



The Department of Geological Sciences & Geological Engineering
Distinguished Speaker Program presents:

Dr. Peter Hollings

Department of Geology, Lakehead University

Howard Street Robinson lecture tour on behalf of the
Geological Association of Canada

“Using igneous petrology to unravel the
tectonic triggers for porphyry
mineralization”

Monday, January 8, 2017

11:30 am – 12:30 pm

Miller Hall, Room 210

All are welcome to attend!

Bio:

Much of my current research focuses on the application of whole rock geochemistry and petrology to the exploration for ore deposits. My Masters students have completed theses on a wide variety of topics including Ni-Cu-PGE deposits and geochemistry of the Midcontinent Rift, Archean greenstone belts, porphyry deposits in Mexico, the US and British Columbia. Current students are investigating the Hemlo and Red Lake gold deposits, Archean granites and the tectonic setting of komatiites. I am currently collaborating with CODES researchers in a study of the mineral chemistry footprint around gold and porphyry copper deposits as part of AMIRA Project P1153. As part of this research we are investigating the footprint around Archean gold deposits. I am also the co-leader of the Cu-module of the Integrated Multi-Parameter Footprints of Ore Systems: The Next Generation of Ore Deposit Models supported by the Canadian Mining Innovation Council and an NSERC CRD.

Training and mentorship plays a large part in all my research. Many of my students have gone on to complete PhDs or now work in senior positions with government and industry.

Applications from suitable candidates wishing to undertake graduate studies in any of these fields are always welcome.

I am currently the Secretary for the [Institute on Lake Superior Geology](#) and the past President of the [Volcanology and Igneous Petrology Division](#) of the Geological Association of Canada.

Abstract:

Recent studies of the magmatic rocks associated with porphyry systems in both continental and island arc environments has shown that the geochemistry of the pre- and syn-mineralization rocks shows systematic variations that can be attributed in some cases to the subduction of aseismic ridges. The role of ridge subduction, either as a source of metals or simply as a cause of flattening and compression, remains to be determined but the fact that ridge subduction is linked to the majority of recent giant porphyry Cu-Mo-Au systems suggests they play a critical role. This talk will examine the evidence for the effects and impact of ridge subduction in Chile and the Philippines.