

CURRICULUM VITAE
Marcus M. Weera, Ph.D.

Current Title: Postdoctoral Fellow
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Citizenship: Malaysia, US Permanent Resident

Education:

Undergraduate

2008-2011 **BS, Biochemistry**
Michigan State University, East Lansing, MI

Graduate

2012-2017 **PhD, Behavioral Neuroscience**
Purdue University, West Lafayette, IN
Dissertation: Genetic relationship between nicotine- and alcohol-motivated behaviors in mice.
Adviser: Julia A. Chester, Ph.D.

Post-Doctoral Fellowship

2017-Present **Postdoctoral Fellow**
Department of Physiology, LSUHSC, New Orleans, LA
Research project: Role of central amygdala projections to lateral hypothalamus in post-stress avoidance behavior and escalation of alcohol drinking in rats.
Adviser: Nicholas W. Gilpin, Ph.D.

Membership in Professional Organizations:

2013-Present Member, International Behavioral and Neural Genetics Society (IBANGS)
2013-Present Member, Research Society on Alcoholism

Awards and Honors:

2009-2011 *Dean's List*, Michigan State University
2012-2013 *Lynn Foundation Fellowship* (full stipend support for 1 year), Purdue University
2014 *Graduate Travel Award*, International Behavioral and Neural Genetics Society (IBANGS)
2014-2017 *Interdisciplinary Life Sciences Travel Awards* (1 travel award/year x 4 years), Purdue University
2015-2016 *Purdue Research Foundation Fellowship* (full stipend support for 1 year), Purdue University

- 2015-2017 *Student Merit Award* (1 graduate student travel award/year x 3 years), Research Society on Alcoholism (RSA)
- 2017 *Interdisciplinary Life Sciences 5-Minute Thesis Competition, 1st Place*, Purdue University
- 2018, 2019 *Junior Investigator Award* (1 postdoc travel award/year x 2 years), Research Society on Alcoholism (RSA)
- 2019 *NIH Travel Award* to attend the 2020 Volterra Conference on Alcoholism and Stress in Italy
- 2020 *Enoch Gordis Award Finalist*, Research Society on Alcoholism (RSA) 2020 (winner will be announced in June 2020)

TEACHING EXPERIENCE AND RESPONSIBILITIES

Formal Course Responsibilities:

Purdue University, West Lafayette, IN

- 2013 Teaching Assistant, Neuroscience of Motivated Behaviors (PSY322, undergraduate level)
- 2014 Teaching Assistant, Research Ethics in Psychology (PSY464, undergraduate level)
- 2014, 2017 Teaching Assistant, Neuroscience of Alcohol Abuse and Alcoholism (PSY392, undergraduate level)
- 2014-2017 Teaching Assistant, Research Methods in Psychological Sciences (PSY203, undergraduate level)
- 2016 Instructor, Introduction to Behavioral Neuroscience (PSY222, undergraduate level). *Responsibilities:* Designed course in consultation with faculty, delivered all lectures, and assessed all coursework.

LSUHSC, New Orleans, LA

- 2019, 2020 Guest Lecturer, Human Physiology for Nursing Students (HLSC 2410). *Responsibilities:* Lectured and wrote exam questions on 1) Sensory Physiology, 2) Body Movement and Reflexes, and 3) Autonomic Nervous System
- 2020 Guest Lecturer: Manuscript Writing
LSUHSC-New Orleans Post-baccalaureate Research Education Program (PREP) in Biomedical Sciences
- 2020 Secondary Instructor, Pathophysiology for RN to BSN Program (HLSC 3410-RN). *Responsibilities:* Delivered lectures and wrote exam questions on 1) Sensory Function, 2) Alterations in Cognition, Hemodynamics, and Motor Function, 3) Alterations in Neurologic Function in Children, and 4) Genes and Genetic Diseases; graded writing assignments; contributed to the overall organization and content of the course.

Undergraduate or Graduate Students Supervised:

- 2013-2014 Molly Craig, Undergraduate Research Assistant
Project: Effects of chronic nicotine exposure on fear- and anxiety-like behaviors in high and low alcohol preferring mice.
Purdue University
- 2014-2016 Emily Rantz, Undergraduate Research Assistant
Project: Effects of oxytocin and carbetocin on fear-potentiated startle in high and low alcohol preferring mice.
Purdue University
- 2015-2016 Molly Fields, Undergraduate Research Assistant
Project: Effects of nicotine exposure on alcohol drinking in high and low alcohol preferring mice (published, PMID: 29144544)
Purdue University
- 2018 Carrie Lloyd, Summer Student
Summer Research Program, LSUHSC, New Orleans-LA
- 2018 Hannah Kramer, Graduate Rotation Student
Project: The effect of chemogenetic stimulation of central amygdala projections to lateral hypothalamus on place conditioning (manuscript under review).
LSUHSC, New Orleans-LA
- 2019 Rosetta Shackett, Undergraduate Student Worker (Tulane University Neuroscience Program)
LSUHSC, New Orleans-LA
- 2019 Madeline Martinez, Masters Student (Tulane University Neuroscience Program)
Project: Effects of predator odor stress on CRFR1 neuron activation.

RESEARCH AND SCHOLARSHIP

Grants and Contracts:

- 2019 Ruth L. Kirschstein National Research Service Award (F32AA027145)
\$61,610
Title: The role of amygdala outputs in stress-induced escalation of alcohol drinking. Role: PI Sponsor: Gilpin
Period of support: 08/14/2019 – 08/14/2020

Journal Publications:

- 2013 Smith CD, Piasecki CC, **Weera M**, Olszewicz J, Lonstein JS. Noradrenergic Alpha-2 Receptor Modulators in the Ventral Bed Nucleus of the Stria Terminalis: Effects on Anxiety Behavior in Postpartum and Virgin Female Rats. *Behav Neurosci* 127(4): 582-97. PMID: 23796237.

- 2017 Chester JA, **Weera MM**. Genetic correlation between alcohol preference and conditioned fear: Exploring a functional relationship. *Alcohol* 58: 127-137. PMID: 27908524.
- 2017 Peng C, Engle SE, Yan Y, **Weera MM**, Berry JN, Arvin MC, Zhao G, McIntosh JM, Chester JA, Drenan RM. Altered nicotine reward-associated behavior following $\alpha 4$ nAChR subunit deletion in ventral midbrain. *PLoS One* 12(7) e0182142. PMID: 28759616.
- 2018 **Weera MM**, Fields MA, Tapp DN, Grahame NJ, Chester JA. Effects of nicotine on alcohol drinking in female mice selectively bred for high or low alcohol preference. *Alcohol Clin Exp Res* 42(2): 432-443. PMID: 29144544.
- 2018 Avegno EM, Lobell TD, Itoga CA, Baynes BB, Whitaker AM, **Weera MM**, Edwards S, Middleton JW, Gilpin NW. Central amygdala circuits mediate hyperalgesia in alcohol-dependent rats. *J Neurosci* 38(36): 7761-7773. PMID: 30054393.
- 2018 Fernandez RF, Kim SQ, Zhao Y, Foguth RM, **Weera MM**, Counihan JL, Nomura DK, Chester JA, Cannon JR, Ellis JM. Acyl-CoA synthetase 6 enriches the neuroprotective omega-3 fatty acid DHA in the brain. *Proc Natl Acad Sci USA* 115(49): 12525-12530. PMID: 30401738
- 2019 **Weera MM**, Agim ZS, Cannon JR, Chester JA. Genetic correlations between nicotine reinforcement-related behaviors and propensity toward high or low alcohol preference in two replicate mouse lines. *Genes Brain Behav* 18(3) e12515. PMID: 30129253.
- 2019 **Weera MM**, Gilpin NW. Biobehavioral interactions between stress and alcohol. *Alcohol Res* 40(1). PMID: 31649835.
- 2020 **Weera MM**, Schreiber AL, Avegno AL, Avegno EM, Gilpin NW. The role of central amygdala corticotropin-releasing factor in predator odor stress-induced avoidance behavior and escalated alcohol drinking in rats. *Neuropharmacology* 166:107979. PMID: 32028150.
- Weera MM**, Kramer HM, Shackett RS, Middleton JW, Gilpin NW. Central amygdala projections to lateral hypothalamus mediate avoidance behavior in rats. *In revision (J. Neurosci)*.

Scientific Presentations:

Posters

- 2011 Association of Chemoreception Sciences 33rd Annual Meeting. St. Pete's Beach, FL.
- 2013 Interdisciplinary Life Sciences Annual Retreat, Purdue University. West Lafayette, IN.
- 2014 Genes, Brain, and Behavior 16th Annual Meeting, International Behavioral and Neural Genetics Society (IBANGS). Chicago, IL.
- 2015 Research Society on Alcoholism 38th Annual Meeting. San Antonio, TX.
- 2016 Research Society on Alcoholism 39th Annual Meeting. New Orleans, LA.

- 2016 Greater Indiana Society for Neuroscience Meeting. Indianapolis, IN.
- 2017 Research Society on Alcoholism 40th Annual Meeting. Denver, CO.
- 2017 Greater Indiana Society for Neuroscience Meeting. Indianapolis, IN.
- 2018 Gordon Research Conference on Alcohol and the Nervous System. Galveston, TX.
- 2018 Stress Neurobiology Workshop. Banff, Canada.
- 2018 Research Society on Alcoholism 41st Annual Meeting. San Diego, CA.
- 2018 Greater New Orleans Society for Neuroscience Meeting. New Orleans, LA.
- 2019 Research Society on Alcoholism 42nd Annual Meeting. Minneapolis, MN.
- 2019 Gordon Research Conference on Amygdala Function. Easton, MA.
- 2019 Greater New Orleans Society for Neuroscience Meeting. New Orleans, LA.
- 2020 Gordon Research Conference on Alcohol and the Nervous System. Galveston, TX.

Talks and Seminars

- 2014 Indiana Alcohol Research Center Mini-Conference. Indianapolis, IN. *Talk title:* Genetic relationship between nicotine and alcohol reward.
- 2017 Interdisciplinary Life Sciences Annual Retreat, Purdue University. West Lafayette, IN. *Talk title:* Understanding the genetics of nicotine and alcohol consumption using animal models.
- 2018 Alcohol & Drug Abuse Center of Excellence (ADACE) Retreat, LSUHSC New Orleans-LA. *Talk title:* The role of the central amygdala in a rat model of traumatic stress.
- 2019 Perspectives on Alcohol Research, LSUHSC New Orleans-LA. *Seminar title:* Genetically encoded tools for neuroscience research.
- 2019 Winter Conference on Brain Research. Snowmass, CO. *Talk title:* The role of central amygdala CRF signaling in a rat model of traumatic stress.
- 2019 Neuroscience Center of Excellence Seminar, LSUHSC New Orleans-LA. *Seminar title:* Central amygdala signaling in a rat model of traumatic stress.
- 2020 Gordon Research Seminar on Alcohol and the Nervous System 2020. Galveston, TX. *Talk title:* Central amygdala signaling in post-stress avoidance behavior and escalation of alcohol drinking.
- 2020* Volterra Conference on Alcoholism and Stress 2020. Volterra, Italy. *Talk title:* Central amygdala signaling in post-stress avoidance behavior and escalation of alcohol drinking.
- 2020* Research Society on Alcoholism Annual Meeting 2020. New Orleans, LA. *Talk title:* Central amygdala outputs in post-stress avoidance behavior and escalation alcohol drinking.

*Delayed to 2021 due to COVID-19 pandemic

Symposia Organized

2020* Research Society on Alcoholism Annual Meeting 2020. New Orleans, LA. *Symposium title:* Amygdala outputs and alcohol consumption-related behaviors. *Role:* Chair, Speaker. *Co-chair:* Melissa Herman, Ph.D. (Asst. Professor, University of North Carolina – Chapel Hill). *Speakers:* Jeff Weiner, Ph.D. (Professor, Wake Forest University), Kristen Pleil, Ph.D. (Asst. Professor, Weill Cornell University), Maria-Luisa Torruella-Suarez (Graduate Student, McElligott Lab, University of North Carolina – Chapel Hill).

*Delayed to 2021 due to COVID-19 pandemic

Editorial Posts and Activities:

Invited Reviewer: American Journal of Drug and Alcohol Abuse (March 2020), Psychiatry Research (January 2020).

Contributor Reviewer with Supervisor: Alcohol (3), Physiology and Behavior (2), Biological Psychiatry (2), Molecular Psychiatry (1), Neuropsychopharmacology (2), Neuropharmacology (1), Alcohol Research Current Reviews (1), Psychopharmacology (1), Pain (1).

Conference Abstract Reviewer: Society for Research on Nicotine and Tobacco (2019)

SERVICE ACTIVITIES

University/Institutional Services:

Committees

2014 Chair, Graduate Student Peer Mentoring Committee, Purdue University.

2019 Regular Member, Selection Committee, Alcohol & Drug Abuse Center of Excellence (ADACE) Postdoctoral Seminar Series, LSUHSC New Orleans.

2020 Chair, Selection Committee, Alcohol & Drug Abuse Center of Excellence (ADACE) Postdoctoral Seminar Series, LSUHSC New Orleans.

2020 Organizing Committee, Alcohol & Drug Abuse Center of Excellence (ADACE) Scientific Retreat, LSUHSC New Orleans.

Service and Outreach

2015-2017 Poster judge, Graduate Student Rotations Retreat, Purdue University.

2015-2017 Panelist, Department of Psychology Panel on Graduate School, Purdue University.

2018-2019 Poster judge, Graduate Research Day, LSUHSC New Orleans.

- 2018 PhUN Week, American Physiological Society outreach event at St. Scholastica Academy.
- 2018 Scientific session moderator, Alcohol & Drug Abuse Center of Excellence (ADACE) Retreat, LSUHSC New Orleans.