



BiophysTO Lunchtime Seminar Series

Date

Thursday, Jan 28, 2021
12:00 – 1:00 pm

Dr. Jean-Philippe Julien

Molecular Medicine, Hospital for Sick Children
Departments of Biochemistry & Immunology,
University of Toronto

Protein engineering to leverage binding avidity against infectious diseases

Antibodies can be powerful biotherapeutics to fight viral infections. Here, we used protein engineering to drive oligomerization of antibody fragments and transform antibodies into exceptionally potent neutralizers. The engineered platform allows to combine at least three different binding specificities into a single molecule, thus allowing to overcome viral sequence variability observed in RNA viruses. IgG-like in vivo bioavailability of these avid, multi-specific antibody molecules can be achieved through modulation of its Fc binding avidity to Fc receptors. The engineered platform is modular, and allows plug-and-play to multimerize antibodies for rapid evaluation against infectious diseases of global health importance.

Host: Wilson Zeng

Zoom Link:

<https://us02web.zoom.us/j/89407663380?pwd=OFBMczlhWVZKbUswQzk3VXNkLzhGdz09>



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