

Christopher Harshaw, Ph.D.

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PAST APPOINTMENTS AND EDUCATION

- 2017-2023 Assistant Professor
Department of Psychology
University of New Orleans
- 2014-2017 Assistant Scientist (Research Rank)
Department of Psychological & Brain Sciences
Indiana University, Bloomington
- 2014-2017 Affiliated Faculty
Program in Neuroscience
Indiana University, Bloomington
- 2009-2014 Postdoctoral Research Assistant
Developmental Psychobiology
Indiana University, Bloomington
Mentor: Jeffrey R. Albers
- 2009 Ph.D. Psychology,
Lifespan Developmental Science
Florida International University
Advisor: Robert Lickliter
- 2000 B.A. Psychology, *cum laude*
B.A. Philosophy, *cum laude*
Florida International University
- 1995-1997 A.A. (Computer Science)
Miami Dade Community College

RESEARCH INTERESTS

- Developmental psychobiology of social cognition and behavior
- Role of bodily signals and interoception in cognition, decision-making, and psychopathology
- Influence of homeostatic mechanisms (e.g., thermoregulation, microbiome integrity, redox regulation) on neurobehavioral functioning in Autism Spectrum Disorders (ASDs)

RESEARCH AWARDS

\$126,233 (direct costs) – LEQSF(2022-25)-RD-A-29 – Louisiana Board of Regents (BoR, RCS)
“Oxytocin, Social Hyperthermia, and Mouse Models of Autism Spectrum Disorder.”
Role: PI. (June 1st 2022-May 31st, 2025).

The aim of this project is to further explore the role played by nonapeptide hormones and their receptors—particularly OTR and V_{1A}R—in the modulation of temperature increases during social interaction (i.e., ‘social hyperthermia’). The project will also investigate interrelation between temperature abnormalities and social deficits in two mouse models of autism.

\$172,981 (direct costs) – LEQSF(2022-23)-ENH-DE-20 – Louisiana Board of Regents (BoR)
“*Multidisciplinary Research and Education in Cellular and Mitochondrial Energetics*”

Role: co-I with Bernard Rees (PI), Elliott Beaton, Simon Lailvaux, and Zhengchang Liu. (June 1st 2022-May 31st, 2023).

The purpose of this grant is to fund the purchase of equipment for cutting-edge analyses of mitochondrial bioenergetics and metabolism. This will include a high-throughput Agilent Seahorse analyzer and two Oroboros analyzers as well as other equipment needed for tissue dissection, preparation, and analysis. A second goal of the grant is to support the development of a graduate level course on mitochondrial bioenergetics, to be offered in the Spring of 2023.

\$6,609 (direct costs) – LEQSF(2019-20)-RD-A-28 – Louisiana Board of Regents (BoR, RCS)
“*Effects of Early Antipyretic Exposure on Social Behavior in a Mouse Model.*”

Role: PI. (June 1st, 2019-May 31st, 2020).

This project aimed to develop a translationally relevant mouse model of early-life acetaminophen (APAP) exposure, focused on interaction between IL-1 β -induced inflammation and APAP.

\$275,000 (direct costs) – R21-HD083769 (2016-2018) – NICHD
“*Mother-Offspring Microbiome as Perinatal Substrate for Neurobehavioral Development.*”

Role: Co-I, with Jeffrey Alberts (PI), Cara Wellman, and Gregory Demas.

This project aimed to develop a mouse model of antibiotic-induced disruption of microbiome transference from mother to offspring, focusing on outcomes specifically relevant to dysbiosis in ASDs and following preterm birth.

\$560,250 (direct costs) – R01-HD082203 (2015-2018) – NICHD
“*Developmental Linkage of Metabolic Homeostasis and Sociality.*”

Role: Primary author and Co-PI, with Jeffrey Alberts.

This grant focused on generating a better understanding of the relationship between metabolic and social phenotypes over the course of development in both standard (i.e., normally social) strains of mice and mouse models of ASDs.

OTHER AWARDS

\$1,200 – Louisiana Board of Regents (BoR) Travel Grant for Emerging Faculty (TGEF) to visit and meet with NSF program officers (Fall, 2018).

OTHER RECENTLY SUBMITTED GRANTS

“Neurodevelopmental Effects of Early-Life Antipyretic Exposure in a Rodent Model.” NICHD R01 (submitted Feb. 2020; to be resubmitted Fall, 2023). Role: PI.

PUBLICATIONS

2023 Scalco, M., Kotelnikova, Y., [insert other authors] & Harshaw, C. (*in press*). Structure of internalizing and externalizing symptoms in early adolescence: A comparison of a bifactor and a two-factor model over time and across reporters. *Development & Psychopathology*. [3.3]

- 2022** Harshaw, C., & *Warner, A.G. (2022). Interleukin-1 β -induced inflammation and acetaminophen during infancy: Distinct and interactive effects on social-emotional and repetitive behavior in C57BL/6J mice. *Pharmacology Biochemistry & Behavior*, 220, 173463. doi:10.1016/j.pbb.2022.173463 [3.69; 2]
- Harshaw, C., Kojima, S., Wellman, C.L., Demas, G.E., Morrow, A.L., Taft, D.H., Kenkel, W., Leffel, J. K., & Alberts, J. R. (2022). Maternal antibiotics disrupt microbiome, behavior, and temperature regulation in unexposed infant mice. *Developmental Psychobiology*, 64, e22289. doi:10.1002/dev.22289 [3.04; 3]
- Herrington, J.A., Darwich, J.G., Harshaw, C., *Brigande, A., *Leif, E.B., Currie, P.J. (2022). Elevated ghrelin alters the behavioral effects of perinatal acetaminophen exposure in rats. *Developmental Psychobiology*, 64, e22252. doi:10.1002/dev.22252 [3.04; 3]
- 2021** Harshaw, C., *Lanzkowsky, J., *Tran, A.Q.D., *Bradley, A.R., & Jaime, M. (2021). Oxytocin and 'social hyperthermia': Interaction with β 3-adrenergic receptor-mediated thermogenesis and significance for the expression of social behavior in male and female mice. *Hormones & Behavior*, 131, 104981. doi:10.1016/j.yhbeh.2021.104981 [3.59; 5]
- Harshaw, C., *Barasch-Ford, C., & Lickliter, R. (2021). Hearing better with the right eye? The lateralization of multisensory processing affects auditory learning in Northern bobwhite quail (*Colinus virginianus*) chicks. *Applied Animal Behaviour Science*, 236, 105274. doi:10.1016/j.applanim.2021.105274 [2.45; 3]
- Harshaw, C., *Warner, A.G. (2021). Interleukin-1 β injection causes loss of tail tips in neonatal mice. *Birth Defects Research*, 113, 382-387. doi:10.1002/bdr2.1862 [2.34; 1]
- 2020** Haputhanthri, D., Brihadiswaran, G., Gunathilaka, S., Meedeniya, D., Jayarathna, S., Jaime, M., & Harshaw, C. (2020). Integration of facial thermography in EEG-based classification of ASD. *International Journal of Automation and Computing*, 17, 1-18. doi:10.1007/s11633-020-1231-6 [3.18; 30]
- 2019** Alberts, J. Harshaw, C., Demas, G., Wellman, C., & Morrow, A. (2019). The parent-offspring microbiome and neurobehavioral development. Commentary on, "Microbiota-gut-brain research: a critical analysis." *Behavioral and Brain Sciences*, 42, e62. [12.58; 1]
- 2018** Harshaw, C., Leffel, J. K., & Alberts, J. R. (2018). Oxytocin and the warm outer glow: Thermoregulatory deficits cause contact and huddling abnormalities in oxytocin-deficient mouse pups. *Hormones & Behavior*, 98, 145-158. doi:10.1016/j.yhbeh.2017.12.007 [3.59; 24]
- 2017** Harshaw, C., Blumberg, M. S., & Alberts, J. R. (2017). Thermoregulation, energetics, and behavior. In J. Call (Ed.), *Handbook of Comparative Psychology, Vol. 1: Basic Concepts, Methods, Neural Substrate, and Behavior* (pp. 931-952). American Psychol. Association. [11]
- 2016** Harshaw, C., & Lickliter, R. (2016). Blinking bird brains: The spatiotemporal dynamics of attention disrupt learning in quail hatchlings. *Infancy*, 21, 700-727. doi:10.1111/infa.12139 [2.05; 1]
- 2015** Harshaw, C. (2015). Comment on "Number-Space Mapping in the Newborn Chick Resembles Humans' Mental Number Line." *Science*, 348, 1438. doi:10.1126/science.aaa9565 [63.71; 9]
- Harshaw, C. (2015). Interoceptive dysfunction: Toward an integrated framework for understanding somatic and affective disturbance in depression. *Psychological Bulletin*, 141, 311-363. doi:10.1037/a0038101 [23.01; 250]

- 2014** Alberts, J. R., & Harshaw, C. (2014). Behavioral development and ontogenetic adaptation. In K. Yasukawa & Z. Tang-Martinez (Eds.), *Animal Behavior: How and Why Animals Do the Things They Do, Vol. 1: History, Causes, and Development* (pp. 289-324). Praeger. [9]
- Harshaw, C., Campbell, J., & Marcinowski, E. (2014). Communicating developmental psychobiology to the masses: Why psychobiologists should contribute to Wikipedia. *Developmental Psychobiology*, 56, 1439-1441. doi:10.1002/dev.21239 [3.04; 1]
- Harshaw, C., *Culligan, J. J., & Alberts, J. R. (2014). Sex differences in thermogenesis structure behavior and contact within huddles of infant mice. *PLOS ONE*, 9, e.87405. doi:10.1371/journal.pone.0087405 [3.24; 37]
- 2012** Zucker, N., & Harshaw, C. (2012). Emotion, attention, and relationships: A developmental model of self-regulation in anorexia nervosa and related disordered eating behaviors. In J. Lock (Ed.), *The Oxford Handbook of Child and Adolescent Eating Disorders: Developmental Perspectives* (pp. 67-87). Oxford University Press. [16]
- Harshaw, C., & Alberts, J. R. (2012). Group and individual regulation of physiology and behavior: A behavioral, thermographic, and acoustic study of mouse development. *Physiology & Behavior*, 106, 670-682. doi:10.1016/j.physbeh.2012.05.002 [3.24; 49]
- 2011** Harshaw, C., & Lickliter, R. (2011). Biased embryos: Prenatal experience alters the postnatal malleability of auditory preferences in bobwhite quail. *Developmental Psychobiology*, 53, 291-302. doi:10.1002/dev.20521 [3.04; 38]
- 2010** Lickliter, R., & Harshaw, C. (2010). Canalization and malleability reconsidered: The developmental basis of phenotypic stability and variability. K. Hood, C. Halpern, G. Greenberg, & R. Lerner (Eds.), *Handbook of Developmental Science, Behavior, and Genetics* (pp. 491-525). Blackwell Publishing (John Wiley). [48]
- 2008** Harshaw, C. (2008). Alimentary epigenetics: A developmental psychobiological systems view of the perception of hunger, thirst and satiety. *Developmental Review*, 28, 541-569. doi:10.1016/j.dr.2008.08.001 [8.31; 66]
- Harshaw, C., *Tourgeman, I. P., & Lickliter, R. (2008). Stimulus contingency and the malleability of species-typical auditory preferences in Northern bobwhite (*Colinus virginianus*) hatchlings. *Developmental Psychobiology*, 50, 460-472. doi:10.1002/dev.20309 [3.04; 19]
- 2007** Harshaw, C., & Lickliter, R. (2007). Interactive and vicarious acquisition of auditory preferences in Northern bobwhite (*Colinus virginianus*) chicks. *Journal of Comparative Psychology*, 121, 320-331. doi:10.1037/0735-7036.121.3.320 [2.23; 26]
- Schneider, S. M., & Harshaw, C. (2007). Whence malleability? Gottlieb's ducklings, operant contingency, and the social manifold. *European Journal of Developmental Science*, 1, 233-237. doi:10.3233/DEV-2007-1305 [2]

* indicates student author / co-author

[journal impact factor; times paper has been cited, as of Aug 29th, 2023]

MANUSCRIPTS IN PREPARATION

Harshaw, C., Palasch, C., & Warner, A.G. (in preparation). Contribution of Oxytocin and Vasopressin 1A Receptors to Thermic Responses to Social and Non-Social Stressors in C57BL6/J Mice (to be submitted to *Physiology & Behavior*).

- Palasch, C., & Harshaw, C. (in preparation). How Oxytocin and Vasopressin 1A Receptors Contribute to the Anticipation of Alcohol Consumption in C57BL6/J Mice (to be submitted to *Hormones & Behavior*).
- Harshaw, C., & Jaime, M. (in preparation). Do Metrics of Thermal Homeostasis Predict Neurobehavioral Functioning in Autism Spectrum Disorder? A Pilot Study Using Infrared Facial Thermography and EEG (to be submitted to *Developmental Psychobiology*).
- Harshaw, C. (in preparation). Oxytocin, Warmth, and Sociality: On the Need for a Rethinking of the Concept “Social” (to be submitted to *Developmental Psychobiology*).
- Harshaw, C., & Abney, D.H. (in preparation). Core Body Temperature and Its Dyadic Coherence Between Cagemates Predict Anxiety-Like Behavior in the Open Field (to be submitted to *Physiology & Behavior*).
- Warner, A.G., & Harshaw, C., (in preparation). Acetaminophen Exposure Interacts with the Early-Life Hormonal Milieu to Influence Social-Emotional and Sexual Behavior In Long-Evans Rats.
- Harshaw, C., Leffel, J. K., & Alberts, J. R. (in preparation). Ambient Temperature and the Assay of Social-Emotional Behavior in Oxytocin Knockout Mice (to be submitted to *Genes, Brains and Behavior*).
- Harshaw, C., Sanders, K., Brower, E., & Todd, P.M. (in preparation). Food, Memory, and Bodily State: An Ecological Approach to the Question of Everyday Forgetfulness. (to be submitted to *Appetite*).
- Harshaw, C. Leffel, J. K., & Alberts, J. R. (in preparation). Interrelation of Thermal and Social-Emotional Phenotypes Across Development in Mice (to be submitted to *Behavioural Brain Research*).

AWARDS AND HONORS

- Sackler travel award to attend the National Academy of Sciences (NAS) colloquium *Drawing Causal Inference from Big Data* (March 26th-27th, 2015).
- NIH Travel Award to attend meetings of the *International Society for Developmental Psychobiology*: (2005) Washington, D.C., (2006) Atlanta, GA, (2008) Washington, D.C., (2009) Chicago, IL, (2010) San Diego, CA., (2011) Washington, D.C., (2013) San Diego, CA.
- Hennessey-Smotherman Award for Best Student Paper Published in *Developmental Psychobiology* (2008), International Society for Developmental Psychobiology.
- Sigma Xi, the Scientific Research Society (2008).
- Graduate Student Travel Award to attend the *International Conference on Infant Studies* (2008), Vancouver, British Columbia.

MENTORED STUDENTS AWARDS AND HONORS

- Anna Warner—NIH Travel Award to attend meetings of the *International Society for Developmental Psychobiology*: (2018) San Diego, CA, (2019) Chicago, IL, (2022) San Diego, CA.

Anna Warner—Honorable Mention, National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP; April, 2020).

ADDITIONAL TRAINING

Dynamic Field Theory (DFT) Summer School, DeLTA Center, University of Iowa (2010).

SERVICE

Elected:

- Associate Conference Coordinator, International Society for Developmental Psychobiology (2022-present)
- Student Representative to the Executive Board, International Society for Developmental Psychobiology (2008-2010).

Member: Publications Committee, International Society for Developmental Psychobiology (2019-present).

Ad hoc grant reviewer: *National Science Foundation (NSF), Netherlands Organization for Scientific Research (NWO).*

Journal reviewer

Review Editor on Editorial Board: *Frontiers in Neuroscience/Frontiers in Physiology/Frontiers in Neurology, Autonomic Neuroscience specialty section (2022-present).*

Ad hoc:

Developmental Psychobiology

Physiology & Behavior

PLoS ONE

Developmental Science

Chronobiology International

Behavioral Neuroscience

Neuroscience & Biobehavioral Reviews

The Journal of Neuroscience

European Journal of Neuroscience

Hormones and Behavior

Behavioural Brain Research

Biology Letters

Biological Psychology

Brain and Cognition

Journal of Experimental Zoology Part A,

Ecological and Integrative Physiology

Consciousness and Cognition

Child Development

Animal Cognition

NeuroImage

NeuroImage: Clinical

Neuropsychologia

Animal Behaviour

Behaviour

Journal of Experimental Child Psychology

Chemical Senses

Journal of Evolutionary Medicine

Behavioral Ecology and Sociobiology

Social Psychology

MENTORING

Anna G. Warner – Current Ph.D. student. ABD.

Joseph K. Easterly – Current Ph.D. student.

Christopher Palasch – Current Ph.D. student.

Charlotte Chrencik* (undergrad) – currently pursuing EdS graduate degree, University of Cincinnati.

Jessica Lanzkowsky* (undergrad) – currently pursuing M.D., State University of New York Downstate Medical Center, Department of Obstetrics and Gynecology.

Alexander-Quang Tran* (undergrad) – Masters in Human Resources, Southeastern Louisiana University. Talent Development Coordinator, Louisiana State University Health Sciences Center.

Alana Rose Bradley* (undergrad) – M.S. Neuroscience, Tulane University. Research Assistant II at The University of Texas Health Science Center at Houston (UTHealth)

Angela Tauber (undergrad) – M.A. in Drama Therapy, Concordia University, Quebec, CA.

Jay J. Culligan (undergrad) – D.Phil. in Biology and Neuroscience, University of Sussex, UK.

Isaac Tourgeman (undergrad) – Ph.D. in Clinical Neuropsychology from NOVA Southeastern University. Assistant Professor, Carlos Albizu University, Miami, FL.

Catherine Barasch-Ford (undergrad) – Ph.D. in Cognitive Neuroscience from UNC Chapel Hill, Postdoctoral Fellow at the Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center, UNC Chapel Hill.

Kathleen Crum (undergrad) – Ph.D. in Clinical Science, Florida International University. Assistant Professor of Psychiatry, Indiana University School of Medicine.

* indicates UNO undergraduate mentee

TEACHING

Advanced Statistics I (6) Graduate level.

Role: Instructor. Department of Psychology, University of New Orleans.

Developmental Theory (2) Graduate level.

Role: Instructor. Department of Psychology, University of New Orleans.

Special Topics in Applied Biopsychology: Genes and Behavior (1) Graduate level.

Role: Instructor. Department of Psychology, University of New Orleans.

Professional Ethics for the Biobehavioral Sciences (4). Graduate level.

Role: Co-Instructor. Center for the Integrative Study of Animal Behavior. Indiana University.

Child Psychology (4) Lower-level, undergraduate.

Role: Instructor. Department of Psychology, University of New Orleans.

Comparative Psychology / Animal Cognition and Behavior (2) Upper-level, undergraduate.

Role: Instructor. Department of Psychology, University of New Orleans.

Developmental Psychology (2). Upper level, undergraduate.

Role: Instructor. Department of Psychological & Brain Sciences. Indiana University.

Health Psychology / Psychology of Health-Related Decision-Making (5). Upper level, undergraduate.

Role: Instructor. Department of Psychological & Brain Sciences. Indiana University.

Role: Instructor. Department of Psychology, University of New Orleans.

Introduction to Biopsychology (1). Upper level, undergraduate.

Role: Instructor. Department of Psychology, FIU.

Personal Adjustment (3). Lower level, undergraduate.

Role: Instructor. Department of Psychology, FIU.

Critical Thinking Lab (3). Lower level, undergraduate.

Role: Instructor. Department of Philosophy, University of South Florida.

Philosophy. Middle school (6th, 7th & 8th Grades).

Role: Instructor (2006-2008). Archimedean Conservatory. Miami, Florida.

(*number of semesters/sections taught)

PROFESSIONAL MEMBERSHIPS

American Psychological Association (APA)

Division 6—Society for Behavioral Neuroscience and Comparative Psychology

Division 7—Developmental Psychology

International Society for Developmental Psychobiology (ISDP)

Society for Behavioral Neuroendocrinology (SBN)

RESEARCH PRESENTATIONS

Invited Talks, Panels

- Harshaw, C. (2020, November). Early-Life Inflammation and Antipyretic Exposure: Interactive Effects on Social and Repetitive Behavior in A Mouse Model. Talk for the Tulane University Brain Institute Seminar.
- Harshaw, C. (2017, April). Thermoregulatory Dysfunction and Social-Emotional Deficits in Mouse Models of Autism. Institut National de la Recherche Agronomique (INRA; Tours, France).
- Harshaw, C. (2017, March). *A Place for the Body in Depression Theory? Interoception, Somatic Signalling, and Somatic Symptoms in Depression*. Invited talk as part of a Symposium titled: Comparing Recent Advances in Endophenotypic, Developmental, and Network Perspectives on Depression: Is an Integrated Theory of Depression Possible? International Convention of Psychological Science (Vienna, Austria).
- Harshaw, C. (2014, December). Panelist in session focused on Genetic Control. Workshop on *Robustness and Plasticity of Developmental Systems*. Indiana University, Bloomington, IN.
- Harshaw, C. (2010, March). *Human Cognitive Neuroscience and Psychophysics as Inspiration for Comparative Cognition: The Case of Attention and Learning*. Workshop on Novel Approaches to Animal Cognition, CISAB Animal Behavior Conference, Bloomington, IN.
- Harshaw, C., & Lickliter, R. (2006, May). *"Imprinting" and Operants in Quail: The Power of Perinatal Contingency*. Association for Behavior Analysis, Atlanta, GA. (Symposium on the Interaction Between Species-Typical and Operant Learning).

Conference Talks

- Harshaw, C., & Warner, A. (2021, November). *Early-Life Acetaminophen Exposure, Inflammation, And Behavior: Developing a Translationally-Relevant Rodent Model*. International Society for Developmental Psychobiology (ISDP), Chicago, IL.
- Harshaw, C., Leffel, J., & Alberts, J. R. (2016, November). *Interrelation of Metabolic and Social-Emotional Phenotypes Across Development in Mice*. International Society for Developmental Psychobiology (ISDP), San Diego, CA.
- Harshaw, C., Culligan, J. J., & Alberts, J. R. (2013, November). *Impaired Huddling in Oxytocin Knockout Mouse Pups: Multiple Deficits and Oxytocin-Dependent Mechanisms*. International Society for Developmental Psychobiology (ISDP), San Diego, CA.
- Harshaw, C., & Alberts, J. R. (2011, November). *Ontogeny of Group Regulatory Behavior in C57BL/6 Mice*. International Society for Developmental Psychobiology (ISDP), Washington, D.C.
- Harshaw, C., & Lickliter, R. (2009, October). *The Spatiotemporal (Mis)Coordination of Attention and Orienting Affects Learning in Quail Hatchlings*. International Society for Developmental Psychobiology (ISDP), Chicago, IL.
- Harshaw, C., & Lickliter, R. (2009, March). *A "Temporal Blindspot" for Contingency Learning in Northern Bobwhite Chicks*. Comparative Cognition Society (CO3), Melbourne, FL.

- Harshaw, C., & Lickliter, R. (2008, August). *Prenatal Experience, Contingency and the Malleability of Species-Specific Auditory Preferences*. Animal Behavior Society (ABS), Snowbird, UT.
- Harshaw, C., & Lickliter, R. (2008, March). *Temporal Contiguity and the Perception of Contingency in Northern Bobwhite Hatchlings*. Comparative Cognition Society (CO3), Melbourne, FL.
- Harshaw, C., & Lickliter, R. (2007, August). *Contingency and the Ecology of Perceptual Development in Precocial Avian Species*. International Ethology Conference (IEC), Halifax, Nova Scotia.
- Harshaw, C., Bahrick, L., & Lickliter, R. (2006, October). *Effects of Intersensory Redundancy and Stimulus Contingency on Early Perceptual Learning*. International Society for Developmental Psychobiology (ISDP), Atlanta, GA.
- Harshaw, C., & Lickliter, R. (2006, March). *Stimulus Contingency and Stimulus Enhancement: Effects on Auditory Learning in Bobwhite Quail Chicks*. Comparative Cognition Society (CO3), Melbourne, FL.
- Harshaw, C.W., & Lickliter, R. (2005, November). *Stimulus Contingency and Perinatal Learning in Bobwhite Quail Chicks*. International Society for Developmental Psychobiology (ISDP), Washington, D.C.

* indicates student co-author

Poster Presentations

- Harshaw, C., & *Palasch, C. (2023). Of Nonapeptides and Boojums: What Rodent Models Are Trying To Tell Us About the Evolution of Sociality. Poster presented at the annual meeting of the Society for Behavioral Neuroendocrinology (SBN), Tours, France.
- Harshaw, C., *Olivia, D., *Warner, A.G., (2023). Lateralized Social Approach in C57BL/6J Mice? Effects of Early-Life Exposure to IL-1 β -Induced Inflammation and Acetaminophen. Poster presented at the annual meeting of the International Society for Developmental Psychobiology (ISDP), Utrecht, The Netherlands.
- *Warner, A.G., Harshaw, C. (2022). Acetaminophen Interacts with the Sex-Steroid Hormonal Milieu Early in Life to Influence Social Reward and Mate Preference Behavior in Long-Evans Rats (*Rattus norvegicus*). International Society for Developmental Psychobiology (ISDP), San Diego, CA.
- *Warner, A.G., Harshaw, C. (2021). Acetaminophen Interacts With Hormonal Milieu Early in Life to Influence Social Behavior, Mate Preference, and Anxiety in Long-Evans Rats (*Rattus norvegicus*). Society for Behavioral Neuroendocrinology (SBN), Virtual (Covid-19).
- *Warner, A.G., Harshaw, C. (2021). Early-Life Acetaminophen Disrupts Sex-Specific Social and Mate Preference Behaviors in Male and Female Rats. Organization for the Study of Sex Differences (OSSD), Virtual (Covid-19).
- *Warner, A.G., Harshaw, C. (2021). Acetaminophen interacts with early-life hormonal milieu to alter sex-specific social play and anxiety behaviors in Long-Evans rats (*Rattus norvegicus*). International Society for Developmental Psychobiology (ISDP), Chicago, IL.
- Harshaw, C., & *Warner, A.G. (2019). Early-life antipyretic exposure and the display of anxiety and repetitive phenotypes in C57BL/6J mice. International Society for Developmental Psychobiology (ISDP), Chicago, IL.

- *Warner, A.G., & Harshaw, C. (2019). Antipyretic exposure during early development and the emergence of social behavior in C57Bl/6J mice. International Society for Developmental Psychobiology (ISDP), Chicago, IL.
- Harshaw, C. (2019). *Oxytocin, brown adipose tissue, and the expression of social behavior in adult mice*. Society for Behavioral Neuroendocrinology (SBN), Bloomington, IN.
- Jaime, M., Harshaw, C., & Garcia Rojas, I.M. (2019). *Frontal EEG and thermal asymmetries during the ADOS predict ASD severity*. International Society for Autism Research (INSAR), Montreal, Quebec, CA.
- Harshaw, C., & Abney, D. (2018). *Hot and bothered? An analysis of thermal and dyadic contributions to anxiety in the open field*. International Society for Developmental Psychobiology (ISDP), San Diego, CA.
- Harshaw, C., Leffel, J., & Alberts, J. (2017). *Modulation of social and emotional phenotypes by ambient temperature in oxytocin 'knockout' mice*. International Society for Developmental Psychobiology (ISDP), Washington, D.C.
- Harshaw, C., Leffel, J., & Alberts, J. (2017). *Modulation of social-emotional behavior by ambient temperature in oxytocin-deficient and wildtype (B6;129S) mice*. Society for Behavioral Neuroendocrinology (SBN), Long Beach, CA.
- Harshaw, C., Leffel, J., & Alberts, J. (2016). *Do thermoregulatory deficits mediate contact abnormalities in oxytocin deficient mouse pups?* Society for Behavioral Neuroendocrinology (SBN), Montreal, Quebec, Canada.
- Harshaw, C., Culligan, J., & Alberts, J. (2012). *Structure of a huddle: Sex differences and thermal control of contact behavior in litters of C57BL/6 mouse pups*. International Society for Developmental Psychobiology (ISDP), New Orleans, LA.
- Culligan, J., Harshaw, C., & Alberts, J. (2012). *Contribution of brown adipose tissue thermogenesis to the structure of huddling in C57BL/6 mouse pups*. International Society for Developmental Psychobiology (ISDP), New Orleans, LA.
- Harshaw, C., & Alberts, J. (2010). *A thermographic and behavioral study of huddling in P8 C57BL/6 mouse pups*. International Society for Developmental Psychobiology (ISDP), San Diego, CA.
- Vaillant, J., Harshaw, C., Jaime, M., Bahrlick, L., & Lickliter, R. (2010). *Selective attention during prenatal development: Redundancy across auditory and vibro-tactile stimulation facilitates learning in quail embryos*. International Society for Developmental Psychobiology (ISDP), San Diego, CA.
- Barasch-Ford, C., Harshaw, C., Bahrlick, L., & Lickliter, R. (2009, October). *Effects of lateralization and intersensory redundancy on contingency-based perceptual learning*. International Society for Developmental Psychobiology (ISDP), Chicago, IL.
- Vaillant, J., Harshaw, C., Jaime, M., Bahrlick, L., & Lickliter, R. (2009, October). *Distribution of sensory stimulation affects prenatal auditory learning in Northern bobwhite quail*. International Society for Developmental Psychobiology (ISDP), Chicago, IL.
- Harshaw, C., & Lickliter, R. (2009, April). *Timing, Learning and Development: A "Temporal Blindspot" for Contingency Learning in Bobwhite Quail Chicks*. Society for Research in Child Development (SRCD), Denver, CO.

- Harshaw, C., & Lickliter, R. (2008, November). A “temporal blindspot” for contingency learning in bobwhite quail chicks. International Society for Developmental Psychobiology (ISDP), Washington, D.C.
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