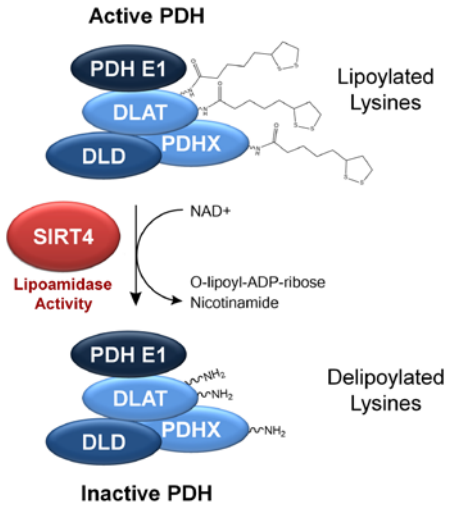
GUEST SPEAKER SEMINAR

Molecular Genetics
UNIVERSITY OF TORONTO

The ancient antiviral properties of sirtuins: lessons from proteomics



Sirtuins (SIRTs) are critical enzymes that govern genome regulation, metabolism, and aging. Using a multidisciplinary approach integrating molecular virology and proteomics, we have recently discovered another significant function for human SIRTs, demonstrating that these enzymes have broad-spectrum antiviral properties against a range of DNA and RNA viruses. To start to define the mechanisms involved in their antiviral functions, we next addressed the issue of the limited knowledge regarding the catalytic activities of some of these enzymes. We establish SIRT4 as the first known mammalian cellular lipoamidase that regulates the pyruvate dehydrogenase complex, thereby highlighting SIRT4 as a guardian of cellular metabolism.

Dr. Ileana M. Cristea

Associate Professor, Department of Molecular Biology
Princeton University

Host: Dr. Anne-Claude Gingras

Date: Monday September 21st, 2015
Time: 4PM
Place: FitzGerald Building
150 College Street
Room 103