

**CURRICULUM VITAE**

**Scott Edwards, PhD**

**Current Title:** Tenure-Track Assistant Professor  
**Business Address:** Louisiana State University Health Sciences Center  
Department of Physiology  
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**Birthdate and Birthplace:** December 28, 1976, Abilene, TX  
**Spouse:** Kimberly Edwards  
**Citizenship:** United States of America

**Education:**  
1995-2000 Bachelor of Science Degree in Biochemistry  
College of Natural Sciences  
The University of Texas, Austin, TX  
2000-2007 Doctor of Philosophy Degree in Neuroscience  
Laboratory of David W. Self  
Department of Psychiatry and Center for Basic Neuroscience  
The University of Texas Southwestern Medical Center, Dallas, TX  
2007-2013 Post-Doctoral Fellowship  
Laboratory of George F. Koob  
Committee on the Neurobiology of Addictive Disorders  
The Scripps Research Institute, La Jolla, CA

**Academic, Professional, and Research Appointments:**  
2013-Present Tenure-Track Assistant Professor  
Department of Physiology  
LSU Health Sciences Center-New Orleans  
2013-Present Alcohol and Drug Abuse Center of Excellence  
LSU Health Sciences Center-New Orleans  
2014-Present Neuroscience Center of Excellence  
LSU Health Sciences Center-New Orleans  
2018-Present Biomedical Laboratory Research & Development/  
Clinical Science Research & Development Intramural Program  
Southeast Louisiana Veterans Health Care System

## **Membership in Professional Organizations:**

1999-Present	Member, Society for Neuroscience (SFN)
2009-Present	Member, Research Society on Alcoholism (RSA)
2013-Present	RSA Animal Research and Ethics Committee
2014-Present	Member, American Physiological Society (APS)
2014-Present	Member, American Pain Society
2015	RSA Conference Program Committee
2017-2019	APS Conference Committee
2017-2019	APS Central Nervous System Section Steering Committee
2018-Present	Member, International Society for Biomedical Research on Alcoholism (ISBRA)
2018-Present	Member, Association for Women in Science (AWIS)

## **Awards and Honors:**

1998-1999	University CO-OP Undergraduate Research Fellowship The University of Texas at Austin
1999	ASPET Summer Undergraduate Research Fellowship Department of Pharmacology, Vanderbilt University
1999	Microscopy Society of America Undergraduate Research Fellowship
2011	NIH/NIAAA Travel Award Second International Congress on Alcoholism and Stress, Volterra, Italy
2011	NIAAA Training Directors Meeting and Trainee Workshop Travel Award Center for Alcohol and Addiction Studies, Brown University
2013	Winter Conference on Brain Research Travel Fellowship 46 <sup>th</sup> Annual Meeting, Breckenridge, Colorado
2014	NIH/NIAAA Young Investigator Award Third International Congress on Alcoholism and Stress, Volterra, Italy
2015	American College on Neuropsychopharmacology (ACNP) Travel Award
2016	LSU School of Medicine Faculty Assembly Outstanding Accomplishments by a Junior Faculty Member Award
2018	American Physiological Society Central Nervous System Section New Investigator Award
2018	American Physiological Society Beverly Petterson Bishop Award for Excellence in Neuroscience

## TEACHING EXPERIENCE AND RESPONSIBILITIES

### Formal Course Responsibilities

Since joining LSUHSC-New Orleans in 2013, my teaching and educational scholarship opportunities have steadily grown to become a key part of my academic career, inspired by the wealth of opportunities and dedicated educators around the health sciences center. My teaching has been largely focused in the areas of endocrine physiology and neuroscience. My main endocrine teaching responsibilities occur within the School of Nursing (*Nursing Physiology* and *Nursing Pathophysiology*), School of Allied Health (*Biological Systems*), and School of Graduate Studies (*Biological Systems* and *Endocrinology*). I have also contributed to teaching in the neurosciences through my joint appointment with the Neuroscience Center of Excellence and with the creation of a new special topics course entitled *Physiology of Neuronal Circuits*. Finally, I have contributed to the teaching mission of the Interdisciplinary Graduate Program of the School of Graduate Studies via the *Ethics in Biomedical Sciences* and *Experimental Design & Analysis* courses. Lecture hours and teaching evaluation scores are listed in the table below:

Summary of Teaching Responsibilities (Course Director*)					
Year	LSUHSC School	Course Title	Course Number	Lecture Hours	Evaluations (Scale 1-4)
2014	SGS/SAH	Biological Systems	INTER 132	6	3.6-3.8
2015	SGS/SAH	Biological Systems	INTER 132	6	3.4-3.6
	<b>SGS</b>	<b>Endocrinology*</b>	<b>PHYSIO 216</b>	<b>8</b>	
	SGS	Ethics in the Biomedical Sciences	INTER 220	1	
	SOD	General and Oral Physiology	DHY 3202	3	
	SON	Nursing Pathophysiology	PHYSIO 3410	1	3.4-3.5
2016	SGS/SAH	Biological Systems	INTER 132	7	3.8
	SGS	Ethics in the Biomedical Sciences	INTER 220	1	
	SGS	Molecular Neurobiology	NEURO 250	4	
	SOD	General and Oral Physiology	DHY 3202	1	
	SON	Nursing Pathophysiology	PHYSIO 3410	5	3.4-3.5
	SON	Nursing Physiology	PHYSIO 2410	8	3.5-3.6
2017	SGS/SAH	Biological Systems	INTER 132	7	3.4-3.7
	SGS	Experimental Design & Analysis	INTER 143	3	
	SGS	Ethics in the Biomedical Sciences	INTER 220	1	
	SGS	Molecular Neurobiology	NEURO 250	2	
	<b>SGS</b>	<b>Physiology of Neuronal Circuits*</b>	<b>PHYSIO 289</b>	<b>7</b>	
	SOD	General and Oral Physiology	DHY 3202	1	
	SOD	Applied Oral Medicine	DENT 3116	2	
	SON	Nursing Pathophysiology	PHYSIO 3410	3	3.4-3.8
	SON	Nursing Physiology	PHYSIO 2410	16	3.4-3.8
2018	<b>SGS/SAH</b>	<b>Biological Systems*</b>	<b>INTER 131/132</b>	<b>7</b>	<b>3.2-3.6</b>
	SGS	Experimental Design & Analysis	INTER 143	3	
	SON	Nursing Pathophysiology	PHYSIO 3410	3	3.6
	SON	Nursing Physiology	PHYSIO 2410	16	3.6-3.7

## **Undergraduate, Medical, or Graduate Students Trained (2013-Present):**

### Undergraduate Students

2014	Meghan Blackwell (Howard University)
2015	Jonathan Reppel (Louisiana Tech University)
2016	Adrianna Jones (Louisiana State University)
2017	Scott Ng (University of Southern California)

### Medical Students

2015-2016	Brooke Towne (LSUHSC School of Medicine)
2016	Maggie Coleman (LSUHSC School of Medicine)

### Graduate Students

2014-Present	Adrienne McGinn (LSUHSC-NO Physiology) - Dissertation Advisor
2017-Present	Adrienne McGinn (LSUHSC-NO Physiology) - NIH/NIAAA F31 Sponsor
2015-2018	Allyson Schreiber (LSUHSC-NO Physiology) - NIH/NIAAA F30 Co-Sponsor
2016-2017	Rod Paulsen (LSUHSC-NO Master's Program) - Thesis Advisor
2018-Present	Jessica Cucinello (LSUHSC-NO Physiology) - Dissertation Advisor
2019-Present	Laura Monteagudo (LSUHSC-NO Physiology) - Dissertation Advisor

### **Thesis and Dissertation Committees:**

2014	Thesis Committee Member - Brittni Baynes (LSUHSC-NO Physiology)
2014-2016	Dissertation Committee Member - Jacques Mayeux (LSUHSC-NO Physiology)
2014-2017	Dissertation Committee Member - John Maxi (LSUHSC-NO Physiology)
2015-2018	Dissertation Committee Member - Allyson Schreiber (LSUHSC-NO Physiology)
2016-2018	Dissertation Committee Member - Elia El Hajj (LSUHSC-NO Physiology)
2015-Present	Dissertation Committee Member - Alyssa Fournett (LSUHSC-NO Pharmacology)
2015-Present	Dissertation Committee Member - Van Ninh (LSUHSC-NO Physiology)
2017-Present	Dissertation Committee Member - Ariel Amgott-Kwan (Tulane Neuroscience)
2018-Present	Dissertation Committee Member - Laura Erwin (LSUHSC-NO Pharmacology)
2018-Present	Dissertation Committee Member - Zachary Stielper (LSUHSC-NO Physiology)

### **Post-Doctoral or Post-Residency Fellows Trained:**

2014-2015	Dr. Dana M. LeBlanc (LSUHSC-NO Pediatrics/Hematology/Oncology Fellow)
2015-Present	Dr. Amanda R. Pahng (LSUHSC-NO Physiology)
2019-Present	Dr. Elizabeth Delery (LSUHSC-NO Physiology)

## **RESEARCH AND SCHOLARSHIP**

### **Past Funded Grants and Contracts:**

10/01/2003-09/30/2006

*Protein Phosphorylation States in Drug Addiction*

National Institute on Drug Abuse (F31DA016472)

Edwards (PI)

*This predoctoral NRSA examined the association between mesolimbic protein phosphorylation status and individual differences in cocaine self-administration in animals.*

04/13/2009-07/12/2011

*Role of Vasopressin/ERK Signaling in Ethanol Dependence*

National Institute on Alcohol Abuse and Alcoholism (F32AA018250)

Edwards (PI)

*This postdoctoral NRSA examined the functional role of vasopressin V1b receptors in the escalation of drinking evident in alcohol-dependent animals.*

11/01/2014-10/31/2015

*Neuronal ERK/MAPK Signaling in a Mouse Model of Sickle Cell Disease Pain*

LSUHSC Department of Pediatrics Intramural Clinical and Translational Grants Program

Edwards (Co-PI)

\$25,000

*This grant investigated neuroadaptations in pain-related brain areas in a transgenic mouse model of sickle cell disease.*

01/01/2015-12/31/2015

*Combinations of Levomepromazine and Morphine for Analgesia in Recovered Addicts*

LSUHSC Alcohol and Drug Abuse Center of Excellence Pilot Grant Program

Edwards (Co-PI)

\$15,000

*This grant examined the opioid-sparing efficacy of levomepromazine for analgesia.*

09/01/2012-08/31/2018\* (\*No Cost Extension)

*Intersection of Pain and Ethanol-Seeking Mechanisms in Ethanol Dependence*

National Institute on Alcohol Abuse and Alcoholism (K99/R00AA020839)

Edwards (PI)

\$170,546/yr.

*This Pathway to Independence Award examines the mechanistic link between excessive drinking and hyperalgesia in alcohol-dependent animals.*

11/01/2017-10/31/2018

*Central Neuropharmacological Mechanisms of Pain and Alcohol Dependence*

LSU Health School of Medicine Research Enhancement Program

\$70,000

*This bridge grant will generate additional preliminary data in support of future R01 submissions aimed at discovering novel therapeutic strategies for alcohol dependence and pain, with a focus on glucocorticoid signaling mechanisms.*

## Currently Funded Grants and Contracts:

12/01/2014-11/31/2019

*LSUHSC Comprehensive Alcohol-HIV/AIDS Research Center*

National Institute of Alcoholism and Alcohol Abuse (2P60AA009803-22-Sub 7717)

Edwards (PI of Outreach and Information Dissemination Core)

*This P60 investigates physiological mechanisms underlying HIV- and alcohol-related comorbidities, including dissemination of findings and related information to health care professionals and the public.*

09/15/2017-09/14/2019

*Role of GluA1 in the Escalation of Alcohol Drinking in Nicotine-Dependent Animals*

National Institute on Alcohol Abuse and Alcoholism (R21AA025736)

Edwards (PI)

\$137,500/yr.

*This grant examines the neurobiological interactions of alcohol and nicotine dependence, with a focus on excitatory glutamatergic signaling in the prefrontal cortex and central amygdala.*

01/01/2018-12/31/2018

*Neurobiological Correlates of Pain & Cognitive Dysfunction in a Rhesus Macaque Model of HIV/Alcohol Co-Morbidity* LSU Health Comprehensive Alcohol Research Center Pilot Grant

\$30,000

*This pilot grant will examine neuroadaptations in central pain- and cognition-related regions in association with these behaviors examined in a rhesus macaque model of HIV/alcohol comorbidity.*

09/15/2017-09/14/2022

*Traumatic Stress Increases Alcohol Drinking via Endocannabinoid Disinhibition of Basolateral Amygdala* National Institute on Alcohol Abuse and Alcoholism (R01AA026531)

Gilpin/Tasker MPI (Edwards Co-I)

\$250,000/yr.

*This grant will determine the role of amygdala endocannabinoid signaling dysregulation in promoting the escalation of drinking in an animal model of post-traumatic stress disorder (PTSD).*

07/01/2018-06/30/2023

*Alcohol and Traumatic Brain Injury; Neuronal and Behavioral Consequences*

National Institute on Alcohol Abuse and Alcoholism (R01AA025792)

Molina/Gilpin MPI (Edwards Co-I)

\$250,000/yr.

*This grant will examine the efficacy of boosting endogenous cannabinoid signaling to reduce escalated drinking in the context of traumatic brain injury (TBI).*

07/01/2018-06/30/2023

*Vasopressin Signaling in Pain and Alcohol Dependence*

National Institute on Alcohol Abuse and Alcoholism (R01AA025996)

Edwards (PI)

\$250,000/yr.

*This grant will determine the functional role of vasopressin signaling in the manifestation of excessive drinking and hyperalgesia in alcohol-dependent animals.*

09/28/2018-09/27/2023

*Preclinical Medications Development Screening in Dependent, Affect and Pain Models of Alcoholism*  
National Institute on Child Health and Human Development (NIH-NICHD-2018-05)

Edwards (PI)

\$1,293,742 over five years

### **Grants and Contracts Pending:**

*Plasma miRNA Biomarkers in HIV-Neuropathology and Substance Use Comorbidity*

National Institute on Drug Abuse R01

Peruzzi PI (Edwards Co-I)

\$250,000/yr.

*This project will explore microRNA signatures linked to excessive drug use and associated cognitive deficits in HIV-positive individuals.*

*Mechanisms of Alcohol Impairment of Recovery from Disuse Atrophy*

National Institute on Alcohol Abuse and Alcoholism R01

Simon/Edwards MPI

\$250,000/yr.

*This grant will determine the mechanisms whereby alcohol contributes to muscle atrophy and hyperalgesia following hind limb immobilization.*

### **Grants and Contracts Not Funded (Last Three Years):**

07/01/2018-12/31/2019

*A Standardized Phytocannabinoid Strategy to Treat Pain and Reduce the Need for Opioids*

Medical Technology Enterprise Consortium (MTEC)

Edwards/Winsauer MPI

\$500,000

*This grant aims to examine the efficacy of a non-euphoric, standardized cannabis extract to reduce fentanyl self-administration and indices of fentanyl-induced hyperalgesia.*

### **Journal Publications:**

1. **Edwards S**, Simmons DL, Galindo DG, Doherty JM, Scott AM, Hughes PD, Wilcox RE. Antagonistic effects of dopaminergic drugs and ethanol on PKA-mediated phosphorylation of DARPP-32 and the NR1 subunit of the NMDA receptor. Alcoholism: Clinical and Experimental Research 2002 26(2): 173-80.
2. Choi KH, Rahman Z, **Edwards S**, Hall S, Neve RL, Self DW. Opposite effects of GluR1 and PKA-resistant GluR1 overexpression in the ventral tegmental area on cocaine reinforcement. Annals of the New York Academy of Sciences 2003 1003: 372-4.
3. Bolaños CA, Perrotti LI, **Edwards S**, Eisch AJ, Barrot M, Olson VG, Russell DS, Neve RL, and Nestler EJ. Phospholipase C in distinct regions of the ventral tegmental area differentially modulates mood-related behaviors. The Journal of Neuroscience 2003 23: 7569-7576.

4. Perrotti LI, Bolaños CA, Choi KH, Russo SJ, **Edwards S**, Ulery PG, Wallace DL, Self DW, Nestler EJ, and Barrot M. Delta FosB accumulates in a GABAergic cell population in the posterior tail of the ventral tegmental area after psychostimulant treatment. European Journal of Neuroscience 2005 21: 2817-2824.
5. Olson VG, Zabetian CP, Bolaños CA, **Edwards S**, Barrot M, Eisch AJ, Hughes T, Self DW, Neve RL, and Nestler EJ. Regulation of drug reward by CREB: Evidence for two functionally distinct subregions of the ventral tegmental area. The Journal of Neuroscience 2005 25: 5553-5562.
6. **Edwards S**, Self DW. Monogamy: Dopamine ties the knot. Nature Neuroscience 2006 9(1): 7-8.
7. **Edwards S**, Whisler KN, Fuller D, Orsulak PJ, Self DW. Addiction-related alterations in D1 and D2 dopamine receptor responsiveness following chronic cocaine self-administration. Neuropsychopharmacology 2007 32: 354-366.
8. **Edwards S**, Graham DL, Bachtell RK, Self DW. Region-specific tolerance to cocaine-regulated cAMP-dependent protein phosphorylation following chronic cocaine self-administration. European Journal of Neuroscience 2007 25: 2201-2213.
9. Graham DL, **Edwards S**, Bachtell RK, DiLeone RJ, Rios M, Self DW. Dynamic BDNF activity in nucleus accumbens with cocaine use increases self-administration and relapse. Nature Neuroscience 2007 10(8): 1029-1037.
10. Graham DL, Krishnan V, Larson EB, Graham A, **Edwards S**, Bachtell RK, Simmons D, Gent LM, Berton O, Bolanos CA, DiLeone RJ, Parada LF, Nestler EJ, Self DW. Tropomyosin-Related Kinase B in the mesolimbic dopamine system: region-specific effects on cocaine reward. Biological Psychiatry 2009 65(8): 696-701.
11. **Edwards S**, Graham DL, Whisler KN, Self DW. Phosphorylation of GluR1, ERK, and CREB following spontaneous withdrawal from chronic heroin self-administration. Synapse 2009 63(3): 224-235.
12. Orio L, **Edwards S**, George O, Parsons L, Koob GF. A role for the endocannabinoid system in the increased motivation for cocaine in dependence. The Journal of Neuroscience 2009 29(15): 4846-4857.
13. Enwright JF, Wald M, Paddock M, Hoffman E, Arey R, **Edwards S**, Spencer S, Nestler EJ, McClung CA.  $\Delta$ FosB indirectly regulates CCK promoter activity. Brain Research 2010 1329: 10-20.
14. Taffe MA, Kotzebue RW, Crean RD, Crawford EF, **Edwards S**, Mandyam CD. Long-lasting reduction in hippocampal neurogenesis by alcohol consumption in adolescent nonhuman primates. Proceedings of the National Academy of Sciences U.S.A. 2010 107(24): 11104-11109.
15. **Edwards S**, Koob GF. The neurobiology of dysregulated motivational systems in drug addiction. Future Neurology 2010 5(3): 393-410.



16. Larson EB, Akkentli F, **Edwards S**, Graham DL, Simmons DL, Alibhai IN, Nestler EJ, Self DW. Striatal regulation of DeltaFosB, FosB, and cFos during cocaine self-administration and withdrawal. Journal of Neurochemistry 2010 115(1): 112-122.
17. **Edwards S**, Whisler KN, Bachtell RK, Guzman D, Self DW. Emergence of context-associated GluR1 and ERK phosphorylation in the nucleus accumbens core during withdrawal from cocaine self-administration. Addiction Biology 2011 16(3): 450-7.
18. Choi KH, **Edwards S**, Graham DL, Han MH, Larson EB, Whisler KN, Simmons D, Rahman Z, Monteggia LM, Eisch AJ, Neve RL, Nestler EJ, Self DW. Reinforcement-related regulation of AMPA glutamate receptor subunits in the ventral tegmental area enhances cocaine reinforcement. The Journal of Neuroscience 2011 31(21): 7927-7937.
19. Stowe GN, Schlosberg JE, Vendruscolo LF, **Edwards S**, Misra KK, Schulteis G, Mayorov AV, Zakhari JS, Koob GF, Janda KD. Developing a vaccine against multiple psychoactive targets: a case study of heroin. Current Drug Targets-CNS and Neurological Disorders 2011 10(8): 865-875.
20. Stowe GN, Vendruscolo LF, **Edwards S**, Schlosburg JE, Misra KK, Schulteis G, Mayorov AV, Zakhari JS, Koob GF, Janda KD. A vaccine strategy that induces protective immunity against heroin. Journal of Medicinal Chemistry 2011 54(14): 5195-204.
21. **Edwards S**, Guerrero M, Ghoneim O, Roberts E, Koob GF. Evidence that vasopressin V1b receptors mediate the transition to excessive drinking in ethanol-dependent rats. Addiction Biology 2012 17(1): 76-85.
22. **Edwards S**, Vendruscolo LF, Schlosburg JE, Misra KK, Wee S, Park PE, Schulteis G, Koob GF. Development of mechanical hypersensitivity during ethanol dependence and extended access to heroin self-administration: alleviation by CRF1 receptor antagonism. Neuropharmacology 2012 62(2): 1142-1151.
23. Recinto P, Samant ARH, Chavez G, Kim A, Yuan CJ, Soleiman M, **Edwards S**, George O, Grant Y, Wee S, Koob GF, Mandyam CD. Levels of neural progenitors in the hippocampus predict memory impairments and relapse to drug seeking as a function of excessive methamphetamine self-administration. Neuropsychopharmacology 2012 37(5): 1275-1287.
24. Egli M, Koob GF, **Edwards S**. Alcohol dependence as a chronic pain disorder. Neuroscience and Biobehavioral Reviews 2012 36: 2179-2192.
25. Barbier E, Vendruscolo LF, Schlosburg JE, **Edwards S**, Park PE, Misra KK, Cheng K, Rice K, Schank J, Schulteis G, Koob GF, Heilig M. The NK1 receptor antagonist L822429 reduces heroin reinforcement. Neuropsychopharmacology 2013 38(6): 976-984.
26. Schlosburg JE, Vendruscolo LF, Bremer P, Lockner JW, Nunes AA, Stowe GN, **Edwards S**, Janda KD, Koob GF. Heroin vaccine blocks relapse and compulsive intake of heroin. Proceedings of the National Academy of Sciences U.S.A. 2013 110(22): 9036-41.
27. Park PE, Vendruscolo LF, Schlosburg JE, **Edwards S**, Schulteis G, Koob GF. Corticotropin-releasing factor (CRF) and alpha2-adrenergic receptors mediate heroin withdrawal-potentiated startle in rats. The International Journal of Neuropsychopharmacology 2013 16: 1867-75.

28. Kallupi M, Wee S, **Edwards S**, Whitfield TW Jr, Oleata CS, Luu G, Schmeichel BE, Koob GF, Roberto M. Kappa opioid receptor-mediated dysregulation of gamma-aminobutyric acidergic transmission in the central amygdala in cocaine addiction. Biological Psychiatry 2013 74(7): 520-528.
29. **Edwards S**, Baynes BB, Carmichael C, Zamora-Martinez ER, Koob GF, Gilpin NW. Traumatic stress reactivity promotes excessive alcohol drinking and alters the balance of prefrontal cortex-amygdala activity. Translational Psychiatry 2013 3:e296.
30. Apkarian AV, Neugebauer V, Koob GF, **Edwards S**, Levine J, Egli M, Regunathan S. Neural mechanisms of pain and alcohol dependence. Pharmacology, Biochemistry, and Behavior 2013 112: 34-41.
31. **Edwards S**, Koob GF. Escalation of drug self-administration as a hallmark of addiction liability. Behavioural Pharmacology 2013 24 (5-6): 356-365.
32. Koob GF, Buck C, Cohen A, **Edwards S**, Park PE, Schlosburg JE, Schmeichel BE, Vendruscolo LF, Wade CL, Whitfield TW Jr, George O. Addiction as a stress surfeit disorder. Neuropharmacology 2014 76: 370-82.
33. Zamora-Martinez ER, **Edwards S**. Neuronal extracellular signal-regulated kinase (ERK) signaling as marker and mediator of alcohol and opioid dependence. Frontiers in Integrative Neuroscience 2014 8:24.
34. Mazei-Robison MS, Appasani R, **Edwards S**, Wee S, Taylor SR, Picciotto MR, Koob GF, Nestler EJ. Self-administration of ethanol, cocaine, or nicotine does not decrease the soma size of ventral tegmental area dopamine neurons. PLoS One 2014 9(4):e95962.
35. Whitaker AM, Gilpin NW, **Edwards S**. Animal models of post-traumatic stress disorder and recent neurobiological insights. Behavioural Pharmacology 2014 25:398-409.
36. English R, **Edwards S**, Armstrong M, McDonough K, Molina P. Alcohol use disorder: An interprofessional case-based exercise. MedEdPORTAL; 2014. Available from: [www.mededportal.org/publication/9916](http://www.mededportal.org/publication/9916)
37. Cohen A, Treweek J, **Edwards S**, Molini R, Schulteis G, Koob GF, George O. Extended access to nicotine leads to a CRF1 receptor dependent increase in anxiety-like behavior and hyperalgesia in rats. Addiction Biology 2015 20:56-68.
38. Park PE, Schlosburg JE, Vendruscolo LF, Schulteis G, **Edwards S**, Koob GF. Chronic CRF1 receptor blockade reduces heroin intake escalation and dependence-induced hyperalgesia. Addiction Biology 2015 20:275-284.
39. Whitfield TW Jr, Schlosburg JE, Wee S, Gould A, George O, Grant Y, Zamora-Martinez ER, Crawford E, **Edwards S**, Vendruscolo LF, Koob GF. Kappa opioid receptors in the nucleus accumbens shell mediate escalation of methamphetamine intake. The Journal of Neuroscience 2015 35:4296-4305.

40. Helms CM, Anderson SM, Bell RL, Bennett AJ, Davies DL, Kosten TA, Leeman R, Panicker S, Platt DM, Weiner JL, **Edwards S**. The importance of animals in advancing research on alcohol use disorders. Alcoholism: Clinical and Experimental Research 2015 39:575-578.
41. Kim A, Zamora-Martinez ER, **Edwards S**, Mandyam CD. Structural reorganization of pyramidal neurons in the medial prefrontal cortex of alcohol-dependent rats is associated with altered glial plasticity. Brain Structure and Function 2015 220:1705-1720.
42. LeBlanc D, McGinn MA, Itoga CA, **Edwards S**. The affective dimension of pain as a risk factor for drug and alcohol addiction. Alcohol 2015 49:803-809.
43. **Edwards S**, Little HJ, Richardson HR, Vendruscolo LF. Divergent regulation of distinct glucocorticoid systems in alcohol dependence. Alcohol 2015 49:811-816.
44. Vendruscolo LF, Estey D, Goodell V, Macshane LG, Logrip ML, Schlosburg JE, McGinn MA, Zamora-Martinez ER, Belanoff JK, Hunt HJ, Sanna PP, George O, Koob GF, **Edwards S**, Mason BJ. Glucocorticoid receptor antagonism decreases alcohol seeking in alcohol-dependent individuals. Journal of Clinical Investigation 2015 125:3193-3197.
45. **Edwards S**, Molina PE, McDonough KH, Mercante DE, Gualdo TP. Integrating an interprofessional education experience into a human physiology course. The Journal of Physician Assistant Education 2016 28:146-148.
46. Whitaker AM, Farooq MA, **Edwards S**, Gilpin NW. Post-traumatic stress avoidance is attenuated by corticosterone and associated with brain levels of steroid receptor co-activator-1 in rats. Stress 2016 19:69-77.
47. Somkuwar SS, Staples MC, Fannon M, Zamora-Martinez ER, Kim A, Navarro AI, **Edwards S**, Mandyam CD. Alcohol dependence-induced regulation of the proliferation and survival of adult brain progenitors is associated with altered BDNF-TrkB signaling. Brain Structure and Function 2016 221:4319-4335.
48. McGinn MA, Paulsen RI, Itoga CA, Farooq MA, Reppel JE, Edwards KN, Whitaker AM, Gilpin NW, **Edwards S**. Withdrawal from chronic nicotine exposure produces region-specific tolerance to alcohol-stimulated GluA1 phosphorylation. Alcoholism: Clinical & Experimental Research 2016 40: 2537-2547.
49. Mayeux J, Katz P, **Edwards S**, Middleton J, Molina P. Inhibition of endocannabinoid degradation improves outcomes from mild traumatic brain injury: a mechanistic role for synaptic hyperexcitability. Journal of Neurotrauma 2017 34: 436-443.
50. **Edwards S**, Ersche KD. Editorial overview: The diverse facets and emerging potential of addiction research. Current Opinion in Behavioral Sciences 2017 13:4-5.
51. Pahng AR, McGinn MA, Paulsen RI, **Edwards S**. The prefrontal cortex as a critical gate of negative affect in alcohol use disorder. Current Opinion in Behavioral Sciences 2017 13:139-143.

52. Pahng AR, Paulsen RI, McGinn MA, Edwards KN, **Edwards S**. Neurobiological correlates of pain avoidance-like behavior in morphine-dependent and non-dependent rats. Neuroscience 2017 366:1-14.
53. Juarez B, Morel C, Ku SM, Ribeiro E, Zhang H, Crumiller M, Jackson K, Roman-Ortiz C, Croote D, Calipari ES, Zhang S, Hodes G, Liu Y, Cederbaum AI, Vendruscolo LF, **Edwards S**, Roberts A, Chaudhury D, Friedman AK, Koob GF, Han MH. Midbrain circuit regulation of individual alcohol drinking behaviors in mice. Nature Communications 2017 8:2220.
54. **Edwards S**, Molina PE, McDonough K, Mercante DE, Gunaldo TP. The potential of interprofessional education to effectively translate physiology curricula into future team-based healthcare. Advances in Physiology Education 2018 42:354-359.
55. Pahng AR, Paulsen RI, McGinn MA, Farooq MA, Edwards KN, **Edwards S**. Dysregulation of c-Jun N-terminal kinase phosphorylation in alcohol dependence. Alcohol 2018 75:11-18.
56. Pahng AR, **Edwards S**. Measuring pain avoidance-like behavior in drug-dependent rats. Current Protocols in Neuroscience 2018 85(1):e53.
57. 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. Journal of Neuroscience 2018 38(36):7761-7773.
58. Moreno M, Decara J, Pavon FJ, Stouffer DG, **Edwards S**, Serrano A, Suárez J, Parsons LH, Rodríguez de Fonseca F. Cannabinoid dependence induces sustained changes in GABA release in the globus pallidus without affecting dopamine release in the dorsal striatum: A dual microdialysis probe study. Addiction Biology 2018 23(6):1251-1261.
59. Schreiber AL, McGinn MA, **Edwards S**, Gilpin NW. Predator odor stress blunts alcohol conditioned aversion. Neuropharmacology 2019 144:82-90.
60. Fucich EA, Mayeux JP, McGinn MA, Gilpin NW, **Edwards S**, Molina PE. A novel role for the endocannabinoid system in ameliorating motivation for alcohol drinking and negative behavioral affect following traumatic brain injury in rats. Journal of Neurotrauma *In press*.
61. Harrison-Bernard LM, Nalijayan MV, Mercante DE, Gunaldo TP, **Edwards S**. Longitudinal interprofessional education in a graduate physiology course. Advances in Physiology Education *In press*.

### **Book Chapters:**

1. **Edwards S**, Koob GF. Experimental psychiatric illness and drug abuse models: from human to animal – an overview. In: Kobeissy FH (Ed.) Psychiatric Disorders: Methods and Protocols (series title: Methods in Molecular Biology) 2012 829: 31-48. Humana Press: New York.
2. Katz PS, **Edwards S**, Molina PE. Cannabinoids. In: Peterson PK and Toborek M (Eds.) Neuroinflammation and Neurodegeneration. 2014 XVII: 487-510. Springer: New York.

3. **Edwards S.** Reinforcement principles for addiction medicine; from recreational drug use to psychiatric disorder. In: Ekhtiari H and Paulus M (Eds.) Progress in Brain Research 2016 223: 77-89. Elsevier: Amsterdam.
4. McGinn MA, **Edwards S.** CRF1 receptor signaling at the intersection of pain and opioid addiction. In: Preedy V (Ed.) The Neuropathology of Drug Addictions and Substance Misuse 2016 1: 891-896. Academic Press.
5. Whitaker AM, Priddy B, **Edwards S,** Vendruscolo LF. The role of brain stress systems in alcohol dependence. In: Preedy V (Ed.) The Neuropathology of Drug Addictions and Substance Misuse 2016 1: 610-614. Academic Press.

#### Abstracts:

1. **Edwards S,** Hoyler SL, Erickson CK, Bond RA, Wilcox RE. Characterization of nadolol and ICI-118,551 as inverse agonists at beta2-adrenergic receptors stably expressed in CHO cells. *Society for Neuroscience Abstracts*, 29, 285.9, 1999.
2. **Edwards S,** Hoyler SL, Diaz LM, Erickson CK, Bond RA, Wilcox RE. Beta2-adrenoreceptor inverse agonists enhance cAMP accumulation via up-regulation of receptor density at the cell surface. *Society for Neuroscience Abstracts*, 30, 45.14, 2000.
3. Galindo DG, **Edwards S,** Simmons DL, Doherty JM, Scott AM, Hughes PD, Morrisett RA, Wilcox RE. Comparative effects of a full D1 agonist, a D2 receptor agonist, and ethanol on the phosphorylation of DARPP-32 and the NR1 subunit of the NMDA receptor. *Society for Neuroscience Abstracts*, 30, 290.6, 2000.
4. Choi K, **Edwards S,** Hoppenot R, Neve RL, Self DW. Modulation of locomotor responses to D1 and D2 dopamine receptor agonists by viral-mediated over-expression of AMPA receptor subunits in the rat nucleus accumbens. *Behavioural Pharmacology*, Vol 12 Supplement 1, European Brain and Behavior Society- European Behavioral Pharmacology Society Joint Meeting, August 2001.
5. **Edwards S,** Snyder GL, Self DW. Dopaminergic regulation of PKA-mediated AMPA receptor phosphorylation in the nucleus accumbens core and shell in vivo. *Society for Neuroscience Abstracts*, 31, 2001.
6. Self DW, Choi KH, **Edwards S,** Neve RL. AMPA glutamate/dopamine receptor interactions regulate relapse to cocaine seeking. *Canadian College of Neuropsychopharmacology Abstracts*, 2002.
7. **Edwards S,** Self DW. Individual differences in cocaine self-administration determine dopamine receptor sensitivity in locomotor activity and relapse to cocaine seeking. *Society for Neuroscience Abstracts*, 32, 2002.
8. Simmons DL, Hoppenot R, Frantz K, Walker JW, Feinberg A, **Edwards S,** Self DW. Long-term changes in nucleus accumbens gene expression following chronic cocaine self-administration. *Society for Neuroscience Abstracts*, 32, 2002.

9. Bolanos CA, **Edwards S**, Eisch AJ, Russell DS, Neve RL, Self DW, Nestler EJ. PLCgamma1 in the rostral vs. caudal VTA differentially modulates behavioral responses to drugs of abuse, natural rewards, and aversive stimuli. *Society for Neuroscience Abstracts*, 32, 2002.
10. **Edwards S**, Self DW. PKA-mediated protein phosphorylation in the nucleus accumbens after heroin and cocaine self-administration. *Society for Neuroscience Abstracts*, 33, 2003.
11. **Edwards S**, Self DW. Re-exposure to an environmental context paired with cocaine self-administration inhibits cAMP-dependent protein phosphorylation in the nucleus accumbens shell. *Society for Neuroscience Abstracts*, 34, 2004.
12. McClung CA, **Edwards S**, Enwright JF, Wallace DL, Self DW, Nestler EJ. Interactions between CREB and delta FosB in the nucleus accumbens and the regulation of drug reward. *Society for Neuroscience Abstracts*, 34, 2004.
13. **Edwards S**, Graham DL, Self DW. Chronic cocaine self-administration produces tolerance to cocaine-regulated, cAMP-dependent protein phosphorylation in multiple limbic brain regions. *Society for Neuroscience Abstracts*, 35, 2005.
14. Graham DL, **Edwards S**, Akkentli F, Self DW. Cocaine self-administration produces transient increases in BDNF levels in the mesolimbic dopamine system. *Society for Neuroscience Abstracts*, 35, 2005.
15. Choi KH, **Edwards S**, Graham DL, Hall SK, Rahman Z, Mandyam C, Gemelli T, Eisch AJ, Monteggia LM, Nestler EJ, Neve RL, Self DW. Dynamic regulation of AMPA receptor subunit GluR1 in the ventral tegmental area following chronic cocaine self-administration. *Society for Neuroscience Abstracts*, 35, 2005.
16. Simmons DL, Graham DL, **Edwards S**, Self DW. Cocaine self-administration induces transient downregulation of mu-opioid receptor levels in the nucleus accumbens core. *Society for Neuroscience Abstracts*, 36, 2006.
17. Orio L, **Edwards S**, Parsons LH, Koob GF. Upregulation of the endocannabinoid system in cocaine dependence. Program No. 359.30. 2008 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2008. Online.
18. **Edwards S**, Guerrero M, Ghoneim O, Roberts E, Koob GF. V1b vasopressin receptor antagonism reduces ethanol self-administration in ethanol-dependent rats. Program No. 846.13. 2008 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2008. Online.
19. You IJ, Tian YH, Lee KW, Kwon SH, Jung YH, Lee HK, Nguyen TL, Lee SY, **Edwards S**, Jang CG. Behavioral phenotype of transient receptor potential vanilloid type 1 receptor-deficient mice. Program No. 342.5. 2009 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience, 2009. Online.
20. **Edwards S**, Misra K, Vendruscolo LF, Wee S, Schulteis G, Koob GF. Development of mechanical allodynia during ethanol dependence and following extended access to heroin but not cocaine self-administration in rats. Program No. 266.12. 2010 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2010. Online.

21. Mandyam CD, Wee S, Samant A, Chavez G, Muhlfeld C, **Edwards S**, George O, Koob GF. Intermittent versus compulsive self-administration of methamphetamine produce differential behavioral phenotypes: Analyses of spatial and working memory, and reinstatement of drug-seeking behaviors. Program No. 669.14. 2010 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2010. Online.
22. **Edwards S**, Vendruscolo LF, Schlosburg JE, Cohen A, Park PE, Wee S, George O, Schulteis G, Koob GF. Hyperalgesia during ethanol dependence and following extended access to heroin or nicotine self-administration: alleviation by CRF1 receptor antagonism. Program No. 67.07. 2011 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2011. Online.
23. Cohen A, Koob GF, **Edwards S**, George O. Heightened anxiety and hyperalgesia following abstinence from extended access to nicotine predicts increased nicotine intake in rats: mediation by CRF-CRF1R activity and CREB phosphorylation in the extended amygdala. Program No. 370.04. 2011 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2011. Online.
24. Gilpin NW, **Edwards S**, Koob GF. Exposure to traumatic stress in rats differentially affects alcohol drinking and neuronal ERK phosphorylation. Program No. 126.08. 2012 Neuroscience Meeting Planner. New Orleans, LA: Society for Neuroscience, 2012. Online.
25. Park P, Vendruscolo L, Schlosburg J, **Edwards S**, Schulteis G, Koob GF. Reduction of acute heroin withdrawal-potentiated startle by clonidine or the CRF1R antagonist MPZP in rats. Program No. 171.03. 2012 Neuroscience Meeting Planner. New Orleans, LA: Society for Neuroscience, 2012. Online.
26. Schlosburg JE, Vendruscolo LF, Bremer P, Lockner J, Nunes A, Stowe N, **Edwards S**, Janda KD, Koob GF. Use of vaccine immunotherapy targeting heroin and its metabolites for treatment against relapse of heroin seeking behaviors. Program No. 668.07. 2012 Neuroscience Meeting Planner. New Orleans, LA: Society for Neuroscience, 2012. Online.
27. Kallupi M, Wee S, **Edwards S**, Whitfield T, Oleata CS, Luu G, Koob GF, Roberto M. Role of the kappa opioid system in the modulation of CeA GABAergic transmission in rats following extended access to cocaine self-administration. Program No. 872.10. 2012 Neuroscience Meeting Planner. New Orleans, LA: Society for Neuroscience, 2012. Online.
28. Homberg JR, Verheij M, Nonkes L, Latour J, Hanisch J, Vendruscolo L, **Edwards S**, Contet C, Koob G. Serotonin transporter gene variation and compulsive cocaine self-administration in rats. Program No. 873.05. 2012 Neuroscience Meeting Planner. New Orleans, LA: Society for Neuroscience, 2012. Online.
29. Vendruscolo LF, **Edwards S**, MacShane LG, Logrip ML, Schlosburg JE, Zamora-Martinez ER, Whitfield Jr TW, Sanna PP, Koob GF. Glucocorticoid receptors in the central amygdala mediate compulsive-like alcohol drinking. Program No. 349.18. 2013 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2013. Online.
30. You IJ, Wright SR, **Edwards S**, Mandyam CD, Koob GF, Wee S. A 5-HT1A receptor-mediated mechanism in addiction-like cocaine self-administration behavior in rats. Program No. 350.18. 2013 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2013. Online.

31. Mandyam CD, Kim A, Zamora-Martinez ER, **Edwards S**. Morphological reorganization of rat hippocampal neurons in alcohol dependence. Program No. 705.14. 2013 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2013. Online.
32. Kallupi M, **Edwards S**, Wee S, Whitfield Jr. TW, Oleata CS, Luu G, Schmeichel BE, Koob GF, Roberto M. Kappa opioid receptor-mediated dysregulation of GABAergic transmission in the central amygdala in cocaine addiction. Program No. 820.16. 2013 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2013. Online.
33. Kim A, Zamora-Martinez ER, **Edwards S**, Mandyam CD. Morphological reorganization of rat hippocampal neurons in alcohol dependence. Alcoholism-Clinical and Experimental Research 37 (2013) 189A.
34. Vendruscolo LF, Macshane LG, Zamora-Martinez ER, Schlosburg JE, Belanoff JK, Hunt HJ, Sanna PP, Koob GF, **Edwards S**. Glucocorticoid receptor dysregulation in alcohol dependence. Alcoholism-Clinical and Experimental Research 38 (2014) 335A.
35. **Edwards S**. Excessive alcohol drinking in the context of sensitized stress signaling. Program No. S47. Volterra Alcoholism and Stress Conference Abstracts. Alcohol 48 (2014) 159-178.
36. **Edwards S**, Zamora-Martinez ER, Schlosburg JE, Logrip ML, Koob GF, Vendruscolo LF. Functional recruitment of central amygdala glucocorticoid receptor signaling in alcohol-dependent rats. Program No. S11. Volterra Alcoholism and Stress Conference Abstracts. Alcohol 48 (2014) 159-178.
37. Vendruscolo LF, Macshane LG, Schlosburg JE, Buck CL, Malavar JC, Belanoff JK, Hunt HJ, **Edwards S**, Koob GF. Selective glucocorticoid receptor (GR) antagonism blocks compulsive alcohol drinking in rats. Volterra Alcoholism and Stress Conference Abstracts. Alcohol 48 (2014) 159-178.
38. **Edwards S**, Inceoglu B, Hammock BD, Koob GF. Reduction of excessive drinking in alcohol-dependent rats via soluble epoxide hydrolase inhibition. Journal of Neuroimmune Pharmacology 9 (2014) 15.
39. McGinn MA, Farooq MA, Reppel JE, Gilpin NW, **Edwards S**. Tolerance to alcohol-stimulated GluR1 phosphorylation in the amygdala in the context of nicotine dependence. *American College of Neuropsychopharmacology Meeting (2015)*.
40. Whitaker AM, Farooq MA, **Edwards S**, Gilpin NW. Post-traumatic stress avoidance is attenuated by corticosterone and associated with brain levels of steroid receptor co-activator-1 in rats. *American College of Neuropsychopharmacology Meeting (2015)*.
41. McGinn MA, Farooq M, Edwards KN, Gilpin NW, **Edwards S**. Tolerance to alcohol-stimulated GluR1 phosphorylation in the amygdala in the context of nicotine dependence. Alcoholism-Clinical and Experimental Research 39 (2015) 123A.
42. Mayeux JP, **Edwards S**, Gilpin NW, Molina PE. Traumatic brain injury to the prefrontal cortex (PFC) transiently increases alcohol self-administration. Alcoholism-Clinical and Experimental Research 39 (2015) 58A.



43. Mayeux J, Gilpin N, **Edwards S**, Molina P. Mild traumatic brain injury increases alcohol drinking: A potential mechanistic role for brain stress systems. *Research Society on Alcoholism Meeting (2016)*.
44. Pahng AR, Farooq MA, Edwards KN, **Edwards S**. Neuroadaptations associated with excessive alcohol seeking-behavior in dependent rats. *Research Society on Alcoholism Meeting (2016)*.
45. McGinn MA, Whitaker AM, Itoga CA, Farooq MA, Paulsen RI, Reppel JE, Gilpin NW, **Edwards S**. Region-specific tolerance to alcohol-stimulated glutamate receptor phosphorylation in the context of nicotine dependence. *Research Society on Alcoholism Meeting (2016)*.
46. Middleton JW, Simon L, Maxi J, Schumacher J, **Edwards S**, Birke L, Molina P. Physiological synaptic changes in the caudate nucleus of acute alcohol-administered SIV-infected macaques. *Research Society on Alcoholism Meeting (2016)*.
47. Molina PE, Mayeux JP, **Edwards S**, Gilpin NW, Middleton J. Neuroimmunopathological consequences of TBI; Implications for escalation in alcohol drinking. *Research Society on Alcoholism Meeting (2016)*.
48. McGinn MA, Itoga CA, Paulsen RI, Reppel JE, Farooq MA, Gilpin NW, **Edwards S**. Tolerance to alcohol-stimulated glutamate channel phosphorylation in the central amygdala and prefrontal cortex after chronic nicotine exposure. *Experimental Biology Meeting (2016)*.
49. Towne BV, LeBlanc DM, Paul JA, Gupta K, **Edwards S**. Reduced glutamate channel phosphorylation in pain-related brain areas in a transgenic model of sickle cell disease. *Experimental Biology Meeting (2016)*.
50. Byerley LO, Reppel JE, Pahng AR, **Edwards S**. Omega-3 dietary fatty acids improve spatial learning and memory but do not alter the escalation of alcohol drinking. *Experimental Biology Meeting (2016)*.
51. Mayeux JP, Katz P, Edwards S, Middleton J, Molina P. Inhibition of endocannabinoid degradation improves recovery of neurobehavioral function and resolution of neuroinflammation and synaptic hyperexcitability in a rodent model of traumatic brain injury. *Experimental Biology Meeting (2016)*.
52. Itoga CA, McGinn MA, Paulsen RI, Reppel JE, Farooq MA, Gilpin NW, **Edwards S**. Tolerance to alcohol-stimulated glutamate channel phosphorylation in the central amygdala and prefrontal cortex after chronic nicotine exposure. *Gordon Research Conference: Alcohol & the Nervous System (2016)*.
53. McGinn MA, Pahng AR, Edwards KN, **Edwards S**. Neuroadaptations in cingulate cortex glucocorticoid signaling in alcohol dependence. *Research Society on Alcoholism Meeting (2017)*.
54. Pahng AR, Farooq MA, Edwards KN, **Edwards S**. Impaired spatial memory and dysregulation of hippocampal JNK signaling in alcohol dependence. *Research Society on Alcoholism Meeting (2017)*.

55. Francis M, Sayde P, Blackwelder C, Stiepler Z, Mayeux J, Gilpin N, **Edwards S**, Molina P. Post-TBI alcohol consumption reduces memory-related hippocampal transcription factor expression. *Research Society on Alcoholism Meeting (2017)*.
56. Pahng AR, Paulsen RI, Farooq MA, Edwards KN, **Edwards S**. Dysregulation of hippocampal and frontocortical JNK signaling in alcohol dependence. *Volterra Alcoholism and Stress Conference Abstracts (2017)*.
57. McGinn MA, Pahng AR, Edwards KN, **Edwards S**. Neuroadaptations in cingulate cortex glucocorticoid signaling in alcohol dependence. *Volterra Alcoholism and Stress Conference Abstracts (2017)*.
58. Blackwelder CG, Stiepler Z, Sayde P, Mayeux J, Gilpin NW, **Edwards S**, Molina PE. Ceftriaxone attenuates alcohol-drinking and anxiety-like behavior following mild traumatic brain injury in rats. *IBIA Abstract (2017)*.
59. Stiepler ZF, Mayeux JP, **Edwards S**, Gilpin NW, Molina PE. Post-traumatic brain injury (TBI) cannabinoid receptor expression downregulation in basolateral amygdala of alcohol-drinking rats. *IBIA Abstracts (2017)*.
60. Jones A, Pahng A, **Edwards S**. Dysregulation of Hippocampal and Dorsomedial Prefrontal JNK Phosphorylation in Alcohol Dependence is not Mediated by SEK1/MKK4 Activation. *Annual Biomedical Research Conference for Minority Students Abstracts (2017)*.
61. McGinn MA, **Edwards S**. Glucocorticoid Receptor-Dependent Gene Expression in the Central Amygdala of Alcohol-Dependent Animals. *Experimental Biology Meeting Abstracts (2018)*.
62. AR Pahng, RI Paulsen, MA McGinn, ME Schindler, KN Edwards, **S Edwards**. Neurobiological Correlates of Pain Avoidance Behavior in Opioid vs. Alcohol Dependence. *Experimental Biology Meeting Abstracts (2018)*.
63. **Edwards S**, Yeh AY, Molina PE, Simon L. Animal model of combined alcoholic neuropathy and complex regional pain syndrome: additive effects on hyperalgesia in female rats. *Research Society on Alcoholism Meeting Abstracts (2018)*.
64. **Edwards S**, Levitzky E, Molina PE, Gunaldo TP. Interprofessional education (IPE) to equip healthcare professional students for future team-based alcohol use disorder treatment. *Research Society on Alcoholism Meeting Abstracts (2018)*.
65. Wills TA, Middleton JW, Carzoli KL, Simon L, Molina PE, **Edwards S**. Impaired novel object recognition and altered neuronal excitability in chronic binge alcohol-administered, SIV-infected female rhesus macaques. *Research Society on Alcoholism Meeting Abstracts (2018)*.
66. **Edwards S**, Maxi JK, Wills TA, Middleton JW, Carzoli KL, Simon L, Molina PE. Neuropathological mechanisms of alcohol, SIV, and antiretroviral therapy: Enhanced susceptibility of the frontal cortex in rhesus macaques. *AIDS 2018 Conference Abstracts (2018)*.

## Research Review Committees:

2014-Present	NIH CSR Early Career Reviewer Program
2014	Medical Research Council (UK) Grant Reviewer
2015	NIAAA Study Section ZAA1 DD (54) Special Emphasis Panel, Ad hoc NIAAA Study Section ZAA1 DD (04) Special Emphasis Panel, Ad hoc
2016	NIAAA Study Section ZAA1 JJ (01) Special Emphasis Panel, Ad hoc NIAAA Study Section ZAA1 DD (04) Special Emphasis Panel, Ad hoc
2016	RCMI/BUILD/LCRC External Reviewer (Xavier University of Louisiana)
2017	Fund for Scientific Research-FNRS (Belgium) Grant Reviewer NIAAA Study Section ZAA1 JJ (01) Special Emphasis Panel, Ad hoc CSR PMDA (Pathophysiological Basis of Mental Disorders and Addictions)
2018	NIAAA Study Section ZAA1 GG (32) Special Emphasis Panel, Ad hoc

## Scientific Presentations:

### Local/State Presentations

October 26, 2001

The University of Texas at Dallas, School of Behavioral and Brain Sciences

*Regulation of Addictive Behavior by Dopamine Signaling*

Host: Dr. Tres Thompson, UT-Dallas

February 4, 2014

LSUHSC-New Orleans, Department of Pharmacology Seminar Series

*Neurobiological Changes Associated with Dysregulated Motivational Systems in Drug Addiction*

May 20, 2014

LSUHSC-New Orleans, Department of Physiology Seminar Series

*Dysregulation of Glucocorticoid Receptor Signaling in Alcohol Dependence*

May 23, 2014

LSUHSC-New Orleans, Alcohol and Drug Abuse Center of Excellence Retreat

*Dysregulation of Glucocorticoid Receptor Signaling in Alcohol Dependence*

September 2, 2014

LSUHSC-Shreveport, Department of Pharmacology, Toxicology, and Neuroscience

*The Neurobiology of Dysregulated Motivational Systems in Drug Addiction*

Host: Dr. Nicholas Goeders, LSUHSC-Shreveport

September 8, 2014

The University of New Orleans, Department of Biological Sciences

*The Neurobiology of Dysregulated Motivational Systems in Drug Addiction*

Host: Dr. Zhengchang Liu, UNO

May 22, 2015

LSUHSC-New Orleans, Alcohol and Drug Abuse Center of Excellence Retreat

*Combinations of Levomepromazine and Morphine for Analgesia in Recovered Addicts*

June 3, 2015

LSUHSC-New Orleans, Department of Physiology Seminar Series  
*GluR1 Subunit Phosphorylation as Marker and Mediator of Drug Addiction*

September 14, 2015

LSU Health New Orleans, Department of Cell Biology & Anatomy Seminar Series  
*Dysregulation of Glucocorticoid Receptor Signaling in Alcohol Dependence*

November 9, 2015

LSU Health New Orleans, Neuroscience Center of Excellence Seminar Series  
*Dysregulation of Glucocorticoid Receptor Signaling in Alcohol Dependence*

February 11, 2016

LSU Health New Orleans, Department of Physiology Seminar Series  
*Neurobiological Tolerance to Alcohol in the Nicotine-Dependent State*

June 25, 2016

LSU Health New Orleans, Alcohol Abuse Comorbidities & Triggers for Addiction  
Satellite Symposium to the 2016 Research Society on Alcoholism Meeting  
*Pain in the Context of Drug and Alcohol Addiction*

May 18, 2017

LSU Health New Orleans, Department of Physiology Seminar Series  
*Central Neuropharmacological Mechanisms of Pain & Alcohol Dependence*

November 1, 2017

Tulane University, Neuroscience Program  
*Pain in the Context of Drug and Alcohol Addiction*

December 11, 2017

LSU Health New Orleans, Neuroscience Center of Excellence Seminar Series  
*Pain in the Context of Drug and Alcohol Addiction*

December 13, 2017

LSUHSC-New Orleans, Alcohol and Drug Abuse Center of Excellence Retreat  
*Neurobiology of Pain and Negative Reinforcement in Opioid Use Disorder*

May 18, 2018

LSU Health New Orleans, Department of Physiology Seminar Series  
*Convergence of Central Pain and Stress Signaling in Addiction*

October 1, 2018

LSU Health New Orleans, Neuroscience Center of Excellence Seminar Series  
*Convergence of Central Pain and Stress Signaling in Addiction*

## National Presentations

January 30, 2009

The University of Arizona at Tucson, Department of Pharmacology

*The Dark Side of Drug Addiction*

Host: Dr. Frank Porreca, University of Arizona-Tucson

June 23, 2009

Research Society on Alcoholism Annual Meeting, San Diego, CA

*V1b Vasopressin Receptor Antagonism Reduces Ethanol Drinking in Ethanol-Dependent Animals*

Symposium Organizer: Dr. Todd Thiele, UNC-Chapel Hill

August 24, 2011

National Hispanic Science Network on Drug Abuse Meeting, Miami, FL

*Pain as a Negative Motivational State Underlying Drug Addiction*

Symposium Title: Negative Motivational States and Addiction

Symposium Organizer: Dr. Nicholas Gilpin, LSUHSC-New Orleans

December 16, 2011

UC-Santa Barbara, Department of Psychological and Brain Sciences

*Pain as a Negative Motivational State Underlying Drug Addiction*

Host: Dr. Karen Szumlinski, UC-Santa Barbara

January 3, 2013

Medical College of Wisconsin, Neuroscience Research Center

*Neurobiological Changes Associated with Dysregulated Motivation Systems in Drug Addiction*

Host: Dr. Cecilia J. Hillard, MCW

January 15, 2013

University of Washington, Department of Psychology

*Neurobiological Changes Associated with Dysregulated Motivational Systems in Drug Addiction*

Host: Dr. Jeansok Kim, UW

January 31, 2013

Winter Conference on Brain Research, Breckenridge, CO

*Intersection of Pain and Negative Affect: Potential Role in Alcoholism*

Symposium Title: Evidence for Perturbation of Reward Circuitry by Pain and Affective Disorders

Symposium Organizer: Dr. Catherine Cahill, UC-Irvine

February 28, 2013

University of Alabama-Birmingham, Department of Psychology

*Neurobiological Changes Associated with Dysregulated Motivational Systems in Drug Addiction*

Host: Dr. Franklin Amthor, UAB

March 6, 2013

Louisiana State University Health Sciences Center, Department of Physiology

*Neurobiological Changes Associated with Dysregulated Motivational Systems in Drug Addiction*

Host: Dr. Patricia E. Molina, LSUHSC-NO

March 12, 2014  
Fifteenth International Winter Eicosanoid Conference  
*Eicosanoids and Alcohol Dependence*  
Symposium Title: Eicosanoids and Pain  
Symposium Organizer: Dr. Bruce Hammock, UC-Davis

March 28, 2014  
Twentieth Annual Society on Neuroimmune Pharmacology Meeting  
*Reduction of Excessive Drinking in Alcohol-Dependent Rats via Soluble Epoxide Hydrolase Inhibition*  
Symposium Title: Inflammation: At the Core of Substance Abuse-Disease Spectrum Interaction  
Symposium Organizer: Dr. Patricia E. Molina, LSUHSC-New Orleans

September 1, 2015  
Texas Tech University HSC Translational Neuroscience and Pharmacology Lecture Series  
*Dysregulation of Glucocorticoid Receptor Signaling in Alcohol Dependence*  
Host: Dr. Volker Neugebauer, TTUHSC

April 19, 2016  
Mt. Sinai School of Medicine, Department of Pharmacology & Systems Therapeutics  
*Glucocorticoid Receptor Signaling in Alcoholism*  
Host: Dr. Ming-Hu Han

January 31, 2017  
Winter Conference on Brain Research, Big Sky, MT  
*Neurobiology of Pain and Negative Reinforcement in Opioid Use Disorder*  
Symposium Title: The Opioid Epidemic: Moguls, Models and Molecules  
Symposium Organizer: Dr. Amy Newman, NIH/NIDA

May 18, 2017  
American Pain Society Meeting, Pittsburg, PA  
*Convergence of Central Pain and Stress Signaling in Addiction*  
Symposium Title: Neurobiological Mechanisms Mediating the Interaction of Chronic Pain and Alcohol Abuse  
Symposium Organizer: Dr. Scott Edwards, LSUHSC-New Orleans

April 22, 2018  
Experimental Biology Meeting  
Symposium Title: Intersection of Central Pain and Reward Circuitry in CNS Disorders  
Symposium Organizer: Dr. Scott Edwards, LSUHSC-New Orleans

June 17, 2018  
Research Society on Alcoholism Meeting  
*Central Reinforcement Center Correlates of Pain Avoidance Behavior in Opioid vs. Alcohol Dependence*  
Symposium Title: Comorbidities Promoting Excessive Alcohol Drinking  
Symposium Organizer: Dr. Elizabeth Fucich & Dr. Amanda Pahng, LSUHSC-New Orleans

October 31, 2018

NeuroHIV and Alcohol Abuse (NHAA) Meeting

*Neuropathological Mechanisms of Alcohol, SIV, and Antiretroviral Therapy*

Symposium Organizer: Dr. Sulie Chang, Seton Hall University

December 9, 2018

American College of Neuropsychopharmacology

*Central Reinforcement Center Correlates of Pain Avoidance Behavior in Opioid vs. Alcohol Dependence*

Symposium Title: Neurobiology of Opioid Addiction: Hyperkatifeia and Negative Reinforcement as a Driving Force

Symposium Organizer: Dr. George Koob, NIH

### International Presentations

May 6, 2011

Second International Congress on Alcoholism and Stress, Volterra (Pisa), Italy

*Development of Allodynia during Ethanol Dependence in Rats and Mice*

Symposium Title: Alcohol Gets on my Nerves

Symposium Organizer: Dr. Robert Messing, UC-San Francisco

May 6, 2014

Third International Congress on Alcoholism and Stress, Volterra (Pisa), Italy

*Functional Recruitment of Central Amygdala Glucocorticoid Receptor Signaling in Alcohol-Dependent Rats*

Symposium Title: Central vs. Systemic Stress Systems in Alcohol Dependence

Symposium Organizer: Dr. Scott Edwards, LSUHSC-New Orleans

May 8, 2014

Third International Congress on Alcoholism and Stress, Volterra (Pisa), Italy

*Excessive Alcohol Drinking in the Context of Stress Sensitization*

Symposium Title: Young Investigator Award Symposium

Symposium Organizers: Dr. Antonio Noronha, NIAAA and Dr. Fulton Crews, UNC-Chapel Hill

May 9, 2017

Fourth International Congress on Alcoholism and Stress, Volterra (Pisa), Italy

*Convergence of Central Pain and Stress Signaling in Alcohol Dependence*

Symposium Title: Chronic Pain and Alcohol Dependence

Symposium Organizer: Dr. Igor Spigelman, UCLA

September 10, 2018

19<sup>th</sup> Congress of International Society for Biomedical Research on Alcoholism, Kyoto, Japan

Symposium Title: *Alcohol & Opioids: Intersecting Mechanisms and Treatment Opportunities for Pain Management and Addiction*

Symposium Organizer & Chair: Dr. Scott Edwards, LSUHSC-New Orleans

September 12, 2018

19<sup>th</sup> Congress of International Society for Biomedical Research on Alcoholism, Kyoto, Japan  
*Neuropathological Mechanisms of Alcohol, SIV, and Antiretroviral Therapy: Enhanced Susceptibility of the Frontal Cortex in Rhesus Macaques*

Symposium Title: *HIV and Alcohol Co-morbidities: Pathogenesis and Treatment*

Symposium Organizer & Chair: Dr. Patricia Molina, LSUHSC-New Orleans

### Continuing Education Presentations

June 2, 2016

LSUHSC 4<sup>th</sup> Annual Quality Improvement Forum

*First-Year Student Attitudes Towards a Case-Based Interprofessional Education Experience*

Organizer: LSUHSC Office of Medical Education

June 22, 2018

LSUHSC Continuing Dental Education

Event Title: Addressing Opioid Abuse and Addiction in the Dental Office

*Neuroscience of Opioid Use Disorder/Addiction*

*Risk Factors and Screening for Opioid Use Disorder*

*New Management Strategies and Referral Options*

Organizer: Robert M. Leaman, CDE Director

December 14, 2018

LSUHSC Continuing Nursing Education

Event Title: Addressing Opioid Abuse and Addiction Among APRN Providers

*Neuroscience of Opioid Use Disorder/Addiction*

*Risk Factors and Screening for Opioid Use Disorder*

*New Management Strategies and Referral Options*

Organizer: Clair Millet, CNE Director

### **Editorial Posts and Activities:**

#### Editorial Board

2014-Present Editorial Board, *Pharmacology, Biochemistry, and Behavior*

2016-2017 Guest Editor, *Addiction Issue, Current Opinion in Behavioral Sciences*

2018-Present Section Editor, *Pharmacology, Biochemistry, and Behavior*

#### Reviewer

2007-Present *Pharmacology, Biochemistry, and Behavior*

2009-Present *Neuropharmacology; Neuroscience Letters*

2012-Present *PLoS ONE*

2013-Present *Pain Research & Management; Behavioural Processes; Frontiers in Psychiatry; Frontiers in Integrative Neuroscience*

2014-Present *Neuroreport; Addiction Biology; Behavioral Brain Research; Neuroscience and Biobehavioral Reviews*

2015-Present *Journal of Neurophysiology; Neuropeptides; Stress*

2016-Present *Neuroscience; Alcoholism: Clinical & Experimental Research; Pain*

2017-Present *Journal of Pain Research; Psychopharmacology; Biological Psychiatry; Brain, Behavior, and Immunity*

2018-Present *Molecular Psychiatry, Trends in Pharmacological Sciences*



## **SERVICE ACTIVITIES**

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

2009-2013	The Scripps Research Institute (TSRI) Council of Scientific Editors
2012-2013	TSRI Society of Fellows Travel Award Selection Committee
2013-Present	LSUHSC Graduate Research Day Judge
2014-Present	LSUHSC Medical Student Research Day Judge
2014	LSUHSC Perspectives in Alcohol Research (PAR) Course Facilitator
2014-Present	LSUHSC Department of Physiology Works-in-Progress Facilitator
2014-Present	LSUHSC Graduate Advisory Council (GAC)
2014-Present	Faculty Research Development Committee (Dr. Nicholas W. Gilpin)
2014-Present	Faculty Research Development Committee (Dr. Stefany D. Primeaux)
2014-Present	Department of Physiology Faculty Search Committee (Chair, 2016-Present)
2015-Present	Department of Physiology Graduate Program Coordinator
2016-Present	Department of Physiology Postdoc Development Committee
2016-Present	LSUHSC School of Medicine Internal Funding Review Panel
2017-Present	LSUHSC NIAAA T35 Internal Advisory Committee
2018-Present	LSUHSC Classroom Polling Subcommittee
2018-Present	LSUHSC GAC Student Affairs Committee
2018-Present	Chair, GAC Recruitment Committee

### **Community Service Activities:**

2014-Present	Greater New Orleans Science and Engineering Fair (GNOSEF) Judge
2016-Present	Board of Directors, GNOSEF
2017-Present	Clinical Advisory Board, Avanos Medical