University of Illinois Postdoctoral Research Symposium 2011

Beckman Institute, UIUC
January 20, 2011

Co-organizers: Susan Odom and Aaron Esser-Kahn
Sponsors: Beckman Institute, the Chancellor, the Vice Chancellor for Research, and the Graduate College

Register for the Postdoctoral Research Symposium»

PROGRAM

Registration and Coffee w/Pastries *8:30 – 9:00 AM*

8:30 – 9:00 Beckman Auditorium entrance and room 1005.

Opening Plenary Session *9:00 – 10:00 AM, Room 1005*

9:00 – 9:15 Welcome and Opening Remarks: Dr. Aaron Esser-Kahn
9:15 – 9:20 Opportunities and Plans at the Graduate School: Associate Dean Rebecca Bryant
9:15 – 10:00 Keynote Lecture: Prof. Paul V. Braun

Session I *10:00 – 10:45 AM, Beckman Auditorium, Chair: Dr. Aaron Esser-Kahn*

10:00 – 10:15 1.1 Dr. Jennifer Docktor
10:15 – 10:30 1.2 Dr. Hongmei Li
10:30 – 10:45 1.3 Dr. Luke Thompson
more info»

Break with coffee, tea, and cookies *10:45 – 11:15 AM, Room 1005*

Session II *11:15 – 12:15, Beckman Auditorium, Chair: Dr. Mark Losego*

11:15 – 11:30 2.1 Dr. Rui (Ray) Ma
11:30 – 11:45 2.2 Dr. Prabuddha Mukherjee
11:45 – 12:00 2.3 Dr. Y Zenmei Ohkubo
12:00 – 12:15 2.4 Dr. Sharlotte Kramer
more info»

Poster Session and Lunch *12:15 – 1:45 PM, Room 1005 and Atrium*

Please leave posters up for the reception.

Session III *1:45 – 2:45 PM, Beckman Auditorium, Chair: Dr. Katherine Curran*

1:45 – 2:00 3.1 Dr. Ashley Bennett
2:00 – 2:15 3.2 Dr. Aditi Das
2:15 – 2:30 3.3 Dr. Amnaya P. Awasthi
2:30 – 2:45 3.4 Dr. Koushik Ghosh

more info»

Break with coffee, tea, and cookies *2:45 – 3:13 PM, Room 1005*

Session IV *3:15 – 4:15, Beckman Auditorium, Chair: Dr. Susan Odom*

3:15 – 3:30 4.1 Dr. Mark Losego
3:30 – 3:45 4.2 Dr. Lisa Noelle Cooper
3:45 – 4:00 4.3 Dr. Taras Pogorelov
4:00 – 4:15 4.4 Dr. Nanshu Lu

more info»

Closing Remarks and Best Poster Award *4:15 – 4:30 PM, Beckman Auditorium*

Wine and Cheese Reception *4:30 – 5:30 PM, Beckman Atrium*

Browse posters at your leisure.

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ORAL PRESENTATIONS

Note: Speaker ready room is 1005

1.1 "Problem Categorization: Can Computer-based Feedback Impact Performance and Similarity Criteria?" Dr. Jennifer Docktor, Beckman Institute, docktor@illinois.edu

1.2 "RNAi studies in Honey Bee (Apis mellifera)." Dr. Hongmei Li, Department of Entomology, hmli@ad.uiuc.edu

1.3 "Polyelectrolyte Coating Provides a Facile Route to Suspend Gold Nanorods in Polar Organic Solvents and Hydrophobic Polymers." Dr. Luke Thompson, Department of Chemistry, lbthomps@illinois.edu

2.1 "Multiple fronts of Brain-Computer Interfaces Research." Dr. Rui (Ray) Ma, Department of Electrical and Computer Engineering, ruima2@illinois.edu

2.2 "SFG spectroscopy of Fuel Cells and Batteries." Dr. Prabuddha Mukherjee, Department of Chemistry, prabmukh@gmail.com

2.3 "Rapid and Spontaneous Binding of Membrane-anchoring Proteins Captured by Novel Membrane Model." Dr. Y Zenmei Ohkubo, Department of Biochemistry and Beckman Institute, zenmei@illinois.edu

2.4 "Characterization of Mechanochemically Active Linear Polymers." Dr. Sharlotte Kramer, Department of Materials Science and Engineering, Beckman Institute, sbkramer@illinois.edu

3.1. "Floral Diversity Increases Diversity and Decreases Variability in Beneficial Arthropod Assemblages." Dr. Ashley Bennett, Department of Crop Sciences, abennett@illinois.edu

3.2 "Elucidating Membrane Protein Mechanism using Phospholipid Bilayer Nanodiscs." Dr. Aditi Das, Beckman Institute and Department of Biochemistry, aditidas@illinois.edu

3.3 "Study of Wave Tailoring Features in Granular Media Using Molecular Dynamics." Dr. Amnaya P. Awasthi, Department of Aerospace Engineering, amnaya@illinois.edu

3.4 "Studies Towards a Foldamer Based Mechanophore." Dr. Koushik Ghosh, Beckman Institute and Department of Chemistry, kghosh@illinois.edu

4.1 "Effect of Interfacial Chemistry on Heat Transport." Dr. Mark Losego, Department of Materials Science and Engineering, losego@illinois.edu

4.2 "Evolution and Development of Bat Wing Bones." Dr. Lisa Noelle Cooper, Department of Animal Biology, lncooper@illinois.edu

4.3 "Membrane Head Group Dynamics and Structure Revealed by a Novel Membrane Mimetic Model." Dr. Taras Pogorelov, Beckman Institute and School of Chemical Sciences, pogorelo@uiuc.edu

4.4 "Bio-Integrated Flexible Electronics." Dr. Nanshu Lu, Beckman Institute, nanshulu@illinois.edu

POSTER PRESENTATIONS

5.1 "Study of Wave Tailoring Features in Granular Media Using Molecular Dynamics." Dr. Amnaya P. Awasthi, Department of Aerospace Engineering, amnaya@illinois.edu

5.2 Specification-based Intrusion Detection System for Advanced Metering Infrastructure.”Â Dr. Robin Berthier, Information Trust Institute, rgb@illinois.edu

5.3 "Molecular Dynamics Simulations on Supercomputers Performing 10^18 flop/s." Dr. Abhinav S Bhatele, Department of Computer Science, bhatele@illinois.edu

5.4 "Unsorted, Freshly Isolated Porcine Adipose-derived Stem Cells Are More Efficacious in Bone Healing Compared to Purified CD34+ ADSC.” Dr. Massimo Bionaz, Animal Science/IGB, bionaz@illinois.edu

5.5 "Peptide Signals in Foraging Behavior of Honey Bees: From Quantitative Neuro-peptidomics to Manipulative Experiments.” Dr. Axel Brockmann, Department of Entomology, abrockma@life.illinois.edu

5.6 "Pd(II)-catalysed Reactions of Cyclobutene Based Monomers." Dr. Katherine Curran, Department of Chemistry, kcurran@illinois.edu

5.7 "Structural Insights into How Clotting Proteins with GLA Domains Bind to Membrane Surfaces.” Dr. Rebecca Davis-Harrison, Department of Biochemistry, rldh@illinois.edu

5.8 "A Conceptual Approach to Physics Problem Solving.” Dr. Jennifer Docktor, Beckman Institute, docktor@illinois.edu

5.9 "The Sign System of Human Pretending.” Dr. Shihong Du, Center for East Asian Pacific Studies (UIUC) and Southwest University (China), sdu8@illinois.edu

5.10 "Taking a Page from Nature: Materials Crafted from Molecules." Dr. Aaron Esser-Kahn, Beckman Institute and Department of Chemistry, apekay@illinois.edu

5.11 "Towards Parameterization of Molecular Forcefield: ParamChem.” Dr. Jayeeta Ghosh, National Center for Supercomputing Applications, jghosh@illinois.edu

5.12 The Predictive Significance of Early Caregiving Experiences for Symptoms of Psychopathology through Mid-

Adolescence: Enduring or Transient Effects?" Dr. J.D. Haltigan, Department of Psychology, jhaltiga@illinois.edu

5.13 "Review of the Cretaceous Tridactyloidea (Insecta: Orthoptera) and Their Relationships." Dr. Sam W. Heads, Illinois Natural History Survey, swheads@illinois.edu

5.14 "A Highly Sensitive Colorimetric Sensor Array for Ozone Detection." Dr. Wei Jiang, Department of Chemistry, jiangwei791215@gmail.com

5.15 "Burning the Candle at Both Ends: Sleep Problems and Work-Family Conflict." Dr. Blake Lee Jones, Family Resiliency Center, under the Department of Human and Community Development in the College of ACES, blakej13@illinois.edu

5.16 "Developing a Microfluidic Platform for the Study of Neuronal Regeneration of Aplysia Californica." Dr. Chang Young Lee, Department of Chemistry, cylee1@illinois.edu

5.17 "Real-Time Monitoring of Surface Initiated Polymerization of a Non-Fouling Polymer Brush With Silicon Photonic Microring Resonators." Dr. Francis Ted Limpoco, Department of Chemistry, Analytical Division, flimp@illinois.edu

5.18 "Effect of Interfacial Chemistry on Heat Transport." Dr. Mark Losego, Department of Materials Science and Engineering, losego@illinois.edu

5.19 "Exploring Children's Syntactic Representations: Passives Were Only Primed by Passives."Â Dr. Katherine Messenger, Psychology Department, Language Acquisition Lab, kmesseng@illinois.edu

5.20 "Transfering Preformed 3D Photonic Crystals onto Dye Sensitized Solar Cells." Dr. Agustin Mihi, Beckman Institute, mihi@illinois.edu

5.21" ADSC and BMSC Present Large Similarities in Transcriptome Prior to and During Adipogenic and Osteogenic Differentiation." Dr. Elisa Monaco, Animal Science, emonaco@illinois.edu

5.22 "Self-Healing Electrical Circuits." Dr. Susan A. Odom, Beckman Institute and Department of Chemistry, saodom@illinois.edu

5.23 "Adult Education Bridge: A Promising Strategy to Promote Access and Opportunity." Dr. Kathleen Oertle, Office of Community College Research and Leadership; Department of Educational Policy, Organization and Leadership; and College of Education, oertle@illinois.edu

5.24 "Rapid and Spontaneous Binding of Membrane-anchoring Proteins Captured by Novel Membrane Model." Dr. Y Zenmei Ohkubo, Department of Biochemistry and Beckman Institute, zenmei@illinois.edu

5.25 "How to Chose Your Lipids: Membrane Headgroup Dynamics and Structure.." Dr. Taras Pogorelov, Beckman Institute and School of Chemical Sciences, pogorelo@uiuc.edu

5.26 "Testing the Phylogenetic Utility of Mcm7 in the Ascomycota." Dr. Huzefa Raja, Department of Plant Biology, raja@illinois.edu

5.27 "Modeling and Dynamics of the Inward-facing State of a Na+/Cl- Dependent Neurotransmitter Transporter Homologue." Dr. Saher Shaikh, Beckman Institute, shaikh@illinois.edu

5.28 A BEN Domain Containing Protein, BEND3 Represses Transcription and is Involved in Heterochromatin Organization." Dr. Kizhakke M. Sathyan, Department of Cell and Developmental Biology, sathyakm@illinois.edu

5.29 "Three Dimensional Microvascular Composites Using Sacrificial Fibers." Dr. Piyush Thackre, Beckman Institute and Department of Aerospace Engineering, pthakre@illinois.edu

5.30 "Implementing Optical Microring Resonators for Improved Disease Diagnostics.**"** Dr. Nicole Villiere Tolan,

Department of Chemistry, nvtolan@illinois.edu

5.31 "Nuclear Retained non Coding RNA MALAT1 Regulates Alternative Splicing by Modulating the Levels of SR Splicing Ractors." Dr. Vidisha Tripathi, Department of Cell and Developmental Biology, tvidisha@life.illinois.edu

5.32 "Experimental Study on the Core Deformation of Sandwich Composites under Blast Loading using Digital Image Correlation (DIC) Techniques." Dr. Erheng Wang, Department of Aerospace Engineering, erhengwang@gmail.com

5.33 "Protein Resistant Poly(N-isopropylacrylamide) Brushes." Dr. Changying Xue, Department of Chemical and Biomolecular Engineeing, changyingxue@gmail.com

5.34 "The p23 Molecular Chaperone and GCN5 Acetyltransferase Cooperatively Modulate the Stability of Protein-DNA Complexes." Dr. Elena Zelin, Department of Cell and Developmental Biology, zelin@illinois.edu

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