The Optical Cancer Imaging Laboratory at the British Columbia Cancer Research Centre (BCCRC) is seeking enthusiastic students for research and development of nondestructive optical instruments for early cancer detection and diagnosis. BCCRC presents a unique experience for students in a multidisciplinary clinical and research environment.

Optical Coherence Tomography (OCT) is the optical analog to ultrasound imaging, but it has higher resolution. We are developing this technology for medical imaging in the oral cavity and endoscopic imaging in the lung. We currently have multiple OCT systems at the BCCRC for both clinical and laboratory imaging. These systems are constantly being upgraded for increased functionality and performance.

OCT systems require state-of-the-art multi-domain (optical, mechanical, electrical, computational) technologies and expertise. Previous co-op student OCT projects have included data acquisition system programming, OCT probe development, data analysis algorithm development, and human and animal imaging.

The following projects are under consideration for term starting May 2018:

1. Surgical microscope development
2. Endoscopic OCT system development
3. Optical scanner development
4. Clinical OCT data acquisition and analysis

QUALIFICATIONS

Preferred candidates will be in their senior years of a multidisciplinary Engineering or Science program, have an outstanding academic record, and previous work experience. These are very challenging positions that require a high degree of creative problem solving and non-routine work. Experience with lasers, optics, fiber optics, small mechanical assemblies, actuators, electronics hardware, machine learning, and MATLAB are assets. Excellent oral and written communication and documentation skills are a necessity. Students will be expected to work with a high degree of independence and autonomy. **A minimum GPA of B+ (80%) is required for this position.**

Interested candidates should forward their covering letter and resume to:

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