



THE UNIVERSITY OF ARIZONA
COLLEGE OF ENGINEERING

Biomedical Engineering

DEPARTMENT OF BIOMEDICAL ENGINEERING SEMINAR SERIES

PRESENTS

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“Low cost fluorescence anisotropy FRET imaging for live cell study”

ABSTRACT: Förster (or Fluorescence) Resonance Energy Transfer (FRET) is a unique phenomenon that occurs when two (or more) fluorophores interacting and produces a fluorescence signal. This provides an opportunity to observe close molecular interactions on the order of 1-10nm. We previously studied FRET with our multi-label Fluorescence Lifetime Imaging (FLIM) system. Here we present a low-cost FRET imaging system using fluorescence emissions anisotropy for live cell imaging. The system is based on a commercial epi-fluorescence microscope. A polarization-sensitive monochromatic CMOS camera is added onto the microscope to provide low-cost anisotropy imaging capability. Preliminary data shows anisotropy images are indicative of FRET. This approach will provide a low cost and versatile solution for FRET imaging of live cells, and make FRET more accessible for biological research.

Please join us on

Monday, February 24th, 2020

12:00-12:50 pm, Keating Bldg., Room 103

Refreshments will be available at 11:50 am

Hosts: Drs. DK Kang and Minkyu Kim

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