2010 Midwest Stress Response and Molecular Chaperone Meeting

Saturday, January 16, 2010
James L. Allen Center
Northwestern University
2169 Campus Drive, Evanston, IL

Brian Freeman
University of Illinois
Program Co-Chair

Jason Gestwicki
University of Michigan
Program Co-Chair

Richard I. Morimoto
Northwestern University
The Daniel F. and Ada L. Rice Institute for Biomedical Research
Meeting Organizer

7:30–8:55 AM Continental Breakfast
1st Floor EMP Lounge (located behind the Tribune Auditorium)

9:00-9:05 AM Opening remarks: Richard I. Morimoto, Northwestern University
McCormick Tribune Auditorium (all talks will take place in the McCormick Tribune Auditorium)

Hsp90
Session Chair: Marc Cox, University of Texas at El Paso

9:05-9:25 AM Hsp90 Nuclear Accumulation in Quiescence Is Linked to Chaperone Function and Spore Development in Yeast
Hugo Tapia and Kevin A. Morano
Department of Microbiology and Molecular Genetics, University of Texas Medical School at Houston, Houston, TX 77030

9:25-9:45 AM Heterozygous Yeast Deletion Collection Screens Aimed at Revealing Essential Hsp90 Substrates and Functions
Amie McClellan¹, Eric Franzosa¹, Yu Xia¹,², and Judith Frydman⁴
Department of Bioinformatics and Department of Chemistry¹,², Boston University, Boston MA
Division of Natural Sciences and Mathematics, Bennington College³, Bennington, VT
Biology Department and Bio-X Program, Stanford University⁴, Stanford, CA

9:45-10:05 AM Celastrol Inhibits Hsp90 Chaperoning of Steroid Receptors By Inducing Fibrilization of the Co-Chaperone p23
Ahmed Chadli¹, Sara J. Felts², Qin Wang¹, William P. Sullivan², Maria Victoria Botuyan³, Abdul Fauq³, Marina Ramirez-Alvarado², and Georges Mer²
¹Center for Molecular Chaperone Radiobiology and Cancer Virology, Medical College of Georgia, Augusta, GA
²Department of Biochemistry and Molecular Biology, Mayo Clinic College of Medicine, Rochester, MN
³Organic Chemistry Laboratory, Mayo Clinic College of Medicine, Jacksonville, FL

10:05-10:25 AM Coffee Break
1st Floor EMP Lounge (located behind the Tribune Auditorium)
**Hsp70**
Session Chair: Erik Zuiderweg, University of Michigan

10:30-10:50 AM  **Akt Clearance Through Hsp70 Regulation**
1Department of Molecular Medicine, University of South Florida, Tampa, FL 33613, the 2Department of Pathology and the 3Department of Biological Chemistry, Life Sciences Institute, University of Michigan, Ann Arbor, MI, 48109, and the 4Department of Molecular Oncology, H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL 33612

10:50-11:10 AM  **Ube2w and Ataxin-3 Regulate the CHIP Ubiquitination Cycle**
K. Matthew Scaglione, Eszter Zavodszky, Sokol Todi, Edgar Rodriguez, Sarah Swears, and Henry Paulson
Department of Neurology, University of Michigan, Ann Arbor, MI

11:10-11:30 AM  **Systematic Analysis of Factors Underlying the Refolding Activity of DnaK**
Lyra Chang, Andrea D. Thompson, Peter Ung, Heather Carlson, Jason E. Gestwicki
1Department of Pathology and the Life Science Institute, University of Michigan, 2Medicinal Chemistry, University of Michigan

11:30-11:50 AM  **Structure and Allostery in the Hsp70 Chaperone System**
Eric Bertelsen, Akash Bhattacharya, Ramsey McDonald, Atta Ahmad, Erik Zuiderweg
Department of Biological Chemistry, The University of Michigan

11:50AM-12:10 PM  **Coffee Break**
1st Floor EMP Lounge (located behind the Tribune Auditorium)

12:15-12:55 PM  **Plenary Talk**
**Specialized Hsp70 machines: what do they tell us about chaperone function?**
Elizabeth Craig
Department of Biochemistry, University of Wisconsin-Madison

1:00-2:00 PM  **Lunch**

2:00-3:15 PM  **Poster Session**
Pancoe Café on the 2nd floor of the Pancoe-ENH Life Sciences Pavilion
(Looking out the front door of the Allen Center, the Pavilion is to the right, across the road and just a few seconds away.)

**Transcription**
Session Chair: Amie McClellan, Bennington College

3:20-3:40 PM  **Cdc37 Controls Transcription and Genome Stability Through Its Effects on Cac1 and Sir2 Chromatin Remodeling Enzymes**
Maria A. Theodoraki and Avrom J. Caplan
Department of Biology, The City College of New York, NY 10031

3:40-4:00 PM  **Dynamics of Transcriptional Regulation**
Elena Zelin and Brian Freeman
Department of Cell and Molecular Biology, University of Illinois at Urbana-Champaign, Urbana, IL
**ERAD**
Session Chair:  Amie McClellan, Bennington College

4:00-4:20 PM  **The Role of Protein Disulfide Isomerases (PDIs) in the Endoplasmic Reticulum -- Associated Degradation (ERAD) of Apolipoprotein B (ApoB)**
Sarah Grubb¹, Christopher Bahur¹, Edward Fisher² and Jeffrey Brodsky¹
¹Department of Biological Sciences, University of Pittsburgh, Pittsburgh, PA; ²Department of Medicine (Cardiology) and Cell Biology, New York University School of Medicine, New York, NY

4:20-4:40 PM  **Autophagy as a Survival Response to Sigma1 Receptor Antagonist-Induced Endoplasmic Reticulum Stress**
Felix J. Kim, Stacy M. Stabler, Joel M. Schrock, Gavril W. Pasternak
Molecular Pharmacology and Chemistry Program, Sloan-Kettering Institute, Memorial Sloan-Kettering Cancer Center, New York, NY

4:40-4:45 PM  Coffee Break
1st Floor EMP Lounge (located behind the Tribune Auditorium)

**Neurodegeneration**
Session Chair:  Kevin Morano, University of Texas Medical School at Houston

5:00-5:20 PM  **The Impact of Flanking Protein Sequence on PolyQ Aggregation/Toxicity**
Elise Kikis¹, Anamika Dwivedi¹, Andreia Castro² and Richard I. Morimoto¹
¹Department of Biochemistry, Molecular Biology and Cell Biology and The Daniel F. and Ada L. Rice Institute for Biomedical Research, Northwestern University, Evanston, IL; ²Life and Health Sciences Research Institute (ICVS), School of Health Sciences University of Minho

5:20-5:40 PM  **Engineering the Cellular Folding Quality Control System for Therapeutic Applications**
Laura Segatori
Department of Chemical and Biomolecular Engineering, Rice University, Houston, Texas

5:40-6:00 PM  **Conformationally Distinct Aggregation of HET-S is Associated with Prion Related Toxicity in Yeast**
Vidhu Mathur and Susan W. Liebman
Department of Biological Sciences, University of Illinois at Chicago, IL

6:00 PM  Closing Remarks

6:05-7:30 PM  Wine and Hors D’oeuvre Reception
1st Floor EMP Lounge (located behind the Tribune Auditorium)