

December 2022

## PHD STUDENTSHIP

The Optical Cancer Imaging Lab ([OCIL](#)) at the BC Cancer Research Institute ([BCCRI](#)) in Vancouver, Canada, has an opening for a PhD Student with a September 2023 start. The OCIL develops and validates non-invasive high-resolution optical tools for the early detection and management of cancer. Our research includes all aspects of optical imaging and spectroscopy for the *in vivo*, *ex vivo*, and *in silico* evaluation of tissues from sites including lung, cervix, oral cavity, skin and colon. Further information is available online (<http://www.biophotonics.bccrc.ca>).

We are seeking qualified individuals to pursue mutually beneficial projects related to the current research program at the OCIL. Our research program involves the development of hardware and software tools for *in vivo* (endoscopic) optical coherence tomography (OCT) and autofluorescence imaging (AFI) for the early detection of cancer. Further, our group develops machine learning tools for segmentation, feature extraction, and classification of OCT-AFI images. The successful candidate will join an interdisciplinary research group including engineers, imaging scientists, and clinicians.

### QUALIFICATIONS:

The ideal candidate will already have a Master's Degree in biomedical, electrical, or optical engineering, data or physical sciences, or a related field. Candidates should have a solid understanding of at least two of the following subjects: biomedical optics, fiber-optics, micro-optics, image processing, machine learning, or device fabrication. Preference will be given to candidates that have experience with OCT, *in vitro* microscopy, or other medical imaging modalities. Familiarity with MATLAB, C/C++, or a similar programming language is desirable. Excellent communication skills and proficient English language skills are required.

The candidate will work with a multidisciplinary team of physicians, cancer biologists, engineers, and data scientists. Successful candidates will be expected to work effectively and independently while assisting undergraduate students. This studentship offers significant opportunity for interaction in a multidisciplinary environment at the interface between biomedical optics and clinical practice. Preference will be given to applicants with a proven track record in biomedical research.

The BC Cancer Research Institute ([BCCRI](#)), home to the OCIL, is located midway between the University of British Columbia ([UBC](#)) and Simon Fraser University

([SFU](#)). [BC Cancer](#) provides comprehensive cancer control for the people of British Columbia. BC Cancer is part of the Provincial Health Services Authority (PHSA).

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

***As per the current Public Health Order, full vaccination against COVID-19 is a condition of employment with PHSA as of October 26, 2021.***

Interested candidates should forward a cover letter that expresses their research interests, curriculum vitae, and two references to Rebecca White ([rebecca.white@bccrc.ca](mailto:rebecca.white@bccrc.ca)) with “PHD STUDENTSHIP 2023” in the subject line.