

Rapid Evolution & Sustainability

October 7-11, 2013

Although evolution is often thought of as a slow process that proceeds on the time scale of millennia, in fact there are many very rapid evolutionary processes, often called contemporary evolution, that have profound effects on human health and welfare. For example: (1) In agriculture, plants and pests can rapidly evolve resistance to herbicides and pesticides, respectively; (2) The influenza virus, and other viruses and bacteria, often evolve within an individual host making treatment strategies difficult and/or temporary; (3) The evolution of bacteria to become resistant to most antibiotics poses a serious threat to mankind; (4) Some parasites, for example African trypanosomes, can change the proteins that they express on their surfaces and thus can become invisible to the immune system; and (5) Harvested populations may show rapid evolution in size or age at maturity, which affects both yield and recovery from depleted states.

Organizers Jim Cushing, Katia Koelle, Patrick De Leenheer & Stephan Munch

Speakers

- Marissa Baskett, UC Davis
- Michael Cortez, Georgia Tech
- Troy Day, Queens University
- Ulf Dieckmann, International Institute for Applied Systems Analysis
- Odo Dieckmann, Utrecht University
- Wandu Ding, Middle Tennessee State University
- Meghan Duffy, University of Michigan
- Regis Ferriere, Arizona State University
- Gregor Fussmann, McGill University
- Stephen Giovannoni, Oregon State
- Mikko Heino, University of Bergen
- Emily Jones, Washington State University
- Petra Klepac, MIT
- Suzanne Lenhart, University of Tennessee, Knoxville
- Jeff Morris, Michigan State University
- Mike Neubert, Woods Hole Oceanographic Institution
- Nina Overgaard Therkildsen, Stanford University
- Sebastian Schreiber, UC Davis
- Casey terHorst, Michigan State University

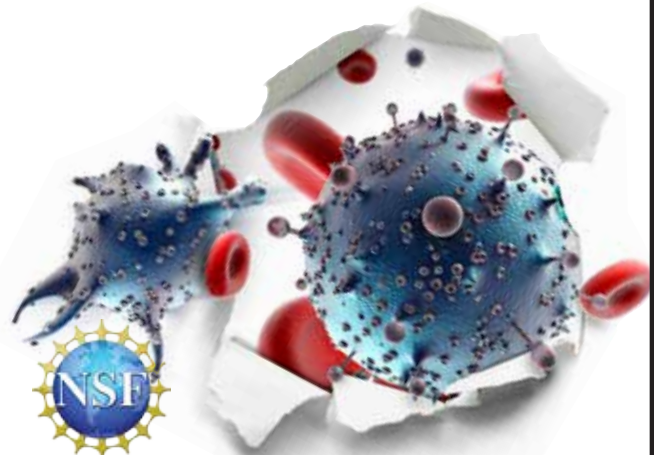
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