

# PAUL S. KATZ

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## ACADEMIC AND PROFESSIONAL POSITIONS:

### University of Massachusetts, Amherst, MA

2017 - present Professor of Biology and Director of Neuroscience

### Georgia State University, Atlanta, GA

2017- present Adjunct faculty, Neuroscience Institute

2016 - 2017 Regents' Professor

2013 - 2016 Distinguished University Professor

2008 - 2017 Professor, Neuroscience Institute

2006 - 2017 Professor, Department of Biology

2004 - 2017 Director, Center for Neuromics

1997 - 2006 Associate Professor, Department of Biology

### University of Texas Health Science Center, Houston, TX.

1992 - 1996 Research Assistant Professor, Department of Neurobiology and Anatomy

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## EDUCATION AND POST-DOCTORAL EXPERIENCE:

1989 - 1992 **Post-doctoral Fellow**, Dept. of Biochemistry

Brandeis University, Waltham, MA. Advisor: Dr. I.B. Levitan.

1988 **Grass Fellow**, Marine Biological Laboratory, Woods Hole, MA

1983 - 1989 **Ph.D.**, Neurobiology and Behavior

Cornell University, Ithaca, NY. Advisor: Dr. R. M. Harris-Warrick.

Thesis title: "Motor pattern modulation by serotonergic sensory cells in the stomatogastric nervous system."

1981 - 1982 **M.S.**, Neurobiology and Physiology

Northwestern University, Evanston, IL. Advisor: Dr. R. Gesteland.

1978 - 1982 **B.A.**, Integrated Science (more information available upon request)  
Northwestern University, Evanston, IL.

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### **EDITORIAL POSITIONS:**

2016 - present Editor, Encyclopedia of Invertebrate Neuroscience, Oxford University Press USA

2015 - present Neuroscience, Oxford Research Encyclopedias, Editorial Board

<http://neuroscience.oxfordre.com/page/editorial/editorial-board>

2014 - present *Journal of Neurophysiology*, Editorial Board

2010 - present *Invertebrate Neuroscience*, Editorial Board

2009 - present *Brain, Behavior, and Evolution*, Editorial Board

2008 - present *Frontiers in Neuroscience: Neural Circuits*, Associate Editor

2009 - 2014 *Journal of Neurophysiology*, **Associate Editor**

2008 - 2012 *Journal of Comparative Physiology A*, Advisory Editorial Board

2007 - present Scholarpedia.org, Editor of Invertebrate Neuroscience and Neuroethology

1999 - 2009 *Journal of Neurophysiology*, Editorial Board

1996 - 2003 *Trends in Neurosciences*, Advisory Editorial Board

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### **GRANTS:**

*Submitted* NSF (29878) MRI: Acquisition of A Variable Pressure Scanning Electron Microscope with Serial Electron Microscopy. Role (co-PI), PI (David Hoagland)

*Submitted* NSF CRCNS (1912198) Collaborative Research: Resilience of rhythm-generating neural circuits. Role (co-PI), PI (Andrey Shilnikov, GSU)

2018-2021 NIH – Brain initiative: Exploratory Team-Research BRAIN Circuit Programs - eTeamBCP (U01-NS108637), “A 5-dimensional connectomics approach to the neural basis of behavior”, role (PI), \$3,754,785 (total costs).

2015 - 2019 NSF IOS-1455527 “Neural Mechanisms underlying Evolvability of Behavior”, role (PI) \$880,000 (total costs).

2016 Brains and Behavior Seed Grant, Georgia State University, “Evo-Devo of Neural Circuits”, role (PI) \$28,500

2015 GSU Cloud Computing Grant “GANGLia: Gastropod Atlas of Neurons and Glia”

2014 - 2017 March of Dimes Foundation 6-FY14-441, “A novel animal model for studying individual variability in susceptibility to neural damage and the ability to functionally recover from it”, role (PI) \$330,000 (total costs)

2014 - 2015 Brains and Behavior Seed Grant, Georgia State University, “A novel approach for identifying ligands of orphan receptors”, role (PI) \$30,000

- 2012 - 2013 Brains and Behavior Seed Grant, Georgia State University, “Comparative analysis of neural circuit dynamics”, role (PI), \$29,926.67
- 2011 - 2015 NSF- IOS-1120950 “Evolution of Neural Circuits for Locomotion” , role (PI), \$725,000 (total costs)
- 2010 - 2012 NSF IOS-1011476 DOCTORAL DISSERTATION: Evolution of neural circuits underlying species-specific swimming behaviors in opisthobranch molluscs, (Co-PI, Joshua Lillvis), \$14,748
- 2010 - 2011 Brains and Behavior Seed Grant, Georgia State University “Comparative Expression of Serotonin Receptors”, role (PI), \$23,739.62
- 2010 Evans Research Award to support research at MBL, “Neurophysiology of homologous neurons in sea slugs”, role (PI) \$12,860
- 2008 - 2012 NSF IOS-0814411 “Evolution of Neural Circuits for Locomotion”, role (PI), \$523,206 (total costs)
- 2008 - 2010 NSF IIS-0827418 “CRCNS data sharing: Comparative Neuromics of Gastropod Molluscs”, role (PI), \$222,504 (total costs)
- 2008 NSFIOS-0804011 "Neuroethology: Behavior, Evolution & Neurobiology 2008 Gordon Research Conference, to be held on August 10-15, 2008, in Magdalen College, Oxford, UK.," (co-PI with Catherine Carr), \$30,000 (total costs)
- 2008 - 2009 Brains & Behavior Seed Grant, Georgia State University, “A model for functional recovery without nerve regeneration”, role (PI), \$20,193
- 2008 - 2009 Brains & Behavior Seed Grant, Georgia State University, “A data-driven model optimization strategy for synaptic plasticity”, (R. Clewley, PI, Katz, Co-PI) \$28,611
- 2006 - 2008 NIH R21 MH76753 “NeuronBank: A database for identified neurons and synaptic connections”, role (PI), \$180,000 (total direct costs)
- 2005 - 2010 NIH R13 NS43190 “South East Nerve Net Conference”, role (PI), \$45,000 (total direct costs)
- 2005 - 2008 NSF IOB-0445768 “Evolution of Neural Circuits for Locomotion”, role (PI), \$363,495 (total direct costs).
- 2007 NSF ISO-0710917 “Gastropod Neuroscience Conference”, role (PI), \$11,000 (total direct costs)
- 2007 Center for Behavioral Neuroscience Venture grant “Development of an invertebrate system for studying drug reinforcement” (role co-PI), \$17,487
- 2005 - 2006 Brains & Behavior Seed grant, Georgia State University, “NeuronBank: Knowledgebase of Identified Neurons and Synaptic Connections”, role (PI), \$25,976
- 2005 Center for Behavioral Neuroscience Venture Grant “Georgia Aquarium Education Project” \$6300

2004 - 2005	Brains & Behavior Seed grant, Georgia State University, "Identified Neuron Database Project", role (PI), \$36,000
2003 - 2007	NIH R01-NS035371 "Intrinsic neuromodulation of a small neuronal network", role (PI), \$832,500 (total direct costs).
2003	GSU Research Equipment Award, \$25,000
2002	GSU Research Instrumentation Grant, \$50,000
2002 - 2005	NIH R13 NS43190-01 "South East Nerve Net Conference", \$21,600
2002	NIH R01 NS35371-11S1 "Intrinsic neuromodulation of a small neuronal network", Award Supplement \$15,000 direct costs
2001	Center for Behavioral Neuroscience, "Behavioral Functions of Homologous Neurons", \$36,000
1999 - 2003	NIH R01-NS35371 "Intrinsic neuromodulation of a small neuronal network", role (PI), \$731,036
1999	NIH R01- NS35371-09S1 "Infrastructure Supplement for Intrinsic neuromodulation of a small neuronal network". \$25,000 + \$25,000 GSU cost sharing.
1998	GSU Research Program Enhancement #99-012/003/3
1995 - 1999	NIH R01-NS35371 "Intrinsic neuromodulation of a small neuronal network", role (PI), \$318,903
1992 - 1995	NIH R01-MH49563 "Intrinsic neuromodulation of a small neuronal network" role (PI).
1989 - 1992	NIH F32-MH009728 "The role of a neuropeptide in motor program control"
1984	Sigma Xi, Grant-in-Aid-of-Research
1982	Richter Research Grant for Masters Research, Northwestern University

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#### **AWARDS, HONORS AND SCHOLARSHIPS:**

2013	Outstanding Senior Faculty Award, College of Arts and Sciences, GSU
2010	C. Ladd Prosser Lecture, University of Illinois
2004	Arbas Memorial Lecture, Div. of Neurobiology, University of Arizona
1993	American Physiological Society Travel Award
1990	Graham Hoyle Fellow, Winter Conference on Brain Research
1989	Young Investigator Award, International Society for Neuroethology
1988	Grass Foundation Fellowship, Marine Biological Lab, Woods Hole, MA
1987	Sage Fellowship, Cornell University
1987	Outstanding Teaching Assistant, Neurobiology and Behavior, Cornell University
1983 - 1987	NIH pre-doctoral training grant
1982 - 1983	German Academic Exchange Service (DAAD) Sonder-direktstipendium

- 1981 Richter Summer Scholar for independent research  
Mentor: Dr. Melvin Cohen, Yale University (deceased)
- 1980 Yale University Undergraduate Research Program  
Mentor: Dr. John Fenn (Nobel Laureate, deceased)
- 1978 Gerhardt Humanitarian Award
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### **PROFESSIONAL SOCIETIES:**

American Malacological Society	Sigma Xi
American Physiological Society	Society for Neuroscience
International Brain Research Organization	Society for the Study of Evolution
International Society for Neuroethology	J.B. Johnston Club

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### **JOURNAL AND PROCEEDINGS PUBLICATIONS:**

- 1) Sakurai A and **Katz PS** (submitted) Command or Obey? Homologous neurons differ in hierarchical position for the generation of homologous behaviors. *Journal of Neuroscience*.
- 2) **Katz PS** and Quinlan PD (2019) The importance of identified neurons in gastropod molluscs to neuroscience, *Current Opinion in Neurobiology*, v56. <https://doi.org/10.1016/j.conb.2018.10.009>
- 3) Tamvacakis AN, Senatore A, and **Katz PS**. (2018) Single neuron serotonin receptor subtype gene expression correlates with behaviour within and across three molluscan species. *Proc. R. Soc. B* 285: 20180791. <http://dx.doi.org/10.1098/rspb.2018.0791>
- 4) Cook GM, Gruen AE, Morris J, Pankey MS, Senatore A, **Katz PS**, Watson WH, Newcomb JM (2018) Sequences of circadian clock proteins in the nudibranch mollusks *Hermisenda crassicornis*, *Melibe leonina*, and *Tritonia diomedea*. *Biol Bull.* 234(3): 2017-218. <https://www.journals.uchicago.edu/doi/full/10.1086/698467>
- 5) Gunaratne CA, Sakurai A, and **Katz PS** (2017) Variations on a theme: Species differences in synaptic connectivity do not predict central pattern generator activity. *Journal of Neurophysiology.* 118(2): 1123-1132 DOI: [10.1152/jn.00203.2017](https://doi.org/10.1152/jn.00203.2017).
- 6) Sakurai A and **Katz PS** (2017) Artificial Synaptic Rewiring Demonstrates that Distinct Neural Circuit Configurations Underlie Homologous Behaviors, *Current Biology.* 27(12):1721–1734.e3 <http://dx.doi.org/10.1016/j.cub.2017.05.016> [http://www.cell.com/current-biology/fulltext/S0960-9822\(17\)30552-3](http://www.cell.com/current-biology/fulltext/S0960-9822(17)30552-3)
- 7) Sakurai A, Tamvacakis AN, and **Katz PS** (2016) Recruitment of polysynaptic connections underlies functional recovery of a central pattern generator circuit after lesion. *eNeuro*, 3(4) DOI: 10.1523/ENEURO.0056-16.2016, <http://eneuro.org/content/early/2016/07/25/ENEURO.0056-16.2016>

- 8) Sakurai A and **Katz PS** (2016) The central pattern generator underlying swimming in *Dendronotus iris*: A simple half-center network oscillator with a twist. *Journal of Neurophysiology*. 116(4): 1728-1742. DOI: 10.1152/jn.00150.2016, <http://jn.physiology.org/content/116/4/1728.long>
- 9) **Katz PS** (2016) “Model organisms” in the light of evolution. *Current Biology*. 26 (14): R649–R650. DOI: <http://dx.doi.org/10.1016/j.cub.2016.05.071>  
[http://www.cell.com/current-biology/fulltext/S0960-9822\(16\)30604-2](http://www.cell.com/current-biology/fulltext/S0960-9822(16)30604-2)
- 10) **Katz PS** (2016) Phylogenetic plasticity in the evolution of molluscan neural circuits. *Current Opinion in Neurobiology*. 41: 8-16. doi:10.1016/j.conb.2016.07.004  
<http://www.sciencedirect.com/science/article/pii/S0959438816300897>
- 11) **Katz PS** (2016) Evolution of central pattern generators and rhythmic behaviours. *Phil. Trans. Royal Soc. B*. 371 (1685): 20150057. PMID:26598733, DOI: 10.1098/rstb.2015.0057  
<http://rstb.royalsocietypublishing.org/content/371/1685/20150057>
- 12) Gunaratne CA and **Katz PS** (2016) Comparative mapping of GABA-immunoreactive neurons in the buccal ganglia of Nudipleura molluscs. *Journal of Comparative Neurology*. 524(6):1181-92  
PMID:26355705, DOI: 10.1002/cne.23895.
- 13) Tamvacakis AN, Senatore A, **Katz PS** (2015) Identification of genes related to learning and memory in the brain transcriptome of the mollusc, *Hermissenda crassicornis*. *Learning and Memory*. 22(12):617-21 PMID:26572652, <http://learnmem.cshlp.org/content/22/12/617>
- 14) Sakurai A., **Katz PS** (2015) Phylogenetic and individual variation in gastropod central pattern generators. *Journal of Comparative Physiology A*. 201(9):829-39, PMID: 25837447, <http://link.springer.com/article/10.1007%2Fs00359-015-1007-6>
- 15) Senatore A, Edirisinghe N, **Katz PS** (2015) Deep mRNA sequencing of the *Tritonia diomedea* brain transcriptome provides access to gene homologues for neuronal excitability, synaptic transmission and peptidergic signalling. *PLoS One*. 10(2): e0118321. DOI:10.1371/journal.pone.0118321. PMID: 25719197 <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0118321>
- 16) Sakurai A, Gunaratne CA, **Katz PS** (2014) Two interconnected kernels of reciprocally inhibitory interneurons underlie alternating left-right swim motor pattern generation in the mollusk *Melibe leonina*, *Journal of Neurophysiology*, 112(6):1317-28. doi: 10.1152/jn.00261.2014. PMID: 24920032  
<http://jn.physiology.org/content/112/6/1317.long>
- 17) Sakurai A, Tamvacakis AN, **Katz PS** (2014) Hidden synaptic differences in a neural circuit underlie differential behavioral susceptibility to a neural injury, *eLife* 10.7554/eLife.02598 PMID: 24920390  
<http://elifesciences.org/content/3/e02598>
- 18) **Katz PS** and Lillvis JL (2014) Reconciling the deep homology of neuromodulation with the evolution of behavior, *Current Opinion in Neurobiology*.29: 39-47. PMID: 24878891  
<http://dx.doi.org/10.1016/j.conb.2014.05.002>

- 19) Gunaratne CA, Sakurai A, and **Katz PS** (2014) Comparative mapping of GABA-immunoreactive neurons in the central nervous systems of nudibranch molluscs, *Journal of Comparative Neurology*. 522(4): 794–810. PMID 24638845  
<http://onlinelibrary.wiley.com/doi/10.1002/cne.23446/abstract>
- 20) Striedter GF, Belgard TG, Chen CC, Davis FP, Finlay BL, Güntürkün O., Hale ME, Harris JA, Hecht EE, Hof PR, Hofmann HA, Holland LZ, Iwaniuk AN, Jarvis ED, Karten HJ, **Katz PS**, Kristan WB, Macagno ER, Mitra PP, Moroz LL, Preuss TM, Ragsdale CW, Sherwood CC, Stevens CF, Stüttgen MC, Tsumoto T, Wilczynski W (2014) NSF workshop report: Discovering general principles of nervous system organization by comparing brain maps across species. *J Comp Neurol*. 522(7):1445-53. **PMID: 24596113**, doi: 10.1002/cne.23568.
- 21) Striedter GF, Belgard TG, Chen CC, Davis FP, Finlay BL, Güntürkün O., Hale ME, Harris JA, Hecht EE, Hof PR, Hofmann HA, Holland LZ, Iwaniuk AN, Jarvis ED, Karten HJ, **Katz PS**, Kristan WB, Macagno ER, Mitra PP, Moroz LL, Preuss TM, Ragsdale CW, Sherwood CC, Stevens CF, Stüttgen MC, Tsumoto T, Wilczynski W (2014) NSF Workshop Report: Discovering General Principles of Nervous System Organization by Comparing Brain Maps across Species, *Brain Behavior and Evolution*. 31: 1-8.  
<http://www.karger.com/Article/Pdf/360152>
- 22) Lillvis JL and **Katz PS** (2013) Parallel evolution of serotonergic neuromodulation underlies independent evolution of rhythmic motor behavior. *Journal of Neuroscience*. 33(6):2709-17. PMID: 23392697 doi: 10.1523/JNEUROSCI.4196-12.2013  
<http://www.jneurosci.org/content/33/6/2709>
- Featured in “This week in the journal”: <http://www.jneurosci.org/content/33/6/i.full#sec-2>
  - Featured on cover: <http://www.jneurosci.org/content/33/6.cover-expansion>
  - Featured in BrainFacts.org Image of the week:  
<http://www.brainfacts.org/Brain-Basics/Cell-Communication/Articles/2013/Image-of-the-Week-A-Slugs-Life>
  - Lillvis awarded 2014 [Capranica Prize](#) for the paper by the International Society for Neuroethology
- 23) Newcomb JM, Sakurai A, Lillvis JL, Gunaratne CA, **Katz PS** (2012) Homology and homoplasy of swimming behaviors and neural circuits in the Nudipleura (Mollusca, Gastropoda, Opisthobranchia), *Proceedings of the National Academy of Sciences*. 109 Suppl 1:10669-76. PMID: 22723353. doi: 10.1073/pnas.1201877109. <http://www.pnas.org/content/109/suppl.1/10669.long>
- Featured on the cover of Volume 9, number 26: <http://www.pnas.org/content/109/26.toc>
- 24) Lillvis JL, Gunaratne CA, **Katz PS** (2012). Neurochemical and neuroanatomical identification of central pattern generator neuron homologues in Nudipleura molluscs. *PLoS One* 7 (2):e31737, 2012. PMID: 22363716 <http://dx.plos.org/10.1371/journal.pone.0031737>.

- 25) Jhala S, Tamvacakis AN, **Katz PS** (2011) Toward locating the source of serotonergic axons in the tail nerve of *Aplysia*, *Invertebrate Neuroscience*, 11(2): 91-96. PMID: 21877137, DOI 10.1007/s10158-011-0121-6.
- 26) Sakurai A, Newcomb JM, Lillvis JL, **Katz PS** (2011) Different roles for homologous interneurons in species exhibiting similar rhythmic behaviors, *Current Biology*, 21(12): 1036-1041. PMID: 21620707, doi:10.1016/j.cub.2011.04.040.
- Highlighted in: Zwart M (2011) Sea slug swimming surprise, *Journal Exp Biol* 214(23): v. doi: 10.1242/jeb.050021, <http://jeb.biologists.org/content/214/23/v.1.full?etoc>
- 27) **Katz PS** (2011) Neural mechanisms underlying the evolvability of behavior, *Philosophical Transactions of the Royal Society of London B*. 366 (1574): 2086-2099. PMID: 21690127. doi: 10.1098/rstb.2010.0336. <http://rstb.royalsocietypublishing.org/content/366/1574/2086.abstract>
- Rated 10 (Exceptional) by Faculty of 1000: Chittka L: 2011. F1000.com/13378957
- 28) Li W, Sunderraman R, and **Katz P**: A Visual Web Query System for NeuronBank Ontology. Proc. of the Workshop on Visual Interfaces to the Social and Semantic Web (VISSW 2011), Palo Alto, US, February 13, 2011, CEUR-WS.org, ISSN 1613-0073, online CEUR-WS.org/Vol-694/paper8.pdf.<http://CEUR-WS.org/Vol-694/paper8.pdf>
- 29) **Katz PS** (2010) The nature of neuroethology, *Brain Behavior and Evolution*, 73(3-4): 163-4 PMID: 21088378, DOI: 10.1159/000321719 <http://www.karger.com/Article/Abstract/321719>
- 30) **Katz PS** (2010) Comparative studies provide evidence for neural reuse, *Behavioral and Brain Sciences*, 33: 278-279. Target article: Anderson ML. (2010) Neural reuse: a fundamental organizational principle of the brain. *Behav Brain Sci*. 2010 Aug;33(4):245-66; discussion 266-313. PMID: 20964882. doi: 10.1017/S0140525X10000853.
- 31) **Katz PS**, Calin-Jageman RJ, Dhawan A, Frederick C, Guo S, Dissanayaka R, Hiremath N, Ma W, Shen X, Wang HC, Yang H, Prasad S, Sunderraman R, Zhu Y (2010) NeuronBank: a tool for cataloging neuronal circuitry. *Frontiers in Systems Neuroscience* 4:9. PMID: 20428500, doi:10.3389/fnsys.2010.00009 <http://www.frontiersin.org/systemsneuroscience/paper/10.3389/fnsys.2010.00009/>
- 32) **Katz PS** (2009) Preface to molluscan neurobiology: recent advances and new vistas. *Brain Behavior and Evolution* 74 (3):159-163. PMID: 20029180. <http://www.karger.com/Article/Abstract/258663>
- 33) Sakurai A, **Katz PS** (2009) Functional recovery following lesion of a central pattern generator. *Journal of Neuroscience* 29(42): 13115-13125. PMID: 19846699. <http://www.jneurosci.org/cgi/content/full/29/42/13115>
- Featured in "This Week in the Journal".
  - Rated 10 by Faculty of 1000 (Faculty of 1000 Biology: evaluations for Sakurai A & Katz PS *J Neurosci* 2009 Oct 21 29 (42): 13115-25



- 34) **Katz PS** and Newcomb JM (2009) Brains of Beauties: The swimming styles of sea slugs demonstrate how malleable neural circuitry can be. *Natural History* 118 (4):36-41.
- 35) Sakurai A, **Katz PS** (2009) State-, timing-, and pattern-dependent neuromodulation of synaptic strength by a serotonergic interneuron. *Journal of Neuroscience*. 29(1):268-79. PMID: 19129403. <http://www.jneurosci.org/cgi/content/full/29/1/268>.
- 36) Newcomb JM, **Katz PS**. (2009) Different functions for homologous serotonergic interneurons and serotonin in species-specific rhythmic behaviours. *Proceedings of the Royal Society B: Biological Sciences*. 276(1654):99-108. PMID: 18782747  
<http://rspb.royalsocietypublishing.org/content/276/1654/99.abstract>
- 37) Hill ES, Sakurai A, **Katz PS**. (2008) Transient enhancement of spike-evoked calcium signaling by a serotonergic interneuron, *Journal of Neurophysiology*. 100(5):2919-28. PMID: 18815341
- 38) Clemens S, Calin-Jageman RJ, Sakurai A, and **Katz PS** (2007) Altering cAMP levels within a central pattern generator modifies or disrupts rhythmic motor output. *Journal of Comparative Physiology A*. 193(12):1265-71. PMID: 17972082
- 39) Sakurai A, Calin-Jageman RJ, and **Katz PS** (2007) The potentiation phase of spike timing-dependent neuromodulation by a serotonergic interneuron involves an increase in the fraction of transmitter release. *Journal of Neurophysiology*. 98(4):1975-87. PMID: 17686912
  - Reviewed by Faculty of 1000 <http://www.f1000biology.com/article/id/1096014>
- 40) Calin-Jageman R, Tunstall M, Mensh B, and **Katz PS**, Frost WN (2007) Parameter space analysis suggests multi-site plasticity contributes to motor pattern initiation in *Tritonia*. *Journal of Neurophysiology* 98(4):2382-98. PMID: 17652417
- 41) E.S. Hill and **P.S. Katz** (2007) The role of membrane potential in calcium signaling during rhythmic bursting in *Tritonia* swim interneurons. *Journal of Neurophysiology*, 97(3): 2204-2214 PMID: 17229821
- 42) E.S. Hill and **P.S. Katz** (2007) The role of membrane potential in calcium signaling during rhythmic bursting in *Tritonia* swim interneurons. *Journal of Neurophysiology*, 97(3): 2204-2214.
- 43) R.J. Calin-Jageman, A. Dhawan, H. Yang, H.-C. Wang, H. Tian, P. Phoungphol, C. Frederick, J. Balasooriya, Y. Chen, S.K. Prasad, R. Sunderraman, Y. Zhu, and **P.S. Katz** (2007) Development of NeuronBank: A Federation of Customizable Knowledge Bases of Neuronal Circuitry, *Proceedings of the Ist IEEE International Workshop on Service Oriented Technologies for Biological Databases and Tools - IEEE Services Computing Workshops (SOBDAT/SCW 2007)*. July 13, Salt Lake City, Utah.
- 44) R.J. Calin-Jageman, C. Xie, Y. Pan, A. Vandenberg & **P.S. Katz** (2007) NEURONgrid: A toolkit for generating parameter-space maps using NEURON in a grid environment. In *LNCS Lecture Notes in Bioinformatics*, v. 4463. I. Mandoiu and A. Zelikovsky (Eds.), pp. 182–191.
- 45) **P.S. Katz** (2007) Evolution and Development of Neural Circuits in Invertebrates. *Current Opinion in Neurobiology*, 17(1): 59-64. PMID: 17174546

- 46) J.M. Newcomb and **P.S. Katz** (2007) Homologues of serotonergic central pattern generator neurons in related nudibranch molluscs with divergent behaviors. *Journal of Comparative Physiol. A.* 193(4): 425-443. PMID: 17180703
- Reviewed by Faculty of 1000 Biology <http://www.f1000biology.com/article/id/1081940>
- 47) W.B.Kristan and **P. Katz** (2006) Form and function in systems neuroscience. *Current Biology.* 16(19): R828-R831.
- 48) J.M. Newcomb, D.J. Fickbohm, and **P.S. Katz** (2006) Comparative mapping of serotonin-immunoreactive neurons in the central nervous systems of nudibranch molluscs. *J. Comparative Neurology*, 499(3): 484-505.
- 49) R.J. Calin-Jageman and **P.S. Katz** (2006) A distributed computing tool for generating neural simulation databases. *Neural Computation.* 18(12):2923-7
- 50) **P.S. Katz** (2006) Comparative Neurophysiology: An Electric Convergence in Fish [Dispatch]. *Current Biology* 16(9): R327-R330.
- 51) A. Sakurai, N.R. Darghouth, R.J. Butera, and **P.S. Katz** (2006) Serotonergic enhancement of a 4-AP-sensitive current mediates the synaptic depression phase of spike-timing dependent neuromodulation. *Journal of Neuroscience.* 26: 2010 - 2021
- 52) H. Tian, R. Sunderraman, R. Calin-Jageman, H. Yang, Y. Zhu, and **P.S. Katz** (2006) NeuroQL: A Domain-Specific Query Language for Neuroscience Data, *Current Trends in Database Technology – EDBT 2006, Series: Lecture Notes in Computer Science.* v. 4254: pp 613-634
- 53) H. Tian, Y. Wang, H. Yang, R. Sunderraman, **P.S. Katz** and Y. Zhu, (2005) “A novel neuron data model with domain specific query language”, *Proceedings of the 27<sup>th</sup> Ann. Internl. Conference of the IEEE Engineering in Medicine and Biology Society*, Sep. 1-4, 2005, Shanghai, China.
- 54) J. A. Pamplin, Y. Zhu, **P.S. Katz**, R. Sunderraman (2005) A 3D User Interface for Visualizing Neuron Location in Invertebrate Ganglia, *Proceedings of the 4th International Workshop on Computer Graphics and Geometric Modeling, Lect. Notes in Computer Science*, 3515: 347 – 350.
- 55) D.J. Fickbohm, N. Spitzer, **P.S. Katz** (2005) Pharmacological manipulation of serotonin levels in the nervous system of the opisthobranch mollusc *Tritonia diomedea*. *Biol. Bulletin* 209: 67-74.
- 56) **P.S. Katz**, A. Sakurai, S. Clemens, D. Davis (2004) The Cycle Period of a Network Oscillator is Independent of Membrane Potential and Spiking Activity in Individual Central Pattern Generator Neurons. *Journal of Neurophysiology.* 92(3):1904-17.
- 57) C.P. Lynn-Bullock, K. Welshhans, S.L. Pallas, **P.S. Katz** (2004) The effect of oral 5-HTP administration on 5-HTP and 5-HT immunoreactivity in monoaminergic brain regions of rats. *J.Chemical Neuroanatomy.* 27(2):129-138.
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**INVITED TALKS:**

- 2019 Invited Speaker, Bauer Seminar Series, Brandeis University, Waltham, MA, “Phylogenetic and individual variability of neural circuits underlying swimming behaviors in sea slugs”
- 2019 Invited Speaker, Trinity College, Hartford, CT, “The many ways for a sea slug to swim: Evolution of neural circuits in nudibranchs”.
- 2018 Invited Speaker, Cornell University, Ithaca, NY, “Phylogenetic and individual variability of neural circuits underlying swimming behaviors in sea slugs”.
- 2018 Invited Speaker, University of Maryland, College Park, MD, “Phylogenetic and individual variability of neural circuits underlying swimming behaviors in sea slugs”.
- 2018 Invited Speaker, Western New England University, Springfield, MA, “Evolution of neural circuits underlying swimming in sea slugs”.
- 2018 Invited Speaker, “Many ways to swim a sea slug: Individual and phylogenetic variability of neural circuits”, Worcester Polytechnic Institute, Worcester, MA.
- 2018 Invited Speaker for “Frequently Unasked Questions in Neuroscience” Conference, Alicante, Spain.
- 2018 Invited Symposium Speaker, “Homologous behaviors produced by circuits of homologous neurons using different neural mechanisms” at Neuro-Evo: A Comparative Approach to Cracking Circuit Function II, Janelia Farm Research Campus, Howard Hughes Medical Institute, Ashburn, VA
- 2017 Bullock Lecture, “Phylogenetic and individual variability of neural circuits underlying swimming behaviors in sea slugs”, Founders Day, UCSD, LaJolla, CA.
- 2017 Invited Seminar Speaker, “Phylogenetic and individual variability of neural circuits underlying swimming behaviors in sea slugs”, Center for Brain Science, Harvard University, Cambridge, MA
- 2017 Invited Speaker, “Species-Differences in Neuromodulation Underlie Evolution of Behavior”, Gordon Research Conference, Modulation of Neural Circuits and Behavior, Newry, ME
- 2017 Invited Symposium Speaker, “Neural circuits underlying swimming in nudibranch molluscs”, EMBO | EMBL Symposium on Neural Circuits in the Past, Present, and Future, Heidelberg, Germany
- 2017 Invited Symposium Speaker, “Evolution of motor behaviors in sea slugs”, at the Suddath Symposium, “Neuromodulation and Synaptic Control: Modern Tools and Applications”, Georgia Institute of Technology, Atlanta, GA.
- 2017 Invited Keynote Speaker, “ ‘Model organisms’ in the light of evolution” at the 8<sup>th</sup> Aquatic Animal Models of Human Disease Conference, Birmingham, AL.
- 2016 Seminar speaker, “Individual and Species Differences in Neural Mechanisms underlying Behavior in Nudibranch Molluscs”, University of Florida, Department of Biology.

- 2016 Invited speaker, “Evolution of central pattern generator circuits underlying rhythmic swimming behaviors in sea slugs” at “Neuro-evo: a comparative approach to cracking circuit function.” HHMI Janelia Research Campus.
- 2016 Invited speaker, “The many ways to swim a slug”, Department of Biology Seminar Series, Emory University
- 2015 Invited speaker, “Variations on a theme: Neural circuits underlying swimming behaviors in sea slugs”, Bryn Mawr College
- 2015 Invited speaker in Fifteenth Symposium of the Center for Neuroendocrine Studies, University of Massachusetts, Amhurst, Center for Neuroendocrine studies. Talk title: “Neurons, neurotransmitters and behavior: Same, same but different, yet still the same”
- 2015 Invited speaker in Small Scale Brain Initiatives, International Neuroinformatics 2015, Cairns, Australia, “Comparative neural circuitry in sea slugs; a multiplicity of mechanisms to produce species-specific behaviors” <http://neuroinformatics2015.org/program/workshops>
- 2015 Invited seminar speaker, University of Georgia Neuroscience, “The Evolution of Swimming Behaviors and their Neural Circuits in Nudibranch Sea Slugs”.
- 2015 Invited Session Chair at “Origin and evolution of the nervous system”, The Royal Society, London, England.
- 2015 Invited Speaker: “Distinct neural mechanisms underlie analogous behavior produced by homologous neurons in Nudipleura molluscs” at *Homology and convergence in nervous system evolution*, The Royal Society at Chicheley Hall, home of the Kavli Royal Society International Centre, Buckinghamshire, England
- 2013 Invited Participant: Phylogenetic Principles of Brain Structure and Function: Brain Maps Across Phylogeny. HHMI-Janelia Farm Research Campus, Ashburn, VA, Oct. 23-25, 2013, <http://understandingthebrain.org/>
- 2013 Invited Speaker: Gordon Research Conference, Neuroethology: Behavior, Evolution, & Neurobiology, Mount Snow, West Dover, VT, Aug 18-23, 2013, "Homoplasy of neural circuits: How many ways are there to swim a slug?" <http://www.grc.org/programs.aspx?year=2013&program=neureth>
- 2013 Invited Symposium Speaker: International World Congress of Malacology, Azores, Portugal, “Independent Evolution of Swimming Behaviors in Nudibranchs Inferred from Neural Mechanisms”
- 2013 Invited Speaker, Washington University, St. Louis. “There’s more than one way to swim a slug: Variations on a neural circuit theme”
- 2012 Invited Speaker, International Molluscan Neuroscience Conference, Florida Atlantic University
- 2012 Invited Speaker, Sackler Colloquium of the National Academy of Sciences, “In the Light of Evolution VI: Brain and Behavior, Beckman Center, Irvine, CA.

- 2011 Invited Conference Speaker, Vienna Biocenter, PhD Symposium, “Think Alternative: Insights from Unconventional Model Organisms”.
- 2011 Invited Colloquium speaker, “Evolution of Neural Circuits”, The Banbury Center, Cold Spring Harbor Laboratory, 7-7 Dec 2011
- 2011 Invited Speaker, University of Montreal
- 2010 Invited Speaker, University of Massachusetts, Worcester
- 2010 Invited Lecturer in the Advanced School of Neuroethology in Argentina, sponsored by the International Brain Research Organization – International Society for Neuroethology
- 2009 Invited Symposium Speaker, Harvard University
- 2008 Invited Speaker, Univ. California Riverside
- 2008 Invited Speaker, Grass Fellows, MBL Woods Hole
- 2007 Symposium Speaker, Society for Neuroscience, San Diego, CA
- 2007 Symposium Speaker, International Society for Neuroethology, Vancouver, Canada
- 2007 Scholar in Residence, Neural systems and Behavior course, MBL, Woods Hole, MA.
- 2007 Invited Speaker, University of Texas Health Science Center, Houston, TX
- 2007 Invited Speaker, University of California, Davis
- 2007 Keynote Speaker, Institute on Neuroscience, Atlanta, GA
- 2006 Invited speaker, University of Virginia, Department of Biology
- 2006 Symposium speaker, Conference on Origin and Regulation of Bursting Activity in Neurons, Atlanta, GA.
- 2006 Invited speaker, Clayton State College and University
- 2005 Invited speaker, University of Kentucky, Dept. of Physiology, Lexington, KY.
- 2005 Invited speaker, Seminar, Agnes Scott College, Decatur, GA.
- 2005 Invited speaker, Symposium: New Developments in the Neural Control of Locomotion, Georgia Institute of Technology
- 2005 Invited speaker, Neuroethology Symposium, University of Maryland.
- 2005 Invited speaker, Neurobiology Symposium, College of William and Mary, Williamsburg, VA.
- 2005 Invited speaker, Neuroscience Program, Wesley University, Middletown, CT.
- 2004 Invited speaker, Banbury Conference on the Evolution of Nervous Systems, Cold Spring Harbor, NY.
- 2004 Invited speaker, Keck Center Distinguished Lecture, North Carolina State University
- 2003 Invited speaker, Department of Psychology, Oglethorpe University, Atlanta, GA.
- 2002 Invited speaker at Festschrift for Edward Kravitz, Marine Biological Laboratory, Woods Hole, MA.
- 2002 Invited speaker at the Gordon Research Conference on Neuroethology, “Serotonergic neuromodulation in *Tritonia*, *Aplysia*, and other Opisthobranch Molluscs: Similar actions and homologous neurons but different behaviors.” Oxford University, UK.

- 2002 Medical Sciences Program, University of Indiana, "Serotonin and Second-Messenger Signaling in Swimming Seaslugs"
- 2001 Stomatogastric Symposium, "The accidental CPG: the story of serotonin and swimming in *Tritonia*". San Diego CA.
- 2001 Department of Biomedical Sciences, College of Veterinary Medicine, Iowa State University, Ames, IA.
- 2000 Department of Physiology & Biophysics, Mount Sinai Medical Center, New York
- 2000 Department of Physiology, Emory University.
- 2000 Keynote Speaker South East Nerve Net Meeting: "Integrating neuromodulatory actions into a simple neuronal circuit"
- 2000 Department of Neurobiology and Behavior, Cornell University.
- 2000 Invited Symposium Speaker: Swimming in Opisthobranch Mollusks: Contributions to Control of Motor Behavior, "Control of serotonergic actions within the *Tritonia* swim circuit.", Annual Meeting of the Soc. for Integrative and Comparative Biology, Atlanta GA.
- 1999 Department of Biology, University of North Carolina at Charlotte.
- 1999 Invited Symposium Speaker: Perspectives in the Neurobiology of Movement Control: From Systems to Subcellular Level: Blaubeuren Germany
- 1999 Section of Neurobiology, Free University, Berlin, Germany
- 1999 Invited talk at the Spring Symposium on the Neural Control of Movements, Sponsored by the Atlanta Chapter of the Society for Neurosciences, "The Roles of Neuromodulation in the Control of Central Pattern Generators"
- 1999 Department of Zoology, University of Oklahoma, Norman, OK.
- 1998 Department of Biology, Spelman College, Atlanta, GA.
- 1998 New York Academy of Sciences Conference, Neuronal Mechanisms for Generating Locomotor Activity, New York City, NY.
- 1997 Short Talk, Gordon Conference on Neural Plasticity
- 1997 Grass Foundation Lecture, East Coast Nerve Net, MBL, Woods Hole, MA
- 1997 Invited Symposium lecture, British Physiological Society Meeting, Plymouth England.
- 1996 Center for Complex Systems, Brandeis University, Waltham, MA.
- 1995 Department of Zoology, University of Texas, Austin, TX.;
- 1995 Division of Neuroscience, Baylor College of Medicine, Houston, TX.
- 1994 Invited Symposium Speaker, Neural Control of Movement Meeting, Maui, Hawaii.
- 1993 Invited Symposium Speaker, XXXII Congress of the International Union of Physiological Sciences, Glasgow, Scotland.
- 1993 Department of Biology, Colorado State University, Fort Collins, CO.
- 1990, 92, 94, 99, 02, 05 Winter Conference on Brain Research.

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**TEACHING:**

**Courses taught at the University of Massachusetts**

NSB 617 Cellular, Molecular, Developmental Neuroscience

Biol 891A Graduate Seminar

NSB 891B Synapses, Circuits, Behavior

**Courses taught at Georgia State University:**

Biol4102/6102 Fundamentals of Neurobiology

Biol 6102, Neur 6010 Neurobiology

Biol/Neur 8020 NeuroII: Integrative Neuro.

Biol 4970 Undergraduate seminar

Biol 8700 Graduate seminar

Biol 895 Biological Oscillators

Biol 8950 Mechanisms of Evolution

Biol 8950 Biological Imaging

Neur/Biol 4040/6040 Neuroethology

Neur 8010 Neuroscience I

**External Courses organized**

- 2008-2012 Co-director, Neural Systems and Behavior, MBL, Woods Hole, MA,
- 2012 Co-organized Neural Systems and Behavior Course, São Paulo School of Advanced Science, Brazil

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**POST-DOCS MENTORED:**

- Dr. David J. Fickbohm – currently faculty at Santa Monica College, CA
- Dr. Lyudmila Popova – currently faculty at Moscow State University, Russia
- Dr. Stefan Clemens – currently Associate Professor at Brody School of Medicine, East Carolina University, NC
- Dr. Robert J. Calin-Jageman – currently Associate Professor at Dominican University, IL
- Dr. Evan Hill – currently Research Assistant Professor at Rosalind Franklin Medical School, IL
- Dr. Adriano Senatore – currently Assistant Professor at University of Toronto
- Dr. Akira Sakurai - currently senior research scientist at Georgia State University
- Dr. Desmond Ramirez (currently in lab)
- Dr. Brandon Drescher (currently in lab)

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**STUDENTS MENTORED:**

**Ph.D.**

- Katherine Bates – started September 2018
- Phoenix Quinlan – started September 2017



- Katja Kümmerlen – visiting PhD student from the University of Konstanz, Germany (September – December 2018)
- Arianna Tamvacakis – Dissertation 05/10/17: “Investigating Serotonin Receptor Expression in Single Homologous Neurons Underlying Independently Evolved and Species-Specific Behaviors”
  - [http://scholarworks.gsu.edu/neurosci\\_diss/30/](http://scholarworks.gsu.edu/neurosci_diss/30/)
- Irene Elices – visiting PhD student from the University of Madrid (September – December 2016)
- Charuni A. Gunaratne – Dissertation 05/11/15: “Evolution of swimming behaviors in nudibranch molluscs: A comparative analysis of neural circuitry”
  - [http://scholarworks.gsu.edu/neurosci\\_diss/21/](http://scholarworks.gsu.edu/neurosci_diss/21/)
  - Currently Post-doc at Harvard University with Benjamin de Bivort
- Joshua L. Lillvis – Dissertation 08/08/12: “A comparative analysis of the neural basis for dorsal-ventral swimming in the nudipleura”
  - [http://digitalarchive.gsu.edu/biology\\_diss/119/](http://digitalarchive.gsu.edu/biology_diss/119/)
  - Currently post-doc at Janelia Farm Research Campus of the Howard Hughes Medical Institute with Barry Dickson
- James M. Newcomb – Dissertation 2006: Homologous neurons and their locomotor functions in Nudibranch molluscs
  - [http://scholarworks.gsu.edu/biology\\_diss/15/](http://scholarworks.gsu.edu/biology_diss/15/)
  - Currently Associate Professor at New England College, NH

**M.S.**

- Amirah Hurst – GSU, currently finishing in Anne Murphy’s lab at Georgia State University
- Şeydanur Tıkır, MS Thesis: 2016: A comparative analysis of nicotinic acetylcholine receptors and cholinergic neurons in nudipleura molluscs.
  - [http://scholarworks.gsu.edu/biology\\_theses/73/](http://scholarworks.gsu.edu/biology_theses/73/)
  - Currently PhD Student at Albert Einstein Medical School.
- Christina Lynn: Currently MD

**Non-thesis research MS**

- Kristie Welshhans, Yokesh Balaraman, May Chen, Argo Dalapati, April Crenshaw, Aashta Vashista

**Undergraduates and Post-bacs:**

University of Massachusetts Amherst: Sebastian Gomez (Honors Thesis), Margot Wheeler, Saimire Yimingjiang, Mai Nguyen (Honor Thesis), Ben Avrahami, Daniela Molina, Thi Bui (Honors Thesis), Kelly Fisher, Bhoomi Patel, Nika Eringros, Niah Holz, Daniel Nguyen, Victoria Donescu, Jackson Southard, Amanda Cho, Ashley Sheehan, Hongli Zheng, Shivani Patel, Phillip Van, Alexander van Alphen, Kristina Nedeljkovic.

Georgia State University: Skishnell Nairn, Julie Shwiller, Todd Cook, Steve-Felix Belinger, Deron Davis, Ann Reedy, Priyal Shah, Michele Naugle, Nina Milosavljevic, Sagar Jhalla, Mercy Abonambugre, James Griffin, Punam “Pooja” Mandania, Caleb Young, Britessia Smith (NET/work), Stephen Pendleton, Roseanne Tan, Shalin Jyotishi, Preetham Ganupuru (Honors College, Brains & Behavior Scholar, Molecular Basis of Disease Scholar), Ryan Szczech, Aiyana Batton (NET/work), Jonathan Boykin, Amirah Hurst, Anastasia Schultz, Elif Diricanli, Vidya Chenji, Rachael Beaumont, Ebah Boigny,

**High School Students:** Rachael Beaumont, Lynn Jacobs

**Other researchers mentored in the lab:** Prashanth Irudayaraj, Alexandra Fowler, Saba Khan

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### **AD HOC REVIEWER:**

Behavioral Neuroscience Journal	Journal of Neurophysiology
Biological Bulletin	Journal of Neuroscience
BioScience	Journal of Neuroscience Methods
Brain Behavior and Evolution	Journal of Physiology
Brain Research	Learning and Memory
Cell Tissue Research	MacArthur Foundation
Current Biology	Max Planck Society
Comparative Biochemistry and Physiology	National Institutes of Health, IFCN-5, Fo2B
Developmental Biology	National Science Foundation
Developmental Cell	NSERC of Canada
Evolution and Development	Nature
Experimental Brain Research	Nature Neuroscience
Frontiers in Zoology	Naturwissenschaften
Frontiers in Behavioral Neuroscience	Neuron
Human Frontiers Science Program	PLoS One
Invertebrate Biology	Proceedings of the National Academy of Science
Invertebrate Neuroscience	Neurobiology of Learning and Memory
Journal of Comparative Physiology A	Science
Journal of Comparative Neurology	Trends in Neurosciences
Journal of Experimental Biology	U.S.A.-Israel Binational Science Foundation
Journal of Neurobiology	Zoological letters

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**PROFESSIONAL SERVICE:**

- 2018 NIH Special Emphasis Panel: BRAIN eTeamBCP U01 Review (ZNS1 SRB K14)
- 2016 - 2019 Program Committee, Society for Neuroscience
- 2016 - 2018 Program Committee for the International Congress of Neuroethology, Brisbane Australia
- 2017 NSF IOS-ORG review panel
- 2017 NSF NeuroNex Grant review panel #4
- 2016 NIH Study section: Computational Blueprint 2016/10 ZDA1 SXM-M (11) R
- 2016 Organized short course, "Big Data in Neuroscience", Winter Conference on Brain Research
- 2014 - 2016 Konishi Neuroethology Research Award Committee, International Society for Neuroethology
- 2007 – 2016 Executive Committee, International Society for Neuroethology
- 2015 NIH Special Emphasis Panel BRAIN Initiative 005
- 2015 NSF Preliminary Proposal Panel
- 2014 NIH Special Emphasis Panel BRAIN Initiative 009
- 2013 NIH Study section member NSD-B
- 2013 NSF Review panel
- 2010 - 2012 President of the International Society for Neuroethology
- 2007 - 2012 Co-director, Neural Systems and Behavior Course, MBL, Woods Hole, MA
- 2009 – 2010 Co-edited Special Edition of *Frontiers in Behavioral Neuroscience* on Neuroethology, [http://www.frontiersin.org/behavioral\\_neuroscience/specialtopics/neuroethology/68](http://www.frontiersin.org/behavioral_neuroscience/specialtopics/neuroethology/68)
- 2009 Edited Special Edition of *Brain, Behavior and Evolution* on Molluscan Neuroscience. 74, #3, 2009  
<http://content.karger.com/ProdukteDB/produkte.asp?Aktion=showproducts&searchW hat=books&ProduktNr=253693>
- 2009 NSF Panel reviewer
- 2009 – present Program on Ontologies for Neural Structures Representation and Deployment task force, International Neuroinformatics Coordinating Facility (INCF)  
<http://www.incf.org/core/programs/pons>
- 2006 – 2012 Executive board of the Atlanta Chapter of the Society for Neuroscience served as president 2007-2009
- 2005 – 2008 Co-chair of the Gordon Conference on Neuroethology, Oxford University
- 2007 Organizer of FHL Centennial Symposium: Gastropod Neuroscience, Friday Harbor

- 2004 Organizer of the Identified Neuron Database Workshop  
([http://brainsbehavior.gsu.edu/past\\_events/id\\_wkshp.html](http://brainsbehavior.gsu.edu/past_events/id_wkshp.html))
- 2003 – 2006 Society for Neuroscience Chapters Committee
- 2003 – 2005 Program Committee, Winter Conference on Brain Research
- 2002 – present South East Nerve Nerve Steering Committee
- 2002, 04, 06 Organizer of the Annual South East Nerve Net Conference
- 2002 – 2005 Assistant co-chair of the Gordon Conference on Neuroethology, Oxford England
- 2002 Conservation and Research Planning Committee for the Georgia Aquarium
- 2002 Founding member and previous web master for Georgia Citizens for Integrity in Science Education (<http://www.georgiascience.org/>)
- 2000 – 2003 Director of the graduate program for the Center for Behavioral Neuroscience
- 1998 – present Developed and maintained the website for the Atlanta Chapter of the Society for Neuroscience
- 1997 – 2002 Mentor for Elementary Science Education Partners (ESEP)
- 1997 – 1999 Councilor for the Atlanta Chapter of the Society for Neurosciences
- 1995 – 2001 Program Committee, Winter Conference on Brain Research
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### **UNIVERSITY SERVICE:**

- 2018 – 2019 Psychological and Brain Sciences Faculty Search Committee, UMass
- 2018 – 2019 Biology Department Faculty Search Committee, UMass
- 2018 - 2019 Neuroscience and Behavior Graduate Program leader, UMass
- 2018 - 2019 Neuroscience and Behavior graduate program steering committee, UMass
- 2017 – 2018 Undergraduate Neuroscience major committee, UMass
- 2017 – 2018 Biology Department hiring priorities committee, UMass
- 2017 - 2018 Neuroscience Faculty Search Committee, Biology Dept. UMass, co-Chair
- 2016 Neuroscience Institute Search Committee, GSU, Chair
- 2016 Neuroscience Graduate Program Committee, GSU
- 2016 Neuroscience Institute Curriculum Committee, GSU, Chair
- 2015 – 2017 Neurogenomics Fellowship Committee, GUS, Chair
- 2015 - 2017 Georgia State University Research Foundation Board
- 2015 - 2016 Neuroscience Institute website committee
- 2014-2016 Neuroscience Institute Bylaws committee
- 2014 Provost's Faculty Fellowship review committee
- 2011, 2013 Chair search committee for Neurogenomics, Georgia State University

- 2011 - 2017 University Senate, Georgia State University:  
Research Committee, Admissions and Standards Committee, Upper-Division  
Admissions Committee
- 2011 Undergraduate Program Committee, Neuroscience Institute, Georgia State Univ.
- 2008- 2016 Executive Committee, Neuroscience Institute, Georgia State University
- 2005 – 2007 GSU Coordinating Committee for Underrepresented Faculty Mentoring
- 2004 – 2007 Co-chair of the Neurons & Networks Research Group in the Brains & Behavior initiative  
at GSU.
- 2003 – 2005 Chair of Biology Department Seminar Committee
- 2003 – 2006 GSU fire safety committee
- 2001 Provost’s Committee: Web Instructional Support Planning Team (WebISPT)
- 1998 – 1999 Graduate advisor for Neurobiology and Behavior Program, Georgia State University
- 1997 – 2008 Supervisor of GSU Biology web site (<http://biology.gsu.edu>)
- 1995 – 1997: Web site development, Dept. of Neurobiology and Anatomy, Univ. Texas Med School
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#### **RECENT COMMUNITY OUTREACH:**

- 2018 Organized UMass Week of Memory and Forgetting  
<https://blogs.umass.edu/ions/2018/09/01/umass-week-of-memory-and-forgetting-science-society-and-senescence/>
- 2018 Radio Interview on “Lab Talk with Laura” <https://soundcloud.com/labtalkwithlaura/ep-11-paul-lil-and-tricia-4318>