

WE'RE RECRUITING! Postdoctoral Fellow in Multiscale Microscopy of Biomaterials and Biointerfaces



Job Description

The Grandfield Research Group seeks a postdoctoral fellow to join an interdisciplinary team of researchers working across the fields of microscopy and biomaterials for mineralized tissues. We invite all applicants with experience in biomaterials / osseointegration / biomineralization and / OR advanced microscopy of materials to apply. The applicant will have access to the world-class facilities at the Canadian Centre for Electron Microscopy. They will join a diverse team working in the development of advanced multi-scale characterization approaches for biointerfaces and biomineralization, as well as the development of biomaterials for dentistry or orthopedics. Therefore, based on their expertise, the applicant will have the ability to tailor their research interests across these fields, with a preference for focusing on advancing our capabilities in multiscale, real-time or correlative imaging. Other themes of interest for a potential applicant include *in situ* liquid cell imaging, correlative TEM and APT, correlative FIB-SEM and EDS, and correlative light and electron microscopy. Demonstrating experience or interest in promoting the success of junior team members through mentorship, co-supervision and collegiality is valued equally as strong technical skills.

Equipment & Facilities

Work from the world-class **Canadian Centre for Electron Microscopy** with over \$40M in electron & ion beam microscopes

The image displays three types of microscopy results: an Atomic Probe Tomography (APT) image on the left showing a 3D color-coded volume; a Focused Ion Beam Scanning Electron Microscopy (FIB-SEM) image in the center showing a cross-section of a material; and a Scanning Transmission Electron Microscopy (STEM) tomography image on the right showing a 3D reconstruction of a bone structure. A blue arrow points from the FIB-SEM image towards the STEM tomography image.

The image shows the exterior of the Canadian Centre for Electron Microscopy (CCEM) building, a modern structure with a glass and metal facade.

APT

FIB-SEM

STEM tomography

CCEM
Canadian Centre for Electron Microscopy

How to Apply

Minimum Qualifications:

A doctoral degree (Ph.D.) in Engineering, Science, or relevant field by the start date. Excellent scientific writing ability and strong oral communication skills. The ability to work effectively and collegially with colleagues. Applicants with a broad range of experience with biomineralization or microscopy techniques, including those not specified above, are encouraged to apply.

Start Date: May 1, 2021 (preferred) for 1-year with possibility for extension

Job Description & Application: <https://bit.ly/2NDTzVY> , <https://careers.mcmaster.ca>



About Us: The Grandfield Research Group is led by Dr. Kathryn Grandfield, Associate Professor in the Department of Materials Science and Engineering and Tier II Canada Research Chair in Microscopy of Biomaterials and Biointerfaces. Her research strives to create innovative imaging solutions for biomedical problems. The lab also designs bone-interfacing materials for orthopaedic and dental implant applications using additive manufacturing and surface modification techniques. She is the incoming President of the Microscopical Society of Canada. Email with any questions!



ENGINEERING



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