



## DEPARTMENT FACULTY RESEARCH INTERESTS

### **Dr. Brian Bohrer (Ph.D. Analytical Chemistry, Indiana University)**

Environmental analysis of water samples aiming to detect the presence of agricultural and pharmaceutical pollutants using chromatography and mass spectrometry instrumentation

### **Dr. Shelly Blunt (Ph.D. Organic Chemistry, University of Iowa)**

Synthesis of quinoline alkaloids as breast cancer target agents and nucleosides as HIV/AIDS target agents and asymmetric epoxidations to form chiral drug targets

### **Dr. Jeannie Collins (Ph.D. Biochemistry, University of Southern Mississippi)**

Cytoskeletal proteins involved in motility, structural support, organelle transport and intracellular communication, DNA replication of both slime molds and plants

### **Dr. Priya Hewavitharange (Ph.D. Photochemical Sciences, Bowling Green State University)**

Synthesis of fluorescent molecules for biological applications such as photodynamic therapy for the treatment of cancer

### **Dr. Mark Krahlung (Ph.D. Analytical Chemistry, University of Wisconsin-Madison)**

Elemental analysis using atomic spectroscopy, solid phase extraction & gas chromatography-mass spectrometry, and electrospray ionization mass spectrometry

### **Dr. Jacob Lutter (Ph.D. Inorganic Chemistry, University of Michigan)**

Synthesis of metallacrowns that sensitize emission from trivalent lanthanide ion guests introduced into the macrocyclic core as potential imaging agents, energy upconvertors, and other applications

### **Dr. Evan Millam (Ph.D. Physical Chemistry, University of Minnesota)**

Electronic spectroscopy, ab initio computational chemistry, first principles determination of vibrationally resolved molecular electronic spectra, transition state calculations, calorimetry

### **Dr. Ken Walsh (Ph.D. Organic Chemistry, University of Bristol)**

Synthesis of carbohydrates and analogs, organocatalysis and organic synthesis, adaption of modern synthetic techniques for the teaching laboratory