

# REU

May 28 - August 3, 2012

# Sensing and Signaling Research Experience for Undergrads

## Research Topics Include:

**“Sensing and Signaling in the Six-Protein ‘Brain’ of Bacteria”**

-Dr. Gladys Alexandre

**“Biosensors for Cellular Signaling Events Based on Real-time in vivo Luminescence Imaging”**

-Dr. Albrecht von Arnim

**“Ethylene Signaling, What a Gas!”**

-Dr. Brad M. Binder

**“Recognition by the TOC Translocon by Phosphorylation”**

-Dr. Barry Bruce

**“Molecular Basis for the Regulation of Genes Development and Metabolism”**

-Dr. Elias Fernandez

**“Effects of Xenobiotics (foreign chemicals) on Gene Expression”**

-Dr. Ranjan Ganguly

**“Water and a Primitive Enzyme”**

-Dr. Elizabeth Howell

**“Are Chromatin Insulators epigenetic landmarks of the Genome Architecture?”**

-Dr. Mariano Labrador

**“Keeping Nano-scale Motors under Control”**

-Dr. Andreas Nebenführ

**“Neuropeptides in Stress and Alcohol-related Behavior”**

-Dr. Jae Park

**“Disorder, Disorder in the Court!”**

-Dr. Cynthia B. Peterson

**“Signaling by Receptor Kinases”**

-Dr. Elena Shpak

**“Waging War on Antibiotic Resistance”**

-Dr. Engin Serpersu

**“ssDNA Damage Response: Assemble the Checkpoint Assembly”**

-Dr. Tongye Shen

## Program Information

The aim of this program is to provide research experiences for undergraduate students majoring in the sciences with an introduction to cutting edge research in the broad area of “Sensing and Signaling”. The team of REU investigators represents a multidisciplinary ensemble of Cell Biologists, Geneticists, Biochemists, and Biophysicists who are taking modern approaches to the analysis of how signals are perceived and transduced in myriad biological systems.

## Application Information

This opportunity is available to Sophomore and Junior undergraduate science majors with a preference given to Juniors. REU Fellowships will be awarded to qualified students on a competitive basis. Each Fellowship will include a \$5,000 stipend as well as an allowance for cost of living, travel, and research supplies. To be considered, applicants should complete the online application form available at the link below, and should arrange to have two letters of recommendation and a college transcript sent to:

The University of Tennessee  
BCMB Department  
Dr. Cynthia Peterson  
M407 Walters Life Sciences  
Knoxville, TN 37996-0840

Please visit the link below to complete the online application:

<http://web.bio.utk.edu/bcmb/reu/index.shtml>

**Applications will be reviewed as they are received but should be completed and submitted by Monday, March 30, 2012**

**BCMB**  
Biochemistry, Cellular, and Molecular Biology

THE UNIVERSITY of  
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