2nd Midwest Protein Folding Conference
McKenna Center for Continuing Education – University of Notre Dame
May 6, 2006

7:30 – 8:50  

Coffee, juice, and pastries

8:50 – 9:00  

Opening Remarks – Patricia Clark

Early events in Protein Folding
Session Chair: Lisa Lapidus

9:00 – 9:30  

Folding Barriers: Physics or Evolution?  
Martin Gruebele  
University of Illinois at Urbana-Champaign

9:30 – 9:50  

Fast Events in Protein Folding following Ultrarapid Mixing  
Kimberly McGarrity¹, David Hertzog², Emily Tubmann¹, Olgica Bakajin³, Lisa Lapidus¹  
¹Physics Department, Michigan State University, East Lansing, MI, USA, ²Mechanical Engineering Department, Stanford University, Stanford, CA, USA, ³Chemistry & Material Science Department, LLNL, Livermore, CA, USA

9:50 – 10:10  

Pushing protein folding to the limit: a new downhill folder lambda repressor Q33H  
Feng Liu and Martin Gruebele  
Center for Biophysics and Computational Biology. University of Illinois at Urbana-Champaign

10:10 – 10:40  

Coffee Break

Structure and Folding
Session Chair: TBA

10:40 – 11:10  

The folding transition state of acyl phosphatase discerned using \[\text{-analysis}  
Tobin R. Sosnick¹*, Adarsh D. Pandit¹, Abhishek Jha², Karl F. Freed³  
¹Department of Biochemistry and Molecular Biology, and the Institute for Biophysical Dynamics, University of Chicago, ²James Franck Institute and Department of Chemistry, University of Chicago

11:10 – 11:30  

Membrane Protein Folding: What we learned from structures of alpha helical membrane proteins  
Larisa Adamian and Jie Liang  
Department of Bioengineering, University of Illinois at Chicago
11:30 – 11:50  Comparison of the interaction, structure induction, orientation and membrane perturbation of \(\beta\)-lactoglobulin with phospholipid vesicles  
Xiuqi Zhang and Timothy A. Keiderling  
Department of Chemistry, University of Illinois at Chicago

11:50 – 12:50  Lunch

12:50 – 2:20  Poster Session

New Methods  
Session Chair: Connie Jeffery

2:20 – 2:40  An evaluation of intramolecular crosslinking as a structural probe of the folding transition state  
Ali Shandiz and Tobin R. Sosnick  
Department of Biochemistry and Molecular Biology, and the Institute for Biophysical Dynamics, University of Chicago

2:40 – 3:00  Exploring protein sequence space by high-throughput stability analysis  
Sanjib Dutta\(^1\), Ryan Gilbreth\(^1\), Akiko Koide\(^1\) and Shohei Koide\(^1,2\)  
\(^1\)Department of Biochemistry and Molecular Biology, University of Chicago, \(^2\)Department of Biochemistry and Biophysics, University of Rochester, Rochester, NY

3:00 – 3:20  Evaluating the conformational flexibility of stalled nascent chains by fluorescence anisotropy  
Krastyu G. Ugrinov\(^1\), David A. Johnson\(^2\) and Patricia L. Clark\(^1\)  
\(^1\)Department of Chemistry and Biochemistry, University of Notre Dame, \(^2\)Division of Biomedical Sciences, University of California Riverside Riverside, CA.

3:20 – 3:40  Coffee Break

Ligand Binding  
Session Chair: Patricia Clark

3:40 – 4:00  Comparing Protein-Ligand Binding Transition States Using m-values and Phi Analysis  
Rebecca L. Davis-Harrison and Brian M. Baker  
Department of Chemistry and Biochemistry, University of Notre Dame

4:00 – 4:20  Predicting enzyme functional sites  
Yan Yuan Tseng and Jie Liang  
Department of Bioengineering, University of Illinois at Chicago
4:20 – 4:40  *Calorimetric Characterization of a TCR-peptide/MHC Interaction*
Kathryn M. Armstrong and Brian M. Baker
Department of Chemistry & Biochemistry, University of Notre Dame

**Aggregation and Self Assembly**
Session chair: Marina Ramirez-Alvarado

4:40 – 5:00  *Conformational characterization of exon 1 of huntingtin*
Veronique Chellgren¹, Brian Chellgren¹, Anusri Bhattacharyya², Ronald Wetzel², Trevor Creamer¹
¹Department of Molecular and Cellular Biochemistry, University of Kentucky College of Medicine, ²Graduate School of Medicine, University of Tennessee-Knoxville

5:00 – 5:20  *Solid-State NMR Study of Supramolecular Structures of Non-[β]-Amyloid-Component Peptide Fragment, NAC(8-18) in Neurotoxic Amyloid Fibrils.*
Christopher Jones, Sandra Chimon; Junhui Fu, Yoshitaka Ishii
Chemistry Department, University of Illinois at Chicago

5:20 – 5:50  *High-resolution structures of peptide self-assembly mimics*
Koki Makabe, Dan McElheny, Valentia Tereshko, Aaron Hilyard, Serdar Uysal, Grzegorz Gawlak, Akiko Koide and Shohei Koide
Department of Biochemistry and Molecular Biology, the University of Chicago

5:50 – 6:00  *Closing Remarks* – Connie Jeffery

6:00 – 7:30  *Closing Reception*