Sarah Collier, University of Dayton, Dayton, OH and NIMBioS: National Institute for Mathematical and Biological Synthesis, Knoxville, TN, USA

Faryal Khan, North Carolina State University, Raleigh, NC and NIMBioS, Knoxville, TN, USA

Olatomiwa Lasebikan, Fisk University, Nashville, TN and NIMBioS, Knoxville, TN, USA

Heather Finotti, Department of Mathematics, University of Tennessee and NIMBioS, Knoxville, TN, USA

R. Tucker Gilman, NIMBioS, Knoxville, TN, USA

Modeling the evolution of sexual imprinting

Sexual imprinting is a process by which an individual's mate preference is learned through interaction with the environment. Young individuals that imprint on parents, siblings, or neighbors will look for similar traits in potential mates. Learned mate preferences are believed to play an important role in speciation, but how imprinting strategies evolve is only partly understood. We will use novel mathematical models to ask how imprinting strategies evolve, and how evolved strategies are likely to differ between males and females.

**This is an Undergraduate Poster