



**University of Miami**  
**Institute for Theoretical and Mathematical Ecology**  
**in cooperation with the**  
**Department of Mathematics**  
*College of Arts and Sciences*

**Colloquium**

# **Professor Qing Nie**

Center for Mathematical and Computational Biology  
Department of Mathematics  
Department of Biomedical Engineering  
University of California, Irvine

*will present*

**“Systems Biology of Cell Signaling”**

**Friday, April 24, 2009**  
**4:30 - 5:30 pm, Ungar UB 402**

Refreshments served at 4:00 p.m. in UB 521

## **Abstract**

The proper growth, development, and survival of an organism require extensive and accurate communication among the cells of the organism. Hence, cells sense and react to a wide variety of stimuli, which convey information such as nutrients, harmful insults, and the state of neighboring cells. Using a systems biology approach that integrates modeling and experimentation, we study two cell signaling systems: 1) robust sensing and signal transduction during mating of yeast cells, and 2) proliferative control of cell lineages in mammalian olfactory epithelium.