

Opportunities for graduate students (MSc & PhD) and research fellows to study new aspects of lipid metabolism in the context of metabolic disorders and cardiovascular disease

The 21st century has seen increased prevalence of metabolic related diseases (e.g. **type 2 diabetes, obesity, metabolic syndrome, fatty liver disease**) in Canada and worldwide to reach epidemic level. These metabolic conditions are major risk factors of **atherosclerosis and cardiovascular disease**, largely due to the presence of **abnormal lipid and lipoprotein profile**. Lipoproteins are manufactured in the liver and the gut. It has been established that lipoprotein metabolism is dysregulated in the compromised metabolic conditions, thus lipoprotein particles are overproduced in the liver and the gut and they are less efficiently catabolized. Despite tremendous efforts in lipid management using conventional and recent lipid-lowering drug, cardiovascular disease risks remain high. There is therefore great need for novel strategies towards **prevention and treatment of dyslipidemia** to reduce cardiovascular disease risks.

The Xiao lab studies the regulatory mechanism of lipid metabolism in health and disease. We aim to understand how lipids are processed in the small intestinal absorptive cells (enterocytes), how lipid handling in the gut is integrated into whole-body metabolism and energy homeostasis, and how this is linked to the pathophysiology of metabolic disorders. Research in this field not only expands our understanding of the fundamental biology of the gut, but also bears potential for identifying druggable targets for ameliorating lipid abnormalities and cardiovascular disease.

The Xiao lab currently has training and employment opportunities. If you are interested in joining the lab, please apply to Dr. Xiao at the e-mail address listed below. When applying, please send a 1-2 sentence 'statement of interest' explaining why you would like to join the lab, unofficial transcripts, and contact information of at least 2 references.

Contact information:

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