

2011 Undergraduate Conference SCHEDULE

Friday, October 21: Conference Room 413BC

1:30-1:40 Welcome: Lou Gross, Director of NIMBioS

1:40-2:40 Plenary Speaker: Carl Panetta

2:45-3:30 Networking Activity and Snack Break

3:35-3:45 NIMBioS Outreach: Kelly Sturner

3:45-4:30 Featured Speaker: John Jungck

4:40-4:55 Aurrielle Eberhardy, Moksha Shah, Daniel Monge: Modeling the Effects of Quagga Mussels on Cladophora Growth in near-shore Lake Michigan

5:00-5:15 Jordan Angel: Game theoretical analysis of vaccination coverage in voluntary vaccination populations with epidemic modeling

5:20-6:20 Career Panel (Moderator: Suzanne Lenhart, Mathematics, UTK)

Mitchell H. Goldman, Medicine, UTK

Michele Lynn Joyner, Mathematics, ETSU

Cynthia Peterson, Biochemistry, UTK

6:30-7:30 Buffet Dinner in 404AB

7:00 Turn in SET game sheets to Sturner or Lenhart at dinner

7:30-8:30 Poster Session I: Odd numbered posters presented (and desserts)

Saturday Morning, October 22: Rooms Auditorium 406 and 400A

8:00 Breakfast

8:00-8:30 Faculty Networking in 400A (faculty only invited, optional)

8:40-8:55

406: Christopher Biwer, Morgan Schroeder, Anne Bruckner, and Daniel Uphoff:
Dynamics of Bacterial Contamination on an Urban Beach at Lake Michigan

400A: James Brunner, Emily Hendryx, Andrew Reagan, Paul Vines: A Logical Model
Approach to Iron Metabolism in Breast Epithelial Cells

9:00-9:15

406: Yang Yang and Tiffany Blankenship: Statistical Tracking of Fast Movements of
Organelles

400A: Canaan Coppola: Quantifying Parameters for a Mathematical Model on the
Interaction of Matrix Metalloproteinases and Their Inhibitors in a Wound

9:25-10:10 Graduate School Showcase in 400A

10:20-10:35

406: Ian DeTuncq, Sehar Fatima and Kolin Konjura: Effects of River Input and
Hydrodynamics on Near-Shore Silicate Dynamics in Lake Michigan

400A: Jim Kotary: A Hybrid Radial Basis Function Method for Numerical Solutions of
Vascular Flow

10:40-10:55

406: Samuel Pimentel: Phylo-RLQ: a three-table ordination method for microbial
community data

400A: Cecilia Noecker, Krista Schaefer and Kelly Zaccheo: Theory of Early SIV
Infection

11:00-12:00: Poster Session II: Even numbered posters presented

12:05-1:05 Lunch

Saturday Afternoon: Rooms Auditorium 406 and 400A

1:10-1:25

406: Rojin Chitrakar and Shreejaya Shrestha: The Effect of Borneol on the Germination and Growth of the fungus *Beauveria bassiana*

400A: Alyson Fox & Jared Catenacci: Spatial Spread of *Wolbachia*: An Attempt to Control Dengue Fever

1:30-1:45

406: Alison Feder: The likelihood ratio statistic is overly liberal for detecting natural selection in genetic time series

400A: Lindsay Lee: Modeling feral cat population dynamics in Knox County, TN.

1:50-2:05

406: Dana Botesteanu, Frances Goglio and Yicong Yong: How does the effort a mother bird expends on her offspring depend on the attractiveness of her mate?

400A: Caleb Shimberg: Analysis of Influenza-Like Illness Outbreaks at ETSU

2:10-2:25

406: Sepideh Khavari: Mathematical Modeling and Analysis of Time-to-Peak Response in Biological Systems

400A: Jessica Holt Lunsford: Prevalence of Infection in Seasonally Forced Compartmental Models

2:30-2:50: Break and Snacks

3:00-3:15

406: Steven Minich & Amanda Sherman: Life-history traits and human risk-taking behavior.

400A: Sharon Cameron: Prisoner's Dilemma Implementation on Watts-Strogatz Networks and Real Networks

3:20-3:35

406: Amanda Sherman & Steven Minich: The influence of past and present living environments on human risk-taking propensity.

400A: Jeffrey Moulton: SPASM: Stochastic Particle Approach to Simulating Morphogenesis

3:40-3:50

406: Closing Remarks

3:50 Adjourn