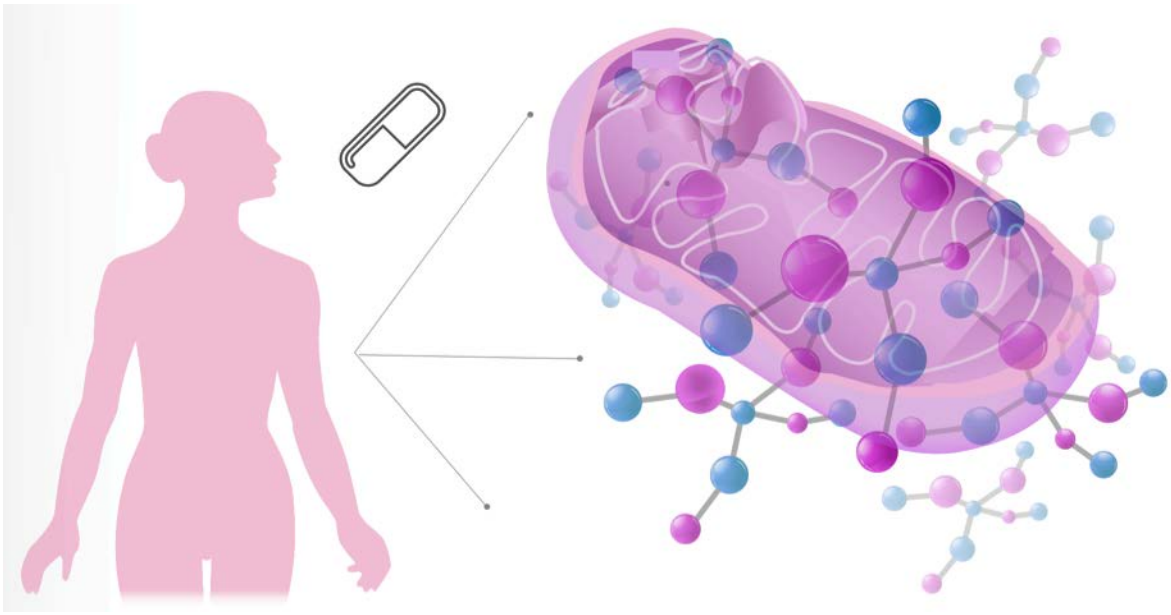
GUEST SPEAKER SEMINAR

Molecular Genetics
UNIVERSITY OF TORONTO

Metabolic flexibility in breast cancer progression



The transformation of heathy cells into cancer cells necessitates major metabolic reorganizations specifically tailored to meet the high energy demands associated with rapid cell proliferation. We are using a combination of genomics and metabolomics approaches to define this transformation and uncover the metabolic adaptations that drive primary breast tumor growth, metastasis and therapeutic resistance. We discovered that a central regulator of metabolism, PGC-1α, promotes the growth of poor outcome breast cancers by controlling intra-tumoral glucose availability. Recently, we revealed that PGC-1α controls bioenergetic flexibility, which supports breast cancer progression and resistance to energy disruptors like metformin. In this talk, I will discuss the role of metabolism in breast cancer and highlight metabolic vulnerabilities that could be targeted for therapeutic purposes.

Dr. Julie St-Pierre

Biochemistry, Microbiology and Immunology Department, University of Ottawa

Ottawa Institute of Systems Biology

Host: Dr. Jason Moffat

Date: Friday April 6th, 2018
Time: 10:00AM
Place: MSB Room 4279
1 King's College Circle