

**Institute of Parasitology**

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Institut de parasitologie

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Dr. Qian (Vivian) Liu's laboratory at the Institute of Parasitology at McGill University is recruiting highly motivated graduate students to work on virus biogenesis and super-resolution microscopy on M.Sc. and/or Ph.D. levels in 2023.

Dr. Liu is interested in understanding the interplay between viruses and the membrane bound organelles, cytoskeleton and physiological activities of the host cell, as it relates to the nature of virus infections, innate immune responses and the structure and function of a cell. Specifically, her research has been focusing on mapping out the spatial and temporal organizations, dynamics and stoichiometry of the virus-host interaction networks by using super-resolution microscopy and biomathematics approaches. Her research largely depends on custom-built super-resolution microscopes, including a single-molecule localization microscope with a 10 nm spatial resolution and a confocal structure illuminated microscope. Successful candidates will work on projects that address questions in virus assembly and budding. Successful candidates will have access to 1) custom-built super-resolution microscopes that can be adapted to your own research purposes; 2) a dynamic, highly motivated team with diverse culture and knowledge backgrounds; 3) excellent core facilities equipped with cutting-edge commercial microscopes; 4) opportunities for attending international conferences.

Applicants must have strong interest and motivation in interdisciplinary research. Applicants must hold a B.Sc. or M.Sc. degree in cell biology, virology, microbiology, biophysics, biochemistry, molecular biology, immunology or related fields by the time of the program starts. Experience and knowledge in mathematical modeling and computer programming are highly appreciated. Applicants must show proficiency in English writing and speaking. Applicants who are not Canadian permanent residency or citizen are encouraged to apply for external funding. Please send your application in ONE .pdf file including *curriculum vitae*, a statement of research interest (one paragraph) and the contact information of two references to Dr. Liu (qian.liu3@mcgill.ca).