

**CURRICULUM VITAE**

**Nicholas W. Gilpin**

**Current Title:** Professor  
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**Citizenship:** U.S.A.  
**Education:**

<b>Undergraduate</b>	University of Texas at Austin B.A. in Psychology B.A. in Spanish Language	1996-2000
<b>Graduate/Medical</b>	Purdue University Ph.D. in Psychology	2001-2005
<b>Post-Doctoral Fellowship</b>	The Scripps Research Institute	2005-2011

**Academic, Professional, and Research Appointments:**

Assistant Professor, Physiology Department, LSUHSC	2011-2016
Assistant Professor, Neuroscience Ctr. of Excellence, LSUHSC	2011-2016
Assistant Professor, Alcohol & Drug Abuse Ctr. of Excellence, LSUHSC	2013-2016
Associate Director, Alcohol & Drug Abuse Ctr. of Excellence, LSUHSC	2015-
Associate Professor w/Tenure, Physiology Department, LSUHSC	2016-2019
Associate Professor w/Tenure, Neuroscience Center, LSUHSC	2016-2019
Associate Professor w/Tenure, Alcohol & Drug Abuse Center, LSUHSC	2016-2019
Research Physiologist, Department of Veteran Affairs (V.A.)	2017-
Professor w/Tenure, Physiology Department, LSUHSC	2019-
Professor w/Tenure, Neuroscience Center, LSUHSC	2019-
Professor w/Tenure, Alcohol & Drug Abuse Center, LSUHSC	2019-
Vice Chair of Research, Physiology Department, LSUHSC	2020-

**Membership in Professional Organizations:**

Research Society on Alcoholism (RSA); member	2001-
Society for Neuroscience (SfN); member	2004-
Int'l. Society for Biomedical Res. on Alcoholism (ISBRA); member	2010-
National Hispanic Science Network on Drug Abuse (NHSN); member	2010-
International Drug Abuse Research Society (IDARS); member	2013-
American Coll. of Neuropsychopharmacology (ACNP), Assoc. member	2014-2019
American Coll. of Neuropsychopharmacology (ACNP), Member	2019-

*Membership in ACNP is competitive and considered prestigious in the fields of neuroscience, pharmacology, and psychobiology.*

**Awards and Honors:**

University of Texas at Austin Honors Colloquium Scholarship	1996
U. of Texas Academic Hispanic Award; 4-year academic scholarship	1996-2000
RSA Memorial Award, San Diego, CA	2009

Young Investigator Award; Alcoholism & Stress meeting, Volterra, Italy	2011
<i>Awarded to 4 young alcohol researchers each 3 years for research excellence</i>	
NHSN National Award of Excellence in Research by a New Investigator	2011
<i>Awarded to 1 young investigator each year for research excellence</i>	
ACNP Travel Award	2012
IDARS Young Investigator Award	2013
<i>Awarded to 1 young investigator each 2 years for research excellence</i>	
Presidential Early Career Award for Scientists & Engineers (PECASE)	2017
<i>Awarded by the White House Office of Science &amp; Technology to 102 scientists and engineers in the early stages of their independent research careers</i>	
Elected Co-Chair of Gordon Research Conference on Alcohol & CNS	2018
<i>Will serve as co-vice chair 2018-2020 and co-chair 2020-2022.</i>	
LSUHSC-SOM Faculty Assembly Outstanding Mentor Award	2021

## **TEACHING EXPERIENCE AND RESPONSIBILITIES**

### **Curriculum Development/Implementation**

Created curriculum for LSUHSC Physiology Special Topics Course (PHYSIO 289) titled "Biostatistics for Graduate Students." *This course includes lectures, discussions, and work with datasets. Covered topics include bio-statistical concepts, statistical theory and foundations in probability, how to design experiments, design & statistical considerations related to using vertebrate animals in research, analysis of sex differences, decision-making in statistical tests, power analyses, data transformation, outlier tests, post-hoc tests, data interpretation, data ethics, data replication, and how to assess statistics in review of manuscripts and grants. I am the creator of content for this course, an activity that consumed many hours before this class was offered the first time in Summer 2013.*

### **Creation of Enduring Teaching Materials**

None

### **Formal Course Responsibilities**

#### **Graduate Teaching**

##### **Course Director:**

##### **LSU Health Sciences Center**

Human Physiology for dental students (DENT 1115) 2016-present  
74 clock hours per year, D.D.S. students

*This course covers whole-organism physiology for Dental students. My role as Director is to coordinate and oversee lectures, create and proctor exams, manage grades, and meet with students during office hours.*

Biostatistics for graduate students (PHYSIO 289) 2013-present  
15 lecture hours, Ph.D students & post-doc fellows

*This course covers bio-statistical concepts for Ph.D. students and post-doctoral fellows training for research careers. My role as Director is to create course content, schedule all aspects of the course, and to deliver all material or recruit faculty to cover specialized topics.*

##### **Course Co-Director:**

##### **LSU Health Sciences Center**

Human Physiology for dental students (DENT 1115) 2013-2016

88 clock hours per year, D.D.S. students

*This course covers whole-organism physiology for Dental students. My role as co-director is to, along with the course director, coordinate and oversee lectures, create and proctor exams, to manage grades, and meet with students during office hours.*

**Co-Instructor/Lecturer:**

**LSU Health Sciences Center**

Human Physiology (DENT 1115) 2011-present

2-10 lecture hours per year x 7 years

*This course covers whole-organism physiology for Dental students. My lectures cover electrical properties of membranes, electrical and chemical aspects of synaptic transmission, sensory systems from receptors to brain, motor systems from brain to muscle, learning & memory, and sleep & behavior.*

Modern Breakthroughs in Biomedical Sciences: 2014

A Focus on New Techniques and Technologies (PHYSIO 289)

2 lecture hours to Ph.D. students

*This course introduces graduate students to cutting-edge basic science techniques. My lectures cover optogenetics and chemogenetics.*

Synaptic Organization of Behavior (ANAT 264) 2014

4 lecture hours to Ph.D. students

*This course relates synaptic transmission to behavior across organisms. My lectures cover the limbic system.*

Molecular Neurobiology (NEURO 250) 2014

4 lecture hours to Ph.D. students

*This course emphasizes problem solving and experimental design as they relate to hypothesis-driven research. My lectures cover neural control of behavior.*

Dental Grand Rounds (DENT 4112) 2017-2019

10 contact hours per year

*In this course, D.D.S. students (D1-D4) analyze a clinical case study and prepare a presentation, under the guidance of mentors, that describes the clinical problem, solution, and outcome. My role is basic science mentor.*

**Undergraduate Teaching**

**Course Director:**

**San Diego State University**

Statistical Methods in Psychology (PSY 270) 2008

30 lecture hours per semester x 1 semesters

*This course covered bio-statistical concepts for undergraduates. I was the course director and lecturer for all course material.*

**Univ. of California-San Diego**

Introduction to Statistics (PSYC 60) 2009-2011

30 lecture hours per semester x 2-3 semesters/year

*This course covered bio-statistical concepts for undergraduates. I was the course director and lecturer for all course material.*

Physiological Psychology (PSYC 106) 2010

30 lecture hours per semester x 2 semesters

*This course covered behavioral neuroscience for undergraduates. I was the course director and lecturer for most course material.*

**Co-Instructor:**

**LSU Health Sciences Center**

Human Physiology for nursing students (HS 2410) 2011-2016

2-4 lecture hours per semester x 8 semesters

*This course covers whole-organism physiology for nursing students. My lectures cover motor systems from brain to muscle, learning & memory, and sleep & behavior.*

Human Pathophysiology for nursing students (HS 3410) 2012-2016

2 lecture hours per semester x 6 semesters

*This course covers whole-organism pathophysiology for nursing students. My lectures cover disorders of brain function and disorders of neuromuscular function.*

General & Oral Physiology for dental hygiene (DHY 3202) 2012

2 lecture hours

*Course covers whole-organism physiology for dental hygiene students. My lectures covered nerve excitation and sensory physiology.*

**Departmental/Interdisciplinary Teaching Conferences**

None

**Junior Faculty & Fellows & Students Trained:**

**Junior faculty:**

1. Elizabeth Avegno, Ph.D. 2018-
  - Mentor on K01 from NIAAA
2. Michael Salling, Ph.D. 2019-
  - Mentor on K99/R00 from NIAAA
3. Amanda Pahng, Ph.D. 2021-
  - Mentor on V.A. CDA
4. Lucas Albrechet-Souza, Ph.D. 2018-2021

**Post-Doctoral Fellows:**

**LSU Health Sciences Center**

1. Brandon Baiamonte, Ph.D. 2012-2013
2. Emily Roltsch, Ph.D. 2012-2014
3. Annie Whitaker, Ph.D. 2012-2016
4. Christy Itoga, Ph.D. 2014-2016
5. Elizabeth Avegno, Ph.D. 2016-2018
  - Mentor on F32 from NIAAA
6. Udit Datta, Ph.D. 2017-2018
7. Elizabeth Fucich, Ph.D. (co-mentor) 2017-2020
  - Co-mentor on F32 from NIAAA

8. Marcus Weera, Ph.D.	2017-
• Mentor on F32 from NIAAA	
• Mentor on K99/R00 from NIAAA	
9. Lucas Albrechet-Souza, Ph.D.	2018
10. Christian Montanari, Ph.D.	2019-2022
11. Alejandra Jacotte, Ph.D.	2019-
12. Amanda Pahng, Ph.D.	2020-
• Mentor on CDA from V.A.	
13. Sydney Vita, Ph.D.	2020-
• Mentor on F32 from NIAAA	
14. Andrea Jones, Ph.D.	2021-
15. Sheila Engi, Ph.D. (co-mentor)	2021-
16. Marcus Brown, Ph.D. (co-mentor)	2021-2022
17. Lisa Wilson, Ph.D. (co-mentor)	2022-
18. Ilse Pamela Alonso, Ph.D.	2023-

## Graduate Students

### LSU Health Sciences Center

#### Major Professor

1. Brittini Baynes; Physiology; chair M.S. committee	2013-2014
2. Allyson Schreiber; Physiology; chair Ph.D. committee	2014-2018
• Mentor on F30 from NIAAA	
3. Alicia Ray-Botello; Physiology; chair M.S. committee	2015-2017
4. Zachary Stielper; Physiology; chair Ph.D. committee	2017-2020
• Mentor on F30 from NIAAA	
5. Nathan Sharfman; Physiology; chair Ph.D. committee	2019-2022
• Mentor on F30 from NIAAA	
6. Taylor Templeton; Physiology; chair Ph.D. committee	2018-2023

#### Dissertation Committee (member)

1. Xu "Sophie" Teng; Ph.D., LSUHSC Physiology	2012-2014
2. Travis Doggett; Ph.D., LSUHSC Physiology	2013-2014
3. Aram Asatryan; Ph.D., LSUHSC Neuroscience	2013-2014
4. Jacques Mayeux; Ph.D., LSUHSC Physiology	2014-2016
• Co-mentor on F31 from NIAAA	
5. Alan Mouton; Ph.D., LSUHSC Physiology	2014-2017
6. Adrienne McGinn; Ph.D., LSUHSC Physiology	2015-2019
• Co-mentor on F31 from NIAAA	
7. Krystal Belmonte; Ph.D., LSUHSC Physiology	2018-2021
8. Mohammed Farooq; Ph.D., LSUHSC Cell Biology	2018-2022
9. Eleanor Holmgren; Ph.D., LSUHSC Cell Biology	2020-2023
10. Jessica Cucinello; Ph.D., LSUHSC Physiology	2020-2023
• Co-mentor on F31 from NIAAA	

#### **Other universities**

1. Xin Fu; Ph.D., Tulane Neuroscience	2016-2021
2. Dennis Parker Kelley; Ph.D., LSU Comp. Biomed. Sci.	2017-2020
3. Matthew Watson; Ph.D., Tulane Neuroscience	2020-

## Medical Students

Summer Research Rotations

- 1. Madelyn Weil 2012
- 2. Abdelrahim Abdel 2012

**Foreign Research Interns**

- 1. Pauline Estival 2015  
Pharmacy student at Université d’Auvergne, France
- 2. Tomasz Bielwaski 2019  
Ph.D. student at Wroclaw Medical University, Poland

**Undergraduate Student Researchers**

**LSU Health Sciences Center**

Abigail Olinde, Andrew Schroth, Alissa Ice, Margaret Hazelton, Ryan Jones, Carrie Lloyd, many others

**University of California-San Diego**

Ben Isakson, Lisa Zazworsky, Hillary Cormier, Lindsey Ong, Darshan Patel, Shin Trieu, Alfonzo Luna, Casey Carmichael, Michael Barrus, Brent Costa, Tyler Sprague, Neha Jaiswal, Daniel Ramirez, Brittni Baynes, Eva Martinez

**San Diego State University**

Juliana Todesco

**Undergraduate Student Teachers-in-Training**

**University of California-San Diego**

Joanna Ho (PSYC 60) 2009

**High School Student Researchers**

**LSU Health Sciences Center**

Reuben Hogan (1<sup>st</sup> Place; LSUHSC Summer Research Poster Session), many others

**Grade School Teacher Researchers**

**LSU Health Sciences Center**

Melissa Faucheux, Kathleen Stewart

**Funding for Mentees**

**LSU Health Sciences Center**

Melissa Faucheux (New Orleans area science teacher) 2012  
APS “Frontiers in Physiology” Award

Melissa Faucheux (New Orleans area science teacher) 2013  
APS “Frontiers in Physiology” Award

Annie Whitaker (post-doctoral fellow) 2013  
LSUHSC ADACE Pilot \$10,000

*Glucocorticoid co-chaperone, FKBP5, as a target for stress-induced escalation of alcohol intake*

Brittni Baynes (graduate student) 2013

SPINES month-long Research Program in Woods Hole (all expenses paid)

Kathleen Stewart (Atlanta area science teacher) 2014  
APS "Frontiers in Physiology" Award

Allyson Schreiber (graduate student) 2015  
NIH/NIAAA NRSA F30 fellowship

Elizabeth Avegno (post-doctoral fellow) 2017  
NIH/NIAAA NRSA F32 fellowship

Adrienne McGinn (graduate student in Edwards lab) 2017  
NIH/NIAAA NRSA F31 fellowship

Zachary Stielper (graduate student) 2018  
NIH/NIAAA NRSA F30 fellowship

Elizabeth Fucich (post-doctoral fellow in Molina lab) 2018  
NIH/NIAAA NRSA F32 fellowship

Marcus Weera (post-doctoral fellow) 2019  
NIH/NIAAA NRSA F32 fellowship

Nathan Sharfman (graduate student) 2020  
NIH/NIAAA NRSA F30 fellowship

Amanda Pahng (junior faculty) 2021  
V.A. Career Development Award (CDA-2)

Sydney Vita (post-doctoral fellow) 2022  
NIH/NIAAA NRSA F32 fellowship

Elizabeth Avegno (junior faculty) 2022  
NIH/NIAAA K01 Career Development Award

Marcus Weera (post-doctoral fellow) 2022  
NIH/NIAAA K99 Pathway to Independence Award

### **University of California-San Diego**

Casey Carmichael (undergraduate research assistant) 2010  
UCSD Warren College Undergraduate Research Award

### **Awards for Mentees**

#### **LSU Health Sciences Center**

Annie Whitaker (post-doctoral fellow) 2015  
American Physiological Society CNS Section Excellence in Research Award  
*Awarded to 1-2 young investigators per year for meritorious research at EB.*

Annie Whitaker (post-doctoral fellow) 2015  
American College of Neuropsychopharmacology Travel Award  
*This prestigious award funds travel to the 2015 ACNP meeting.*

Elizabeth Avegno (post-doctoral fellow) Volterra Stress & Alcohol Meeting Travel Award <i>This award funds travel to the 2017 Stress &amp; Alcohol meeting in Volterra, Italy.</i>	2017
Elizabeth Avegno (post-doctoral fellow) Elected chair of the 2020 Gordon Research Seminar (GRS) on Alcohol & CNS	2018
Allyson Schreiber (graduate student) LSUHSC Chancellor's Award for Most Outstanding Student <i>This award is given to one Ph.D. graduate at LSUHSC each year.</i>	2018
Elizabeth Avegno (post-doctoral fellow) Winner of RSA Enoch Gordis Research Recognition Award <i>This award is given to one biomedical post-doctoral fellow at each year's meeting.</i>	2018

## **RESEARCH AND SCHOLARSHIP**

### **Grants and Contracts:**

#### **Active**

1R01AA023305-01 National Institutes of Alcoholism and Alcohol Abuse & General Medical Sciences Role of Neuropeptides in Stress-Induced Escalation of Alcohol Drinking <i>The overall goal of this project is to test the role of amygdala neuropeptides in co-morbid high stress reactivity and alcohol abuse.</i> Role: PI	2014-2025
1I01BX003451-01A1 Department of Veteran Affairs Targeting Melanocortin-4 Receptors to Reduce Pain in U.S. Veterans <i>The goal of this project is to test the role of brain melanocortin signaling in mediating hyperalgesia associated with chronic inflammatory pain.</i> Role: PI	2017-2025
1R01AA026531-01 (NCE) NIH/NIAAA Traumatic stress increases alcohol drinking via endocannabinoid disinhibition of basolateral amygdala <i>This study examines the role of brain endocannabinoid signaling in post-stress escalation of alcohol drinking.</i> Role: MPI (with Jeffrey Tasker)	2017-2022
1R01AA025792-01A1 (NCE) NIH/NIAAA Alcohol and Traumatic Brain Injury; Neuronal and Behavioral Consequences <i>This study examines the neurobiological basis for traumatic brain injury effects on alcohol-related behavior and physiology.</i> Role: MPI (with Patricia Molina)	2018-2023
1U01AA028709-01 NIH/NIAAA 8/8 NADIA U01 Long-Term Effects of Adolescent Alcohol on Pain	2020-2025



*This study tests the role of amygdala peptide systems in heightened pain after adolescent alcohol exposure.*

Role: MPI (with Tiffany Wills)

1R13AA028237-01

2019-2023

NIH/NIAAA

Travel Support for the 7<sup>th</sup> International Drug Abuse Research Society (IDARS) Meeting  
*This award provides travel support for junior U.S.-based scientists attending the IDARS meeting.*

Role: PI

1F30AA026468-01A1 (PI: Zachary Stielper)

2018-2023

NIH/NIAAA

The Role of Amygdalar Endocannabinoids in Alcohol Drinking after Traumatic Brain Injury (TBI)

*This fellowship trains an M.D./Ph.D. student in alcohol research and examines the neurobiological basis for TBI effects on alcohol-related behavior and physiology.*

Role: Mentor

1F30AA028691-01A1 (PI: Nathan Sharfman)

2021-2026

NIH/NIAAA

Amygdala Modulation of Adolescent Alcohol Effects on Pain

*This project tests the role of amygdala neuropeptide & glutamate systems in hyperalgesia that results from adolescent alcohol exposure.*

Role: Mentor

1R21AA028727-01A1 (NCE)

2021-2023

NIH/NIAAA

Preventing Alcohol Seeking with a Nonmuscle Myosin II Inhibitor under Clinical Development

*This project aims to prevent relapse to alcohol use by targeting the motivation to seek alcohol that is triggered by long lasting reminders of alcohol use.*

Role: MPI (with Courtney Miller)

1K01AA028541-01A1 (PI: Elizabeth Avegno)

2022-2027

NIH/NIAAA

Orexin Modulation of Brain Reward-Brain Stress System Interactions in Alcohol Withdrawal Anxiety

*This project tests the role of midbrain peptide systems in mediating anxiety that results from chronic alcohol exposure and withdrawal.*

Role: Mentor

1K99AA029726-01A1 (PI: Marcus Weera)

2022-2027

NIH/NIAAA

Lateral Hypothalamus Circuits in Stress-Induced Blunting of Alcohol Aversion & Escalation of Alcohol Self-Administration

*This project tests the role of specific cells and circuits in stress effects on the aversive properties of alcohol and on alcohol drinking.*

Role: Mentor

1R01AA030619-01 (PI: Michael Salling)

2023-2028

NIH/NIAAA

ADHD and the influence of adolescent alcohol consumption on cognition and behavior  
*This study examines neural mechanisms that promote excessive alcohol use in individuals with ADHD and explores potential treatment strategies for that population.*

Role: Co-I

**Completed**

Underrepresented minority supplement to R01AA12857 2002-2005

NIH/NIAAA

Neuropeptide Y and Alcohol Related Behaviors

Role: Student (PI: Badia-Elder)

*The overall goal of this project was to train a graduate student in neuroscience research aimed at understanding the genetic basis for alcoholism.*

1F32 AA016436-01A1

2007-2009

Ruth L. Kirschstein NRSA Postdoctoral Fellowship

NIH/NIAAA

Neuropeptide Y and Ethanol Abstinence

Role: PI

*The overall goal of this project was to train a post-doctoral fellow in neuroscience research aimed at understanding the neurobiological basis of alcohol dependence.*

5R00AA018400-05

2010-2015

K99/R00 Pathway to Independence (PI) Award

NIH/NIAAA

Post-traumatic Stress Disorder and Alcohol Dependence

Role: PI

*The overall goal of this project was to identify neurobiological mechanisms that underlie excessive alcohol drinking by rats with high traumatic stress reactivity.*

PFund Pilot Funding for New Research

2013

Louisiana Board of Regents

Using Optogenetic Stimulation to Measure Reward Function in Drug- and Alcohol-Dependent Rats

Role: PI

*The overall goal of this project was to establish the use of optogenetic stimulation in the lab for the measurement of brain reward function in rodents.*

ABMRF

2013-2015

ABMRF Foundation for Alcohol Research Role of Melanocortin-4 Receptors (MC4Rs) in Chronic Alcohol-Induced Changes in Thermal Sensitivity

Role: PI

*The overall goal of this project was to test the role of brain MC4Rs in excessive alcohol drinking and hyperalgesia during alcohol withdrawal in alcohol-dependent rats.*

2P60AA009803-22

2014-2016

NIH/NIAAA

LSUHSC-NO Comprehensive Alcohol-HIV/AIDS Research Center

Role: PI of Information Dissemination Core

*The overall goal of this Core was to impact alcohol- and HIV-related knowledge, attitudes and behaviors by educating lay people, practicing and in-training health care providers, and*

*scientists on the neurobiological basis and biomedical consequences of alcohol use and abuse, and the risk factors and biological underpinnings of HIV.*

1R21AA022690-01A1 2014-2016  
NIH/NIAAA  
Ethanol-Induced Cardiac Fibrosis and Dysfunction are Mediated by NADPH Oxidases  
Role: Co-I (PI: Jason Gardner)  
*The overall goal of this project was to identify the mechanisms responsible for alcohol-induced cardiac injury.*

P30GM103340 2015-2016  
NIH COBRE Pilot  
Synaptic Mechanism of Inhibitor-2 in the Escalated Anxiety in Alcohol Disorder  
Role: Collaborator (Pilot PI: Houhui Xia, Ph.D.)

3R01AA023305-02S1 2015-2016  
NIH Office of Research on Women's Health & NIAAA  
Role of Neuropeptides in Stress-Induced Escalation of Alcohol Drinking  
Role: PI  
*The goal of this supplement was to test Aim 1 of the parent R01 in female rats.*

1F30AA023696-01 (PI: Allyson Schreiber) 2015-2020  
National Institute of Alcoholism and Alcohol Abuse  
Prefrontal Cortex Stress Peptides in Traumatic Stress-Induced Escalation of Alcohol Drinking  
*This fellowship trains an M.D./Ph.D. student in neuroscience research aimed at understanding the neurobiological basis of stress-induced escalation of alcohol drinking.*  
Role: Mentor

1F31AA025812-01A1 (PI: Adrienne McGinn) 2017-2019  
NIH/NIAAA  
Alcohol Dependence and Pain: Role of Cingulate Cortex Glucocorticoid Receptors  
*This fellowship trains a Ph.D. student in alcohol research and examines the neurobiological intersection of pain and alcohol dependence.*  
Role: Co-mentor

1R01AA026531 Supplement 2018-2020  
Cohen Veterans Biosciences (CVB)  
Traumatic stress increases alcohol drinking via endocannabinoid disinhibition of basolateral amygdala  
*This study examines traumatic stress reactivity and its association with specific central and peripheral biomarkers.*  
Role: PI

1R21AA025736-01 (PI: Scott Edwards) 2017-2019  
NIH/NIAAA  
Role of GluA1 in the Escalation of Alcohol Drinking in Nicotine-Dependent Animals  
*This study examines the role of brain AMPA receptors in mediating nicotine-alcohol interactions.*  
Role: Co-I

1F32AA026779-01A1 (PI: Elizabeth Fucich) 2018-2020  
NIH/NIAAA  
Stress effects on traumatic brain injury: neural mechanisms of escalated alcohol drinking.  
*This project tests the neurobiology underlying stress and TBI interaction effects on alcohol drinking.*  
Role: Co-mentor

1R01HL135635-01 (PI: Jason Gardner) 2017-2021  
NIH/NHLBI  
Chronic Nicotine Inhalation Increases Susceptibility to Cardiovascular and Pulmonary Diseases Through Inhibition of Local Compensatory Mechanisms.  
*This study examines the effects of chronic nicotine inhalation on cardiovascular and pulmonary outcomes.*  
Role: Co-I

1R44DA046300-01 (PI: Maury Cole) 2018-2021  
NIH/NIDA  
Development of Nicotine Vapor Inhalation Chambers for Rodent Self-Administration  
*This study develops and optimizes nicotine e-cigarette vapor self-administration in rats.*  
Role: Subcontract PI

3R01AA025792-03S1 2020-2021  
NIH/NIAAA  
Alcohol and Traumatic Brain Injury; Neuronal and Behavioral Consequences  
*This supplement examines the underlying mechanisms of post-TBI neurodegeneration and risk for Alzheimer's Disease.*  
Role: MPI (with Patricia Molina)

1R21AA026022-01A1 2018-2020  
NIH/NIAAA  
Generation and validation of a CRFR1-cre transgenic rat to study alcohol dependence  
*This study generates and validates a new transgenic rat for the neuroscience field.*  
Role: PI

1F32AA025831-01 (PI: Elizabeth Avgeno) 2017-2021  
NIH/NIAAA  
Brain Reward and Stress System Interactions in Alcohol Dependence  
*This fellowship trains a post-doctoral fellow in alcohol research and examines the interaction of brain stress and reward systems in alcohol dependence.*  
Role: Mentor

1F32AA027145-01A1 (PI: Marcus Weera) 2019-2021  
NIH/NIAAA  
The role of amygdala outputs in stress-induced escalation of alcohol drinking  
*This fellowship trains a post-doctoral fellow in alcohol research and examines the neurobiology underlying stress-induced escalation of alcohol drinking.*  
Role: Mentor

1F31AA028445-01 (PI: Jessica Cucinello) 2020-2023  
NIH/NIAAA  
Regulation of Pain by Alcohol and Endocannabinoids in the Basolateral Amygdala

This project tests the role of BLA eCBs in mediating pain-alcohol interactions.

Role: Co-mentor

## Journal Publications:

### Refereed:

#### Empirical Articles:

1. **Gilpin, N.W.**, Stewart, R.B., Murphy, J.M., Li, T.-K., Badia-Elder, N.E. (2003). Neuropeptide Y reduces oral ethanol intake in alcohol-preferring (P) rats following a period of imposed ethanol abstinence. *Alcoholism: Clinical and Experimental Research* 27:787-94. doi: 10.1097/01.ALC.0000065723.93234.1D.
2. **Gilpin, N.W.**, Stewart, R.B., Murphy, J.M., Li, T.-K., Badia-Elder, N.E. (2004). Neuropeptide Y in the paraventricular nucleus of the hypothalamus increases ethanol intake in high- and low-alcohol-drinking rats. *Alcoholism: Clinical and Experimental Research* 28:1492-8. doi: 10.1097/01.alc.0000141813.27875.d5.
3. **Gilpin, N.W.**, Stewart, R.B., Elder, R.L., Kho, Y., Murphy, J.M., Li, T.-K., Badia-Elder, N.E. (2004). Sedative and motor-impairing effects of neuropeptide Y and ethanol in selectively-bred P and NP rats. *Pharmacology, Biochemistry & Behavior* 78:65-73. doi: 10.1016/j.pbb.2004.02.012.
4. **Gilpin, N.W.**, Stewart, R.B., Murphy, J.M., Badia-Elder, N.E. (2005). Sensitized effects of neuropeptide Y on multiple ingestive behaviors in P rats following ethanol abstinence. *Pharmacology, Biochemistry & Behavior*, 81:740-9. doi: 10.1016/j.pbb.2005.05.010.
5. **Gilpin, N.W.**, Stewart, R.B., Badia-Elder, N.E. (2008). Neuropeptide Y (NPY) suppresses ethanol responding in ethanol-abstinent, but not non-ethanol-abstinent, Wistar rats. *Alcohol* 42:541-51. doi: 10.1016/j.alcohol.2008.07.001.
6. **Gilpin, N.W.**, Badia-Elder, N.E., Elder, R.L., Stewart, R.B. (2008). Schedule-induced polydipsia in lines of rats selectively bred for high and low ethanol preference. *Behavior Genetics* 38:515-24. doi: 10.1007/s10519-008-9224-1.
7. **Gilpin, N.W.**, Richardson, H.N., Koob, G.F. (2008). Effects of CRF1-receptor and opioid-receptor antagonists on dependence-induced increases in alcohol drinking by alcohol-preferring (P) rats. *Alcoholism: Clinical and Experimental Research* 32:1535-42. doi: 10.1111/j.1530-0277.2008.00745.x.
8. **Gilpin, N.W.**, Richardson, H.N., Lumeng, L., Koob, G.F. (2008). Dependence-induced alcohol drinking by alcohol-preferring (P) rats and outbred Wistar rats. *Alcoholism: Clinical and Experimental Research* 32:1688-96. doi: 10.1111/j.1530-0277.2008.00678.x.
9. Roberto, M., **Gilpin, N.W.**, O'Dell, L.E., Morse, A.C., Siggins, G.R., Koob, G.F. (2008). Cellular and behavioral interactions of gabapentin with alcohol dependence. *Journal of Neuroscience* 28:5762-71. doi: 10.1523/JNEUROSCI.0575-08.2008.
  - A. Press release by *Journal of Neuroscience* published in:
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  18. **Gilpin, N.W.**, Taffe, M.A. (2021) Toward an anti-racist approach to biomedical and neuroscience research. *J Neurosci* 41:8669-72. doi: 10.1523/JNEUROSCI.1319-21.2021.
  19. **Gilpin, N.W.**, Yu., W., Kash, T.L. (2021) Forebrain-midbrain circuits & peptides involved

- in hyperalgesia after chronic alcohol exposure. *Alcohol Res Curr Rev* 41:13. doi: 10.35946/arcr.v41.1.13.
20. Sharfman, N., **Gilpin, N.W.** (2021) The Role of Melanocortin Plasticity in Pain-Related Outcomes after Alcohol Exposure. *Frontier Psych* 12:764720. doi: 10.3389/fpsy.2021.764720.
  21. Steel, T.L., ... **Gilpin, N.W.**, ... Burnham, E.L. (2021) Research needs for inpatient management of severe alcohol withdrawal syndrome: An official American Thoracic Society research statement. *Am J Respir Crit Care Med* 204:e61-e87. doi: 10.1164/rccm.202108-1845ST.
  22. Avegno, E.M., **Gilpin, N.W.** (2022) Reciprocal midbrain-extended amygdala circuit activity in preclinical models of alcohol use and misuse. *Neuropharmacology* 202:108856. doi: 10.1016/j.neuropharm.2021.108856.
  23. George, O., Ahmed, S.H., **Gilpin, N.W.** (2022) Are We Compulsively Chasing Rainbows? *Neuropsychopharmacology* 47:2013-15. doi: 10.1038/s41386-022-01419-w.
  24. Secci, M.E., Reed, T., Quinlan, V., **Gilpin, N.W.**, Avegno, E.M. (2022) Quantitative analysis of gene expression in RNAscope-processed brain tissue. *Bio-protocol* 13:e4580. doi: 10.21769/BioProtoc.4580.
  25. Weera, M., **Gilpin, N.W.** (2023) Central amygdala CRF1 cells control nociception and anxiety-like behavior. *Neuropsychopharmacology*.

#### **Books (authored):**

1. **Gilpin N.W.** (2009) *Alcohol abstinence in vulnerable subpopulations of drinkers: a role for neuropeptide Y*. Saarbrücken, Germany: VDM Verlag Dr. Müller.

#### **Books (edited):**

1. **Gilpin, N.W.** (2023) *Neurocircuitry of Addiction*. Elsevier.

#### **Volumes (edited):**

1. Calipari, E.S., **Gilpin, N.W.** (ed.) (2021) *Neurobiology of Addiction and Co-morbid Disorders*. International Review of Neurobiology, Volume 157.

#### **Book Chapters:**

1. Roberto, M., **Gilpin, N.W.**, Siggins, G.R. (2012) The Central Amygdala and Alcohol: Role of GABA, Glutamate and Neuropeptides. *Cold Spring Harb Perspect Med (Addiction)*, eds. Paul Kenny & Christopher Pierce) doi: 10.1101/cshperspect.a012195. [Epub ahead of print].
2. Roberto, M., **Gilpin, N.W.** (2014) Central amygdala neuroplasticity in alcohol dependence. Elsevier (*Neurobiology of Alcohol Dependence*, eds. Antonio Noronha, Changhai Cui, Adron Harris & John Crabbe).
3. Molina, P.E., Stielper, Z.S., Edwards, S., **Gilpin, N.W.** (2022) Role of endocannabinoids in the escalation of alcohol use following traumatic brain injury. Elsevier (*Cellular, Molecular, Physiological, and Behavioral Aspects of Traumatic Brain Injury*, eds. R. Rajendram, V.R. Preedy, C.R. Martin).

#### **Videos, Electronic Media, and Multimedia:**

1. **Gilpin, N.W.** in collaboration with Medical Directions, Inc., Rita Goldstein, PhD, and UCLA Laboratory of Neuroimaging (June 2010) Online Course titled *The Neurobiology of Addiction*. URL: <http://www.drugabuseresearchtraining.org>

#### **Research Review Committee:**

NIAAA Study Section AA-4 Neuroscience Review Subcommittee; ad hoc	2012
NIAAA Study Section ZAA1 DD (04) Special Emphasis Panel; ad hoc	2012
NIAAA Study Section ZAA1 DD (04) Special Emphasis Panel; chair	2013
NIAAA Study Section AA-4 Neuroscience Review Subcommittee; ad hoc	2014
NIAAA Study Section ZAA1 DD (04) Special Emphasis Panel; ad hoc	2014
CSR Study Section; Neurotoxicology of Alcohol (NAL); ad hoc	2015
NIAAA Study Section ZAA1 CC (01); Consortium review; ad hoc	2015
NIAAA Study Section ZAA1 DD (05) Special Emphasis Panel; chair	2015 (June)
NIAAA Study Section ZAA1 DD (05) Special Emphasis Panel; ad hoc	2015 (Nov)
NIAAA Study Section ZAA1 JJ (08) Special Emphasis Panel; member	2016
CSR Study Section; Neurotoxicology of Alcohol (NAL); standing member	2016-2021
NIAAA Study Section ZAA1 CC (51); Center review; ad hoc	2018
NIAAA Study Section AA-4 Neuroscience Review Subcommittee; ad hoc	2018
NIAAA Study Section AA-4 Neuroscience Review Subcommittee; ad hoc	2019
V.A. Neurobiology A (NURA) Grant Review Committee; standing member	2021-2025

### **Organized & Chaired Scientific Meetings:**

#### National:

1. Nat'l. Hispanic Science Network (NHSN) Mtg.; Co-Chair 2012
2. D'Angelo Workshop on Mental Health; Founder & Organizer & Chair 2020
3. Gordon Research Conference (GRC) on Alcohol in CNS; Vice Chair 2020
4. Stay Connected Post-doc Virtual Seminar Series; Co-organizer 2020
5. Gordon Research Conference (GRC) on Alcohol in CNS; Chair 2022

#### International:

1. Intl. Drug Abuse Res. Soc. (IDARS) Mtg.; Morocco; Co-chair 2019
2. Intl. Drug Abuse Res. Soc. (IDARS) Mtg.; France; Co-chair 2022

### **Organized & Chaired Symposia:**

#### National:

1. *Neuropharmacology of excessive alcohol drinking in rodent models*. RSA meeting in San Diego, CA, 2009. Role: Organizer & Chair.
2. *Negative affective states and addiction*. NHSN meeting in Miami, FL, 2011. Role: Organizer & Chair.
3. *Vulnerability factors for excessive alcohol drinking and alcohol-related behavioral dysregulation*. RSA meeting in Atlanta, GA, 2011. Role: Organizer & Chair.
4. *The translational intersection of depression and addiction*. NHSN meeting in San Antonio, TX, 2015. Role: Co-organizer & Co-chair.
5. *Corticotropin releasing factor: Novel molecular, cellular and system roles*. SfN meeting in Chicago, IL, 2015. Role: Mini-symposium co-chair.
6. *Brain reward and brain stress system cross-talk in alcohol addiction*. Research Society on Alcoholism (RSA) meeting in San Diego, CA, 2018. Organizer & Chair.
7. *Ventral Tegmental Area (VTA) Cell Heterogeneity in Health & Disease*. Mini-symposium at Society for Neuroscience (SFN) meeting in Chicago, IL, 2019. Organizer & Chair.
8. *Intersectional Neurobiology of Pain, Addiction & Negative Affect*. American College on Neuropsychopharmacology (ACNP) meeting in Orlando, FL, 2019. Organizer & Chair.
9. *Viewing developmental plasticity and sensitivity to alcohol through a lifespan lens*. Research Society on Alcoholism (RSA) meeting, 2021. Co-organizer & Co-chair.
10. *Age and sex effects on alcohol use disorder and pain interactions*. Research Society on Alcoholism (RSA) meeting, Orlando, FL, 2022. Co-organizer & Co-chair.

### International:

1. *Post-traumatic stress disorder & alcohol dependence*. Alcoholism & Stress Meeting in Volterra, Italy, 2011. Role: Organizer & Chair.
2. *Alcohol-induced plasticity in brain NPY systems*. International NPY-PPY-PP Meeting, Montreal, Canada, 2012. Role: Organizer & Chair.
3. *Nicotine reinforcement & dependence: Neuroadaptations in "stop" & "go" signals*. IBNS meeting in Dublin, Ireland, 2013. Role: Organizer & Chair.
4. *Brain reward and stress systems in excessive alcohol drinking*. Alcoholism & Stress Meeting in Volterra, Italy, 2014. Role: Organizer & Chair.
5. *Chronic alcohol effects on brain reward, stress & cognition systems: Mouse to monkey to man*. ISBRA meeting in Berlin, Germany, 2016. Role: Organizer & Chair.
6. *Chronic alcohol induces plasticity in striatal and limbic circuits*. International Society on Biomedical Research on Alcohol (ISBRA), Kyoto, Japan, 2018. Organizer & Chair.

### **Scientific Presentations:**

#### National:

1. *Neuropeptide Y reduces oral ethanol intake in alcohol-preferring (P) rats following a period of imposed ethanol abstinence*. Presented at RSA meeting in Fort Lauderdale, FL, 2003.
2. *The effects of neuropeptide Y (NPY) in the paraventricular nucleus of the hypothalamus (PVN) on ethanol drinking in high- (HAD1) and low-alcohol-drinking (LAD1) rats*. Presented at RSA meeting in Vancouver, Canada, 2004.
3. *Dose-dependent effects of neuropeptide Y (NPY) on ethanol intake in alcohol-preferring (P) rats following multiple periods of imposed ethanol abstinence*. Presented at RSA meeting in Vancouver, Canada, 2004.
4. *Suppression of ethanol intake by neuropeptide Y (NPY) in Wistar rats depends on intermittence of prior ethanol exposure*. Presented at RSA meeting in Baltimore, Maryland, 2006.
5. *Behavioral and pharmacological validation of two models of pathological alcohol drinking*. Presented at Winter Conference on Brain Research, Snowbird, Utah, 2008.
6. *Role of neuropeptide Y (NPY) in the transition to alcohol dependence*. Presented at RSA meeting in San Diego, CA, 2009.
7. *An animal model of post-traumatic stress disorder & alcohol-related behaviors*. Presented at NHSN meeting in Miami, FL, 2011.
8. *A new animal model of PTSD and alcohol drinking: Effects of predator stress and conditioned stimuli on operant alcohol self-administration*. Presented at RSA meeting in Atlanta, GA, 2011.
9. *Exposure to traumatic stress in rats differentially affects alcohol drinking and neuronal ERK phosphorylation*. Presented in nanosymposium at SfN meeting in New Orleans, LA, 2012.
10. *Nicotine-dependent rats exhibit increases in alcohol self-administration and altered sensitivity to varenicline*. Presented at CPDD meeting in Palm Springs, CA, 2012.
11. *Nicotine vapor inhalation escalates nicotine self-administration*. Presented in symposium at CPDD meeting in San Diego, CA, 2013.
12. *Traumatic brain injury increases alcohol drinking and promotes neuroinflammation in rats*. Presented at Society of Neuroimmune Pharmacology (SNIP) meeting in New Orleans, LA, 2014.
13. *High traumatic stress reactivity escalates alcohol drinking and recruits CRF in prefrontal-amygdala circuitry*. Presented at RSA meeting in Bellevue, WA, 2014.
14. *Amygdalar CRF mediates stress effects on nociception and alcohol drinking*. Presented in mini-symposium at SfN meeting in Chicago, IL, 2015.

15. *Central Amygdala Regulation of Alcohol Withdrawal Hyperalgesia*. Presented at Gordon Research Conference (GRC) on Amygdala in Easton, MA, 2017.
16. *Amygdala endocannabinoids in alcohol withdrawal and traumatic stress induced escalation of alcohol drinking*. Presented in the NIDA-NIAAA satellite symposium preceding the Society for Neuroscience meeting in Washington, D.C., 2017.
17. *Traumatic Stress Reactivity and Neural Mediators of Alcohol Drinking*. Presented at the Gordon Research Conference (GRC) on Alcohol & the Nervous System in Galveston, TX, 2018.
18. *Amygdala CRF Regulation of Traumatic Stress Effects on Behavior*. Presented at the National Hispanic Science Network (NHSN) meeting in New Orleans, LA, 2019.
19. *Neurobiological mediators of hyperalgesia after chronic alcohol & chronic morphine*. Presented at the American College on Neuropsychopharmacology (ACNP) meeting in Orlando, FL, 2019.
20. *Racial inequities in federal funding for biomedical research*. Presented at American Chemical Society (ACS) meeting, April 2021.
21. *How can we better support black and other under-represented scientists?* Study group member at American College on Neuropsychopharmacology (ACNP) meeting in San Juan, Puerto Rico, 2021.
22. *TBI and Alcohol effects on brain & behavior*. Presented Gordon Research Conference on Alcohol-Induced End Organ Damage in Ventura, CA, 2023.
23. *THC vapor inhalation effects on CFA-related pain outcomes and PAG plasticity in male and female rats*. Presented at the U.S. Association for the Study of Pain in Durham, NC, 2023.

International:

1. *A convergent pathway in the amygdala for brain stress peptides in alcohol dependence*. Presented at IDARS meeting in Seoul, South Korea, 2009.
2. *Extending the utility of alcohol vapor dependence procedures*. Presented at ISBRA meeting in Paris, France, 2010.
3. *Neuropeptide Y suppresses alcohol drinking by decreasing inhibitory neurotransmission in central amygdala*. Presented at IDARS meeting in Rio de Janeiro, Brazil, 2010.
4. *A new animal model of post-traumatic stress disorder & alcohol dependence*. Presented at Alcoholism & Stress Meeting in Volterra, Italy, 2011.
5. *Alcohol dependence recruits neuropeptide Y (NPY) systems in extended amygdala*. Presented at ISBRA meeting in Sapporo, Japan, 2012.
6. *Neuropeptide Y in the extended amygdala of alcohol-dependent rats*. Presented at the International NPY-PPY-PP Meeting, Montreal, Canada, 2012.
7. *Nicotine vapor escalates nicotine self-administration & alters nAChR profiles*. Presented at IBNS meeting in Dublin, Ireland, 2013.
8. *High traumatic stress reactivity promotes alcohol drinking and recruits cortico-amygdalar circuitry*. Presented at IDARS meeting in Mexico City, Mexico, 2013.
9. *Individual differences in stress-induced behavioral dysregulation mediated by corticotropin-releasing factor (CRF) in central amygdala (CeA)*. Presented at Alcoholism & Stress Meeting in Volterra, Italy, 2014.
10. *Traumatic stress increases nociception & alcohol drinking: A role for corticotropin-releasing factor (CRF) signaling in the central amygdala (CeA)*. Presented at IDARS meeting in Sydney, Australia, 2015.
11. *Central amygdala mediates hyperalgesia associated with traumatic stress & alcohol dependence*. Presented at ISBRA meeting in Berlin, Germany, 2016.
12. *Traumatic stress effects on brain CRFR1 signaling, nociception & alcohol drinking*. Presented at Stress & Alcoholism meeting in Volterra, Italy, 2017.

13. *The central amygdala is a hub for alcohol dependence, stress reactivity & pain.* Presented at the Zardi-Gori scientific meeting titled "Alcohol Use Disorder: from Bench to Bedside" in Milan, Italy, 2017.
14. *The role of brain CRF-CRFR1 signaling in stress-alcohol interactions.* Presented at the Winter Conference on Brain Research in Whistler, Canada, 2018.
15. *Stress alters amygdala signaling & alcohol drinking.* Presented at the Neurobiology of Stress Meeting in Banff, Canada, 2018.
16. *Central amygdala circuits mediate hyperalgesia in alcohol-dependent rats.* Presented at ISBRA meeting in Kyoto, Japan, 2018.
17. *Traumatic stress effects on brain & behavior.* Presented at PUCRS event on Early Life Stress & Addiction, Porto Alegre, Brazil, September 2019.
18. *Adolescent alcohol exposure leads to lasting hyperalgesia via amygdala circuit changes.* Presented at the Stress & Alcohol meeting in Volterra, Italy, 2023.
19. *Adolescent alcohol exposure leads to lasting hyperalgesia via amygdala circuit changes.* Presented at the Gordon Research Conference on the Amygdala, Barcelona, Spain, 2023.

#### **Invited Presentations and Seminars:**

##### Local (not including talks on the LSUHSC campus):

1. *At the intersection of stress & alcohol use disorders.* Invited talk at Tulane University, Neuroscience Department, New Orleans, LA, November 2011.
2. *Stress & stress response affects alcohol-related behavior.* Invited talk at Tulane University, Physiology Department, New Orleans, LA, April 2012.
3. *Traumatic stress reactivity facilitates excessive alcohol drinking and prefrontal cortex-amygdala synchronicity.* Invited talk at Southeastern Louisiana University, Biology Department, Hammond, LA, November 2012.

##### National:

1. *Neuropeptide Y: The light side of the dark side of alcoholism.* Invited talk at Indiana University-Purdue University at Indianapolis, Psychology Department, Indianapolis, IN, November 2010.
2. *At the intersection of stress & alcohol use disorders.* Invited talk at National Institute of Alcoholism & Alcohol Abuse, Bethesda, MD, February 2012.
3. *Amygdalar CRF in stress-induced escalation of alcohol drinking & hyperalgesia.* Invited talk in NIAAA-sponsored satellite symposium at Society for Neuroscience 2014 meeting in Washington, D.C., November 2014.
4. *Amygdalar CRF mediates individual differences in stress-induced avoidance and hyperalgesia.* Invited talk at University of North Carolina, Psychology Department, Chapel Hill, NC, November 2015.
5. *Amygdalar CRF mediates individual differences in stress-induced avoidance and hyperalgesia.* Invited talk at University of Texas Medical School, Institute of Molecular Medicine, Houston, TX, May 2016.
6. *Amygdala mediates hyperalgesia associated with stress and alcohol dependence.* Invited talk in 5<sup>th</sup> Purdue Symposium on Psychological Sciences titled "Emotion Dysregulation: Consequences and Mechanisms," Purdue University, West Lafayette, IN, May 2016.
7. *Amygdalar CRF signaling mediates stress-induced hyperalgesia.* Invited talk at Washington State University, Alcohol and Drug Abuse Research Program, Pullman, WA, September 2016.
8. *CRF signaling mediates stress-induced behavioral dysregulation.* Invited talk at Medical University of South Carolina, Alcohol Research Center, Charleston, SC, October 2016.



9. *Central amygdala mediates alcohol dependence-induced hyperalgesia*. Invited talk at Vanderbilt University, Alcohol Research Center, Nashville, TN, October 2017.
10. *Traumatic stress alters brain CRF signaling & alcohol drinking*. Invited talk at Marquette University, Milwaukee, WI, October 2018.
11. *Central amygdala mediates alcohol dependence-induced hyperalgesia*. Invited talk at Texas A&M University, College Station, TX, October 2018.
12. *Central amygdala is a hub for alcohol dependence*. Invited talk at University of Maryland, Baltimore, MD, March 2019.
13. *Amygdala CRF regulation of traumatic stress effects on behavior*. Invited talk at University of Tennessee, Memphis, TN, October 2019.
14. *Central amygdala is a hub for alcohol dependence*. Invited talk at Indiana University, Indianapolis, IN, January 2020.
15. *Central amygdala is a hub for alcohol dependence*. Invited talk at University of Louisville, Louisville, KY, January 2020.
16. *Central amygdala is a hub for alcohol dependence*. Invited talk at Rutgers University, New Brunswick, NJ, February 2020.
17. *Racial inequities in federal funding for biomedical research*. Invited talk at University of North Texas, November 2020.
18. *Racial inequities in federal funding for biomedical research*. Invited talk at Washington University, December 2020.
19. *Racial inequities in federal funding for biomedical research*. Invited talk at Northeastern University, Psychology, January 2021.
20. *Racial inequities in federal funding for biomedical research*. Invited talk at Northeastern University, Chemistry, February 2021.
21. *Central amygdala mediates alcohol withdrawal hyperalgesia*. Invited talk at University of Florida Center for Addiction Research and Education, March 2021.
22. *Amygdala is a hub for traumatic stress effects on behavior*. Invited talk at University of Georgia Psychology Department, April 2021.
23. *Racial inequities in federal funding for biomedical research*. Invited talk at University of North Carolina Bowles Alcohol Center, May 2021.
24. *Using vaporized drug delivery to explore addiction mechanisms in animal models*. Invited talk at LSU Baton Rouge, November 2021.
25. *The amygdala is a hub for traumatic stress effects on behavior*. Invited talk at University of Texas at Austin, November 2021.
26. *Central amygdala mediates alcohol withdrawal hyperalgesia*. Invited talk at Texas Tech University, May 2022.
27. *Central amygdala mediates alcohol withdrawal hyperalgesia*. Invited talk at Washington University at St. Louis, May 2022.
28. *The amygdala is a hub for traumatic stress effects on behavior*. Invited talk at University of Massachusetts at Amherst, November 2022.
29. *The amygdala is a hub for traumatic stress effects on alcohol-related behaviors*. Invited talk at NIAAA, April 2023.
30. *The amygdala is a hub for traumatic stress effects on alcohol-related behaviors*. Invited talk at University of Tennessee Health Science Center, April 2023.

International:

1. *Amygdalar CRF mediates individual differences in stress-induced avoidance and hyperalgesia*. Invited talk at University of Calgary, Calgary, Alberta, Canada, June 2016.
2. *Traumatic stress effects on brain & behavior*. Invited talk at Universidade do Sao Paulo, Sao Paulo, Brazil, September 2019.
3. *Traumatic stress effects on brain & behavior*. Invited talk at Pontificia Universidade

- Católica do Rio Grande do Sul, Porto Alegre, Brazil, October 2019.
4. *Central amygdala is a hub for alcohol dependence*. Invited talk at Pontificia Universidade Católica do Rio Grande do Sul, Porto Alegre, Brazil, October 2019.
  5. *The amygdala is a hub for traumatic stress effects on behavior*. Invited talk at University of Aarhus, Aarhus, Denmark, May 2023.

**Invited Keynote Talks:**

1. *Central amygdala is a hub for alcohol dependence*. Keynote talk for the 2020 Latin American Society for Biomedical Research on Alcoholism (LASBRA) meeting in Sao Paulo, Brazil, December 2020.

**DEI-related Presentations** (beyond those listed above):

1. Co-chaired the GRC Cannabinoid Power Hour in Oxnard, CA in Fall 2020.
2. Co-chaired the GRC Amygdala Power Hour in Barcelona, Spain in Summer 2023.

**Editorial Posts and Activities:**

**Journal Editorial Appointments:**

Neuropharmacology (Editorial Board member)	2016-
F1000 Faculty (member; Neuropharm. & Psychopharm. Section)	2018-
Alcohol (Editorial Board member)	2020-
Advances in Drug and Alcohol Research (Associate Editor)	2021-

**Special Issues Journal Editor:**

Editor of special issue for *Frontiers in Addictive Disorders* 2013

Title: Brain Reward and Stress Systems in Addiction

Issue can be accessed at: <http://journal.frontiersin.org/ResearchTopic/1039>

Co-editor of special issue for *Neuropharmacology* 2020

Title: Neuropeptides

Co-editor of special issue for *Int'l. Review of Neurobiology* 2020

Title: Neurobiology of Addiction and Co-Morbid Disorders

**Reviewer Status** (alphabetical):

Addiction Biology, Alcohol, Alcoholism: Clinical & Experimental Research, Behavioural Brain Research, Behavioural Pharmacology, Biological Psychiatry, BMC Neuroscience, Brain Research, British Journal of Pharmacology, Cellular & Molecular Neurobiology, Drug & Alcohol Dependence, eLife, eNeuro, European Journal of Neuroscience, European Neuropsychopharmacology, Frontiers Journals (various), Genes Brain & Behavior, International Journal of Developmental Neuroscience, International Journal of Neuropsychopharmacology, Journal of Addiction Medicine, Journal of Drug & Alcohol Research, Journal of Neuroendocrinology, Journal of Neuroscience, Molecular Neurobiology, Molecular Psychiatry, Neurobiology of Stress, Neuropeptides, Neuropharmacology, Neuropsychopharmacology, Neuroscience Letters, Nicotine & Tobacco Research, Pain, Peptides, Pharmacology Biochemistry & Behavior, Physiology & Behavior, Progress in Neuropsychopharmacology & Biological Psychiatry, Psychoneuroendocrinology, Psychopharmacology, Regulatory Peptides, Toxicology & Applied Pharmacology

## **SERVICE ACTIVITIES**

### **University/Institutional Service:**

#### **Departmental committees**

Faculty Search Committee, Physiology, Member	2011-13, 2016-
Research Development Work-In-Progress, Physiology, Co-Chair	2012-2013
Post-Doctoral Development Committee, Physiology, Chair	2012-present
Faculty Professional Development Program, Physiology, Director	2016-present

#### **LSU School of Medicine (SOM) committees**

Judge for Graduate Student Research Day	2011, 2014
Alcohol & Drug Abuse Center of Excellence, steering member	2012-present
Judge for Medical Student Research Day	2014
Alcohol & Drug Abuse Center of Excellence, Associate/Co-Dir.	2015-present
Research Enhancement Fund Grant Review Committee, member	2015-present
Faculty Guidance and Mentoring Committee, member	2015-present
Extramural Grant Proposal Review Committee, member	2019
M.D./Ph.D. student interview committee, member	2019

#### **LSU School of Dentistry (SOD) committees**

Academic Performance Advancement Committee, member	2020-2022
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#### **LSUHSC committees**

LSU Strategic Plan, Research & Core Facilities Group, member	2013
LSUHSC-NO Information Technology (IT) Committee, member	2017-present
LSUHSC Institutional Research Advisory Council	2023-present

### **V.A. Service:**

#### **SLVHCS committees**

Research & Development Committee (RDC), Member	2018-present
<i>Ad Hoc</i> Research VA Proposal Development Committee, Member	2018-present
SLVHCS Research Equipment Committee, Member	2018-present
SLVHCS Research Facility Activation Committee, Member	2018-2020

### **Professional society committees**

Research Society on Alcoholism (RSA)	
Program Committee for RSA Meeting, member	2013
Education Committee, member	2017-2020
Board of Directors, member	2017-2021
Diversity Committee, member	2021-
National Hispanic Science Network (NHSN)	
Planning Committee for NHSN Meeting, member	2013, 2015
Planning Committee for NHSN Meeting, co-chair	2012
Early Career Leadership Committee Core Group, member	2012-2014
American College of Neuropsychopharmacology (ACNP)	
Education & Training Committee, ad hoc member	2014
Education & Training Committee, standing member	2015-2017
Publications Committee, standing member	2018-2021
Membership Committee, standing member	2022-
International Drug Abuse Research Society (IDARS)	
Organizing Committee for IDARS meeting, member	2017-

**Administrative Responsibilities:**

Co-Director of LSUHSC Alcohol and Drug Abuse Center of Excellence  
Vice Chair of Research for LSUHSC Department of Physiology

**Community Service Activities:**

LSUHSC Comprehensive Alcohol Research Center (CARC) 2014-2016  
Information Dissemination Core; Role: Director (PI)

*The goal of this Core is to impact alcohol- and HIV-related knowledge, attitudes and behaviors by educating lay people, practicing and in-training health care providers, and scientists on the neurobiological basis and biomedical consequences of alcohol use and abuse, and the risk factors and biological underpinnings of HIV. These activities include community outreach and education initiatives. My role as Director was to seek out opportunities and coordinate these activities on campus and in the community.*

Founder & Administrator of *Racial Equity in Science* Slack Forum 2020-

## **Research Interest Narrative**

I am a behavioral neuroscientist, and my research career has focused on examining the neurobiology of addiction, traumatic stress disorders, and pain in animal models, with the ultimate goal of contributing to our understanding of the neurobiology of addiction, as well as potential prevention and treatment strategies for these disorders.

My major research contribution to this point has been to the understanding of the neural changes that mediate the transition from alcohol use to alcohol dependence. In particular, pro-anxiety and anti-anxiety neuropeptide systems in the extended amygdala are recruited during the transition to alcohol dependence, and these systems become critical for mediating alcohol consumption and other alcohol-related outcomes in the alcohol-dependent organism. I have authored many empirical articles and several review articles that collectively seek to improve our understanding of the neuroadaptations that underlie the behavioral pathologies that define the diagnostic criteria for Alcohol Use Disorder (AUD).

My current research program continues to focus on understanding the neurobiology of addictive disorders. I am currently funded by NIAAA and the V.A. The current focus of my lab is to examine neurobiological mechanisms underlying the high rate of co-morbidity of addiction with traumatic stress disorders (e.g., PTSD) and pain. The goal of this work is to identify the neural interface for addiction with traumatic stress disorders and pathological pain, which are frequently co-morbid in civilian and military populations. The potential impact of this work on human health is to identify promising targets and strategies for treating human addicts with co-morbid stress and pain disorders.

I foresee three important areas of expansion for our research program in the future. First, we are incorporating circuit-based approaches into our pre-clinical models with the goal of defining the neurochemistry and neurocircuitry underlying alcohol abuse and pain in individuals living with addiction and traumatic stress disorders. Second, we are expanding our research program to include other drugs of abuse (i.e., nicotine and morphine). Third, we are looking for opportunities to translate our pre-clinical findings into clinical studies.