Abstract:
Near-infrared spectroscopy (NIRS), sometimes called diffuse optical spectroscopy, uses wavelengths of ~650 nm to ~1100 nm to interrogate human tissue metabolism non-invasively. Originally introduced in 1977, NIRS instruments were originally very cumbersome and their uptake in research and, more importantly, health care settings was slow. The first and still the most common application of NIRS in health care is to monitor brain oxygenation in pre-term newborns. Over the past decade, NIRS instruments have become increasingly refined and increasingly portable, facilitating their applications in exercise physiology and/or field studies. I will describe how, in the Northern BC NIRS Lab, we have used both bench-top and portable NIRS devices to study respiratory health, brain function, and, most recently bone metabolism.