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.