

## REU 2010 – Project List

Faculty Mentor	Project Title
Paul Adams	Biophysical Characterization of Proteins Associated with Signal Transduction
Neil Allison	Synthesis and Chemistry of Potential Organometallic Anticancer Drugs
Dan Davis	Protein-Protein Interactions in Photosynthesis: Structure-Function Relationships in Electron Transfer Proteins
Ingrid Fritsch	Microelectrochemical detection and microfluidics for lab-on-a-chip applications: protein, DNA, and microorganism analysis
Denise Greathouse	Characterization of structure and peptide-lipid interactions of membrane active antimicrobial peptides
Bob Gawley	Synthetic and mechanistic organ(ometal)lic chemistry; or Chemosensors for detection of marine toxins
Colin Heyes	Development of Nanocrystals for Biophysical Applications
Roger Koeppel	Biophysical Studies of Single-Span Transmembrane Proteins and Membrane Channel Gating
T.K.S. Kumar	Structure, dynamics, folding and interactions of proteins
Matt McIntosh	Total Synthesis of Biomedically Significant Complex Natural Products
Frank Millett	Biological Electron Transfer
David Paul	Development of Chemical Sensors for Clinical and Environmental Applications
Peter Pulay	Ab initio Calculation of the Vibrational and NMR Spectra of Protein Models
Joshua Sakon	Structure and function of drug-targets
Derek Sears	For an expanded REU program in Space Science visit: <a href="http://spacecenter.uark.edu/97.htm">http://spacecenter.uark.edu/97.htm</a>
Julie Stenken	Measurement of Chemical Communication (Signaling) molecules, e.g., cytokines, neuropeptides, etc, Biosensors, or In Vivo Chemical Analysis
Wes Stites	Exploring the influence of the denatured state upon protein stability, or Isolation, characterization, and impact upon blood clotting of human thrombomodulin in disease.
Z. Ryan Tian	Syntheses and applications of ordered and complex nanostructures
Charles Wilkins	Matrix-assisted Laser Desorption Fourier Transform Mass Spectrometry for Whole-Cell Bacteria and Polymer Analysis
Nan Zheng	Natural product synthesis, method development, and organometallics