## School of Biomedical Engineering Research Day 2019

## DISTINGUISHED INDUSTRY LECTURE

May 3, 2019 – 1:00 pm Kenneth C. Rowe Management Building, Room 1020



## Jack Fairbank, PhD

Senior Product Development Engineer, Siemens Healthineers

## "Point-of-Care and Near-Patient Tests – Engineering Challenges in Bringing Handheld Diagnostic Devices to Market"

**Biography:** Dr. Fairbank's main interest is in developing rapid medical diagnostic devices. He currently works in Ottawa for Siemens Healthineers on their epoc<sup>™</sup> Blood Analysis System, doing technical development on both the consumable assay and the hand-held analyser. From a few drops of blood, this system measures the concentration of blood gases, electrolytes, and metabolites within one minute, helping doctors make rapid decisions in acute care settings. Previously, Dr. Fairbank worked in Oxford, UK, for Alere (now Abbott Diagnostics). There he helped develop a hand-held electronic system, called the DDS2, that detects a series of drugs in a saliva sample. The DDS2 is now in use by police forces around the world for roadside driver-impairment testing. Dr. Fairbank trained in engineering physics at McMaster University; respiratory biophysics at Dalhousie University, Harvard University, and McGill University; and business strategy at Oxford University.