**

**Strathcona Anatomy Building**

**3640 University Street**

**Room 2/36**

[www.mcgill.ca/anatomy/seminars](http://www.mcgill.ca/anatomy/seminars)

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