CAREERS & RESEARCH

Postdoctoral Fellow/Research Associate, May 2020

Job ID:	**#2019-06**
Required	**Postdoctoral Fellow/Research Associate: 2 positions available. See page 2 for project 2.** MERC is seeking individuals with demonstrated excellence in research and is inviting applications for two Post Doctoral Fellowships (PDF)/Research Associates (RA) positions beginning in February-May, 2020; salary range is $65-$80k/yr plus benefits. The positions are contingent upon funding.
Metal Earth Overview	With CAD $104 million in funding provided by the Canada First Research Excellence Fund (CFREF), the Northern Ontario Heritage Fund and through strategic partnerships with universities, government geological surveys and international research centres, Laurentian University has initiated Metal Earth - the largest ever mineral exploration research project undertaken in Canada. Metal Earth seeks to identify and understand the processes responsible for Earth's differential metal endowment during the Precambrian. This research initiative aims to transform our understanding of Earth's early evolution and how we explore for metals. Metal Earth is led by the Mineral Exploration Research Centre (MERC), a semi-autonomous research centre at Laurentian. MERC was established in 1997 and comprises an internationally-recognized group of researchers from HSES, academia, industry and government.
To Apply	To apply, please forward your application and cover letter to **metalearth@laurentian.ca** and reference the Job Identification Number: 2019 06 with expression of interest for a specific position. The application should include: a CV including a list of publications and conference presentations, academic transcripts, contact details and the names of three referees. Review of applications will begin in January 2020, but applications will be accepted until May 2020.
Project/ Position 1	***Differential VMS endowment of Archean greenstone belts.*** The PDF/RA will be part of a Metal Earth Thematic Research team, comprised of 8 researchers from 6 universities, whose goal is to resolve the processes responsible for differential VMS endowment during the evolution and construction of Archean greenstone belts. Specifically, the PDF/RA will focus on the Abitibi Greenstone belt, and will undertake one of the first comprehensive reviews and compilations of geological, geochemical, geophysical and geochronological data at the assemblage scale, followed by post- and pre-deformation reconstruction of volcanic assemblages and quantitative comparison of grades, tonnages, and characteristics of the deposits, to identify a common set of geological predictors of mineral endowment. Grade, trace metal content and tonnage of VMS deposits of, and within, assemblages, will be compared to geological attributes such as rates of crustal growth (area□age relationships and volumes of volcanic rocks and synvolcanic intrusions), crustal structure (permeability evolution and pathways for melts and fluids from the mantle through the crust; proximity to transcrustal structures), magmatic affinity/sources, degree of contamination and crustal interaction, and nature of assemblage boundaries. Close liaison with Metal Ocean researchers defining assemblages with microplate mosaics of the Western Pacific Ocean, and with Metal Earth transect and craton research will be essential. The position is funded for four years. Mapping experience in greenstone belts, with ARC-GIS (the compilation platform), and with structural modelling software such as Petrel and/or MOVE 3D will be an asset.

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Project/ Position 2	***Geology of Metal Earth Atikokan transect in the Mesoarchean to Neoarchean Marmion Terrane, Superior Craton, western Ontario.*** The PDF/RA will supervise MSc and BSc students and conduct mapping-based research in the Archean Wabigoon subprovince of Ontario. As part of an integrated geological-geophysical team, fieldwork will involve detailed geological mapping along a transect that cut across precious metal endowed and less endowed ancestral faults in Neoarchean and Mesoarchean greenstone belts of the western Superior craton. Research will establish the stratigraphic and structural architecture of the belts and transect, and the timing and relationship between precious metal systems and the evolution of the greenstone belts. Research problems will be addressed through integrated mapping, geochemical and stable/radiogenic isotopic research, and integration of the results with ongoing geophysical seismic, magneto-telluric, and gravity interpretations. The position is funded for two years and possibly renewable for a third year. Mapping experience in greenstone belts with expertise in volcanology, economic geology, geochemistry and structural geology, and good communication skills and supervisory experience, are assets.
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Laurentian University is an inclusive and welcoming community and encourages applications from members of equity-seeking communities including women, racialized and Indigenous persons, persons with disabilities, and persons of all sexual orientations and gender identities/expressions. Laurentian University is committed to providing an inclusive and barrier free experience to applicants with accessibility needs. Requests for accommodation can be made at any stage during the recruitment process. Please contact the Human Resources and Organizational Development Office for more information. All qualified persons are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority. While we thank all candidates for their interest, only those short-listed will be contacted.

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