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Graduate Student Research Positions in Biomedical Imaging

In the Department of Biomedical Engineering and Neuroscience Institute at Wright State University, we focus on noninvasive optical imaging of the brain function and cancer at preclinical and clinical settings. We are looking for candidates (full-time/part-time) to take an active part in optical imaging for optical neuroimaging (e.g. autism diagnosis), and cancer diagnosis (e.g. oral, ovarian, skin cancers). The position offers a stimulating work environment integrating engineering and physics with medicine, neuroscience and biology. The candidate will have a unique opportunity in both basic lab and translational research by collaborating with scientists and clinicians located in close proximity. The lab is located at the heart of the Neuroscience Engineering Collaboration building, which houses the Wright State University & Premier Health Neuroscience Institute, a University System of Ohio Center of Excellence, where engineers collaborate with medical researchers and clinicians to improve diagnosis and treatment of neurological disorders and cancer. For the details: BioMedical Imaging Lab: <http://biomil.org>
<https://medicine.wright.edu/neuroscience-institute/neuroscience-engineering-collaboration-building>

Our Sample Publications:

Functional brain Imaging: <http://onlinelibrary.wiley.com/doi/10.1002/jbio.201700165/abstract>
<https://www.osapublishing.org/boe/abstract.cfm?uri=boe-7-10-3871>

Cancer Imaging: Nature Scientific Reports: <https://www.nature.com/articles/s41598-017-15790-y>
<https://www.osapublishing.org/boe/abstract.cfm?uri=boe-8-6-3045>

Qualifications: The qualified candidates should be highly motivated and enthusiastic, with interests in optical imaging and biophotonics. Strong background in one of the following fields is needed: Biomedical Engineering, Electrical Engineering, Computer Science, Physics, Optical Engineering or related fields. At least one of the skills below is preferred.

- Experience in (tissue) optics, biomedical optics.
- Experience in functional near infrared spectroscopy, diffuse reflectance spectroscopy, diffuse correlation spectroscopy, speckle imaging, diffuse optical tomography, endoscopy, microscopy.
- Experience with FPGA, correlator board, photon counter and timer board.
- Experience with NI LabView, hardware/instrumentation development, hardware control and signal acquisition using for example NI DAQ card.
- Experience in optical, opto-mechanical, electro-optic systems, CCD cameras, LEDs, lasers, structured light illumination, spatial light modulators (DMD), digital light projection (DLP).
- Strong programming skills with Matlab, signal/image processing.

To Apply: Please email your CV and cover letter describing your background to:
Ulas Sunar, PhD

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