

## FASEB SUMMER RESEARCH CONFERENCES PROPOSED PROGRAM

**CONFERENCE NAME: THE CALPAIN SYSTEM IN HEALTH AND DISEASE**

**Dates of Conference: 20 - 25 June, 1999**

**CHAIRPERSON:** Darrel E. Goll

**Co-Chairs** Ronald L. Mellgren; Kevin K. W. Wang

**Advisors** Koichi Suzuki; Ernesto Carafoli  
"Domain Structure and Activation of Calpain"

**Opening Remarks** Darrel E. Goll, **Sunday**, 20 June, 8:00 p.m.

**KEYNOTE ADDRESS:** Koichi Suzuki, 8:15 p.m.

**SESSION 1-** **Monday**, 21 June, 8:30 a.m. - 12:00 noon

**Topic:** **Calpain Structure/Calpain Isoforms -  
R. L. Mellgren, Chair**

**Speakers:** 8:30-9:10 Sthanam Narayana - University of Alabama, Birmingham  
9:10-9:50 Zongchao Jia - Queen's University, Kingston, Ontario  
"X-Ray Structure of m-Calpain"  
9:50-10:20 Coffee Break  
10:20-11:00 Hiroyuki Sorimachi - University of Tokyo  
"Structure and Function of Calpain Homologues"  
11:00-11:40 Ernesto Carafoli - Swiss Federal Institute of Technology  
"Expression, Partial Purification, and Characterization of  
p94 (Calpain III)"  
11:40-12:00 General Discussion

**Monday afternoon:** 1:30 - 5:30 p.m. - Poster session I

**SESSION 2 -** **Monday**, 21 June 7:00 p.m. - 10:00 p.m.

**Topic:** **Calpain Isoforms/Novel Calpains -  
K. W. W. Wang/ Po-Wai Yuen, Chairs**

- Speakers:** 19:00-19:40 Peter Friedrich - Hungarian Academy of Sciences, Budapest  
“Drosophila Calpains” Lessons for Mammals”
- 19:40-20:20 Patty Kumabara - The Sanger Center, Cambridge  
“Calpain Genes in the Genome of C. Elegans: TRA-3 is a Novel Calpain Required for Sex Determination”
- 20:20-21:00 Neil Dear - Max-Planck Institut für Immunologie
- 21:00-21:40 Don Mykles - Colorado State University, Fort Collins  
“Crustacean Calcium-Dependent Proteinases”
- 21:40-22:00 General Discussion

**SESSION 3 - Tuesday, 22 June, 8:30 a.m. - 12:00 noon**

**Topic: Calpain Isoforms/Calpastatin - Mitsuyoshi Azuma, Chair**

- Speakers:** 8:30-9:10 Masatoshi Maki - Nagoya University  
“Calpastatin: Mystery of Structure and Function”
- 9:10-9:50 Edon Melloni - University of Genoa, Italy  
“Properties and Cellular Distribution of Calpain Regulating Proteins”
- 9:50-10:20 Coffee Break
- 10:20-11:00 Parker Antin - University of Arizona  
“Regulation of Bovine Calpastatin Gene Expression”
- 11:00-11:40 Kevin K. W. Wang - Parke Davis, Ann Arbor  
“Calpain Assay Methods, its Inhibitory Agents and Roles in Cell Death”
- 11:40-12:00 General Discussion

**Tuesday, 22 June, 1:30 - 5:30 - Poster session II**

**SESSION 4 - Tuesday, 22 June, 7:00 p.m. - 10:00 p.m.**

**Topic: Regulation of Calpain Activity  
Joan Fox, Chair**

- Speakers:** 19:00-19:40 Darrel E. Goll - University of Arizona  
 “Regulation of Calpain Activity: Specificity, Ca<sup>2+</sup>-Binding, and Phosphorylation”
- 19:40-20:20 Dorothy Croall - University of Maine  
 “The Regulation of Calpains by Calcium”
- 20:20-21:00 John S. Elce, Queen’s University, Kingston, Ontario  
 “Transgenic Mice Lacking Calpain”
- 21:00-21:40 Ronald L. Mellgren - Medical College of Ohio  
 “ $\mu$ -Calpain in Cell Proliferation and Apoptosis”
- 21:40-22:00 General Discussion

**SESSION 5 -** **Wednesday, 23 June, 8:30 a.m. - 12:00 noon**

**Topic:** **Function of the Calpain System I**  
**Jacques S. Beckmann, Chair**

- Speakers:** 8:30-9:10 Joan E. B. Fox - Cleveland Clinic Foundation  
 “The Role of Calpain in Integrin-Induced Signal Transduction”
- 9:10-9:50 Gail V. W. Johnson - University of Alabama, Birmingham  
 “The Effects of Oxidation and Calcium on Micro-Calpain Autolysis and Activity”
- 9:50-10:20 Coffee Break
- 10:20-11:00 Mitsuyoshi Nakao - Kumamoto, Japan  
 “The Involvement of Calpain-Dependent Proteolysis of the Neurofibromatosis Type 2 Protein (Merlin) in Schwannomas and Meningiomas”
- 11:00-11:40 Thomas R. Shearer - Oregon Health Science University  
 “Lens-Specific Calpains”
- 11:40-12:00 General Discussion

**Wednesday, afternoon: free time for informal discussions**

**SESSION 6 -** **Wednesday, 23 June, 7:00 p.m. - 10:00 p.m.**

**Topic:** **Functions of the Calpain System II. Muscle Development and Growth -**

**Gail Johnson, Chair**

- Speakers:** 19:00-19:40 Patrick Cottin - Universite de Bordeaux
- 19:40-20:20 Nechama Kosower - Tel-Aviv University  
“The Role and Regulation of Calpastatin in Myoblasts During Differentiation (and Fusion)”
- 20:20-21:00 Angelo Belcastro - University of Western Ontario, London, Ontario  
“Changes in the Activity of Calpains and Calpastatin with Exercise-Induced Muscle Damage”
- 21:00-21:40 Dr. Ronald Bardsley - Sutton Bonington Campus, UK  
“Calpastatin Expression in Porcine Skeletal and Cardiac Muscle and Effect of a Beta-Agonist”
- 21:40-22:00 General Discussion

**SESSION 7 - Thursday, 24 June, 8:30 a.m. - 12:00 noon**

**Topic: Calpains and Tissue Pathologies I**  
**Edon Melloni, Chair**

- Speakers:** 8:30-9:10 Jacques S. Beckmann - Genethon, Evry, France  
“Calpain 3 and Muscular Dystrophy”
- 9:10-9:50 Melissa Spencer - UCLA  
“Calpain Activity and Expression in Dystrophin-Deficient Muscle”
- 9:50-10:10 Coffee Break
- 10:10-10:45 Al Stracher - SUNY
- 10:45-11:25 Ira Herman, Tufts University School of Medicine  
“Regulation of Isoactin Dynamics During Cell Motility”
- 11:25-11:40 Presentation Selected from Posters
- 11:40-12:00 General Discussion

**SESSION 8 - Thursday afternoon: free time for informal discussion**  
**Thursday, 24 June, 7:00 p.m. - 10:30 p.m.**

**Topic: Calpains and Tissue Pathologies II**

**Dorothy Croall, Chair**

- Speakers:** 19:00-19:40 J. John Cohen - University of Colorado  
“Calpain in Apoptosis in the Immune System”
- 19:40-20:20 Narin Banik - Medical College of South Carolina  
“The Role of Calpain in Demyelinating Disease”
- 20:20-21:40 Presentations selected from posters - 15 - 20 min. each
- 21:40-22:00 General Discussion

**SESSION 9 - Friday, 25 June, 8:30 a.m. - 11:30 a.m.**

**Topic: Calpains and Tissue Pathologies III**  
**Koichi Suzuki, Chair**

- Speakers:** 8:30-9:10 Kevin Lee - University of Virginia  
“Calpain-Directed Therapy for Cerebrovascular Disorders”
- 9:10-9:50 Ronald L. Hayes - University of Texas Health Science  
Center, Houston Texas
- 9:50-10:20 Coffee Break
- 10:20 Business meeting/general discussion session.
- 11:30 Adjourn