



UCD School of Earth Sciences
Scoil na nDomhaneolaíochtaí UCD

iCRAG SFI RESEARCH
CENTRE IN APPLIED
GEOSCIENCES

Fully-funded PhD Studentship available

School of Earth Sciences
University College Dublin

Project: DRIFT: Refining Ireland's glacial history to de-risk mineral exploration

Applications are invited from suitably qualified candidates for a full-time PhD in Earth Sciences to complete a PhD on 'Refining Ireland's glacial history to de-risk mineral exploration (DRIFT)'. The DRIFT project is funded by iCRAG, the SFI Research Centre in Applied Geosciences, and will be based in the School of Earth Sciences at University College Dublin.

Project Description:

The proposed project, DRIFT, aims to create an accessible methodology for qualitatively assessing glacial landscape modification to de-risk Irish mineral exploration efforts. This will involve the use of cosmogenic nuclides, till geochemistry and remote sensing to assess glacial landscape modification for field sites in northern Canada (in conjunction with the Geologic Survey of Canada) and in southeastern Ireland. The constructed methodology will then be tested an area of active mineral exploration in Ireland by examining glacial dispersal from known mineral targets.

The successful candidate will:

- Create a framework for evaluating glacial landscape modification using geochemical and geomorphic indices.
- Collaborate with colleagues at the Geologic Survey of Canada to examine the geomorphic and geochemical imprint of glaciation on a field site in N. Canada.
- Apply the knowledge gained about glacial landscapes in Canada to test the applicability of drift prospecting to multiple locations within a region of active mineral exploration in Ireland.

Requirements

Applicants should have an undergraduate degree in an appropriate discipline (e.g. Geology, Earth Sciences, Physical Geography, or similar). An MSc would be advantageous, but not required. The successful candidate should be highly self-motivated, display excellent written and oral communication skills and have some background and particular interest in Quaternary Geology, Geochemistry, Geomorphology. The successful candidate will ideally have additional research experience (e.g. MSc) with substantial field and/or laboratory components. Knowledge about glacial geology, GIS, cosmogenic nuclides, and/or drift prospecting and experience with remote field work is advantageous.

Award

The successful candidate will be enrolled for a 48-month PhD programme (<https://www.ucd.ie/earthsciences/study/phdmscbyresearch/>) in Earth Sciences at UCD. The Fellowship provides University fees and a stipend of €18,500 per annum over four years. Funds for research costs and conference/field work travel are also available.

Start date: 01 January 2023, an earlier start date may be feasible.

Further Information

Dr. Sam Kelley, UCD School of Earth Sciences, O'Brien Centre for Science West. UCD Belfield Campus, Dublin 4.

sam.kelley@ucd.ie

Application Procedure

Please submit an electronic copy of Curriculum Vitae with 2 referees' contact details and a cover letter explaining your interest in this project and why you are a good fit for this opportunity to:

Dr. Sam Kelley (sam.kelley@ucd.ie)

Review of applications will begin on August 28, 2022 and continue until the position is filled.