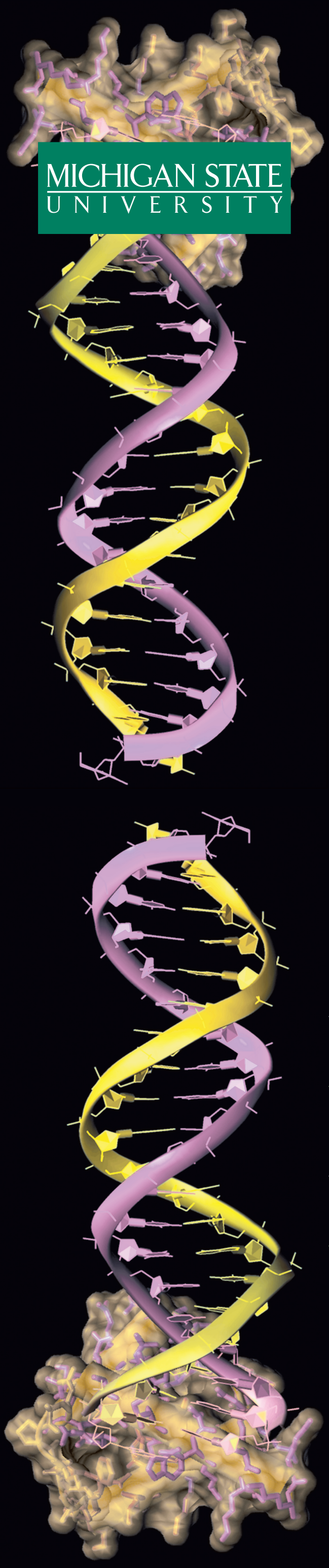

MICHIGAN STATE UNIVERSITY

SCIENCE *at the Edge*

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 2009

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 16 – Engineering Seminar
Frederick Pinkerton, Materials and Processes Lab, General Motors Research & Development Center
New Compounds, New Chemistries, and Nanoconfinement: Advances in Complex Hydrides for Storing Hydrogen

January 23 – Engineering Seminar
Shelley Minteer, Department of Chemistry, Saint Louis University, St. Louis, MO
Enzyme Immobilization for Bioelectrocatalysis

January 30 - Interdisciplinary Physics Seminar
Ernst-Ludwig Florin, Center for Nonlinear Dynamics and Dept. of Physics, University of Texas at Austin

February 6 - Quantitative Biology/Gene Expression in Development and Disease Seminar
Mark Richter, Department of Molecular Biosciences, University of Kansas
Regulation of Rotational Catalysis by the Chloroplast ATP Synthase

February 13 - Interdisciplinary Physics Seminar
William Dorland, Department of Physics, University of Maryland
Turbulence in 5 Dimension

February 20 - Interdisciplinary Physics Seminar
Yann Chemia, Department of Physics, University of Illinois at Urbana-Champaign
Viral DNA Packaging One Step at a Time

February 27 - Quantitative Biology/Gene Expression in Development and Disease Seminar
William Heller, Center for Structural Molecular Biology and Chemical Sciences, Oak Ridge Nat'l Laboratory
Small-angle X-ray and Neutron Scattering for Biological Systems. Recent efforts at ORNL

March 6 - Interdisciplinary Physics Seminar
Stanislav Molchanov, Department of Mathematics, University of North Carolina at Chapel Hill
Probabilstic Problems Related to the CLRST (Cwikel - Lieb - Rozenblum - Solomyak - Tirring) Inequalities

March 27 – Engineering Seminar
Paul Lett, Joint Quantum Institute, National Institute of Standards & Technology, University of Maryland
Phase Space Dynamics in a Spinor Bose-Einstein Condensate

April 3 – Engineering Seminar
Christina Smolke, Department of Chemical Engineering, California Institute of Technology
Engineering Molecular Information Processing Devices to Program Cellular Behavior

April 10 - Quantitative Biology/Gene Expression in Development and Disease Seminar
David Dubnau, Public Health Research Institute Center, Univ. of Medicine and Dentistry of New Jersey
Noise and Bimodality in Bacterial Development: A Switch and a Rheostat

April 17 – Engineering Seminar
Robert Brown, Department of Mechanical Engineering, Iowa State University
Thermochemical Technologies for the Production of Biofuels

April 24 - Quantitative Biology/Gene Expression in Development and Disease Seminar
Joan-Emma Shea, Department of Chemistry and Biochemistry, University of California at Santa Barbara
Simulations of Protein Aggregation into Amyloid Fibrils

May 1 - Interdisciplinary Physics Seminar
Kevin Plaxco, Department of Chemistry and Biochemistry, University of California at Santa Barbara
Better Living through Biosensors

June 5 - Quantitative Biology/Gene Expression in Development and Disease Seminar
Eileen Furlong, European Molecular Biology Laboratory, Heidelberg, Germany
A Genomics View of Gene Regulatory Networks

Organizers
Lisa Lapidus (lapidus@pa.msu.edu) & Jeffrey Schenker (jeffrey@math.msu.edu), Interdisciplinary Physics
Christina Chan (krischan@egr.msu.edu), Engineering
David Arnosti (arnosti@msu.edu) & David Weliky (weliky@chemistry.msu.edu), Quantitative Biology/Gene Expression in Development & Disease