

PROGRAM

EAST COAST NERVE NET - FIFTEENTH ANNUAL MEETING

MBL, APRIL 7, 8, 9, 1989

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Friday, April 7

- 5:30 Cocktails and Dinner - Swope Center
- 8:00 Plenary Session - Whitman Auditorium
- Neuronal cytommechanics**
Stephen J. Smith, Yale University

Saturday, April 8 - Whitman Auditorium

- 8:30 The phase shifting mechanism of a molluscan circadian pacemaker
Sat Bir S. Khalsa, University of Virginia, Charlottesville
- 8:45 What the behavior of conditional per mutants can tell us about the role of the per
gene product in the manifestation of circadian rhythmicity
John Ewer, Michael Rosbash and Jeffrey C. Hall, Brandeis University
- 9:00 A circadian rhythm in the period (per) protein of Drosophila
Danielle Zerr, Brandeis University
- 9:15 OperA - an oscillating, per-like antigen in the eye of Aplysia
Stefan Strack and Jon Jacklet, State University of New York at Albany
- 9:30 Temperature decreases cancel adaptive vestibulo-ocular reflex (VOR) gain changes
in the goldfish
¹James G. McElligott, ²Michael Weiser, and ³R. Baker, ¹Temple University, ²Cornell
University, and ³NYU Medical Center
- 9:45 The effects of hemi- and full cerebellectomy on the vestibulo-ocular reflex (VOR) in
the goldfish
¹Robert Baker, ²Michael Weiser and ³James G. McElligott, ¹NYU Medical Center,
²Cornell University and ³Temple University
- 10:00 BREAK
- 10:30 The electroantennogram and its use in studying olfactory transduction in Drosophila
Rick Ayer, Yale University
- 10:45 Persistence of sensory neurons during metamorphosis of flies
¹Reinhardt Lakes, ¹Gerald Pollack and ²David Merritt, ¹McGill University and ²State
University of New York at Albany

Saturday, April 8 -- continued

- 11:00 Modality specific axonal projections in the blowfly Phormia
David Merritt and R.K. Murphey, State University of New York at Albany
- 11:15 Role of cell lineage in development of the leech nervous system
Marty Shankland, Harvard Medical College
- 11:30 Neuronal competition generates the alternating pattern of SCP positive INS in leech
Mark Martindale, Harvard Medical College
- 11:45 Non-linear view of a non-linear cell: Proctolin effects on the excitability of
stomatogastric neurons
Jorge Golowasch, Brandeis University
- 12:00 LUNCH
- 2:00 **Coupled oscillators and the design of a central pattern generator for locomotion**
Nancy Kopell, Boston University
- 3:00 BREAK
- 3:30 Duelling rhythms: RPCM alters the interactions of two pattern generators
Carol Mecsas, Bowdoin College
- 3:45 The role of the buccal ganglion in Melibe feeding
Jim Trimarchi, University of New Hampshire, Durham
- 4:00 Mechanisms of depolarizing inhibition at the crayfish giant motor synapse
Donald Edwards, Georgia State University
- 4:15 Dissociation of monosynaptic and polysynaptic contributions to sensitization and
inhibition in the siphon withdrawal reflex of Aplysia
W. Wright, Emily Marcus and Tom Carew, Yale University
- 4:30 The relative position of feeding and courtship in the behavioral hierarchy of the
garden snail, Helix aspersa
Shelly Adamo, McGill University
- 4:45 Collision avoidance in flying locusts: A role for the DCMD neurons
David Reye, Queen's University
- 5:30-7:45 Cocktails and Dinner, Swope Center
- 8:00 Posters - See Page 4

*Proctolin - Not an effect
on K⁺, Ca⁺⁺,
voltage and Na⁺
Some other Na⁺?*

Sunday, April 9 - Whitman Auditorium

- 9:00 Immunocytochemical studies of a Drosophila protein which resembles the Alzheimer disease associated amyloid protein precursor
Liqun Luo, Brandeis University
- 9:15 Some aspects of the physiology and pharmacology of identified serotonergic neurons in the lobster
PoKay M. Ma, Harvard Medical School
- 9:30 Inhibitory control of identified serotonergic neurons in the lobster
Wendy A. Weiger, Harvard Medical School
- 9:45 Differential distribution of pigment dispersing hormone immunoreactivity in the stomatogastric nervous system of five decapod crustaceans
Larry Mortin, Brandeis University
- 10:00 Coexistence of SCP_B- an FMRFamide-like immunoreactivities in the lobster: colocalization of two peptides --OR-- colabeling of a single peptide?
Zoya Kvitash and Barb Beltz, Wellesley College
- 10:15 Serotonin, octopamine and the altered behavior induced by the parasite Polymorphus paradoxus (Acanthocephala) in Gammarus lacustris (Crustacea)
¹S. Helluy and ²J. Holmes, ¹Wellesley College and ²University of Alberta
- 10:30 BREAK
- 11:00 **Modulation of neural networks**
Eve Marder, Brandeis University

Sponsored in part by The Grass Foundation and The Marine Biology Laboratory

Saturday Evening

POSTERS - Swope Center

A simulation of the maturing cricket cercal system: effects of synaptic rearrangement
Akira Chiba and R.K. Murphey, State University of New York at Albany

Effects of ATP on potassium current in squid axons
John Clay, National Institutes of Health

Effect of elimination of the peripheral feedback on the neuronal substrate of the
Aplysia gill withdrawal reflex
Chun Xiao Falk, Hans Peter Hopp, Larry B. Cohen and Jian-young Wu, Yale Medical
School

The flight muscle of heat-pulsed Drosophila mosaics (+/shibire) with bilateral ventral
ganglion
Margaret Hummon and Walter Costello, Ohio University

A phototactic response to directional light in Aplysia
Fred Kuenzi, Scott Cruikshank, Adine Storer and Thomas Carew, Yale University

Development of sensory neurons in the legs of Phormia regina
R. Lakes and G.S. Pollack, McGill University

Descending interneurons in the male gypsy moth respond to combinations of sex-
pheromone, visual, and wind stimuli
¹R. Olberg and ²M. Willis, ¹Union College and ²University of Massachusetts

Effects of dark-rearing on Drosophila visual choice behavior
Doreen Potter, Dariusz Zawierucha, Duncan Byers and Helmut V.B. Hirsch, State
University of New York at Albany

Role of NMDA receptors in LTP and activity driven retinotopic sharpening during
regeneration of the retinotectal projection in goldfish
John T. Schmidt, State University of New York at Albany

Modulation of the Limulus gut
¹Win Watson, ¹Jim Groome, ¹Marianne deTschaschell and ²Gordon Wyse, ¹University
of New Hampshire and ²University of Massachusetts

Optical recording from the abdominal nerve cord of the American cockroach
Jian-young Wu, Larry Cohen, Chun X. Falk, Hans Hopp and Vincent Gosselin, Yale
Medical School