April 20, 2017: Timmins Exploration Symposium

Part of Northeast Ontario Mines & Minerals Symposium (NEOMMS Apr 18 &19)

New Exploration Research and Concepts for Abitibi Gold and Base Metals

COURSE FEE: $150 (includes lunch and coffee breaks)

Registration Link: http://www.porcupineprospectors.com/events/2017-northeastern-ontario-mines-minerals-symposium/merc-short-course-registration/

Greenstone terranes continue to be an important metal source worldwide, but the mining industry needs new ideas and models to focus scarce exploration funds to the most prospective areas containing the next generation of ore deposits. The Mineral Exploration Research Centre (MERC) at Laurentian University's Harquail School of Earth Sciences develops exploration methodologies by conducting cutting-edge, field and laboratory research on mineral deposits and large-scale ore systems. MERC's research is directed at: 1) developing a new understanding of the complex interplay of ore-system controls for volcanogenic Cu-Zn-Au, magmatic Ni-Cu-PGE and orogenic Au deposits; and 2) determining vectors to economic mineralization through integration of regional- and deposit-scale mapping with structure, stratigraphy (aided by geochronology), geophysical data (magnetic, electromagnetic, induced polarization, gravity and seismic) and geochemistry utilizing major and trace elements, fluid inclusion chemistry, and radiogenic and stable isotopes on rocks, minerals, ores and overburden samples.

The symposium will draw insights from development of the Metal Earth project, a new 7-year, $104 million applied R&D program with government, industry and academic partners that will expand and accelerate MERC's ore system research and provide new exploration models for gold and base metal deposits. The course will be taught by experienced economic geologists using case studies and up-to-date exploration models for greenstone-hosted deposits. Experts in Precambrian Geology, Structural Geology, Geophysics and Seismics and Post-doctoral and doctoral graduate students will provide insight on the use of exploration tools for vectoring to economic mineralization. Integration of the combined topics will offer better tools to focus limited exploration dollars on quality targets.

Symposium Agenda

9:00-10:00: Overview of Stratigraphic and Architectural Controls on Base Metal and Gold Deposits in the Abitibi Greenstone Belt; Dr. John Ayer, Associate director, MERC

10:00-11:00: Insights into Archean Gold Formation Processes: A Micro-Analytical Approach: Dr. Daniel Kontak, Professor of Economic Geology, Harquail School of Earth Sciences

11:00-11:30: Evaluation of fluid inclusion properties as an exploration tool for orogenic gold systems: Implications for deposit settings and mineralization processes in the Abitibi Greenstone Belt; Dr. Gyorgyi Tuba, Post-Doctoral Researcher, MERC

11:30-12:00: Understanding Gold Remobilization; Evan Hastie, PhD candidate, Harquail School of Earth Sciences

12:00-1:00: Lunch

1:00-2:00: Structural Controls on Precambrian Gold Deposits; Bruno Lafrance, Professor of Structural Geology, Harquail School of Earth Sciences

2:00-3:00: New Geophysical Tools in Greenstone Terranes for base metal and gold; Richard Smith, Professor of Geophysics, Harquail School of Earth Sciences

3:00-4:00: Enhancing bandwidth and resolution in Seismic & MT Data Acquisition for Whole System Mineral Exploration for gold and base metals; Dr. David Snyder, Geophysical Consultant to Metal Earth