

Industrial BioDevelopment Laboratory (IBDL)/NSERC Undergraduate Student Research Award (USRA) – Project IBDL/NSERC 2012A

2012 Summer Research Project

Dates: May 7, 2012 to August 24, 2012 (Students must be available for entirety of program). Hours are generally Monday to Friday 8:00 AM to 4:00 PM/9:00 AM to 5:00 PM with the recognition that the nature of research and development activities is such that they can occasionally extend to off hours work activities.

Stipend: \$5,740 for 16 week term

Location: Industrial BioDevelopment Laboratory (www.ibdl.ca)

University Health Network

101 College Street

Toronto

Background Required: Undergraduate student having completed at least one year of university studies and no more than three years in the physical/life sciences with a minimum B cumulative average. Student will be required to submit an official transcript to NSERC confirming their grade point average. Must be a Canadian citizen or a permanent resident of Canada.

Project Number: IBDL/NSERC 2012A (to be quoted in application)

Research Project Title: Evaluation of Stability of Agricultural/Foodstuff Nutrients Under Processing Conditions

Research Project Outline: This project will involve the evaluation of specific nutrients (including omega 3 fatty acids and antioxidants) in a number of agricultural and food products (including flax seeds). The goal is to identify processing conditions that minimize nutrient degradation. The project will start with the evaluation of the thermal processing of flax seeds to assess the effect on antioxidant and essential fatty acid bioavailability. Techniques will include bioanalytical chemistry and natural product extraction. The project will provide a summer student with ample opportunity to become familiar with organic chemistry analytical techniques applied to a practical question of nutritional importance and allow the student to work in an active bio-industrial laboratory.

Additional information: Students will take part in summer student program consisting of undertaking and managing a research project, participating in training workshops, and presenting at scientific and journal club symposia. Students must be comfortable in working in a modern medical research facility in which experimental animal models of disease, human clinical pathogenic specimens, are a variety of chemical and biological compounds are part of the routine laboratory environment. This is a Good Laboratory Practices (GLP) facility where professional behavior and deportment is the norm.