Postdoctoral Fellow – Super-Resolution Optics

The Backman Lab at Northwestern University is a pioneer in the development of novel super-resolution imaging and nano-sensing techniques, and currently has an opening for a postdoctoral fellow in super-resolution optics. Candidates must have a Ph.D. in biomedical engineering, electrical engineering, medical physics, or a related field. Successful candidates are expected to possess excellent written and oral communication skills in English, a good publication record in peer-reviewed journals, and to be highly motivated with demonstrable experience in modern optics.

The position is focused on super-resolution microscopy and single molecule localization techniques. Candidates must have experience in optical microscopy development, design and use; strong preference will be given to candidates with postdoctoral training and/or experience in the fields of super-resolution microscopy (especially single-molecule localization techniques), spectral microscopy and/or other nanoscale imaging techniques. Experience with immuno-fluorescence and cell preparation is desired.

The second position is focused on developing endoscopic optical coherence tomography (OCT) technologies to quantitatively study changes to microvascular function and tissue nanoscale organization in response to disease progression. Candidates must have experience in optical imaging device development, fiber optics, spectroscopy, and Matlab or Python. Strong preference will be given to candidates with postdoctoral training and/or experience with optical coherence tomography, endoscopic imaging, broadband light sources, fiber optic splicing, machine learning techniques, and modeling of optical systems (Zemax). Demonstrated creativity through patents and novel high impact publications is a plus.

Successful candidates will work under the direction of Dr. Vadim Backman, Walter Dill Scott Professor of Biomedical Engineering, Professor of Medicine (Oncology) and Molecular Genetics, and Director of the Center for Physical Genomics and Engineering at Northwestern University.

Outstanding candidates interested in this opportunity are encouraged to send a CV to Benjamin Keane at:

b-keane@northwestern.edu