1993 TEXAS PROTEIN FOLDERS MEETING

MAY 7 - 9, 1993

THE DEPARTMENT OF BIOCHEMISTRY AND BIOPHYSICS
TEXAS A&M UNIVERSITY
COLLEGE STATION, TEXAS

SPONSORED BY

CENTER FOR MACROMOLECULAR DESIGN OF THE INSTITUTE OF BIOSCIENCES AND TECHNOLOGY, TEXAS A&M UNIVERSITY

AND

THE PROTEIN SOCIETY

Contributions to the conference were provided by:

The Protein Society
The Center for Macromolecular Design, Texas A&M University
Fisher Scientific
Beckman Instruments
Savant Instruments
Office of the Associate Provost for Research and Graduate Studies, Texas A&M University
Department of Biochemistry and Biophysics, Texas A&M University

Schedule for the 1993 Texas Protein Folding Meeting

Friday May 7

4:00-10:00 pm Registration, Biochemistry Foyer

5:30-6:45 pm Deli buffet dinner at the Ag CaFe, Biochemistry Building

Welcoming remarks

7:00-7:10 pm **108 Biochemistry Building**

7:00 pm Dr. Thomas Baldwin, Professor & Director - Center for Macromolecular Design

7:05 pm Dr. Robert A. Kennedy, Associate Provost for Research & Graduate Studies

Session 1 **Structures and Modelling**

7:15-10:15 pm **108 Biochemistry Building**

Chair: Edgar Meyer, Texas A&M University - College Station

7:15 pm Elizabeth J. Goldsmith - HHMI, University of Texas Southwestern Medical Center - Dallas
Structural basis of latency in plasminogen activator inhibitor-1

7:55 pm Allen Edmundson - Harrington Cancer Center - Amarillo
Immunoglobulin folding--past and present

8:35 pm Break

8:55 pm Monte Pettitt - University of Houston - Houston
Molecular dynamics of metmyoglobin in aqueous solution

9:35 pm Edgar Meyer - Texas A&M University - College Station
The structural and functional properties of bound water in proteins

10:15-11:30 pm Posters (1st and 2nd floor foyers, Biochemistry Building)

Saturday May 8

7:00-8:30 am Continental breakfast at the Ag CaFe and poster viewing (1st and 2nd floor foyers)

Session 2 **Determinants of Folding and Stability *in vitro* and *in vivo***

8:30-11:30 am **108 Biochemistry Building**

Chair: Jim Hu, Texas A&M University - College Station

8:30 am Jeff Kelly, Texas A&M University - College Station
The relationship between transthyretin protein denaturation, amyloid fibril formation, and the mutations that cause early onset amyloid disease

Session 2 **Continued**

9:10 am Wayne Bolen, University of Texas Medical Branch - Galveston
Stabilization of proteins by natural occurring osmolytes

9:50 am Break

10:10 am Tim Palzkill, Baylor College of Medicine - Houston
Chance, necessity and the evolution of β–lactamase

10:50 am Jim Hu, Texas A&M University - College Station
Genetic dissection of leucine zipper dimerization

11:30-1:30 pm Deli lunch at the Ag CaFe and poster viewing (1st and 2nd floor foyers)

Session 3 **Folding Kinetics - Intermediates and Pathways**
1:30-3:30 pm **108 Biochemistry Building**
Chair: Tom Baldwin, Texas A&M University - College Station

1:30 pm Paul Horowitz, University of Texas Health Science Center - San Antonio
Protein folding can be assisted by chaperones, micelles or liposomes

2:10 pm Alain Chaffotte, Institut Pasteur and Texas A&M University - College Station
Secondary structure of early intermediates in protein folding

2:50 pm Leisha Mullins, Texas A&M University - College Station
Investigation of folding intermediates in RNase T1 by hydrogen-deuterium exchange

3:20-5:00 pm Posters (1st and 2nd floor foyers, Biochemistry Building)

Keynote speaker
5:00-6:00 pm **108 Biochemistry Building**
George Rose, Washington University, St. Louis, MO
The α-helix: stability and specificity
Sponsored by the Protein Society and the CMD

6:30-7:30 pm Reception at the College Station Hilton and Conference Center
7:30-10:30 pm Fajita buffet dinner at the Hilton
A few brief comments--
Perspectives on Biochemistry at Texas A&M University: Martyn Gunn
The Protein Society - A Texas Subunit?: Tom Baldwin
The Protein Society: Historical perspectives and objectives: Finn Wold

Sunday May 9

7:30-9:00 am Continental breakfast in Biochemistry Foyer & poster viewing (1st & 2nd floor foyers)

Session 4 **Folding *in vivo***

9:00-12:00 noon **108 Biochemistry Building**

Chair: Lila Gierasch - University of Texas Southwestern Medical Center - Dallas

9:00 am — Sylvie Blond - University of Texas Southwestern Medical Center - Dallas
Specificity and regulation of activity of the molecular chaperone BiP

9:40 am — H.F. "Gil" Gilbert - Baylor College of Medicine - Houston
Chaperone mediated protein folding in vitro

10:20 am — Break

10:40 am — Max Wynn - University of Texas Southwestern Medical Center - Dallas
Chaperonin-assisted folding and assembly of the components of a mammalian mitochondrial complex in Escherichia coli

11:20 pm — George Georgiou - University of Texas - Austin
In vivo *protein aggregation and the formation of inclusion bodies in* E. coli