Traditionally distinct scientific disciplines are merging to create new opportunities. Share the excitement and challenge through seminars and discussions with nationally recognized pioneers in science at the edge.

Spring Semester 2013
Seminars are on Fridays at 11:30 a.m. with refreshments served at 11:15 a.m.
1400 Biomedical and Physical Sciences Building (unless noted otherwise)

January 11 - Quantitative Biology/Gene Expression in Development & Disease Seminar
David A. Liberles, Department of Molecular Biology, University of Wyoming
Computational Approaches for Linking Comparative Genomics to Biochemistry and Evolution

January 18 - Interdisciplinary Physics Seminar
Mikhail Zamkov, Department of Physics and Astronomy, Bowling Green State University
Engineering of Semiconductor Nanocrystals and Nanocrystal Solids for Renewable Energy Applications

January 25 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Mingyao Li, Department of Biostatistics & Epidemiology, University of Pennsylvania School of Medicine
Translational Genomics Study in Evoked Human Inflammation

February 1 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Wolf Frommer, Department of Biology, Carnegie Institute for Science
In Vivo Biochemistry with the Help of Genetically Encoded Sensors

February 8 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Ethan White, Quantitative Ecology and Macroecology, Utah State University
Testing a General Theory of Macroecology Using Big Data

February 15 – Engineering Seminar
Norm Wagner, Department of Chemical Engineering, University of Delaware
Shear Thickening Fluids and Their Applications

February 22 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Nathan Springer, College of Biological Sciences, University of Minnesota
Contribution of Genetic and Epigenetic Variation to Diversity in Maize

March 1 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Mauro Maggioni, Department of Mathematics, Duke University
Multiscale Geometric Methods for Data in High Dimensions

March 15 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Oleg Igoshin, Department of Bioengineering, Rice University
System Dynamics of Bacterial Gene Regulatory Networks that Control Development

March 22 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Ethan Perelstein, Lewis-Sigler Institute for Integrative Genomics, Princeton University
Do Yeast Get Depressed? Tales of an Evolutionary Pharmacologist

March 29 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Matthew Rockman, Department of Biology and Center for Genomics and Systems Biology, New York University
Genetic Consequences of Mating-system Evolution in C. Elegans

April 5 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Qiang Cui, Department of Chemistry, University of Wisconsin-Madison
Multi-scale Simulation of Processes in Membrane Proteins and Biomembranes: Methods and Application

April 12 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Jack Gilbert, Department of Ecology and Evolution, University of Chicago
The Earth, Home and Hospital Microbiome Projects: Characterizing the Microbial World!

April 19 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Ian Korf, Genome Center, University of California-Davis
Genomics and Bioinformatics to the Rescue: Solving Complex Problems with Simple Models and Loads of Data

April 26 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Stephanie Hampton, National Center for Ecological Analysis and Synthesis, University of California-Santa Barbara
Deciphering Sixty Years of Environmental Data to Understand Recent Change in the World’s Largest Lake - Lake Baikal, Siberia

May 3 – Engineering Seminar
Mark Thompson, Department of Chemistry, University of Southern California
Exciton Management in Organic Solar Cells

May 10 - Interdisciplinary Physics Seminar
Michelle Johannes, Center for Computational Materials Science, Naval Research Laboratory
Using Computational Methodologies to Understand Energy Storage Materials

Organizers
Ruby Chosh (ghosh@ps.msu.edu), Interdisciplinary Physics
Tim Whitehead (taw@msu.edu) & Richard Lunt (rjltnt@egr.msu.edu), Engineering
C. Titus Brown (ctb@msu.edu) & David Arnosti (arnosti@msu.edu), Quantitative Biology/Gene Expression in Development & Disease