

DOE EPSCoR ANNUAL PROGRAM REVIEW AND WORKSHOP 2008
U.S. Department of Energy
Experimental Program to Stimulate Competitive Research (DOE-EPSCoR)

Hosted by Oak Ridge National Laboratory

Oak Ridge, Tennessee
July 22-24, 2008

AGENDA

Tuesday, July 22, 2008

American Museum of Science and Energy

- 5:00 – 6:00 p.m. Early Registration
(Bus will pick up at hotels at 5:00 p.m.)
- 6:00 – 8:00 p.m. *Opening Session*
Introductions, Announcements, and Keynote Address
Light food and cash bar (6:00 – 7:00 p.m.)
- 7:00 – 8:00 p.m. *Keynote Speaker – Isiah M. Warner*, Vice Chancellor, Office of Strategic Initiatives and Boyd Professor and Philip W. West Professor of Analytical and Environmental Chemistry, Louisiana State University, Baton Rouge, Louisiana
- 8:00 p.m. Buses depart for hotels

Wednesday, July 23, 2008

- 7:15 a.m. Bus transportation from hotels to Tennessee Conference Center, ORNL

Oak Ridge National Laboratory

- 7:30 - 8:30 a.m. Registration, Continental Breakfast, and Poster Set Up

Session I **Energy Challenges and Opportunities**
Co-Chairs: Jim Roberto, ORNL and Tim Fitzsimmons, DOE

- 8:30 – 8:50 a.m. *Welcome and Introductory Remarks – Jim Roberto*, Deputy Director for Science and Technology, Oak Ridge National Laboratory (ORNL); **Tim Fitzsimmons**, Program Manager, U.S. Department of Energy EPSCoR Office

Wednesday, July 23, 2008 (continued)

- 8:50 – 9:15 a.m. *Directing Matter and Energy: Five Challenges for Science and the Imagination* – **Teri W. Odom**, Associate Professor, Department of Chemistry, Northwestern University, Evanston, Illinois
- 9:15 – 9:40 a.m. *EPSCoR Community Potential Contributions to Energy Research* – **William Gern**, Vice President, Office of Research & Economic Development, University of Wyoming, Laramie, Wyoming
- 9:40 – 10:05 a.m. *Energy Frontiers Research Centers (EFRCs) & Single Investigator and Small Group Research (SISGR) Opportunities* – **Andrew Schwartz**, Program Manager, Experimental Condensed Matter Physics Research Activity, Materials Sciences and Engineering Division, Office of Basic Energy Sciences, U.S. Department of Energy, Washington, DC
- 10:05 – 10:15 a.m. Discussion – Q & A
- 10:15 – 10:30 a.m. Break
- 10:30 – 10:55 a.m. *DOE Technology Programs at ORNL* – **Ken Tobin**, Director, Measurement Science and Systems Engineering Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee
- 10:55 – 11:20 a.m. *ORNL Science Programs* – **Jim Roberto**, ORNL
- 11:20 – 11:45 a.m. Lunch (Boxed)
- 11:45 – 12:15 p.m. *Luncheon Speaker I: Research Opportunities in Extreme Environments* – **Peter Tortorelli**, Acting Manager, Basic Energy Sciences Program, Materials Science and Technology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee
- 12:15 – 12:45 pm *Luncheon Speaker II: Advanced Nuclear Energy Systems* – **David Hill**, Deputy Laboratory Director – Science and Technology, Idaho National Laboratory, Idaho Falls, Idaho
- 12:45 – 1:10 p.m. Break
- Session II** **Synchrotron Based Research**
Chair: Zhiqiang Mao, Associate Professor, Department of Physics, Tulane University, New Orleans, Louisiana
- 1:10 – 1:35 p.m. *New Opportunities in Ultrafast X-ray Science* – **Aaron M. Lindenberg**, Assistant Professor, Materials Science and Engineering, Stanford University and Photon Science, Stanford Linear Accelerator Center, Stanford, California

Wednesday, July 23, 2008 (continued)

1:35 – 2:00 p.m. *Detailed Investigations of Interactions Between Ionizing Radiation and Neutral Gases* – **Allen Landers**, Assistant Professor, Department of Physics, Auburn University, Auburn, Alabama

2:00 – 2:15 p.m. Break

Session III

Neutron Scattering Research

Chair: Takeshi Egami, Professor, University of Tennessee, Knoxville, Tennessee

2:15 – 2:40 p.m. *Neutron Scattering, Comic Strips, and Video Games* – **Roger Pynn**, Professor, Department of Physics, Indiana University, Bloomington, Indiana

2:40 – 3:05 p.m. *Neutrons – A Tool for Scientific Research* – **Dean Myles**, Director, Neutron Scattering Science Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee

3:05 – 3:30 p.m. *Adventures in Neutron Magnetometry of Magnetic Multilayers* – **David Lederman**, Professor, Department of Physics, West Virginia University, Morgantown, West Virginia

3:30 – 3:45 p.m. Break

Session IV

ORNL Facility Tours

3:45 – 5:30 p.m. Concurrent Tours
A. Center for Nanophase Materials Sciences and Spallation Neutron Source
B. National Center for Computational Sciences
C. High Temperature Materials Laboratory and Shared Research Equipment User Facility
D. High Flux Isotope Reactor
E. BioEnergy Science Center

Session V

Posters and Networking

5:30 – 7:30 p.m. Poster Session, Tennessee Conference Center Lobby, Working dinner

7:30 p.m. Buses depart for hotels

Thursday, July 24, 2008

7:15 a.m. Buses from hotels to the ORNL Tennessee Conference Center

Oak Ridge National Laboratory

7:30 – 8:30 a.m. *Registration*
Continental Breakfast, Tennessee Conference Center Lobby
Poster Session, Tennessee Conference Center Lobby

Session VI

Bioenergy Research

Chair: Jonathan Mielenz, Manager, Oak Ridge National Laboratory
Biomass Program, Biosciences Division, Oak Ridge National
Laboratory

8:30 – 8:40 a.m. Welcoming remarks for Day II and for Session VI – A Brief Introduction to the DOE Biomass Program. **Tim Fitzsimmons** and **Jonathan Mielenz**

8:40 – 9:05 a.m. *Biofuels R&D: Process Options, Economics, Sustainability, and Pressing Issues* – **Mike Cleary**, Director, National Bioenergy Center, National Renewable Energy Laboratory, Golden, Colorado

9:05 – 9:30 a.m. *The Bioenergy Centers* – **Reinhold Mann**, Associate Laboratory Director, Biological and Environmental Sciences, Oak Ridge National Laboratory, Oak Ridge, Tennessee

9:30 – 9:55 a.m. *The Next Generation of Biofuels* – **Wayne Seames**, Associate Professor, Chemical Engineering Department, University of North Dakota, Grand Forks, North Dakota

9:55 – 10:20 a.m. *Making of a Forest Biorefinery - The Maine Difference* – **Hemant P. Pendse**, Professor, Chemical and Biological Engineering Department, University of Maine, Orono, Maine

10:20 – 10:30 a.m. Break

Session VII

Nanoscience and Nanotechnology

Chair: Mike Simpson, Group Leader, Center for Nanophase Materials Science, Oak Ridge National Laboratory, Oak Ridge, Tennessee

10:30 – 11:00 a.m. *DOE's Nanoscience Centers* – **Kathleen Carrado Gregar**, Manager, User and Outreach Programs, Center for Nanoscale Materials, Argonne National Laboratory, Argonne, Illinois

11:00 – 11:25 a.m. *Incorporation of Novel Nanostructured Materials into Solar Cells and Nanoelectronic Devices* – **Rene Rodriguez**, Professor, Department of Chemistry, Idaho State University, Pocatello, Idaho

Thursday, July 24, 2008 (continued)

11:25 – 11:50 p.m. *Materials and Architectures for Energy Conversion* – **Eric A. Grulke**, Professor, Department of Chemical and Materials Engineering and Associate Dean for Research and Graduate Studies, University of Kentucky, Lexington, Kentucky

11:50 – 12:20 p.m. Lunch (Boxed)

Session VIII Opportunities for Collaboration

Chair: Greg Snow, Associate Professor, University of Nebraska, Lincoln

12:20 – 1:50 p.m. Introductory Remarks, “Working with the National Laboratories,”
Panel – National Laboratory Presentations

Cynthia Jenks, Ames Laboratory

Chi-Chang Kao, Brookhaven National Laboratory

Kathleen Carrado Gregar and Harold Myron, Argonne National Laboratory

Mike Cleary, National Renewable Energy Laboratory

Kelly Sullivan, Pacific Northwest National Laboratory

Marie Garcia, Sandia National Laboratory

David Hill, Idaho National Laboratory

Blake Thompson, Oak Ridge National Laboratory

1:50 – 2:20 p.m. Questions and Discussion

2:20 – 2:30 p.m. Break

2:30 – 3:30 p.m. Break Out Sessions for Collaboration Discussions with National Laboratory and User Facility and Center Representatives

Cynthia Jenks, Ames Laboratory

Gretchen Cisco, Brookhaven National Laboratory (via speakerphone)

Kathleen Carrado Gregar and Harold Myron, Argonne National Laboratory

Mike Cleary, National Renewable Energy Laboratory

Kelly Sullivan, Pacific Northwest National Laboratory

Marie Garcia, Sandia National Laboratory

Jim Roberto, Oak Ridge National Laboratory

3:30 – 4:00 p.m. Summary and Closing Remarks, **Jim Roberto**, Oak Ridge National Laboratory, and **Tim Fitzsimmons**, U.S. Department of Energy

4:00 p.m. Buses depart for hotels

**DOE EPSCoR Program Directors Working Group
Satellite Meeting
Thursday, July 24, 2008**

Doubletree Hotel

5:00 p.m.	DOE EPSCoR Program Directors Working Group Meeting
~1hr	Working Dinner, Doubletree Hotel
1 hr	<i>Tentative</i> -- New Implementation Award Presentations, Principal Investigators of the pending new awards or their designees
½ hr	DOE EPSCoR News and Updates, Tim Fitzsimmons , DOE EPSCoR Program Manager
<1 hr	Program Director Discussion/Questions and Answers
~8:30 p.m.	Adjourn