CONTACT INFORMATION

Neuroscience Program
Wellesley College
106 Central St.
Wellesley, MA 02481

E-mail: swasserm@wellesley.edu

APPOINTMENTS

Kresa Family Assistant Professor of Neuroscience
Wellesley College
July 2016 – present

Visiting Researcher
Brandeis University, October 2017-June 2019

Visiting Assistant Researcher
UCLA, May – July 2017, May – July 2018, May 2019 – August 2020

EDUCATION AND TRAINING

HHMI Postdoctoral Associate, UCLA, October 2010 – May 2016
Department of Integrative Biology and Physiology
Laboratory of Dr. Mark Frye

Ph.D., Brandeis University, 2010
Program in Molecular and Cell Biology
Laboratory of Dr. Piali Sengupta
Dissertation title: The molecular and physiological basis of thermosensory behaviors in *C. elegans*. Thesis Committee: Dr. Piali Sengupta, Dr. Michael Rosbash, Dr. Paul Garrity, and Dr. Aravi Samuel

M.A., Pepperdine University, 2004
Program in Education

B.A., Wellesley College, 2002
Majors in Neuroscience and Theater Studies

AWARDS

2017, Gordon Research Conferences PUI Award to attend the 2017 GRC Neuroethology meeting
2016, The International Society for Neuroethology Young Investigator Awardee
2015, The Journal of Experimental Biology Travelling Fellowship
2013, UCLA Department of Neurobiology Sawyer Travel Award
2012, Society for Neuroscience Postdoctoral Scholar Travel Award Finalist
2012, UCLA Society for Neuroscience Postdoctoral Scholar Travel Award Nominee
2007-2010, Individual Predoctoral Ruth L. Kirschstein National Research Service Award (NINDS); Title: The molecular and physiological basis of thermosensory behavior in *C. elegans*
2004-2007, NIH Institutional Training Grant for Genetics, Brandeis University
2001, National Science Foundation (REU) Grant Recipient for summer research, Wellesley College

INTRAMURAL PROFESSIONAL ACTIVITIES

2019 -	Albright Institute Faculty Advisory Committee
2018 - 19	Task Force on Free Speech and Inclusion
2017	Chair of subcommittee on program and course learning objectives, Neuroscience Program
2017 - present	Career Education Advisory Committee – Faculty Chair for 2018-2019 academic year
2016 - present	Academic Council

EXTRAMURAL PROFESSIONAL ACTIVITIES

2019	Neuroethology Gordon Seminar, Invited Discussion Leader, West Dover, VT
2019	Neuroethology Gordon Conference, Invited Discussion Leader, West Dover, VT
2018	Invited chair of motor systems symposium session. International Congress of Neuroethology. Brisbane, Australia
2018 - present	Fisher College Biology Department Advisory Board
2018	NSF Ad-hoc reviewer – Division of Integrative Organismal Systems
2018 - present	Invited Early Career Representative for International Congress of Neuroethology Nominations Committee
2017 - present	Faculty for Undergraduate Neuroscience
2017 - present	Society for Integrative and Comparative Biology
2017 - present	Sigma Xi Nominated to Full Membership by Wellesley College Chapter
2017	Elected Young Investigator Representative to International Congress of Neuroethology
2016	Society for Neuroscience, Minisymposium Chair, San Diego, CA
2016	Improving Undergraduate STEM Education (IUSE) program of the NSF Panel Reviewer
2016	Scientific Expert in Live Podcast for *Placester* in Boston, MA
2016 - present	International Society for Neuroethology, Executive Committee Early Career Representative
2016 - present	National Research Mentoring Network
2010 - present	International Society for Neuroethology
2002 - present	Society for Neuroscience
2004-2010, 2017	Genetics Society of America

MANUSCRIPT REFEREE

PLoS ONE, Scientific Reports, Fly, BioEssays

INVITED RESEARCH SYMPOSIA

2020	International Congress of Neuroethology, Lisbon, Portugal
2020	Co-chair of selected workshop, Spatiotemporal Dynamics of Communication. Society for and Comparative Biology, Austin, TX
2019	Society of Integrative and Comparative Biology Regional Meeting, Rachel Frazer ('19) Presenting, Boston, MA
2019	Harvard University, Center For Brain Sciences, Cambridge, MA
2019	Brown University, Fly Group Weekly Seminar, Providence, RI
2019	Bowdoin College, Biology Department Seminar, Brunswick, ME
2019	Williams College, Biology Department Seminar, Williamstown, MA
2018	Society of Integrative and Comparative Biology, Emily Park ('17) Presenting, San Francisco, CA
2017	University of Cincinnati, Biology Department Seminar Speaker
2017	Association for Chemoreception Sciences, Bonita Springs, FL
2017	The Drosophila Meeting, San Diego, CA
2016	International Congress of Neuroethology, Montevideo, Uruguay
2015	Harvey Mudd College, Department of Biology Colloquium
2013	Syracuse University, Department of Biology (SU Advance)
2012	Claremont Colleges, Intercollegiate Neuroscience Program speaker series

RESEARCH-RELATED PUBLIC LECTURES AND OUTREACH

2020	Early Career Panel for International Congress of Neuroethology Meeting
2020	Wellesley College Club of Denver, CO - Research Lecture – *postponed due to COVID-19*
2020	Wellesley College Club of Hawaii - Research Lecture
2019	Presentation to middle and high school students, Harvard-Westlake School
2019	Establish formal mentoring program for the International Society of Neuroethology
2019	Wellesley College Club of Pasadena, CA - Research Lecture
2018	Wellesley College Club of Fairfield, CT - Research Lecture
2018	Wellesley College Club of New Jersey - Research Lecture
2018	Spring Open Campus Special Lecture: Neuroscience and Decision-Making
2018	Presented on Neuroscience of Decision-Making in the classroom to high school teachers in Australia as part of the Brain Bee/International Congress of Neuroethology Meeting
2018	Co-organized collaboration with Brain Bee at the International Congress of Neuroethology Meeting
2018 - 2020	Organized Annual Boston Prep High School Outreach Afternoons at Wellesley College

2018	Skype Conversation with Weston High June Academy class: "Empowering Women in Today's Society"
2018	Panelist and Research Presentation at Weston High Career Day
2017	Panelist for Yuvol Ron Event: Music and the Brain at Wellesley College
2017	Spring Open Campus Special Lecture: Neuroscience and Decision-Making
2017	Sheep Brain Dissections at Wellesley Middle School
2016	Completed the UCLA "Entering Mentoring Training Course"
2015	UCLA Brain Awareness Week Lab Tours
2014	Summer Enrichment Pilot Program (SEEP) at Campbell Hall School
2014	Intel International Science and Engineering Fair Judge
2012-13	STAR Education, neuroscience curriculum development and presentation for elementary school teachers
2012	Academy for Enriched Sciences, led professional development for elementary school teachers on neuroscience behind memory and study skills
2012	Calabasas High School, Calabasas, CA, seminar to AP Calculus BC Class
2012	UCLA, Judge for Science Poster Day Dean's Prize

PUBLICATIONS

Current or former undergraduate authors: underlined
Corresponding author(s): *
Equal contribution: ¶

Park E and **Wasserman S*** (2018). Diversity of Visuomotor Reflexes in Two *Drosophila* Species. ***Current Biology***. 28(16):R865-R866.

Wasserman S* and Frye MA* (2015). Group Behavior: Social Context Modulates Behavioral Responses to Sensory Stimuli. ***Current Biology***. 25(11):R467-R469.

Wasserman S¶, Aptekar JW¶, Lu PM, Nguyen J, Wang AL, Keles MF, Grygoruk A, Krantz DE, Larsen C, Frye MA* (2015). Olfactory neuromodulation of motion vision circuitry in *Drosophila*. ***Current Biology***. 25(4):467-472.

Wasserman S, Salomon A#, and Frye MA* (2013). *Drosophila* tracks Carbon Dioxide in Flight. ***Current Biology***. 23(4):301-306. (# high school student)

Wasserman S, Lu P, Aptekar JW, and Frye MA* (2012). Flies dynamically track, rather than ballistically escape, aversive odor during flight. ***J. Exp. Biol.*** 215, 2833-2840.

Wasserman S, Beverly M, Bell H, and Sengupta P* (2011). Regulation of Response Properties and Operating Range of the AFD Thermosensory Neurons by cGMP Signaling. ***Current Biology.*** 21(5):353-362.

van der Linden AM, Beverly M, Kadener S, Rodriguez J, **Wasserman S**, Rosbash M and Sengupta P* (2010). Genome-Wide Analysis of Light- and Temperature-Entrained Circadian Transcripts in *Caenorhabditis elegans*. ***PLoS Biol.*** 8(10): e1000503.

Biron D¶, **Wasserman S¶**, Thomas JH, Samuel ADT, and Sengupta P* (2008). An olfactory neuron responds stochastically to temperature and modulates *Caenorhabditis elegans* thermotactic behavior. ***PNAS***. 105(31):11002-11007.

Biron D, Shibuya M, Gabel C, **Wasserman S**, Clark DA, Brown A, Sengupta P*, and Samuel ADT* (2006). A diacylglycerol kinase modulates long-term thermotactic behavioral plasticity in *C. elegans*. ***Nat. Neurosci.*** 9(12):1499-505.

PUBLISHED ABSTRACTS

Current or former undergraduate authors: underlined
Presenter(s): **bold**
Equal contribution: ¶

Currea, JP, Frazer, R, Theobald, JC, and Wasserman, S, Currea, Joh. Using Microscopic or MicroCT Images to Measure Compound Eye Optics. Society for Integrative and Comparative Biology, Austin, TX, 2020.

Frazer, R.E., Currea, J.P., Theobald, J.C., and Wasserman, S.W. Anatomical and behavioral differences in *Drosophila melanogaster* and *Drosophila mojavensis* suggest divergence of visual circuits. Society for Integrative and Comparative Biology, Austin, TX, 2020.

Frazer, R.E., Currea, J.P., Theobald, J.C., and Wasserman, S.W. Anatomical and behavioral differences in *Drosophila melanogaster* and *Drosophila mojavensis* suggest divergence of visual circuits. The Annual Biomedical Research Conference for Minority Students, Anaheim, CA, 2019. (Winner for best presentation award)

Crystal Zhu, Isabel D'Alessandro, Grace Turner, and Sara Wasserman. Dehydration State Dependent Alterations in Humidity and Visual Perception Across *Drosophila* Species. Society for Neuroscience annual meeting, Chicago, IL, 2019.

Isabel D'Alessandro¶, Emily J Park¶, Sara Wasserman. Visuomotor Reflexes Differ Across *Drosophila* Species. Society for Neuroscience annual meeting, San Diego, CA, 2018.

Emily Park and **Sara Wasserman**. Diversity of Visuomotor Reflexes Seen in Two *Drosophila* Species. International Congress of Neuroethology. Brisbane, Australia, 2018.

Rachel Mernoff¶, Gace Turner¶, Nadya Zolotova, Patrick Lu, Austin L. Wang, Mark Frye, and Sara M. Wasserman, Internal state modulates perception of visual and olfactory stimuli by *Drosophila melanogaster,* Society for Neuroscience annual meeting, Washington, DC, 2017.

Rachel Mernoff, Patrick Lu, Austin Wang, Mark Frye, and **Sara Wasserman**. Internal physiological state modulates saliency of visual and olfactory behaviors in *Drosophila melanogaster*, Neuroethology: Behavior, Evolution, and Neurobiology Gordon Research Conference, Les Diablerets, Switzerland, 2017.

Sara Wasserman. Aminergic modulation of sensory perception in the flying fly. Drosophila Research Conference, San Diego, CA, 2017.

Sara Wasserman, Chair of Mini Symposium, *Neuronal Circuits Driving Behavior: Invertebrates to Vertebrates.* Society for Neuroscience annual meeting, San Diego, CA, 2016.
List of participants: http://www.abstractsonline.com/pp8/index.html#!/4071/session/28

Sara Wasserman. Multimodal sensory integration underlying decision-making in flying *Drosophila*. International Congress of Neuroethology, Montevideo, Uruguay, 2016.

Sara Wasserman, Nadya Zolotova, Austin Wang, Patrick Lu, and Mark Frye. Internal physiological state Modulates visual and olfactory behaviors in *Drosophila*. Gordon Research Conference – Neuroethology: Behavior, Evolution & Neurobiology, Luca, Italy. 2015.

Sara Wasserman, Jacob W. Aptekar, Patrick Lu, Austin L. Wang, Jade Nguyen, David E. Krantz, Camilla Larsen, and Mark Frye, A novel class of visual motion detecting neurons in *Drosophila* integrates olfactory information. International Congress of Neuroethology, Sapporo, Japan, 2014.

Sara Wasserman, Alexandra Salomon#, Patrick Lu, and Mark Frye, In-flight olfactory feature detection. Cell Press Symposia: Genes, Circuits, and Behavior, Toronto, Canada, 2013. (# High School Student)

Sara Wasserman, Daniel Malkin, and Mark Frye. *Drosophila* avoid CO_2 while walking and seek it out in flight. Society for Neuroscience, New Orleans, LA, USA, 2012.

Sara Wasserman, Alexandra Salomon#, Daniel Malkin, and Mark Frye. *Drosophila* track CO_2 in flight. Tenth International Congress of Neuroethology, College Park, MD, USA 2012. (# High school student)

Sara Wasserman, Patrick Lu, and Mark Frye. *Drosophila* anti-track an aversive odorant in flight. Gordon Research Conference - Neuroethology: Behavior, Evolution & Neurobiology, Easton, MA, USA, 2011.

Sara Wasserman, David Biron, Matthew Beverly, ADT Samuel, and Piali Sengupta. Communication among neurons in a thermosensory circuit in *C. elegans*. Society for Neuroscience Annual Meeting, Washington, DC, USA 2008.

Sara Wasserman and David Biron, A.D.T Samuel, Piali Sengupta. A Novel GPCR in the AFD and AWC Neurons Contributes to Isothermal Tracking Behavior in *C. elegans*. 16th International *C. elegans* Meeting, Los Angeles, CA, USA, 2007.

Sara Wasserman, D. Biron, M. Shibuya, D.A. Clark, C. Gabel, A.D.T. Samuel, P. Sengupta. Modulation of Thermotactic Behavioral Plasticity in *C. elegans*. *C. elegans* Neurobiology Topic Meeting, Madison, WI, USA, 2006.

GRANTS AWARDED: INTRAMURAL

2018 Educational Research and Development Award - development of problem-based learning video modules for NEUR 100 ($3,000)
2018 NEUR 310 Selected as a Mauer Public Speaking Course
2017 Faculty Award, Wellesley College, Supplementary Travel for invited conferences ($3,000)
2016 Faculty Award, Wellesley College, Supplementary Travel for invited conferences ($3,000)

TEACHING EXPERIENCE

2020 Change Agent Training: Howard Hughes Medical Institute and The Science Museum of Minnesota - *postponed due to COVID-19*

NEUR 100: Capstone Seminar, Wellesley College, Spring 2017, Fall 2017, Fall 2018
NEUR 300: Capstone Seminar, Wellesley College, Fall 2016, Fall 2017, Fall 2018
NEUR 310: Neuroethology of Decision Making, Wellesley College, Fall 2016, Spring 2018, Spring 2019
Guest lecturer, UCLA, Comparative Animal Physiology, 2011
Invited lecture for NEURO 300 Seminar, Wellesley College, 2011 and 2009
Invited lecture on invertebrate thermotaxis behavior for UCLA, PhySci 270, 2010
Graduate teaching assistant for Introductory Cell Biology, 2005 (Instructor: Neil Simister)
Graduate teaching assistant for Introductory Biology laboratory, 2006 (Instructor: Judith Tsipis)
Elementary teacher - Developed and taught science curriculum for grades 1 to 3 and assistant taught grades 5 and 6 science and history. The John Thomas Dye School, Los Angeles, CA 2002-2004.

PRESS

Wasserman S¶, Aptekar JW¶, Lu PM, Nguyen J, Wang AL, Keles MF, Grygoruk A, Krantz DE, Larsen C, Frye MA* (2015). Olfactory neuromodulation of motion vision circuitry in *Drosophila*. *Current Biology*. 25(4):467-472. Covered in *Current Biology* Dispatch

Sara Wasserman, Alexandra Salomon#, and Mark A. Frye (2013). *Drosophila* tracks Carbon Dioxide in Flight. *Current Biology*. 23(4):301-306. (# High school student). Covered in Outside JEB

Sara Wasserman, Patrick Lu, Jacob Aptekar, and Mark Frye (2012). Flies dynamically track, rather than ballistically escape, aversive odor during flight. *J. Exp. Biol*. 215, 2833-2840. Covered in Inside JEB