# **Evolution Workshop EEID 2009 May 17-20, 2009**

Rm. 372 Miller Learning Center, University of Georgia

#### **Instructors:**

Colleen Webb, Colorado State, ctwebb@lamar.colostate.edu, Roman Biek, University of Glasgow, r.biek@bio.gla.ac.uk Mike Antolin, Colorado State michael.antolin@colostate.edu

### Sunday, May 17

| 8:30 AM         | Roll Call and Introduction (Rm. 350 Miller Learning Center)  |
|-----------------|--|
| 9:00 -10 AM     | R-tutorial Sections 1-4. (Rm. 372 Miller Learning Center)  |
| 10 AM – 12 Noon | R tutorial sections 4 (Vectors), 5 (Generating Random Numbers), 6 (The Matrix), 7 (the Loop), 9 (Functions), 10 (ODEs) |
| 12:00 – 1:00 PM | Lunch (provided)   |
| 1:00 – 1:30 PM  | Overview of Evolution Workshop   |
| 1:30 – 2:00 PM  | Student Groups: Projects and data sets   |
| 2:00 - 3:00 PM  | Data types, sequence alignments (Mike)   |
| 3:00 PM         | Break  |
| 3:15 – 5:00 PM  | Projects: formatting data and formulating hypotheses (finish up R-tutorial)  |

# Monday, May 18

8:30 AM – 12 Noon Modeling Adaptive Processes in Pathogens (Colleen)

**12:00 – 1:00 PM** Lunch (provided)

1:00 – 2:00 PM Student Group Initial Presentations

• Propose possible questions/analyses

# 2:00 – 5:00 PM Population Genetic Analyses of Pathogens (Mike)

- Population genetic structure of pathogens
- Using assignment probabilities for pathogen data

Tuesday, May 19

8:30 AM – 12:00 Estimating and interpreting phylogenies, ancestral states and

coalescent models (Roman)

**12:00 – 1:00 PM Lunch (provided)** 

**1:00PM – 5:00 PM** Student Groups

• Work, work, work.

Wednesday, May 20

**8:30 – 3:00 PM Student Groups** 

• Work, work, work.

**12:00 – 1:00 PM** Lunch (provided)

3:00 – 5:00 PM Student Presentations

• 10 minutes per group to present results at the end