Jan 6, 2017

**Undergraduate Student Biomedical Instrument Developer**

The Imaging Unit of the Integrative Oncology Department 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.

Hiring for the following projects is under consideration for the Winter 2016 term:

1. Fiber optic OCT probe development
2. Endoscopic OCT system development
3. Clinical OCT data acquisition and analysis

Other OCT-related tasks may be assigned depending on the capabilities and interests of the student and currently available projects.

**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, and electronics hardware is an asset. As careful manipulation of optical fibers is involved, a high degree of mechanical dexterity is required. Excellent oral and written communication and documentation skills are a necessity. Preference will be given to students that are NSERC (or equivalent scholarship) eligible. **A minimum GPA of B+ (75%) is required for this position.**

The position(s) is/are available for 4-8 months with the possibility of extension. Salary will be $1800-$2400/month depending on experience.

Interested candidates should forward their covering letter and resume to both:

Pierre Lane, PhD  
plane@bccrc.ca

Anthony Lee, PhD  
alee@bccrc.ca

Integrative Oncology - Imaging Unit