Dr. Jens Herberholz

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Education

1999	Dr. rer. nat. (PhD, Natural Sciences)	Technical University Munich, Germany
1995	Diplom (M.Sc., Zoology)	Albert-Ludwigs-University Freiburg, Germany
1992	Vordiplom (B.Sc., Biology)	Albert-Ludwigs-University Freiburg, Germany

Academic Positions

7/2013 - present	<u>Director</u> , Neuroscience and Cognitive Science Program (NACS), University of Maryland, College Park, USA
1/2012 - 7/2012	<u>Visiting Professor</u> (sabbatical), Department of Zoology, Technical University Munich, Germany
8/2011 - present	<u>Associate Professor</u> (tenured), Department of Psychology, University of Maryland, College Park, USA
8/2005 - 8/2011	<u>Assistant Professor</u> , Department of Psychology, University of Maryland, College Park, USA
1/2002 - 7/2005	<u>Research Scientist</u> , Department of Biology, Georgia State University, Atlanta, USA
8/1999 - 12/2001	<u>Postdoctoral Research Associate</u> , Department of Biology, Georgia State University, Atlanta, USA

Affiliations & Memberships

2009 - present	Affiliate Faculty Member, Department of Biology, University of Maryland, College Park
2009 - 2013	Affiliate Faculty Member, Center for Comparative and Evolutionary Biology of Hearing, University of Maryland, College Park
2005 - present	Affiliate Faculty Member, Neuroscience & Cognitive Science Graduate Program (NACS), University of Maryland, College Park
2003 - 2005	Member, Center for Behavioral Neuroscience, Atlanta
2003 - present	Member, International Society for Neuroethology
2000 - present	Member, Society for Neuroscience

Awards & Honors

- 2012 <u>Emerging Scholars Program Award</u>; College of Behavioral and Social Sciences, University of Maryland, College Park
- 2008 <u>Research Support Award</u>; General Research Board, Graduate School, University of Maryland, College Park
- 2007 <u>Faculty Mentor Award</u>; Philip Merrill Presidential Scholars Program, University of Maryland, College Park
- 2006 <u>Summer Research Award</u>; General Research Board, Graduate School, University of Maryland, College Park

Publications

A) Peer-reviewed articles and book chapters

- Herberholz J. (2014) Neurobiology of social status in crustaceans. In: <u>The Natural History of the</u> <u>Crustacea, Vol. 3: Crustacean Nervous Systems and Their Control of Behavior</u>, C. Derby and M. Thiel (eds). Oxford University Press, 457-483.
- 2. **Herberholz J.** (2013) Serotonergic modulation of aggression. In: <u>Serotonin: Biosynthesis,</u> <u>Regulation and Health Implications</u>, F.S. Hall (ed.). NOVA Science Publishers, 27-51.
- Sullivan J.M. and Herberholz J. (2013) Structure of the nervous system: general design. In: <u>The</u> <u>Natural History of the Crustacea, Vol. 1: Functional Morphology and Diversity</u>, L. Watling and M. Thiel (eds). Oxford University Press, 451-484.
- 4. **Herberholz J.** and Marquart G. (2012) Decision making and behavioral choice during predator avoidance. *Frontiers in Neuroscience* 6:125. doi: 10.3389/fnins.2012.00125.
- 5. **Herberholz J.**, Mishra S.H., Uma D., Germann M.W., Edwards D.H., and Potter K. (2011) Noninvasive imaging of neuroanatomical structures and neural activation with high-resolution MRI. *Frontiers in Neuroscience* 5:16. doi: 10.3389/fnbeh.2011.00016.
- 6. Liden W.H., Phillips M.L. and **Herberholz J.** (2010) Neural control of behavioral choice in crayfish. *Proceedings of the Royal Society B: Biological Sciences* 277: 3493-3500.
- 7. Liu Y.C. and **Herberholz J.** (2010) Sensory activation and receptive field organization of the lateral giant escape neurons in crayfish. *Journal of Neurophysiology* 104: 675-684.
- 8. **Herberholz J.** (2009) Recordings of neural circuit activation in freely behaving animals. *Journal of Visualized Experiments* 29, doi: 10.3791/1297.
- 9. Graham M.E. and **Herberholz J.** (2009) Stability of dominance relationships in crayfish depends on social context. *Animal Behaviour* 77, 195-199.
- 10. Liden W.H. and **Herberholz J.** (2008) Behavioral and neural responses of juvenile crayfish to moving shadows. *Journal of Experimental Biology* 211, 1355-1361.
- 11. **Herberholz J.** (2007) The neural basis of communication in crustaceans. In: <u>Evolutionary</u> <u>ecology of social and sexual systems: crustaceans as model organisms</u>, J. E. Duffy and M. Thiel (eds). Oxford University Press, 71-89.
- 12. Herberholz J., McCurdy C. and Edwards D.H. (2007) Direct benefits of social dominance in juvenile crayfish. *Biological Bulletin* 213, 21-27.

- 13. Song C.-K., **Herberholz J.** and Edwards D.H. (2006) The effects of social experience on the behavioral response to unexpected touch in crayfish. *Journal of Experimental Biology* 209, 1355-1363.
- 14. Antonsen B.L., **Herberholz J.** and Edwards D.H. (2005) The retrograde spread of synaptic potentials and recruitment of presynaptic inputs. *Journal of Neuroscience* 25, 3086-3094.
- 15. Edwards D.H. and **Herberholz J.** (2005) Crustacean models of aggression. In: <u>The Biology of Aggression</u>, R. J. Nelson (ed). Oxford University Press, 38-61.
- 16. **Herberholz J.**, Mims C.J., Zhang X., Hu X. and Edwards D.H. (2004) Anatomy of a live invertebrate revealed by manganese-enhanced Magnetic Resonance Imaging. *Journal of Experimental Biology* 207, 4543-4550.
- 17. **Herberholz J.**, Sen M.M. and Edwards D.H. (2004) Escape behavior and escape circuit activation in juvenile crayfish during prey-predator interactions. *Journal of Experimental Biology* 207, 1855-1863.
- 18. Edwards D.H., Issa F.A. and **Herberholz J.** (2003) The neural basis of dominance hierarchy formation in crayfish. *Microscopy Research and Technique* 60, 369-376.
- 19. Herberholz J., Sen M.M. and Edwards D.H. (2003) Parallel changes in agonistic and nonagonistic behaviors during dominance hierarchy formation in crayfish. *Journal of Comparative Physiology A* 189, 321-325.
- 20. Herberholz J., Antonsen B.L. and Edwards D.H. (2002) A lateral excitatory network in the escape circuit of crayfish. *Journal of Neuroscience* 22, 9078-9085.
- Drummond J., Issa F.A., Song C.K., Herberholz J., S.R. Yeh and D.H. Edwards (2002) Neural mechanisms of dominance hierarchies in crayfish. In: <u>The Crustacean Nervous System</u>, K. Wiese (ed). Springer Verlag, Berlin, 124-135.
- 22. Herberholz J., Issa F.A. and Edwards D.H. (2001) Patterns of neural circuit activation and behavior during dominance hierarchy formation in freely behaving crayfish. *Journal of Neuroscience* 21, 2759-2767.
- 23. Edwards D.H., Antonsen B.L. and **Herberholz J.** (2001) Network, neuronal and biochemical computations in the escape circuit of crayfish. In: <u>Proceedings of the Eleventh Yale Workshop on Adaptive and Learning Systems</u>, K. S. Narendra (ed). Center for Systems Science, Yale University, New Haven, 225-232.
- 24. Herberholz J. and Schmitz B. (2001) Signaling via water currents in behavioral interactions of snapping shrimp (Alpheus heterochaelis). *Biological Bulletin* 201, 6-16.
- Herberholz J. and Schmitz B. (1999) Flow visualisation and high speed video analysis of water jets in the snapping shrimp (Alpheus heterochaelis). *Journal of Comparative Physiology A* 185, 41-49.
- 26. **Herberholz J.** and Schmitz B. (1998) Role of mechanosensory stimuli in intraspecific agonistic encounters in the snapping shrimp (Alpheus heterochaelis). *Biological Bulletin* 195, 156-167.
- 27. Schmitz B. and **Herberholz J.** (1998) Snapping behaviour in intraspecific agonistic encounters in the snapping shrimp (Alpheus heterochaelis). *Journal of Biosciences* 23, 623-632.

B) Published conference contributions

- 1. **Herberholz J**., Swierzbinski M.E., and Lazarchik A.R. (2014) Interactions between social status and alcohol intoxication in crayfish. *Society for Neuroscience* 44th Annual Meeting; 181.16
- 2. Hu R., Murphy M. and **Herberholz J.** (2014) Monoaminergic modulation of sensory inputs to the crayfish medial giant escape neurons. *Society for Neuroscience* 44th *Annual Meeting*; 181.17
- 3. Swierzbinski M.E. and **Herberholz J.** (2014) Inhibitory properties of the medial giant escape circuit in crayfish. *Society for Neuroscience* 44th *Annual Meeting*; 181.18
- 4. Venuti L.S., Swierzbinski M.E. and **Herberholz J.** (2014) Investigation of fast autoinhibition in the lateral giant circuit of crayfish. *Society for Neuroscience* 44th Annual Meeting; 181.19
- Herberholz J., Swierzbinski M.E., and Hu R. (2014) Modulation of neural thresholds in a decision-making circuit. *Conference Abstract: Eleventh International Congress of Neuroethology*; PO2194
- 6. Swierzbinski M.E. and **Herberholz J.** (2012) Interactions between alcohol and GABAergic inhibition in the escape circuit of crayfish. *Front. Behav. Neurosci. Conference Abstract: Tenth International Congress of Neuroethology*. doi: 10.3389/conf.fnbeh.2012.27.00327
- Uma D. and Herberholz J. (2012) Are juvenile crayfish attracted to their natural predators? *Front. Behav. Neurosci. Conference Abstract: Tenth International Congress of Neuroethology.* doi: 10.3389/conf.fnbeh.2012.27.00196
- 8. Swierzbinski M.E. and **Herberholz J.** (2011) Effects of alcohol on escape behavior and underlying neural circuitry in crayfish. *Society for Neuroscience* 41th *Annual Meeting*; 944.09.
- 9. Richards J.M., Leonard J.R., Meshera N., **Herberholz J.**, Lejeuz C.W. and Daughters S.B. (2011) HPA axis response to stress predicts distress tolerance in a sample of cocaine users. *The College on Problems of Drug Dependence Annual Meeting*; 585.
- 10. **Herberholz J.**, Phillips M.L., Sichler, K. and Medley V.A. (2010) Crayfish select escape strategies based on external conditions and internal states. *Proceedings of the 9th International Congress of Neuroethology*, Salamanca, Spain; P150.
- 11. Herberholz J. and Liden W. H. (2009) Escape circuit activation and behavioral choice in juvenile crayfish. *Society for Neuroscience* 39th Annual Meeting; 287.
- 12. Medley V.A. and **Herberholz J.** (2009) Mechanisms underlying visual activation of the medial giant escape circuit in crayfish. *Society for Neuroscience* 39th Annual Meeting; 288.
- 13. Herberholz J. and Liu Y.-C. (2008) Receptive field organization of the giant escape neurons in crayfish. *Society for Neuroscience 38th Annual Meeting*; 198.4.
- 14. Herberholz J. (2007) Manganese-enhanced Magnetic Resonance Imaging in crayfish. *Proceedings of the 8th International Congress of Neuroethology*, Vancouver, Canada; SY45.
- 15. **Herberholz J.** and Liden W. H. (2007) Behavioral and neural responses of juvenile crayfish to visual threat stimuli. *Proceedings of the 8th International Congress of Neuroethology*, Vancouver, Canada; PO219.
- 16. **Herberholz J.** and Edwards D.H. (2005) The control of escape in crayfish through interactions of command neurons. *Society for Neuroscience* 35th Annual Meeting; 754.7.

- 17. **Herberholz J.**, Sen M.M. and Edwards D.H. (2004) Patterns of neural activity during escape from predators. *Society for Neuroscience* 34th Annual Meeting; 870.4.
- Mims C.J., Herberholz J., Zhang X., Hu X. and Edwards D.H. (2004) Anatomical and functional studies in the crayfish brain by means of manganese-enhanced Magnetic Resonance Imaging. *Proceedings of the 7th International Congress of Neuroethology*, Nyborg, Denmark; 251.
- Herberholz J., Sen M.M. and Edwards D.H. (2004) Behavioral and neural responses in crayfish to attacks from a natural predator. *Proceedings of the 7th International Congress of Neuroethology*, Nyborg, Denmark; 233.
- 20. Zhang X., **Herberholz J.**, Mims C. J., Edwards D.H. and Hu X. (2004) Observation of neural activity in crayfish with Mn-enhanced MRI. *Proceedings of the International Society of Magnetic Resonance in Medicine* 11: 1115.
- 21. **Herberholz J.**, Mims C.J., Zhang X., Hu X. and Edwards D.H. (2003) Manganese-enhanced MRI of the crayfish brain. *Society for Neuroscience* 33rd *Annual Meeting*; 270.5.
- 22. Versteeg S., Antonsen B.L., Agran J., **Herberholz J.** and Edwards D.H. (2003) Simulation of the lateral excitatory network in crayfish based on anatomical and physiological data. *Society for Neuroscience* 33rd *Annual Meeting*; 270.8.
- 23. **Herberholz J.**, Antonsen B.L. and Edwards D.H. (2002) Lateral and retrograde amplification of sensory inputs to the lateral giant escape circuit of crayfish. *Society for Neuroscience* 32nd Annual *Meeting*; 60.9.
- 24. Antonsen B.L., **Herberholz J.** and Edwards D.H. (2002) Interactions between primary afferent neurons mediated through the dendrites of the lateral giant interneuron in crayfish. *Society for Neuroscience* 32nd Annual Meeting; 60.10.
- 25. **Herberholz J.**, Antonsen B.L. and Edwards D.H. (2001) Coupled sensory afferents form a presynaptic excitatory network in the terminal ganglion of crayfish. *Society for Neuroscience* 31st *Annual Meeting*; 307.8.
- 26. Antonsen B.L., **Herberholz J.** and Edwards D.H. (2001) The organization of sensory input to the lateral giant escape command neuron of crayfish. *Proceedings of the 6th International Congress of Neuroethology*, Bonn, Germany; 196.
- 27. Issa F.A., **Herberholz J.** and Edwards D.H. (2001) Patterns of tailflip escape behavior in crayfish during agonistic interactions. *Proceedings of the 6th International Congress of Neuroethology*, Bonn, Germany; 249.
- 28. Song C.K., **Herberholz J.**, Drummond J. and Edwards D.H. (2001) The behavioral response to unexpected touch depends on the agonistic condition in socially experienced crayfish. *Proceedings of the 6th International Congress of Neuroethology*, Bonn, Germany; 195.
- 29. Herberholz J., Issa F.A., and Edwards D.H. (2000) The role of tailflip behavior in crayfish during dominance hierarchy formation. *American Zoologist* 40: 1053.
- 30. **Herberholz J.**, Issa F.A., and Edwards D.H. (2000) Hands-off-electrophysiology reveals a new offensive type of tail flip in fighting juvenile crayfish. *Society for Neuroscience* 30th Annual *Meeting*; 1725.

- 31. Song C.-K., **Herberholz J.**, Drummond J. and Edwards D.H. (2000) Social experience changes the behavioral response to unexpected touch in crayfish. *Society for Neuroscience* 30th Annual *Meeting*; 174.
- 32. **Herberholz J.** and Schmitz B. (1998) The visible water jet: flow visualisation in snapping shrimp (Alpheus heterochaelis). N. Elsner and R. Wehner (eds). Thieme, Stuttgart. *Proceedings of the 26th Göttingen Neurobiology Conference*; 242.
- 33. Schmitz B. and **Herberholz J.** (1998) Snapping movements and laser Doppler anemometry analysis of water jets in the snapping shrimp Alpheus heterochaelis. N. Elsner and R. Wehner (eds). Thieme, Stuttgart. *Proceedings of the 26th Göttingen Neurobiology Conference*; 241.
- 34. Schmitz B., Herberholz J., Schultz S. and Wuppermann K. (1998) Behavioral and biophysical analysis of rapid waterjets in the snapping shrimp Alpheus heterochaelis. *Proceedings of the 5th International Congress of Neuroethology*, San Diego, USA; 183.
- 35. Herberholz J. and Schmitz B. (1997a) The role of visual and mechanosensory input during intraspecific agonistic encounters in the snapping shrimp (Alpheus heterochaelis). N. Elsner and H. Wässle (eds). Thieme, Stuttgart. *Proceedings of the 25th Göttingen Neurobiology Conference*; 251.
- 36. **Herberholz J.** and Schmitz B. (1997b) Sex-specific behaviour in intraspecific agonistic encounters in the snapping shrimp (Alpheus heterochaelis). *Verhandlungen der Deutschen Zoologischen Gesellschaft* 90: 355.

Research Grant Support (current)

 "Investigation of a novel glia-mediated inhibitory mechanism". PI: Jens Herberholz. Agency: College of Behavioral and Social Sciences, University of Maryland. Grant type: Research Initiative Award. Total costs: \$6,500. Funding period: 7/1/2014 – 6/30/2015.

Research Grant Support (past)

- "Identification of underlying mechanisms for decision-making and behavioral choice in crayfish". PI: Jens Herberholz. Agency: National Science Foundation. Grant type and number: Standard grant; IOS-0919845. Total costs: \$509,882. Funding period: 9/1/2009 – 8/31/2014.
- "Can crayfish learn to associate specific visual features with an involuntary escape behavior?" PI: Jens Herberholz. Agency: University of Maryland, College of Behavioral and Social Sciences. Grant type: BSOS Emerging Scholars Program. Total costs: \$1,000. Funding period: 8/29/2012 -12/11/2012.
- "Integrative study of reward processes". Co-PIs: Jens Herberholz, Carl Lejuez, Laura MacPherson, Matthew Roesch, Richard Yi, Catalina Kopetz. Agency: University of Maryland, Division of Research. Grant type: DRIF support request; Tier 2 Incentive Program. Total costs (Herberholz): \$28,470. Funding period: 1/11/2011- 12/31/2011.
- "Development of a new model system to study the effects of alcohol on neural circuitry that is modified by social experience". PI: Jens Herberholz. Agency: University of Maryland, Division of Research. Grant type: DRIF support request; Seed grant Type A. Total costs: \$49,985. Funding period: 4/1/2009-3/31/2011.

- 6. "Non-invasive imaging of escape circuitry in crayfish". PI: Jens Herberholz. Agency: University of Maryland, General Research Board. Grant type: Research Support Award. Total costs: \$3,500. Funding period: 7/1/08-6/30/09.
- "Micro-imaging of brain activity in socially experienced crayfish". PI: Jens Herberholz. Agency: University of Maryland, General Research Board. Grant type: Summer Research Award. Total costs: \$8,750. Funding period: 6/1/06-8/31/06.
- "The effects of conspecific odor on behavior of socially experienced crayfish". Co-PIs: Jens Herberholz, Charles Derby, Donald Edwards. Agency: National Science Foundation (Science & Technology Center Program). Grant type and number: Venture Grant; IBN-9876754. Total costs (Herberholz): \$26,600. Funding period: 11/30/2004-8/22/2005.
- "Magnetic Resonance Imaging of the crayfish brain". Co-PIs: Jens Herberholz, Donald Edwards. Agency: National Science Foundation (Science & Technology Center Program). Grant type and number: Center for Behavioral Neuroscience Venture Grant; IBN-9876754. Total costs (Herberholz): \$30,000. Funding period: 5/31/2003-5/30/2004.

Editorial boards

Journals

- Behaviour (Associate Editor)
- Frontiers in Invertebrate Physiology (Review Editor)

Ad hoc reviews

A) Journals

- Acta Ethologica
- Animal Behaviour
- Behavioral Ecology
- Behaviour
- Biological Bulletin
- Brain Research Bulletin
- Canadian Journal of Zoology
- Frontiers in Decision Neuroscience
- Frontiers in Invertebrate Physiology
- Hormones and Behavior
- Fundamental and Applied Limnology
- Journal of Comparative Neurology
- Journal of Comparative Physiology A
- Journal of Experimental Biology
- Journal of Neurophysiology
- Journal of Neuroscience
- Journal of Neuroscience Methods
- Journal of Physiology
- Journal of the Acoustical Society of America
- Journal of Visualized Experiments
- Marine and Freshwater Physiology and Behavior
- Physiology & Behavior
- PLoS
- Science

B) Funding agencies

National Science Foundation (NSF) Natural Science and Engineering Research Council of Canada (NSERC)

C) Others

External review: UC Berkeley, Promotion & Tenure Committee.

Book chapter reviews:

a. Chemical Communication in Crustaceans (Springer; T. Breithaupt & M. Thiel, eds.)

b. Crustacean Nervous Systems and their Control of Behavior (Oxford University Press; C.D. Derby & M. Thiel, eds.)

Grants review: Tübingen-Maryland Bioscience, Neuroscience, and Cognitive Science Graduate Education Partnership.

Recent Invited Talks

- 2014 Unites States Institute of Peace, Washington, DC (forthcoming)
- 2014 Summer Neuroscience Conference, University of Maryland, College Park, MD
- 2014 National Institute of Child Health and Human Development, Bethesda, MD
- 2013 Maryland Neuroimaging Retreat, University of Maryland, College Park, MD
- 2013 Gordon Research Conference (Neuroethology), West Dover, VT (cancelled)
- 2013 Howard Hughes Medical Institute, Janelia Farm, Ashburn, VA
- 2012 College of Charleston, Dept. of Biology, Charleston, SC
- 2011 Johns Hopkins University, Dept. of Psychological & Brain Sciences, Baltimore, MD
- 2010 University of Maryland Baltimore County, Dept. of Biology, Baltimore, MD
- 2010 9th International Congress of Neuroethology, Salamanca, Spain
- 2010 St. Mary's College of Maryland, Dept. of Psychology, St. Mary's City, MD
- 2009 University of California, Dept. of Behavioral Ecology and Evolution, Los Angeles, CA

Mentorship (current and past)

University of Maryland, College Park:

- Postdoctoral Associates [1]
- Faculty research assistants [6]
- Graduate students [4] (NACS, Psychology)
- Honors Students [4] (Biology, Psychology)
- o Undergraduate students [40] (Animal Sciences, Biology, Economics, Psychology)
- High School students [22]

Awards/fellowships/prizes received by supervised students:

- APA Summer Science Fellowship
- APA/NIGMS Program for Minority Undergraduates Award
- APA Special Award ("Best project related to Psychology")
- BSOS Emerging Scholar Semester Award
- NIH Postbaccalaureate IRTA Program Fellowship

- o NIH Program in Biomedical Research Summer Internship
- o NIH/NCMHD Minority International Research Training Award
- Philip Merrill Presidential Scholar Award
- o Ronald E. McNair Post Baccalaureate Achievement Program
- o UMD Senior Summer Scholar Award
- Virginia State Science and Engineering Fair, 1st Place

Teaching Experience

University of Maryland, College Park:

A) Undergraduate Courses

Animal Behavior (PSYC403) 2006 – 2012, 2014; Lecture course; Average enrollment: 36; Average evaluation score: 3.57 (out of 4.0)

Neuroethology (PSYC406) 2007 - 2012, 2014. Lecture course; Average enrollment: 36; Average evaluation score: 3.60 (out of 4.0).

Topics in Neurosciences Undergraduate Seminar (PSYC409) 2008-2009. Seminar course. Average enrollment: 6; Average evaluation score: 3.60 (out of 4.0).

Biopsychology of Aggression (PSYC489M) 2013. Seminar course. Enrollment: 4.

B) Graduate Courses

Topics in Neurosciences Graduate Seminar (PSYC789C) 2005-2007. Seminar course. Average enrollment: 6; Average evaluation score: 3.69 (out of 4.0).

Research Methods in Psychology (PSYC889) 2008. Seminar course. Enrollment: 12; Evaluation score: 2.57 (out of 4.0).

Biopsychology of Aggression (PSYC798L) 2008-2013. Seminar course. Average enrollment: 5; Average evaluation score: 3.84 (out of 4.0).

Introduction to Neuroscience (NACS641) 2013-2014. Lecture course; Average enrollment: 12; Average evaluation score: 3.47 (out of 4.0).

Academic Service

University of Maryland, College Park:

A) University

- Member of the Review Committee for the Dean, College of BSOS (2013)
- Member of the Biological and Chemical Hygiene Committee (2008-2010)

B) Psychology Department

- Member of the Graduate Committee (2012)
- $_{\odot}\,$ Member of the Executive Committee (2011 2014)
- Member of the Vision Committee (2010 2011)

- Member of the Space Committee (2009)
- Member of the Faculty Salary Committee (2008-2009)
- Member of the Faculty Recruiting Committee (2007-2009)
- Member of the Graduate Studies Committee (2006-2007)
- Member of the Promotion & Tenure Committee (2005-2006 & 2007-2008)

C) Neuroscience & Cognitive Science (NACS) Program

- Director (since 2013)
- Member of the Executive Committee (2011-2013)
- Chair of the NACS-Fest Organizational Committee (2006-2011)
- Member of the Graduate Admissions Committee (2005-2009)

D) Student Committees

Thesis Defense Examination committees:

- Ph.D. students [4] (NACS)
- Masters Students [3] (Psychology)
- Honors Students [4] (Biology, Psychology)

Advisory committees:

- Masters Students [1] (NACS)
- Ph.D. students [20] (Bioengineering, Biology, NACS, Psychology)

E) Other Services

- $_{\odot}\,$ Served on local organizing committee for the $10^{\rm th}$ International Congress of Neuroethology, Maryland, USA
- Served as faculty advisor for Psychology majors enrolled in the "Minor in Neuroscience Program", University of Maryland (2008-2009)
- Serving as research advisor and student mentor to the Neuroscience Research Laboratory, Thomas Jefferson High School for Science and Technology, Alexandria, VA (since 2007).