

PROGRAM OUTLINE
BIOLOGY OF CALPAINS IN HEALTH AND DISEASE
MELISSA J. SPENCER, PHD AND DAVID POTTER, MD, PHD

Saturday July 14th, 2007

4:00 PM – 9:00 PM	FASEB Conference Office opens for registration
6:00 PM - 7:00 PM	FASEB Welcome Reception
7:00 PM - 8:30 PM	Dinner
8:30-10:00	Keynote Address

Ernesto Carafoli, Ph.D. (University of Padova)

9:00 PM	FASEB Office closes
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Sunday- July 15th, 2007

7:30 AM - 9:00 AM	Continental Breakfast/Buffer
8:30 AM- 12:00 noon	FASEB office open

Session 1: 9:00 AM - 12:00 noon, Calpain Structure and Structure-Function Relationship.

Session chairs: *Zonchao Jia, Ph.D. (Queen's University), Peter Davies Ph.D. (Queen's University)*

9:00 a.m.-9:30a.m.	Zongchao Jia, Ph.D. -Queens University (Structure of m-calpain)
9:30 a.m.-10:00 a.m.	Peter Davies, Ph.D. -Queens University (Structure of calpain 3).
10:00 a.m.- 10:30 a.m.	Break, FASEB photo taken
10:30 a.m.-11:00 a.m	Sirano Dhe-Paganon, Ph.D. -University of Toronto (Structure of calpain 9 protease core).
11:00-a.m.-11:30 a.m.	Robert Hanzlik, Ph.D. -University of Kansas (Design and Synthesis of Calpain Inhibitors).
11:30 a.m.-12:00 a.m.	Isaac Donkor, Ph.D. -University of Tennessee (Development of novel ketoamide calpain inhibitors).
12:00 PM - 1:30 PM	Lunch
1:30 PM	Afternoon free / Poster sessions

6:00 PM - 7:00 PM Dinner

6:00 PM - 7:00 PM FASEB office open

Session 2: 7:00 PM - 10:00 PM Biochemistry of Calpains

Session chairs:

Darrel Goll, Ph.D. (University of Arizona),

Ron Mellgren, Ph.D. (Medical College of Ohio),

Hiroyuki Sorimachi, Ph.D. (Tokyo Metropolitan Institute of Medical Sciences)

7:00 p.m.-7:15 p.m. **Dorothy Croall, Ph.D.**-University of Maine (Historical Overview of Biochemistry of Calpains).

7:15 p.m.-7:45 p.m. **Darrel Goll, Ph.D.** -University of Arizona (Role of phosphorylation in regulation of calpain activity).

7:45 p.m.-8:15 p.m. **Ron Mellgren, Ph.D.** -Medical College of Ohio (Calpain in dictyostellium).

8:15 p.m.-8:30 p.m. Break

8:30 p.m.-9:00 p.m. **Shirley Gil Parrado, Ph.D.** -Abteilung für Klinische Chemie und Klinische Biochemie) (Subcellular localization and in vivo subunit interactions of ubiquitous μ -calpain).

9:00 p.m.-9:45 p.m. **Hiroyuki Sorimachi, Ph.D.** -Tokyo Metropolitan Institute of Medical Sciences (Unconventional calpains).

9:45 p.m.-10:00 p.m. **Rodney Guttman**-University of Kentucky (short talk) Calpain and identification of inhibitors

Monday- July 16th, 2007

7:30 AM - 9:00 AM Continental Breakfast/Buffer

8:30 AM- 12:00 noon FASEB office open

Session 3: 9:00 AM - 12:00 noon, Calpains in Cancer, Apoptosis and the Cell Cycle

Session chairs:

David Potter, M.D. Ph.D. (Indiana University)

Neil Carragher, Ph.D. (University of Glasgow)

9:00 a.m.-9:30a.m. **Neil Carragher, Ph.D.**-University of Glasgow (Oncogene mediated calpain activation)

9:30 a.m.-10:00 a.m.	David Potter, M.D., Ph.D. - Indiana University (Calpain and cancer cell proliferation)
10:00 a.m.- 10:15 a.m.	Break
10:15 a.m.-10:45 a.m.	David Boothman, Ph.D. - Case Western Reserve University (Beta lapachone apoptosis in breast cancer)
10:45 a.m.-11:15 a.m.	Simon Hu, Ph.D. University of Switzerland (calpains in autophagy).
11:15 a.m.-11:45 a.m.	Marie C Shoshan, Ph.D. - Karolynska Institute (Cisplatin induced apoptosis)
11:45 a.m.-12:00 a.m.	New and Notable
12:00 PM - 1:30 PM	Lunch
1:30 PM	Afternoon free / Poster sessions
6:00 PM - 7:00 PM	Dinner
6:00 PM - 7:00 PM	FASEB office open

Session 4: 7:00 PM - 10:00 PM Calpains and Striated Muscle Disease

Session chairs:

Alfred Goldberg, Ph.D. Harvard Medical School, Jacques Beckmann, Ph.D. University of Lausanne.

7:00 p.m.-7:15 p.m.	Jacques Beckmann, Ph.D. Overview of genetics of calpain related diseases and muscular dystrophy.
7:15 p.m.-7:45 p.m.	Melissa Spencer, Ph.D. -UCLA (Use of mouse models to understand the biological role of calpain 3)
7:45 p.m.-8:15 p.m.	Alfred Goldberg, Ph.D. –Harvard Medical School, Role of calpains and the proteasome in muscle wasting.
8:15 p.m.-8:30 p.m.	Break
8:30 p.m.-9:00 p.m.	George DeMartino, Ph.D. UT Southwestern. – Regulation of skeletal muscle protein degradation.
9:00 p.m.-9:30 p.m.	Gerald Supinski, M.D. -Medical College of Georgia (Calpain Mediated Diaphragm Dysfunction)
9:30 p.m.-9:45 p.m.	New and Notable

Tuesday- July 17th, 2007

7:30 AM - 9:00 AM Continental Breakfast/Buffer

8:30 AM- 12:00 noon FASEB office open

Session 5: 9:00 AM - 12:00 noon, Calpains and Neurodegeneration

Session chairs:

James Geddes, Ph.D.: University of Kentucky

Glenn Telling, Ph.D.: University of Kentucky

9:00 a.m.-9:30a.m. **James Geddes, Ph.D.**-University of Kentucky
(Calpains and spinal cord injury)

9:30 a.m.-10:00 a.m. **Glenn Telling, Ph.D.**-University of Kentucky
(Calpains and prion diseases)

10:00 a.m.- 10:15 a.m. Break

10:15 a.m.-10:45 a.m. **Lisa Ellerby, Ph.D.** -Buck Institute (Calpains and
Huntington's disease)

10:45 a.m.-11:15 a.m. **David Lynch, M.D., Ph.D.**-University of Pennsylvania
(Calpains and Parkinson's disease)

11:15 a.m.-11:45 a.m. **Paul M. Mathews, Ph.D.** Nathan s. Kline institute for
Psych Res (Calpain regulation of amyloid-beta and
Plaque Formation)

11:45 a.m.-12:00 a.m. **Kevin Wang, Ph.D.** University of Florida short talk
(Biochemical Basis of Axonal and Myelin Injury in
Head Trauma).

12:00 PM - 1:30 PM Lunch

1:30 PM Afternoon free / Poster sessions

6:00 PM - 7:00 PM Dinner

6:00 PM - 7:00 PM FASEB office open

Session 6: 7:00 PM - 9:15 PM Cell Motility, Signaling and Integrins

Session chairs:

Alan Wells, M.D., Ph.D.-University of Pittsburgh

Anna Huttenlocher, M.D. -University of Wisconsin

7:00 p.m.-7:30 p.m. **Joan Fox, Ph.D.**-Cleveland Clinic (Beta 3 integrin induced
rac activation and role of calpain)

- 7:30 p.m.-8:00 p.m. **Alan Wells, M.D., Ph.D.**- University of Pittsburgh
(Signaling mechanisms that regulate fibroblast motility)
- 8:00 p.m.-8:15 p.m. Break
- 8:15 p.m.-8:45 p.m. **Ira Herman, Ph.D.** -Tufts (Calpain regulation of ezrin and beta-cap)
- 8:45 p.m.-9:15 p.m. **Anna Huttenlocher, M.D.** -University of Wisconsin
(Mechanisms of neutrophil motility)

Wednesday July 18th, 2007

- 7:30 AM - 9:00 AM Continental Breakfast/Buffer
- 8:30 AM- 12:00 noon FASEB office open

Session 7: 9:00 AM - 12:00 noon, Calpains in the Modulation of Aging and Disease

Session chairs:

Gerald Supinski, Medical College of Georgia

Greg Gores-Mayo Clinic

- 9:00 a.m.-9:30a.m. **Greg Gores, M.D.** -Mayo Clinic (Calpains in Liver Transplantation)
- 9:30 a.m.-10:00 a.m. **Rob Flaumenhaft, M.D., Ph.D.**-Beth Israel Deaconess (Calpain in platelets)
- 10:00 a.m.- 10:30 a.m. Break
- 10:30 a.m.-11:00 a.m. **Bruce Yankner, M.D., Ph.D.** Children's Hospital Boston (Calpain's in the Aging Brain)
- 11:00 a.m.-11:20 a.m. **Annamaria DeLuca, Ph.D.** (Calpain Inhibition in Muscular Dystrophy).
- 11:20 a.m.-11:40 a.m. **Thomas Meyer, Ph.D.** -Santhera, Switzerland. Use of calpain inhibitors to treat muscular dystrophy.
- 12:00 PM - 1:30 PM Lunch
- 1:30 PM Afternoon free / Poster sessions
- 6:00 PM - 7:00 PM Dinner
- 6:00 PM - 7:00 PM FASEB office open

Session 8: 7:00 PM - 9:00 PM Calpains in Cardiac Muscle and Ischemia

Session chairs:

Roberta Gottlieb, Ph.D.-Scripps Institute

Scott Powers, Ph.D.-University of Florida

- 7:00 p.m.-7:30 p.m. **Roberta Gottlieb, Ph.D.**-Scripps Institute (Control of BID and ARC by proteases in cardiac ischemia).
- 7:30 p.m.-8:00 p.m. **Scott Powers, Ph.D.**-University of Florida (Calpains and Ischemia-Reperfusion Injury)
- 8:00 p.m.-8:15 p.m. Break
- 8:15 p.m.-8:45 p.m. **Gerald Dorn, M.D.**-University of Cincinnati (Calpains as Mediators of Cardiac Ischemic Injury)
- 8:45 p.m.-9:00 p.m. **Edward Block, Ph.D.**- (eNOS Regulation by Calpain in Hypoxic Lung Endothelium).

Thursday July 19th, 2007

7:30 AM - 9:00 AM Continental Breakfast/Buffer

8:30 AM- 12:00 noon FASEB office open

Session 9: 9:00 AM - 11:00 noon, Calpains in Animal Science

Session chairs:

Elizabeth Huff-Lonergan, Ph.D.-University of Iowa

Neil Forsberg, Ph.D.-Oregon State

- 9:00 a.m.-9:30a.m. **Mohammad Koohmarie, Ph.D.**-Meat Animal Research Center (Calpains in post-mortem tenderization)
- 9:30 a.m.-10:00 a.m. **Elisabeth Huff-Lonergan, Ph.D.**-Iowa State (Calpains in nutrition)
- 10:00 a.m.- 10:15 a.m. Break
- 10:15 a.m.-10:45 a.m. **Neil Forsberg, Ph.D.**-Oregon State (Calpains in myofibrillar protein degradation)
- 10:45 a.m.-11:15 a.m. **Geert Geesink, Ph.D.** -Netherlands (Biosensors for calpastatin in muscle growth and meat production).
- 11:15-12:00 **Murachi Awards** To Be Announced
Nominations and Vote for Next Meeting Organizer
- 12:00 PM - 1:30 PM Box Lunches Available