

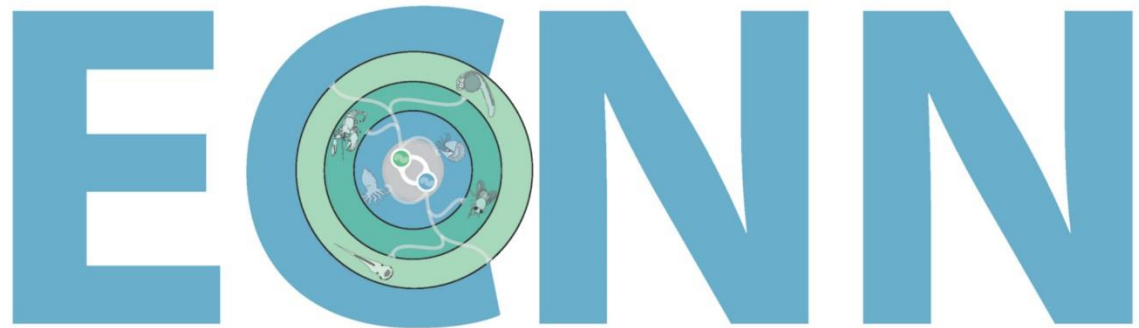
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## 39<sup>th</sup> East Coast Nerve Net

March 18<sup>th</sup> – 20<sup>th</sup>, 2016

*at the Marine Biological Laboratories, Woods Hole, MA*

# Program & Abstract Book



East Coast Nerve Net 2016

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*The East Coast Nerve Net Conference is made possible by generous support from:*



*The Company of*  
**Biologists**



**A-M SYSTEMS™**



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**Friday Evening, March 18<sup>th</sup>**

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**5:30 pm Welcome Reception** *Swope*  
*Refreshments and snacks*

**6:30 pm Dinner** *Swope*

**8:00 pm Plenary Lecture** *Rowe, Speck*

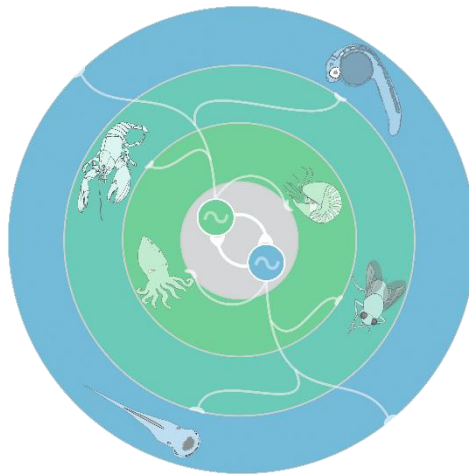
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**Dr. Edward Kravitz, Ph. D.**  
George Packer Berry Professor of Neurobiology  
**Harvard Medical School**

*A. Clifford Barger Lifetime Achievement in Mentoring Award  
Education Award of Association of Neuroscience Departments and Programs of Society for  
Neuroscience Harold Amos Diversity Award  
Founder and First Director: Program in Neuroscience, Harvard Medical  
Former President of the International Society for Neuroethology  
United States National Academy of Sciences  
Fellow of the AAAS  
Former Chair NIH-funded Center of Biological Research Excellence (COBRE)*

***“Genetic manipulations in the fruit fly fight club:  
unraveling the circuitry of higher-level aggression.”***



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**9:00 pm Friday Night Social** *MBL Club*  
*Refreshments and snacks available*

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## Saturday Morning, March 19<sup>th</sup>

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- 7:00 am**    **Breakfast** *Swope*
- 9:00 am**    **Session I Short Talks:** *Rowe, Speck*  
**Modulation of behavior**                      *Session Chair: Budhaditya Chowdhury*
- 9:00**        **How does it feel to be a caterpillar? Sensory signals and adaptive behavior in *Manduca sexta***  
*Anthony Scibelli\* and Barry A. Trimmer*
- 9:15**        **Social status-dependent Regulation of dopaminergic pathways and sensitivity of the Mauthner escape response in Zebrafish**  
*Thomas Miller\*, Katie Clements and Fadi Issa*
- 9:30**        **Short and long-lasting behavioral consequences of agonistic encounters between male *Drosophila melanogaster*.**  
*Séverine Trannoy\**
- 9:45**        **Drug-sensitive reward in crayfish**  
*Robert Huber\* and Moira van Staaden*
- 10:00 am**    **Coffee, Tea, and Pastries** *Rowe, Speck*
- 10:30 am**    **Session II Short Talks:** *Rowe, Speck*  
**Musings on Molecules**                      *Session Chair: David Sandstrom*
- 10:30**        **Reprogramming protein kinase substrate specificity through synthetic and disease-associated mutations**  
*Joshua Lubner\*, George Church, Michael Chou and Daniel Schwartz*
- 10:45**        **Octopamine acts upon OAMB on preovulatory follicle cells to regulate follicle rupture in *Drosophila***  
*Lylah Deady\* and Jianjun Sun*
- 11:00**        **An RNA-seq approach to identify genes that mediate higher-level aggression in *Drosophila melanogaster***  
*Budhaditya Chowdhury, Yick-Bun Chan and Edward Kravitz*
- 11:15**        **Post-synaptic calcium history dependence at the *Drosophila* NMJ and its implications in catch tension**  
*Maura Curran\* and Jacob Krans*
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## Saturday Afternoon, March 19<sup>th</sup>

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**12:00 pm Lunch**

*Swope*

*The Woods Hole Science Aquarium is open until 4 and is located just around the corner!  
Don't miss the talks though! <http://aquarium.nefsc.noaa.gov>*

**2:15 pm Session III Short Talks:**

*Rowe, Speck*

*Stresses and Strains and Grip, OH MY! Session Chair: Anthony Scibelli*

**2:15**

**Adaptive control of caterpillar proleg grip-release**

*Ritwika Mukherjee\*, Samuel C. Vaughan and Barry A. Trimmer*

**2:30**

**Reducing expression of giant sarcomere associated proteins: A new model and its effects on arthropod force hysteresis**

*Jacob Krans\**

**2:45**

**Stress-strain mechanics of larval fruit fly with reduced expression of titin orthologs**

*Naya McCartney\*, Abigail Cardinal and Jacob Krans*

**3:00 pm *Coffee, Tea, and Pastries***

**4:00 pm Posters & Social**

*Swope*

**ECNN Best-Poster Winner:** Fred Murphy, University of Connecticut (cash prize and the “Kravitz Krusher”)

**6:00 pm Dinner**

*Swope*

Ed & Barry's FAMOUS Margaritas!

 **QUICKS HOLE**  
TAVERN • TAQUERIA

7 PM - close

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**Sunday Morning, March 20<sup>th</sup>**

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**7:30 am**    **Breakfast**

*Swope*

**9:00 am**    ***Sunday Symposium***

*Rowe, Speck*

**9:00**    **Using larval zebrafish to examine sensory encoding**  
*Dr. Josef Trapani, Amherst College*

**9:45**    **Coffee, Tea, and Pastries**

**10:00**    **New roles for fly mechanosensors**  
*Dr. Jessica Fox, Case Western Reserve University*

**10:45**    **Closing the loop towards understanding the neural basis of navigation.**  
*Dr. Manu Madhav, Johns Hopkins University*

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**12:00 pm**    **Lunch & Departure**

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*Swope*

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*The Company of Biologists encourages East Coast Nerve Net attendees to submit to:*

The Journal of  
**Experimental  
Biology**

Journal of  
**Cell Science**

**Bi**  **BIOLOGY  
OPEN**

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## Registrants

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*ECNN Committee*

**Chair:**

**Jacob Krans, Ph.D.** Western New England University

[jkrans@wne.edu](mailto:jkrans@wne.edu)

**Organizing Committee:**

**Barry Trimmer, Ph.D.** Tufts University

**Dave Sandstrom, Ph.D.** University of Maryland

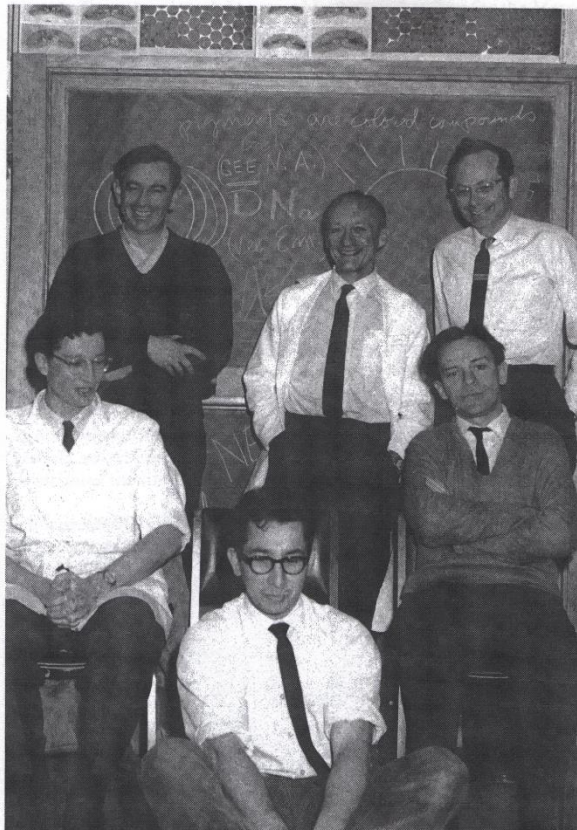
**A. Joffre Mercier, Ph.D.** Brock University, Ontario

**Anthony Scibelli,** Tufts University

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**Thank you, Ed!**

We're forever indebted for the tradition of positive spirit and exceptional intellect that you have inspired over all these decades!



With the Boys ca. 1967. Back row: Ed Furshpan, Steve, David Hubel. Front row: Dave Potter, Ed Kravitz, Torsten Wiesel. Photograph by J. Gagliardi. From Steve: Remembrances of Stephen W. Kuffler, U.J. McMahan

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