

PHYSICS DEPARTMENT COLLOQUIUM

“Biomedical Optics in Living Human Tissue”

BY

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Our group is developing non-invasive optical methods for the detection of biomedically interesting molecules in the human retina and in skin. Using resonance Raman spectroscopy as well as suitable fluorescence and reflection schemes, we detect tissue levels of antioxidants, age-related fluorophores, and therapeutic drugs *in-vivo*. The optical methods are useful as rapid screening tools in clinical and field studies involving large populations, and therefore may provide valuable insight into the development and potential prevention of oxidative-stress related diseases such as age-related macular degeneration. In this talk, I will discuss tissue-optical detection principles, their strengths and limitations, and the current status of applications.

THURSDAY, APRIL 2, 2009
4:00 PM IN 102 JFB
REFRESHMENTS AT 3:30 PM IN 219 JFB