

Amanda R. Pahng (Maiden Name: Amanda R. Hill)

Department of Physiology
LSU Health Sciences Center
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New Orleans, LA 70112
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Education

2005-2009

B.S. in Psychology

University of Georgia, Athens, GA.

Minor: Statistics. Magna Cum Laude. Phi Beta Kappa Honor Society. GPA: 3.84

2009-2015

Ph.D. in Neuroscience

Neuroscience Program. GPA: 3.856

Tulane University, New Orleans, LA.

Dissertation Advisor: Paul J. Colombo, Ph.D.

Dissertation Title: Investigation of the relationships between Ca²⁺-mediated proteins and learning on tasks dependent on the hippocampus and striatum.

Academic Positions

2015-present

Post-doctoral Fellow

Laboratory of Scott Edwards, Ph.D.

Department of Physiology

LSU Health Sciences Center, New Orleans, LA.

Research Funding/Support

Current

T32 AA007577

(PI: Patricia Molina, Ph.D.)

10/15/15 – 10/18/17

National Institute of Alcohol Abuse and Alcoholism

Role: Post-doctoral trainee

Mentor: Scott Edwards, Ph.D.

The goal of this award is to receive postdoctoral training in the interaction of pain and drug dependence. The goal of this project is to investigate how altered signaling in reward- and pain-related circuitry contributes to excessive drug intake and heightened pain sensitivity in opioid- and alcohol-dependent animals.

Pending Review

IK2 BX004334-01

(PI: Amanda R. Pahng, Ph.D.)

Career Development Award-2

Department of Veterans Affairs

Role: PI

Mentor: Nicholas W. Gilpin, Ph.D.

The goal of this award is to receive training in critical skills necessary for becoming a faculty member and VA-funded independent researcher. The goal of this project is to examine overlapping brain biochemical mechanisms of chronic pain and opioid dependence that may contribute to the worsening and potential interdependence of these two disorders.

Academic and Professional Honors/Awards

- 2005-2009 HOPE Scholarship, The University of Georgia, Athens, GA.
- Fall 2006 Dean's List, The University of Georgia, Athens, GA.
- Spring 2006 Presidential Scholar, The University of Georgia, Athens, GA
- Fall 2007 Presidential Scholar, The University of Georgia, Athens, GA
- Spring 2008 Dean's List, The University of Georgia, Athens, GA.
- 2008 Neuroscience Student Association—Brain Awareness Symposium Award for the Best Undergraduate Poster, 31st Annual Convention of the Behavioral Sciences, The University of Georgia, Athens, GA.
- 2009 Graduated Magna Cum Laude, The University of Georgia, Athens, GA.
- 2009-2013 Louisiana Board of Regents Scholarship, Tulane University, New Orleans, LA.
- 2015 Jean Yocum Harlan Award for 1st Place Presentation, 16th Annual Neuroscience Retreat, Tulane University, New Orleans, LA.
- 2015 The School of Science and Engineering Research Day Award (Finalist) for Posters by Graduate Student or Post-Doctoral Fellow, Tulane University, New Orleans, LA.
- 2016 Junior Investigator Award, Research Society on Alcoholism, 39th Annual Scientific Meeting. New Orleans, LA.
- 2017 NIH Travel Award, Volterra Conference, 4th International Congress on Alcoholism and Stress. Volterra, Italy.
- 2017 Junior Investigator Award, Research Society on Alcoholism, 40th Annual Scientific Meeting. Denver, CO.
- 2017 Outstanding Young Scientist Travel Award, Association for Women in Science, Southern Louisiana Chapter, New Orleans, LA.

Teaching Experience

- Fall 2013 & Fall 2014 **Teaching Assistant**, *Psychopharmacology Laboratory*
Tulane University, New Orleans, LA.
Instructor: Thomas J. Hebert, PhD
Students: Undergraduate
- Spring 2014 & Spring 2015 **Teaching Assistant**, *Behavioral Endocrinology Laboratory*
Tulane University, New Orleans, LA.
Instructor: Thomas J. Hebert, PhD

Students: Undergraduate

- Summer 2015 **Laboratory Instructor**, *Basic Neuroscience Laboratory*
Tulane University, New Orleans, LA.
Students: High school
- Fall 2015 **Course Instructor**, *Neuroanatomy Laboratory*
Tulane University, New Orleans, LA.
Students: Undergraduate
- Spring 2016 **Course Lecturer**, "Nerve Excitation", *General and Oral Physiology*
LSU Health Sciences Center, New Orleans, LA.
Instructor: Robert W. Siggins, PhD
Students: Dental hygiene
- Spring 2016 **Course Lecturer**, "Sensory Physiology", *General and Oral Physiology*
LSU Health Sciences Center, New Orleans, LA.
Instructor: Robert W. Siggins, PhD
Students: Dental hygiene
- Fall 2016-
Spring 2017 **Course Lecturer**, "Addiction", *Nursing Pathophysiology*
LSU Health Sciences Center, New Orleans, LA.
Instructor: Barry Potter, PhD
Co-Instructor: Stefany D. Primeaux, PhD
Students: Nursing
- Fall 2017 **Co-Instructor**, *Physiology of Neuronal Circuits Underlying Brain Disorders*
Lectures: "Affective Disorders", "Alzheimer's Disease and Cognitive Disorders"
LSU Health Sciences Center, New Orleans, LA.
Director: Scott Edwards, PhD
Students: Graduate

Membership in Academic/Professional Societies

- 2006-2009 Member, National Society of Collegiate Scholars Honor Society, The University of Georgia Chapter
- 2006-2009 Member, Sigma Alpha Lambda National Honor Society, The University of Georgia Chapter
- 2008-2009 Member, Psi Chi Honors Society in Psychology, The University of Georgia Chapter
- 2009 Member, Phi Beta Kappa Honor Society
- 2009-present Member, Society for Neuroscience (SFN)
- 2016-present Member, American Physiological Society (APS)

2016-present Member, Research Society on Alcoholism (RSA)

2017-present Member, Association for Women in Science

Service/ Outreach Events

Spring 2016 Peer Advocate Liaison (PAL) Resource Health Fair, New Orleans, LA.

Spring 2016 STEM NOLA, New Orleans, LA.

Fall 2016 Underage Drinking Town Hall, Xavier University, New Orleans, LA.

Spring 2017 Peer Advocate Liaison (PAL) Resource Health Fair, New Orleans, LA.

Spring 2017 Judge, Greater New Orleans Science and Engineering Fair, New Orleans, LA.

Spring 2017 Wellness Health Blitz, Xavier University, New Orleans, LA.

Publications

Colombo PJ, East BS Jr, Crawley ME, & **Hill AR**, (2012). Aging and the Brain. In V.S. Ramachandran (Ed.) Encyclopedia of Human Behavior, 2nd Edition, London: Elsevier.

Kathirvelu B, East BS, **Hill AR**, Smith CA, and Colombo PJ. (2013). Lentivirus-mediated chronic expression of dominant-negative CREB in the dorsal hippocampus impairs memory for place learning and contextual fear conditioning. Neurobiology of Learning and Memory. 99: 10-16.

Yang H, *Hou H, ***Pahng AR**, Gu H, Nairn AC, Tang Y, Colombo PJ, & Xia H. (2015). Protein phosphatase-1 inhibitor-2 is a novel memory suppressor. The Journal of Neuroscience. 35(45): 15082-15087.

*H.H. and A.P. contributed equally to this work.

McGinn MA & **Pahng AR**. (2017). Pathophysiology of affective disorders: Functional interaction of stress hormones and hippocampal excitation. Journal of Neurophysiology. 117: 477-479.

Pahng AR & Colombo PJ. (2017). Phosphorylation of tyrosine receptor kinase B in the dorsal striatum and dorsal hippocampus is associated with response learning in a water plus maze. Behavioral Neuroscience. 131(1): 33-41.

Pahng AR, McGinn MA, Paulsen RI, & Edwards S. (2017). The prefrontal cortex as a critical gate of negative affect in alcohol use disorder. Current Opinion in Behavioral Sciences. 13: 139-143.

Pahng AR, Paulsen RI, McGinn MA, Edward KN & Edwards S. (In press). Neurobiological Correlates of Pain Avoidance-Like Behavior in Morphine-Dependent and Non-Dependent Rats. Neuroscience.

Pahng AR, Paulsen RI, Farooq MN, McGinn MA, Edward KN & Edwards S. (In prep). Impaired Spatial Memory and Dysregulation of JNK Signaling in Alcohol Dependence.

Published Abstracts

- Kathirvelu B, Hill GS, East BS Jr, **Hill AR**, Smith CA, & Colombo PJ. (2010). Lentivirus overexpression of mutant CREB in the dorsal hippocampus impairs long-term memory retention of place learning and contextual fear conditioning. Society for Neuroscience Abstracts.
- East BE Jr, Crawley ME, **Hill AR**, Winsauer PJ, & Colombo PJ. (2012). The rodent Simon Task as a tool for investigating cognitive control and conflict adaptation. Society for Neuroscience Abstracts.
- Hill AR**, Britton R, Zambratto J, Charles D, & Colombo PJ. (2012). Individual differences in phosphorylated tyrosine kinase b levels in the dorsal striatum and dorsal hippocampus are positively correlated with the duration of training on a response task: Evidence for a competitive interaction between the striatum and the hippocampus. Society for Neuroscience Abstracts.
- Pahng AR**, Yang H, Xia H, & Colombo PJ. (2015). Lentiviral knock down of inhibitor-2 in the dorsal hippocampus enhances spatial memory and contextual fear conditioning. Society for Neuroscience Abstracts.
- Byerley LO, Reppel JE, **Pahng AR**, & Edwards S. (2016). Omega-3 dietary fatty acids improve spatial learning and memory but do not alter the escalation of alcohol drinking. Experimental Biology Abstracts.
- Pahng AR**, Farooq MA, Edwards KN, & Edwards S. (2016). Neuroadaptations associated with excessive alcohol-seeking behavior in dependent rats. Research Society on Alcoholism Abstracts.
- Pahng AR**, Paulsen RI, Farooq MA, Edwards KN, & Edwards S. (2016). Dysregulation of hippocampal and frontocortical JNK signaling in alcohol dependence. Society for Neuroscience Abstracts.
- Pahng AR**, Paulsen RI, Farooq, M. A., Edwards, K. N., & Edwards S. (2017). Dysregulation of hippocampal and frontocortical JNK signaling in alcohol dependence. Alcoholism and Stress: A Framework for Future Treatment Strategies Abstracts.
- Pahng AR**, McGinn MA, Paulsen RI, Edwards KN, & Edwards S. (2017) Neurobiological mechanisms mediating the intersection of pain and drug addiction. NIH 12th Annual Pain Consortium Symposium Abstracts.
- Pahng AR**, Farooq MA, Edwards KN, & Edwards S. (2017). Impaired spatial memory and dysregulation of hippocampal JNK signaling in alcohol dependence. Research Society on Alcoholism Abstracts.