CURRICULUM VITAE

Cassandra D. Gipson-Reichardt (formerly Gipson), Ph.D. Associate Professor, Regular Title Series

Primary Appointment: Department of Pharmacology and Nutritional Sciences Secondary Appointments: Department of Neuroscience, Department of Psychology University of Kentucky

I. GENERAL INFORMATION

Address:

C.T. Wethington Bldg, Rm 535

900 South Limestone University of Kentucky Lexington, KY 40536-0200 Email: cdgips2@uky.edu

Phone: 859-218-0625

II. EDUCATION

Undergraduate

2004 Bachelor of Science in Psychology, University of California, San Diego

Graduate

2007 Master of Science in Psychology, University of Kentucky

Thesis: Post-Choice Stimulus Review by Pigeons

Mentor: Dr. Thomas Zentall

2010 Doctor of Philosophy in Psychology, University of Kentucky

Thesis: A Translational Model of Mood-Based Rash Action

Mentors: Dr. Michael T. Bardo and Dr. Thomas Kelly

Post-Doctoral

2010-2015 Post-Doctoral Fellow, Department of Neuroscience, Medical University of

South Carolina

Mentor: Dr. Peter W. Kalivas

PROFESSIONAL EXPERIENCES

2001-2002 Undergraduate Research Assistant: Department of Psychology (Drs.

Victor Ferreira and Tamar Gollan), University of California, San Diego,

La Jolla, CA

2002-2004 Undergraduate Research Assistant: Department of Psychology (Dr. John

T. Wixted), University of California, San Diego, La Jolla, CA

2002-2004 Undergraduate Research Assistant: Department of Psychology (Dr.

	Edmund Fantino), University of California, San Diego, La Jolla, CA
2005-2007	Teaching Assistant: Behavioral Neuroscience and Learning/Behavior, Department of Psychology, University of Kentucky, Lexington, KY
2005-2010	Graduate Research Assistant, University of Kentucky, Lexington, KY
2010-2015	Post-Doctoral Researcher, Medical University of South Carolina, Charleston, SC
2015-June 30, 2020	Assistant Professor, Department of Psychology, Arizona State University, Tempe, AZ
2020-2022	Associate Professor, Department of Family and Community Medicine, University of Kentucky, Lexington, KY

ACADEMIC APPOINTMENTS		
2010-2015	Post-Doctoral Fellow	
	Department of Neurosciences	
	Medical University of South Carolina	
2015-2020	Assistant Professor	
	Department of Psychology	
	Arizona State University	
2020-2022	Associate Professor	
	Department of Family and Community Medicine	
	University of Kentucky	
2022-present	Associate Professor	
	Department of Pharmacology and Nutritional Sciences	
	University of Kentucky	

IV. TEACHING ACTIVITIES

Certification:

Spring 2019

Certificate in Effective College Instruction

The Association of College and University Educators and the American Council on Education

Courses Taught at University of Kentucky

Fall 2020

Grant Writing Seminar (Department of Family and Community Medicine)

Evaluation Score: Course rated as "Extremely valuable"; Gipson rated as "Extremely knowledgeable"

Number of learners: 15

Spring 2021

Grant Writing Seminar (Department of Family and Community Medicine)

Number of learners: 15

Fall 2022

Guest Lecture

"Pharmacology of Drugs of Abuse"

OBI836; Dental Pharmacology (Graduate Level)

Number of Learners: 60

Spring 2023

Professional Development for Scientists in Training (NS 623/PHA 623, UK)

Graduate Level Course Number of Learners: 9

Fall 2023

Guest Lecture

"Pharmacology of Drugs of Dependence"

OBI836; Dental Pharmacology (Graduate Level)

Number of Learners: 60

Courses Taught at Arizona State University

Spring 2016

Psychopharmacology (PSY470, Arizona State University)

Upper level undergraduate course (enrollment = 50)

Evaluation score: 1.5 (scale 1-5, 1=outstanding, 5=unsatisfactory)

Spring 2017

Neuropsychopharmacology (PSY591, Arizona State University)

Graduate course (enrollment = 9)

Evaluation score: 2.1 (scale 1-5, 1=outstanding, 5=unsatisfactory)

Spring 2018

Your Brain on Drugs (PSY307, Arizona State University)

Lower level undergraduate course (enrollment = 100)

Evaluation Score: 1.6 (scale 1-5, 1=outstanding, 5=unsatisfactory)

Spring 2019

Psychopharmacology (PSY470, Arizona State University)

Upper level undergraduate course (enrollment = 40)

Evaluation score: 1.4 (scale 1-5, 1=outstanding, 5=unsatisfactory)

Fall 2019

Psychopharmacology (PSY470, Arizona State University)

Upper level undergraduate course (enrollment = 40)

Evaluation score: 1.3 (scale 1-5, 1=outstanding, 5=unsatisfactory)

V. ADVISING ACTIVITIES

<u>Undergraduate Trainees at University of Kentucky</u>

01/2021-12/2021

Madison Botkins BIO 394 University of Kentucky College of Public Health

03/2021-12/2021

Austin Collins Psychology 394 University of Kentucky

03/2021-06/2022

Nikhil Pallem BIO 394 University of Kentucky

03/2021-12/2021

Satvi Limbasia University of Kentucky

03/2021-12/2021

Katelyn Lawson University of Kentucky

03/2021-12/2021

Hollie Clifton University of Kentucky

03/2021-07/2022

Grace Breakfield

BIO 394

University of Kentucky

03/2021-05/2022

Dharani Ramaiah

University of Kentucky

01/2022-present

Olivia Swanbeck Chellgren Fellows Program University of Kentucky

01/2022-present

Aarushi Kanukunta BIO 394

University of Kentucky

06/2022-present

Payton Abney BIO 394

University of Kentucky

08/2022-present

Safiyah Sadek

BIO 394

University of Kentucky

06/2023-present

Mary Beth Matocha

UK SURES

University of Kentucky

06/2023-present

Violet Newhart

UK SURES

University of Kentucky

08/2023-present

PHA 394

Artan Kryeziu

Undergraduate Trainees at Arizona State University

09/2015-06/2018

Armani del Franco

Arizona State University

09/2015-06/2017

J. Joseph McCallum Arizona State University

06/2016-01/2019

Mikayla Isosaki PSY395 Arizona State University

10/2016-08/2019

Jose Piña BIOCHEM395 Arizona State University

10/2016-12/2019

Hanaa Ulangkaya Arizona State University

06/2017-06/2018

Gabrielle Cabrera-Brown Arizona State University

08/2018-12/2019

Vince Carfagno PSY395 Arizona State University

06/2018-12/2019

Ngoc Von Do Arizona State University

06/2018-06/2020

Amanda Bull Arizona State University

06/2018-06/2020

Paula Overby Arizona State University

04/2019-12/2019

Justin Lemme Arizona State University

06/2019-08/2019

Megan Brickner NIDA Summer Undergraduate Internship Program

Arizona State University

Graduate Trainees at University of Kentucky

01/2022-05/01/2022

Alex Pettey Rotating Graduate Student, IBS program University of Kentucky

01/2022-present

Percell (Tyrone) Kendrick, Jr. Graduate Student Pharmacology Ph.D. Program Department of Pharmacology and Nutritional Sciences University of Kentucky

08/2022-10/2022

Georgia Vonlehmden Rotating Graduate Student, IBS program University of Kentucky

10/2022-12/2022

Hady Sabra Rotating Graduate Student, IBS program University of Kentucky

06/2023-08/2023

Ashley White MD/PhD Summer Rotation Student University of Kentucky

06/2023-07/2023

Andrea Woodcox Rotating Graduate Student, IBS program University of Kentucky

10/2023-12/2023

Samantha Radomski Rotating Graduate Student, IBS program University of Kentucky

Graduate Trainees at Arizona State University

08/2016-06/2019

Mark Namba: Masters defense completed Spring 2019, Arizona State University

NRSA awarded: 2019-2021 (NIDA)

Current position: Post-Doctoral Scholar in Dr. Jacqueline Becker's lab, Drexel University

Post-Doctoral Trainees at University of Kentucky

07/2020-08/2022

Dr. Erin Maher

Department of Pharmacology and Nutritional Sciences

University of Kentucky

Current Position: Senior Medical Writer at Flywheel Partners

11/2020-11/2023

Dr. Shailesh Khatri

Department of Pharmacology and Nutritional Sciences

University of Kentucky

Current Position: PI at Oklahoma State University

09/2023-present

Dr. Christa Corley

Department of Pharmacology and Nutritional Sciences

University of Kentucky

Post-Doctoral Trainees at Arizona State University

07/2015-02/2018

Dr. Gregory Powell

Current position: Senior Safety Partner, Animal Biosafety, Arizona State University

01/2018-06/2020

Dr. Jonna Leyrer-Jackson

NRSA awarded: 2019-2022 (NIAAA)

Current position: Assistant Professor, Department of Medical Education, Creighton University Health

Sciences Campus, Phoenix AZ

Thesis and Dissertation

Graduate Student Committees:

Tempe, AZ

08/2016-04/2017 Chair, First Year Project

Mark Namba

Department of Psychology, Behavioral Neuroscience Ph.D. program

Arizona State University

"The Role of GLT-1 in Cue-Induced Nicotine Seeking"

Tempe, AZ

05/2017-04/2019 Chair, Masters Thesis Committee

Mark Namba

Department of Psychology, Behavioral Neuroscience Ph.D. program

Arizona State University

"The Role of GLT-1 and NF-κB in Cue-Induced Nicotine Seeking"

Tempe, AZ

09/2019 Member, Masters Thesis Committee

Veronica Peña

Department of Psychology, Behavioral Neuroscience Ph.D. program

Arizona State University

"Progestogens Impact Cognition During the Transition to Menopause in the

Rat: Dissociation of Progestogen- and Memory- Type"

12/2022-present Lexington, KY

Member, Dissertation Thesis Committee

Kimberly Bretland

Department of Pharmacology and Nutritional Sciences, Pharmacology Ph.D.

Program

03/2022-present Fort Collins, CO

Outside Member, Dissertation Thesis Committee Levi Flom, laboratory of Dr. Ana Clara Bobadilla

Colorado State University

08/2022-present Lexington, KY

Chair, Dissertation Thesis Committee

Percell Tyrone Kendrick, Jr.

Department of Pharmacology and Nutritional Sciences, Pharmacology Ph.D.

Program

10/2023-present Christchurch, New Zealand

Examiner, Dissertation Thesis Committee

Rebecca Bodeker

"Effects of Methamphetamine on Behavioural Measures of Impulsivity in

Rats".

University of Canterbury Chair: Dr. Randolph Grace

Undergraduate Honors Thesis Committees:

At Arizona State University

Tempe, AZ

05/2017 Member, Undergraduate Honors Thesis Committee

Korrina Romero

Department of Psychology, Barrett Honors College

Arizona State University

"Suppressive and Enhancing Effects of Nicotine on Food-Seeking Behavior"

Tempe, AZ

05/2017 Member, Undergraduate Honors Thesis Committee

Paula Overby

Department of Psychology, Barrett Honors College

Arizona State University

"Nicotinic Enhancement of Incentive Salience"

Tempe, AZ

05/2017 Member, Undergraduate Honors Thesis Committee

Shea Forcade

Department of Psychology, Barrett Honors College

Arizona State University

"Peace, Love, Unity, Respect, and Responsibility: Attitudes on Psychedelic

Harm Reduction in the EDM Community"

Tempe, AZ

05/2017 Chair, Undergraduate Honors Thesis Committee

J. Joseph McCallum

Department of Psychology, Barrett Honors College

Arizona State University

"The Role of Accumbens GluN2B receptors in Cue-Induced Nicotine Seeking"

Tempe, AZ

05/2018 Chair, Undergraduate Honors Thesis Committee

Gabrielle Cabrera-Brown

Department of Psychology, Barrett Honors College

Arizona State University

"Modeling Nicotine Essential Value Using a Behavioral Economics Paradigm

in Rats"

Tempe, AZ

05/2018 Member, Undergraduate Honors Thesis Committee

Thai Nguyen

School of Life Sciences, Barrett Honors College

Arizona State University

"The Effect of Ovarian Hormonal Status on 5HT1B Receptor Modulation of

Cocaine Self-Administration"

Tempe, AZ

05/2018 Member, Undergraduate Honors Thesis Committee

Derek Tang

Department of Psychology, Barrett Honors College

Arizona State University

"The Role of Calcium Channel Genes in Childhood Psychiatric Symptoms"

Tempe, AZ

05/2018 Member, Undergraduate Honors Thesis Committee

Andrew Carleson

School of Life Sciences, Barrett Honors College

Arizona State University

"The Effects of a Novel Serotonin-7 Receptor (5-HT7R) Antagonist, MC-

RG19, on Cocaine-Related Behaviors"

Tempe, AZ

05/2019 Member, Undergraduate Honors Thesis Committee

Shiv Shah

School of Life Sciences, Barrett Honors College

Arizona State University

"Hyperactive ERK/MAPK Regulates Cortical GABAergic Neuron

Development"

Tempe, AZ

10/2019 Chair, Undergraduate Honors Thesis Committee

Hanaa Ulangkaya

Department of Psychology, Barrett Honors College

Arizona State University

"Establishing an Oxycodone/Cocaine Co-Use Model in Rats"

Student and Post-Doctoral Fellow Awards and Recognition

At University of Kentucky:

09/2020

Dr. Erin Maher

2nd place in Society of Post-Doctoral Scholars (SOPS) Short Research Talk Competition, University of Kentucky

06/2021

Dr. Erin Maher

NIDA's Women and Sex/Gender Differences Junior Investigator Travel Award Program (to attend the College on Problems of Drug Dependence)

06/2021

Dr. Shailesh Khatri

Early Career Travel Award (to attend the College on Problems of Drug Dependence)

12/2021

Dr. Erin Maher

SUPRA Post-Doctoral Grant Award, 01/01/2022-12/31/2022

"Factors Driving Nicotine Use in Females: Role of Estrogen Receptors in the Reward Pathway"

12/2021

Emma Bondy

Scholarship to attend Society for Research on Nicotine and Tobacco (SRNT) for Top Abstract Submitted: "Activation of accumbens microglia and adenosine A2a receptors contributes to nicotine self-administration and cue-induced reinstatement"

07/2022-06/2023

Percell Tyrone Kendrick, Jr.

Predoctoral Slot on the NIDA T32 (PI: Craig Rush)

T32DA035200 – "Research Training in Drug Abuse Behavior"

07/2023-08/2024

Percell Tyrone Kendrick, Jr.

Diversity supplement on R01 DA046526 (PI: Gipson-Reichardt, NOA arrival 1/27/2023)

04/2023-08/2023

Safiyah Sadek

Commonwealth Undergraduate Research Experience (CURE) Fellowship

Substance Use Research Priority Area

University of Kentucky

05/2023

Safiyah Sadek

Sandra J. Legan Award for Outstanding Undergraduate Research in Neuroscience

Neuroscience Major

University of Kentucky

06/2023-08/2023

Ashley Craig

National Institute on Drug Abuse Summer Research Undergraduate Internship Program University of Kentucky

06/2023-08/2023

Ashley White

Professional Student Mentored Research Fellowship Program

UK CCTS

University of Kentucky

At Arizona State University:

03/2016

Mark Namba

ASU Department of Psychology Research Excellence Award

05/2016

Mark Namba

NIDA Diversity Supplement Award (R00 DA036569-03S1)

07/2016

Armani del Franco

School of Life Sciences Undergraduate Travel Grant to attend the College on Problems of Drug Dependence

09/2016

Armani del Franco

School of Life Sciences Undergraduate Research (SOLUR) award

10/2016

Armani del Franco

College of Liberal Arts and Sciences (CLAS) Undergraduate Summer Enrichment Award

10/2016

Mark Namba

Diversity Scholars Travel Award for the Society for Neuroscience annual meeting

09/2017

Mark Namba

ASU Graduate and Professional Student Association Travel Award

10/2017

Mark Namba

Diversity Scholars Travel Award or the Society for Neuroscience annual meeting

10/2017

Mark Namba

NIDA Travel Award for National Hispanic Science Network Conference

03/2017

Mark Namba

ASU College of Liberal Arts & Sciences Graduate Excellence Award

02/2018

Gabriella Cabrera-Brown

Award to present an E-poster at the undergraduate research poster session at the American Association for the Advancement of Science (AAAS) conference

03/2018

Mark Namba

ASU Graduate and Professional Student Association Outstanding Research Award

04/2018

Mark Namba

ASU College of Liberal Arts & Sciences Graduate Excellence Award

06/2018

Mark Namba

Cold Spring Harbor Laboratories Cellular Biology of Addiction course acceptance

06/2018

Dr. Jonna Leyrer-Jackson

Cold Spring Harbor Laboratories Cellular Biology of Addiction course acceptance

09/2018

Mark Namba

ASU Graduate and Professional Student Association Travel Award

11/2018

Mark Namba

Society for Neuroscience "Neuroscience Scholars Program" Associate membership

06/2019

Dr. Jonna Leyrer-Jackson

NIDA's Women and Sex/Gender Differences Junior Investigator Travel Award Program (to attend the College on Problems of Drug Dependence)

Former Undergraduate Research Assistants or Research Technicians Who are Currently in Graduate Programs

From University of Kentucky:

11/2022

Nikhil Pallem; Acceptance into medical school; University of Kentucky College of Medicine

From Arizona State University:

03/2018

Armani del Franco: accepted into the Ph.D. Neuroscience program, University of Minnesota Lab: Dr. Eric Newman

03/2018

Julianna Goenaga: Ph.D. graduate student in the Neuroscience program, University of Minnesota Labs: Drs. Alfonso Araque and Paul Mermelstein

06/2018

John Joseph McCallum: Masters student in the Science of Health Care Delivery program, Arizona State University

05/2019

Broc Pagni: Ph.D. graduate student in the Department of Speech and Hearing, Arizona State University

Lab: Dr. Blair Braden

04/2020

Megan Brickner: Ph.D. graduate student in the Neuroscience program, University of Minnesota Lab: Dr. Benjamin Saunders

VI. ADMINISTRATIVE ACTIVITIES AND UNIVERSITY SERVICE

University Service at University of Kentucky

T32 (PI: Craig Rush) Post-Doctoral Virtual Seminar: "Transitioning to Faculty" University of Kentucky

04/2021

Graduate/Professional Student Pilot Grant Program Reviewer Substance Use Priority Research Area (SUPRA) University of Kentucky

09/2021-present

Internal Âdvisory Board member, Substance Use Priority Research Area (SUPRA)

03/2022

Co-lead of Complex Grant Networking Event for SUPRA

07/2022-04/2023

Co-Chair, Substance Use Research Event (SURE) University of Kentucky

08/2022-07/2025

Women in Medicine and Science (WIMS) Membership and Nominating Co-Chair College of Medicine, University of Kentucky

09/2022-08/2023

Elected Senator, University of Kentucky Senate Representative for the College of Medicine

09/2022-08/2023

Member, SACDAC (Senate Committee for Disability Accommodation and Compliance)

09/2022-04/2023

RCR In-Person Trainer University of Kentucky

12/2022

Pilot Grant Program Reviewer CCTS
University of Kentucky

04/2023-04/2024

Chair, 2024 Substance Use Research Event (SURE) University of Kentucky

08/2023-06/2026

Re-elected Senator and Appointed Chair of SACDAC, University of Kentucky Senate Representative for the College of Medicine

06/2023

Predoctoral Grant Reviewer CCTS
University of Kentucky

University Service at Arizona State University

06/2016

Responsible Conduct of Research Instructor, "Mentorship" Arizona State University

06/2017

Responsible Conduct of Research Instructor, "Peer Review and Authorship" Arizona State University

Department Service at University of Kentucky

07/2020-12/2021

Research Pillar Working Group Department of Family and Community Medicine University of Kentucky

10/2022-04/2023

In-person RCR Trainer for the Department of Pharmacology and Nutritional Sciences University of Kentucky

Department Service at Arizona State University

06/2015

Psychology Freshman Orientation Lunch Psychology Department Arizona State University

09/2015

PSY 394: Careers in Psychology presentation Psychology Department Arizona State University

06/2017-06/2018

Advisory Committee to the Chair, Elected Member Psychology Department Arizona State University

04/2018

"Work-Life Balance Panel" for Graduate Students (Dr. Nancy Eisenberg graduate course) Psychology Department Arizona State University

04/2018

K99 Grant Discussion for Graduate Students (Dr. Nancy Eisenberg graduate course) Psychology Department Arizona State University

06/2018-06/2019

Advisory Committee to the Chair, Elected Member Psychology Department Arizona State University

07/2019-10/2019

Search Committee: Behavioral Neuroscience Full Professor position for Dr. Jonathan Gewirtz

Psychology Department Arizona State University

VII. HONORS & AWARDS

Graduate Student Level:

06/2005

Graduate School Research Fellowship, University of Kentucky.

05/2007

Society for the Advancement of Behavior Analysis Student Presenter Grant.

06/2008

NIDA Predoctoral Traineeship, Department of Behavioral Science and the National Institute of Drug Abuse, University of Kentucky (T32 DA007304).

06/2009

NIDA Director's Travel Award, College on Problems of Drug Dependence, Reno, NV.

06/2009

NIDA Predoctoral Traineeship, Department of Behavioral Science and the National Institute of Drug Abuse, University of Kentucky (T32 DA007304)

02/2010

Center for Drug and Alcohol Research Petite Grant Award University of Kentucky

02/2010

Dissertation Year Fellowship. The Graduate School University of Kentucky.

06/2010

NIDA Director's Travel Award, College on Problems of Drug Dependence, Scottsdale, AZ.

08/2010

National Research Service Award, National Institute of Drug Abuse (F31 DA028018). Title: A Translational Model of Mood-Based Drug Abuse

08/2010

American Psychological Association Dissertation Research Award APA Science Directorate

Post-Doctoral Level:

11/2010

NIDA Post-Doctoral Traineeship, Department of Neurosciences and the National Institute of Drug Abuse, Medical University of South Carolina (T32 DA007288)

06/2011

Early Career Investigator Award, College on Problems of Drug Dependence, Hollywood FL.

08/2011

American Psychological Association, Division 28 Outstanding Dissertation Award. Washington, D.C.

11/2011

Behavioral Neuroscience and Psychopharmacology Student Achievement Award, Department of Psychology, University of Kentucky.

12/2011

NIDA Post-Doctoral Traineeship, Department of Neurosciences and the National Institute of Drug Abuse, Medical University of South Carolina (T32 DA007288).

05/2012

National Research Service Award, National Institute on Drug Abuse (F32 DA033690). Title: Chronic Adaptations in Glutamatergic and Dopaminergic Signaling in Nicotine Abuse

10/2012

Young Investigator Award, Society for Research on Nicotine and Tobacco, to present a poster at the NIDA presymposium at the Society for Neuroscience, New Orleans, LA.

11/2012

Travel Award to present a poster at the 6th Annual Julius Axelrod symposium (NIDA), Society for Neuroscience, New Orleans, LA.

12/2012

Travel Award, American College of Neuropsychopharmacology (ACNP), Hollywood, FL.

12/2012

First place poster award for MUSC Research Day, Charleston, SC

11/2013

Travel Award, College on Problems of Drug Dependence, to present a poster at the NIDA presymposium, Society for Neuroscience, San Diego, CA

11/2013

Society for Neuroscience Chapter Travel Award, San Diego, CA

K99/R00 Transition to Independence Grant, National Institute on Drug Abuse (K99 DA036569) Title: Contributions of Glial Glutamate Transport and NMDA Receptors in Nicotine Relapse

08/2014

Young Psychopharmacologist Award, Division 28, American Psychological Association, Washington, DC

09/2014

NIDA Notes spotlight article, June issue, "New Insight Into Cue-Induced Relapse to Cocaine". http://www.drugabuse.gov/news-events/nida-notes/2014/05/new-insight-how-cues-cause-relapse-to-cocaine

Faculty Level at Arizona State University

05/2017

Society of Biological Psychiatry Early Career Investigator Travel Award San Diego, CA

06/2017

ASU nominee for the 2017 Takeda Innovator Early Career Scientist Award

11/2017

Early Career Investigator Showcase Travel Award, NIDA/NIAAA mini-convention at Society for Neuroscience, Washington, DC.

12/2017

Associate Member (nominated and elected), American College of Neuropsychopharmacology

02/2018

Society for Research on Nicotine and Tobacco Travel Award for Outstanding Abstract Submission

03/2018

Awarded front cover of journal issue for most frequently downloaded article since publication: Gipson & Olive (2017), Genes, Brain, and Behavior, issue 16(1).

06/2018

Research Highlight- College on Problems of Drug Dependence: https://cpdd.org/highlighting-members-research-preclinical/

02/2019

"Best Paper in 2018" in *Nicotine and Tobacco Research*, awarded at the 2019 Society for Research on Nicotine and Tobacco conference, San Francisco, CA.

11/2019

Society for Neuroscience – Abstract chosen as a "Dynamic Poster" and "Hot Topic" for the 2019 annual meeting: "Chemogenetic inhibition of accumbens cholinergic interneurons inhibits cue-induced nicotine seeking".

Faculty Level at University of Kentucky

10/30/2023

Spotlight in UKNow Article: "UK researchers awarded \$2.6 million to study new drug combination driving overdose deaths".

https://uknow.uky.edu/research/uk-researchers-awarded-26-million-study-new-drug-combination-driving-overdose-

deaths?j=658820&sfmc_sub=251358993&l=7849_HTML&u=25709305&mid=10966798&jb=4004

2021-present

Wethington Award

06/2021

Joseph Cochin Young Investigator Award College on Problems of Drug Dependence

12/2021

Nominated and accepted as Full Member of American College of Neuropsychopharmacology (ACNP)

02/2022

Elected Director-At-Large, Board of Directors College on Problems of Drug Dependence (2022-2025)

03/2022

Finalist for Editor of Experimental and Clinical Psychopharmacology

09/2022-06/2023

Elected University Senator, University of Kentucky

11/2022

Solicited and approved to be considered for Fellow Status at the American Psychological Association, Division 28 (Psychopharmacology and Substance Abuse)

02/2023

Wiley "Top Cited Article 2021-2022" in the *Journal of the Experimental Analysis of Behavior* (article: "Logical fallacies and misinterpretations that hinder progress in translational addiction neuroscience").

04/2023

Winner of the Faculty Sarah Bennett Holmes Award Women's Forum University of Kentucky

UK Center for Appalachian Research in Environmental Sciences (UK-CARES) Career Development Award (sponsor: NIEHS)
University of Kentucky

VIII. PROFESSIONAL ACTIVITIES, PUBLIC SERVICE & PROFESSIONAL DEVELOPMENT

Short Courses, Seminars, and Workshops

06/2011

Cold Spring Harbor Cellular Biology of Addiction course, Cold Spring Harbor, NY (travel awardee)

Current Professional Affiliations

American College of Neuropsychopharmacology, (Elected Member)

American Psychological Association (Member)

College on Problems of Drug Dependence (Member)

Society for Neuroscience (Member)

Society for Research on Nicotine and Tobacco (Member)

Association for Psychological Science (Member)

Society of Biological Psychiatry (Associate Member)

Service Activities and Elected Offices

01/2009-12/2009

Board Member and Membership Coordinator. Society for the Quantitative Analysis of Behavior (SQAB)

01/2010-12/2010

Board Member and Membership Coordinator. Society for the Quantitative Analysis of Behavior (SQAB)

09/2013

Society for Research on Nicotine and Tobacco (SRNT) abstract reviewer

11/2013

Society for Neuroscience Host and Mentor, Career Development Topics: A Mentoring and Networking Event at the "Pre- and Post- Doctoral National Research Service Awards (NRSAs) table.

09/2014

Society for Research on Nicotine and Tobacco (SRNT) abstract reviewer

11/2014

Society for Neuroscience Host and Mentor, Career Development Topics: A Mentoring and Networking Event at the "Pre- and Post- Doctoral National Research Service Awards (NRSAs) table.

09/2015

Society for Research on Nicotine and Tobacco (SRNT) abstract reviewer

06/2016

Intel ISEF Special Award Judge for the National Institute on Drug Abuse, Phoenix AZ. https://www.drugabuse.gov/news-events/news-releases/2016/05/link-between-stress-mindset-factors-influence-addiction-vulnerability-focus-top-nih-addiction.

09/2016

Society for Research on Nicotine and Tobacco (SRNT) abstract reviewer

01/2017-12/2018

Network Operations Coordinator: Basic Science Network Advisory Committee Society for Research on Nicotine and Tobacco

06/2017-06/2021

College on Problems of Drug Dependence Program Committee

09/2017

Society for Research on Nicotine and Tobacco (SRNT) abstract reviewer

09/2018

Society for Research on Nicotine and Tobacco (SRNT) Program Committee

09/2019

Society for Research on Nicotine and Tobacco (SRNT) Program Committee

06/2019

Intel ISEF Special Award Judge for the National Institute on Drug Abuse, Phoenix AZ

09/2020

Society for Research on Nicotine and Tobacco (SRNT) Program Committee

12/2019-12/2022

American College of Neuropsychopharmacology Education and Training Committee

12/2020

American College of Neuropsychopharmacology Round Table Discussion: Negotiations and Promotions

05/2021-05/2024

Elected Member

Member-at-Large

American Psychological Association, Division 28 (Psychopharmacology and Substance Abuse division)

07/2021-06/2023

Behavior, Biology, and Chemistry Translational Research in Addiction Travel Awards Committee Member

Pilot proposal reviewer Rural Drug Addiction Research (RDAR) COBRE University of Nebraska-Lincoln

06/2023-06/2026

Travel Award Committee Member College on Problems of Drug Dependence

06/2023

Pilot proposal reviewer Center for Medicinal Cannabis Research (CMCR) University of California, San Diego

01/2024-12/31/2026

Program Committee Member American College of Neuropsychopharmacology (ACNP)

Editorial Board Activities

01/2017-present

Board Member: Experimental and Clinical Psychopharmacology

03/2020-present

Experimental and Clinical Psychopharmacology Associate Editor

Special Issue: Harm Reduction

03/2021-present

Journal of the Experimental Analysis of Behavior Associate Editor Special Issue: Individual differences in behavior and neurobiology

09/2021-present

Pharmacology, Biochemistry, & Behavior Associate Editor

Special Issue: Role of Social Variables in Drug Abuse and Addiction

06/2022-present

Board Member: Journal of the Experimental Analysis of Behavior

05/2023-present

Journal of Neuroimmunology Associate Editor

Special Issue: Neuroimmune Mechanisms of Addiction

Ad Hoc Peer Reviewer

Science, Nature Communications, Drug and Alcohol Dependence, Biological Psychiatry, Addiction Biology, Neuropsychopharmacology, Journal of Neuroscience, Translational Psychiatry, Psychopharmacology, Behavioural Pharmacology, PLoSONE, Behavioural Brain Research, Current Biology, Brain Structure and Function, Brain Research, European Journal of Neuroscience, Experimental and Clinical Psychopharmacology, ACS Chemical Neuroscience, Prevention Science, Global Pediatric Health, Molecular Neuropsychiatry, Neuropharmacology, Brain, Behavior, and

Immunity, Physiology & Behavior, CNS Drugs, Journal of Neuroscience Research, eNeuro, Neuroscience & Biobehavioral Reviews, Neuroendocrinology, Pharmacology, Biochemistry, & Behavior

Grant Review Panels

While at Arizona State University

02/2018-04/2020

Tobacco-Related Disease Research Program (TRDRP) of California, Neuroscience Review Committee Panelist

02/2019

Early Career Review Program, Biobehavioral Regulation, Learning, and Ethology (BRLE) Study Section Panelist

12/2019

NIH Review Panelist: 2020/01 ZRG1 MDCN-R (04) M. Member Conflict: Neuropharmacology

06/2020

NIH Review Panelist: ZCA1 RPRB-J O1 P. National Cancer Institute Special Emphasis Panel, NCI Program Project (P01) Review

While at University of Kentucky

11/2020

Neurobiology of Motivated Behavior (NMB) Study Section Panelist

12/2020

2021/01 ZDA1 SKP-D (18) S; Cutting-Edge Basic Research Awards (CEBRA, R21) Panelist (NIDA)

02/2021

2021/05 ZDA1 IXR-Q (14) S; Exploiting Genome or Epigenome Editing to Functionally Validate Genes or Variants Involved in Substance Use Disorders (R21/R33; NIDA)

06/2021

Neurobiology of Motivated Behavior (NMB) Study Section Panelist

09/2021

2022/01 ZDA1 IXR-Q (14) S; Exploiting Genome or Epigenome Editing to Functionally Validate Genes or Variants Involved in Substance Use Disorders (R21/R33; NIDA) Panelist

11/2021

2022/01 Cutting-Edge Basic Research Awards (CEBRA, R21) Chair (NIDA)

Exploiting Genome or Epigenome Editing to Functionally Validate Genes or Variants Involved in Substance Use Disorders (R21/R33; NIDA) Panelist

02/2022

Tobacco-Related Disease Research Program (TRDRP) of California, Neuroscience Review Committee Panelist

02/2022

National Institute of Child Health and Human Development (NICHD) Health, Behavior, and Context Study Section

06/2022

2022/10 ZDA1 SKM-D (01) S NIDA Training SEP Panelist

07/2022

2022/10 ZDA1 SKP-D (03) S Cutting-Edge Basic Research Awards (CEBRA) Panelist

10/2022

2023/01 NIDA-K S

Career Development Education and Training Study Section

03/2023

Neuroscience Review Full Committee Panelist, TRDRP of California

06/2023-present

Full Standing Member, Neurobiology of Motivated Behavior (NMB) study section

Community Service

At University of Kentucky

01/2021

Interviewer of Graduate School Candidates- "How to Shine in Interviews" Virtual Mentoring Event Black in Neuro
Number of Learners: 35

At Arizona State University

02/2016

Brain Fair for Children Psychology Department Arizona State University

Brain Fair for Children Psychology Department Arizona State University

07/2018

Spirit of the Senses Guest Speaker, "Addiction and the Brain", Phoenix, AZ

IX. SPEAKING ENGAGEMENTS

Local Presentations

- 1. **04/2012 Gipson**, **C.D.**, & Kalivas, P.W. (invited talk). Preclinical approaches to preventing cigarette use: Understanding the neurobiology of addiction to discover new pharmacotherapeutic targets. Tobacco Research Interest Group, Medical University of South Carolina, Charleston, S.C.
- 2. **10/2014 Gipson, C.D.** N-Acetylcysteine Prevents Nicotine Relapse-Associated Synaptic Plasticity. Scientific Retreat on Tobacco Related Research: "Making Tobacco History: Accelerating Efforts to Reduce Harm Caused by Tobacco". Medical University of South Carolina, Charleston, S.C.
- 3. **11/2019** Leyrer-Jackson, J., **Gipson, C.D.** (invited talk). Using viral vectors to control neuronal activity and manipulate nicotine relapse in a rodent self-administration model". Viroholics Seminar Series, Center for Immunotherapy, Vaccines, and Virotherapy, ASU.
- 4. **08/2020 Gipson, C.D.** (seminar presentation). Ovarian hormones and contraceptive estrogen specifically contribute to nicotine demand and the reward pathway. WHIPS seminar, University of Kentucky, Department of Family and Community Medicine.
- 5. **12/2020 Gipson, C.D**. (invited speaker). Natural and synthetic estrogens specifically alter nicotine demand and the reward pathway. Department of Neuroscience Seminar Series, University of Kentucky.
- 6. **11/2023 Gipson, C.D.** (invited speaker). "Tranq Dope" in the Evolving Opioid Landscape: Patterns of Intravenous Fentanyl Use and Withdrawal When Xylazine is Used as an Adulterant". Markey Cancer Center Research Seminar.

State Presentations

- 7. **11/2015 Gipson, C.D.** (invited speaker). Synaptic plasticity in nicotine addiction. Barrow Neurological Institute, Phoenix, Arizona.
- 8. **01/2016 Gipson, C.D.** (invited speaker). Relapse triggered by memory cues elicits different neurobiological changes depending on the cue type. Neuroscience 6th Research Symposium, Barrow Neurological Institute, Phoenix, Arizona.

- 9. **01/2017 Gipson, C.D**. (invited speaker). Aberrant synaptic plasticity in drug relapse: new therapeutic targets and treatment strategies to reduce relapse vulnerability." Neuroscience 7th Research Symposium, Arizona State University, Phoenix Arizona.
- 10. **05/2018 Gipson, C.D.** (invited speaker). Searching for New Pharmacotherapeutic Targets for Addiction in Glutamate Plasticity". Barrow Neurological Institute, Phoenix, AZ.
- 11. **02/2019 Gipson, C.D.** (invited speaker). Neuroimmune Mechanisms of Nicotine Addiction. University of Arizona, Downtown Medical Campus.

National Presentations

- 12. **08/2011 Gipson**, **C.D.** A translational model of mood-based drug abuse. Invited talk for the Outstanding Dissertation Award, American Psychological Association Division 28 (August 2011), Washington, DC.
- 13. **03/2013 Gipson**, **C.D.**, Kupchik, Y., Reissner, K.J., & Kalivas, P.W. (oral presentation). Nicotine relapse is associated with rapid synaptic potentiation: Role of GluR1 and NMDA2B-containing receptors. Society for Research on Nicotine and Tobacco, Boston MA.
- 14. **06/2013 Gipson, C.D.** (Chair and oral presenter in a minisymposium). Rapid synaptic potentiation and alterations in glutamatergic signaling: New pharmacotherapeutic targets in reversing nicotine addiction. College on Problems of Drug Dependence, San Diego, CA.
- 15. **08/2014 Gipson**, **C.D.** (invited oral presentation). Contributions of glial glutamate transport and NMDA receptors in nicotine relapse. Invited talk for Young Psychopharmacologist Award, American Psychological Association Division 28, Washington DC.
- 16. **08/2014 Gipson**, **C.D.** (invited speaker). Rapid synaptic plasticity in nicotine and cocaine relapse. Yale, Department of Psychiatry.
- 17. **09/2014 Gipson, C.D.** (invited speaker). Rapid synaptic plasticity in nicotine and cocaine relapse. Rockefeller University.
- 18. **10/2014 Gipson, C.D.** (invited speaker). Rapid, transient plasticity in cocaine and nicotine relapse: new pharmacotherapeutic avenues. University of Mississippi Medical Center.
- 19. **11/2014 Gipson, C.D.** Rapid plasticity in cocaine and nicotine relapse: new pharmacotherapeutic treatment strategies to reduce relapse vulnerability. Johns Hopkins Departmental Research Conference, Department of Psychiatry and Behavioral Sciences.
- 20. **02/2015 Gipson, C.D.** The potentiated synapse in addiction: Identifying novel targets to inhibit relapse vulnerability. Arizona State University, Department of Psychology Colloquium Series.
- 21. **07/2017 Gipson, C.D**. (invited speaker). Aberrant synaptic plasticity in cued nicotine seeking: new therapeutic targets and treatment strategies to reduce nicotine relapse vulnerability. Center for Drug Discovery, Research Triangle Institute Research Seminar.

- 22. **02/2018 Gipson, C.D.** (invited speaker). Neuroinflammation, glutamate, and nicotine relapse. Temple University.
- 23. **08/2019 Gipson, C.D.** (invited speaker). Translating Addiction Neuroscience: Discovering New Therapeutic Targets and Treatment Strategies. University of Kentucky, Department of Family and Community Medicine.
- 24. **09/2019 Gipson, C.D.** (invited speaker). Translating Addiction Neuroscience: Discovering New Therapeutic Targets and Treatment Strategies. Virginia Commonwealth University, Department of Pharmacology and Toxicology.
- 25. **10/2020 Gipson, C.D.** (invited speaker). Ovarian and Contraceptive Hormones Modulate Nicotine Consumption and Neural Mechanisms Within the Reward Pathway. Department of Pharmacology and Toxicology Seminar Series, University of Texas Medical Branch.
- 26. **03/2021 Gipson, C.D.** (invited speaker). Natural and synthetic estrogens specifically alter nicotine demand and the reward pathway". Sensory Biology Center Seminar, Departments of Neuroscience, Molecular Biology, and Zoology & Physiology, University of Wyoming.
- 27. **02/2022 Gipson, C.D.** (invited speaker). Impacts of Ovarian and Contraceptive Hormones on Nicotine Neurobiology and Behavior. RDAR Seminar Series, University of Nebraska, Lincoln.
- 28. **06/2022 Gipson, C.D.** (invited speaker). Impacts of Ovarian and Contraceptive Hormones on Nicotine Neurobiology and Behavior. Medical University of South Carolina (MUSC) Tobacco Research Interest Group.
- 29. **02/2023 Gipson, C.D.** (invited speaker). Chronic nicotine use induces a unique sex-specific neuroimmune response in the accumbens which modulates glutamate plasticity. Anatomy & Neurobiology Department Seminar Series, Virginia Commonwealth University.
- 30. **05/2023 Gipson, C.D.** (invited plenary speaker). Novel non-neuronal mechanisms of nicotine use and seeking: A role for accumbens microglia in the nicotine neuroimmune milieu. Utah Neuroimmunology Trainee Symposium, University of Utah.
- 31. **05/2023 Gipson, C.D.** (invited speaker). Nicotine induces sex-specific neuroimmune signaling that regulates aberrant glutamate plasticity within the accumbens. University of California, Riverside, Neuroscience seminar series.
- 32. **05/2023 Gipson, C.D.** (invited speaker). Accumbens microglia are sex-specifically altered by nicotine use and critically regulate nicotine seeking and glutamatergic plasticity. University of California, Irvine, Irvine Center for Addiction and Neuroscience (ICAN) seminar series.
- 33. **11/2023 Gipson, C.D.** (invited speaker). "Tranq Dope" in the Evolving Opioid Landscape: Patterns of Intravenous Fentanyl Use and Withdrawal When Xylazine is Used as an Adulterant". Behavioral Pharmacology Research Unit T32 Seminar Series, Johns Hopkins University, Baltimore, MD.

International Presentations

- 34. **05/2013 Gipson, C.D.,** Shen, H., Kupchik, Y.M, & Kalivas, P.W. (invited oral presentation). Prelimbic cortex and ventral tegmental area modulate nucleus accumbens core synaptic plasticity during cue- and cocaine-reinstated drug seeking. Dopamine, Alghero, Sardinia.
- 35. **06/2021* Gipson, C.D.** Neuroimmune Signaling, Glutamate Plasticity, in Addiction (invited speaker). World Wide Neurobiology of Addiction Seminar Series (https://www.world-wide.org/Neuro/topic/addiction/), invited speaker. Host: Dr. Meghan Creed.

*This presentation was part of an online series that was distributed worldwide, and featured leaders in the field of substance use research. Selection as a speaker in this series demonstrates international research recognition of my independent research program.

X. RESEARCH & INTELLECTUAL CONTRIBUTIONS

Research Certifications

Responsible Conduct of Research Record 37770771 CITI Module

02/2021-02/2024

Group 1 Biomedical Investigators and Key Personnel Record 6588013 CITI Module

09/2022

"Train the Trainer" training completed for in-person RCR training to the university Responsible Conduct of Research, University of Kentucky ORI

A. PUBLICATIONS

Key:

Bolded name = personal contribution Asterisk after name = equal first-authorship contribution Italicized name = trainee Italicized Asterisk = special contribution to the field

h-index: 31; i-10 index: 47 (according to Google Scholar, 6/6/2023)

1. O'Daly, M., Angulo, S., **Gipson**, C., & Fantino, E. (2006). Influence of temporal context on value in the multiple-chains and successive-encounters procedures. *Journal of the Experimental Analysis of Behavior*, 85(3), 309-328. PMID: 16776054. **Impact Factor: 2.17**

- 2. **Gipson, C.D.,** DiGian, K.A., Miller, H.C., & Zentall, T.R. (2008). Radial maze analog for pigeons: Evidence for flexible coding strategies may result from faulty assumptions. *Learning & Motivation*, *39*, 285-295. PMID: 19884963. **Impact Factor: 2.96**
- 3. Miller, H.C., **Gipson, C.D.**, Vaughn, A., Rayburn-Reeves, R., & Zentall, T.R. (2009). Object permanence in dogs: Invisible displacement in a rotation task. *Psychonomic Bulletin & Review*, *16*(1), 150-155. **Impact Factor: 3.08**
- 4. **Gipson, C.D.,** Alessandri, J.J.D., Miller, H.C., & Zentall, T.R. (2009). Preference for 50% reinforcement over 75% reinforcement by pigeons. *Learning & Behavior*, *37*(4), 289-98. PMID: 19815925. **Impact Factor: 1.48**
- 5. **Gipson**, **C.D.**, Miller, H.C., Alessandri, J.J., & Zentall, T.R. (2009). Within-trial contrast: The effect of probability of reinforcement in training. *Behavioral Processes*, 82(2), 126-32.
- 6. **Gipson, C.D.**, & Bardo, M.T. (2009). Extended access to amphetamine self-administration increases impulsive choice in a delay discounting task in rats. *Psychopharmacology*, 207, 391-400. PMID: 19784636. **Impact Factor: 3.86**
- 7. Marusich, J.A, Beckmann, J.S, **Gipson, C.D.,** & Bardo, M.T. (2010). Methylphenidate as a reinforcer for rats: contingent delivery and escalation. *Experimental and Clinical Psychopharmacology*, *18*(3), 257-266. PMID: 20545390. **Impact Factor: 3.16**
- 8. Beckmann, J.S., Marusich, J.A., **Gipson, C.D.,** & Bardo, M.T. (2010). Novelty seeking, incentive salience and acquisition of cocaine self-administration in the rat. *Behavioral Brain Research*, *26*(1), 159-165. PMID: 20655954. **Impact Factor: 3.00**
- 9. Marusich, J.A., Beckmann, J.S., **Gipson**, **C.D.**, & Bardo, M.T. (2011). Cue effects on methylphenidate self-administration in rats. *Behavioural Pharmacology*, 22(7), 714-7. PMID: 21897204. **Impact Factor: 2.15**
- 10. Yates, J.R., Darna, M., **Gipson**, **C.D.**, Dwoskin, L.P., & Bardo, M.T. (2012). Isolation rearing as a preclinical model of attention/deficit-hyperactivity disorder. *Behavioral Brain Research*, 234(2), 292-8. PMID: 22580232. **Impact Factor: 3.00**
- 11. Yates, J., Beckmann, J.S., **Gipson**, **C.D.**, Marusich, J.A., & Bardo, M.T. (2012). High impulsivity in rats predicts amphetamine conditioned place preference in rats. *Pharmacology, Biochemistry*, & *Behavior*, 100(3), 370-6. PMID: 21807020. **Impact Factor: 2.78**
- 12. Alvers, K.A., Marusich, J.A., **Gipson, C.D.**, Beckmann, J.S., & Bardo, M.T. (2012). Environmental enrichment during development decreases intravenous self-administration of methylphenidate at low unit doses in rats. *Behavioural Pharmacology*, 23(7), 650-7. PMID: 22914073. **Impact Factor: 2.15**
- 13. Beckmann, J.S., **Gipson**, C.D., Marusich, J.A., & Bardo, M.T. (2012). Escalation of cocaine intake with extended access in rats: dysregulated addiction or regulated acquisition? *Psychopharmacology*, 222(2), 257-67. PMID: 22249361. **Impact Factor: 3.86**

- 14. **Gipson**, **C.D.**, Beckmann, J.S., Adams, Z., Marusich, J.A., Nesland, T.O., Yates, J.R., Kelly, T.H., & Bardo, M.T. (2011). A translational behavioral model of mood-based impulsivity: Implications for drug self-administration. *Drug and Alcohol Dependence*, *122(1-2)*, 93-9. PMID: 21975194. **Impact Factor: 4.49.**
- Marusich, J.A., McCuddy, W.T., Beckmann, J.S., Gipson, C.D., & Bardo, M.T. (2011). Strain differences in self-administration of methylphenidate and sucrose pellets in a rat model of attentiondeficit hyperactivity disorder. *Behavioural Pharmacology*, 22(8), 794-804. PMID: 22015805.
 Impact Factor: 2.15
- 16. **Gipson, C.D.,** Yates, J., Beckmann, J.S., Marusich, J.A., Zentall, T.R., & Bardo, M.T. (2011)*. Social facilitation of d-amphetamine self-administration in the rat. *Experimental and Clinical Psychopharmacology*, *19*(6), 409-19. PMID: 2176703. **Impact Factor: 2.71**
 - *This was the first empirical paper to examine the influence of a social partner during selfadministration of a drug of abuse. An entire area of research followed.
- 17. **Gipson, C.D.,** Beckmann, J.S., El-Maraghi, S., Marusich, J.A., & Bardo, M.T. (2011). Effect of environmental enrichment on escalation of cocaine self-administration in rats. *Psychopharmacology*, 214(2), 557-566. PMID: 21057774. **Impact Factor: 3.86**
- 18. Shen, H., **Gipson**, **C.D.**, Huijts, M.J., & Kalivas, P.W. (2013). Prelimbic cortex and ventral tegmental area modulate synaptic plasticity differentially in nucleus accumbens during cocainereinstated drug seeking. *Neuropsychopharmacology*, *39*(5), 1169-77. PMID: 24232172. **Impact Factor: 7.05**
- 19. **Gipson**, **C.D.**, Kupchik, Y.M., & Kalivas, P.W. (2013). Rapid, transient synaptic plasticity in addiction. NIDA 40th anniversary edition of *Neuropharmacology 76 Pt B*, 276-86. PMID: 23639436. **Impact Factor: 5.11**
- 20. **Gipson, C.D.,** Reissner, K.J., Kupchik, Y.M., Smith, A.W., Stankeviciute, N., Hensley-Simon, M.E., & Kalivas, P.W. (2013)*. Reinstatement of nicotine seeking is mediated by glutamatergic plasticity. *Proceedings of the National Academy of Sciences*, *110*(22), 9124-9. PMID: 23671067. **Impact Factor: 9.42**
 - *This empirical paper was critical in moving the nicotine field forward, showing for the first time that nicotine use and seeking critically altered glutamate homeostasis within the brain reward pathway.
- 21. **Gipson, C.D.***, Kupchik, Y.M.*, Shen, H.*, Reissner, K.J., Thomas, C.A., & Kalivas, P.W. (2013)*. Relapse induced by cues predicting cocaine depends on rapid, transient synaptic potentiation. *Neuron*, 77(5), 867-72. PMID: 23473317. **Impact Factor: 15.05**
 - *This empirical paper was critical in moving the substance use field forward, showing for the first time that seeking cocaine-associated cues induce rapid, transient changes in glutamate signaling within the reward pathway.

- 22. Kalivas, P.W. & **Gipson**, **C.D.** (2014). "Mourning" a Lost Opportunity. Commentary on: *A multistep general theory of transition to addiction* by Piazza and Deroche-Gamonet (2013), *Psychopharmacology*, 231(19), 3921-2. PMID: 24862367. **Impact Factor: 3.86**
- 23. Smith, A.W., Kupchik, Y.M., Scofield, M.D., **Gipson**, **C.D.**, Wiggins, A.T., Thomas, C.A., & Kalivas, P.W. (2014). Synaptic plasticity mediating cocaine relapse requires matrix metalloproteinases. *Nature Neuroscience* 17(12), 1655-7. PMID: 25326689. **Impact Factor: 16.72**
- 24. **Gipson**, C.D., & Kalivas, P.W. (2014). More Cocaine = More Glutamate = More Addiction. *Biological Psychiatry*, 76(10), 765-6. PMID: 25442059. **Impact Factor: 11.21**
- 25. McClure, E.A., Baker, N.L., **Gipson**, **C.D.**, Carpenter, M.J., Roper, A., Froeliger, B., Kalivas, P.W., & Gray, K.M. (2014). An open-label pilot trial of *N*-acetylcysteine and varenicline in adult cigarette smokers. *The American Journal of Drug and Alcohol Abuse*, *41*(1), 52-6. PMID: 25062287. **Impact Factor: 1.82**
- 26. Stankeviciute, N., Scofield, M., Kalivas, P.W., & **Gipson, C.D.** (2014). Context-induced reinstatement elicits rapid, reversible increases in dendritic spine morphology in nucleus accumbens core. *Addiction Biology* 19(6), 972-4. PMID: 23648005. **Impact Factor: 5.93**
- 27. Yates, J.R., Perry, J.L., Meyer, A.C., **Gipson**, **C.D.**, Charnigo, R., & Bardo, M.T. (2014). Role of medial prefrontal and orbitofrontal monoamine transporters and receptors in performance in an adjusting delay discounting procedure. *Brain Research* 1574, 26-36. PMID: 24928616. **Impact Factor: 2.73**
- 28. McClure, E.A., **Gipson**, **C.D.**, Malcolm, R., Kalivas, P.W., Gray, K.M. (2014). Potential Role of N-Acetyl-Cysteine in the Management of Substance Use Disorders. *CNS Drugs* 28(2), 95-106. PMID: 24442756. **Impact Factor: 5.11**
- 29. Reissner, K.J., **Gipson**, **C.D.**, Knackstedt, L.A., Scofield, M.D., & Kalivas, P.W. (2015). Glutamate Transporter GLT-1 Mediates N-acetylcysteine Inhibition of Cocaine Reinstatement. *Addiction Biology*, 20(2) 316-23. PMID: 24612076. **Impact Factor: 5.93**
- 30. Darna, M., Beckmann, J.S., **Gipson**, **C.D.**, Bardo, M.T., Dwoskin, L.P. (2015). Effect of environmental enrichment on dopamine and serotonin transporters and glutamate neurotransmission in medial prefrontal and orbitofrontal cortex. *Brain Research*, *1599*, 115-25. PMID: 25536304. **Impact Factor: 2.7**
- 31. Yates, J., Darna, M., **Gipson**, **C.D.**, Dwoskin, L.P., Bardo, M.T. (2015). Dissociable roles of dopamine and serotonin transporter function in a rat model of negative urgency. *Behavioural Brain Research*, 291, 201-8. PMID: 26005123. **Impact Factor: 3.00**
- 32. Scofield, M.D.*, Heinsbroek, J.*, **Gipson, C.D.,** Spencer, S., Smith, A.C.W., Kalivas, P.W. (2016). The Nucleus Accumbens: Mechanisms of Addiction Across Drug Classes Reflect the Importance of Glutamate Homeostasis. *Pharmacological Reviews* 68(3), 816-71. PMID: 27363441. **Impact Factor: 17.10**

33. Garcia-Keller, C., Kupchik, Y.M., **Gipson, C.D.,** Brown, R.M., Spencer, S., Bollati, F., Esparza, M.A., Roberts-Wolfe, D.J., Heinsbroek, J., Bobadilla, A-C., Cancela, L.M., Kalivas, P.W. (2016). Glutamatergic mechanisms of comorbidity between acute stress and cocaine self-administration. *Molecular Psychiatry* 21(8), 1063-9. **Impact Factor:** 14.50

Publications while at Arizona State University:

- 34. **Gipson, C.D.** (2016). Treating addiction: Unraveling the relationship between N-Acetylcysteine, glial glutamate transport, and behavior. *Biological Psychiatry* 80(3), e11-12. PMID: 27402473. **Impact Factor: 11.21**
- 35. **Gipson, C.D.,** & Olive, M.F. (2017)*. Structural and functional plasticity of dendritic spines cause or consequence of behavior? *Genes, Brain, and Behavior 16(1)*, 101-117. PMID: 27561549. **Impact Factor: 3.66**
 - *This invited review paper focused on a question that spans across numerous fields in which dendritic spines are linked to behavior, but it is not known whether spine changes occur before or after complex behavior. This review has been cited 149 times since 2017 and earned the front cover of the published journal issue.
- 36. Bobadilla, A.C., Heinsbroek, J.A., **Gipson, C.D.,** Griffin, W., Fowler, C.D., Kenny, P., & Kalivas, P.W. (2017). Corticostriatal plasticity, neuronal ensembles, and regulation of drug-seeking behavior. *Progress in Brain Research vol. "Addiction in Brain Research"*, 235: 93-112. PMID: 29054293. **Impact Factor: 3.17**
- 37. Fowler, C.D.*, **Gipson**, **C.D.***, Kleykamp, A., Rupprecht, L.E., Rees, V.W., Gould, T.J., Oliver, J., Bagdas, D., Damaj, I., Schmidt, H.D., Harrell, P.T., Duncan, A., De Biasi, M. (2017). Basic science and public policy: Informed regulation for nicotine and tobacco products. *Nicotine and Tobacco Research*. PMID: 29065200. *these authors contributed equally to this work. **Impact Factor: 3.81**
- 38. Smith, A.C.W.*, Scofield, M.D.*, Heinsbroek, J.A.*, **Gipson, C.D.*,** Neuhofer, D., Roberts-Wolfe, D.J., Spencer, S., Stankeviciute, N.M., Smith, R., Allen, N.P., Lorang, M.R., Griffin III, W.C., Boger, H.A., & Kalivas, P.W. (2017). Accumbens nNOS interneurons regulate cocaine relapse. *Journal of Neuroscience 37(4)*, 742-756. *These authors contributed equally to this work. PMID: 27920147. **Impact Factor: 6.34**
- 39. Romero, K., Daniels, C., **Gipson, C.D.,** & Sanabria, F. (2018). Suppressive and enhancing effects of nicotine on food-seeking behavior. *Behavioral Brain Research*, *339*, 130-139. PMID: 29175447 **Impact Factor: 3.00**
- 40. *Piña, J., Leyrer-Jackson, J.M., Namba, M.D., Cabrera-Brown, G., & Gipson, C.D.* (2018). Social influences on nicotine-related behaviors in rodents. *Int Rev Neurobiol* 140:1-32. PMID: 30193701. **Impact Factor: 3.23.**

- 41. Kleykamp, B.A., **Gipson, C.D.,** Maynard, O.M., Treur, J.L., & Oliver, J.A. (2018). Rethinking the career landscape for nicotine and tobacco trainees and early career professionals. *Nicotine & Tobacco Research*. PMID: 29660013. **Impact Factor: 3.81**
- 42. *Namba*, *M.*, Tomek, S.E., Olive, M.F., Beckmann, J.S., & **Gipson, C.D.** (2018). The winding road to relapse: Forging a new understanding of cue-induced reinstatement models and their associated neural mechanisms. *Frontiers in Behavioral Neuroscience*. PMID: 29479311. **Impact Factor: 3.10**
- 43. Overby, P.F., Daniels, C.W., Goenaga, J., Powell, G.L., Del Franco, A.P., Gipson, C.D., & Sanabria, F. (2018). Effects of nicotine self-administration on incentive salience in male Sprague-Dawley rats. Psychopharmacology, 235(4), 1121-1130. PMID: 29374305. Impact Factor: 3.31
- 44. *Powell, G.L., Del Franco, A., Goenaga, J.,* Spencer, S., Schwartz, D., *Stankeviciute, N., & Gipson, C.D.* (2019). Chronic treatment with N-acetylcysteine decreases extinction responding and reduces cue-induced nicotine-seeking. *Physiological Reports, 7(1)*,e13958. doi: 10.14814/phy2.13958. PMID: 30734439. **Impact Factor: 2.47**
- 45. Siemsen, B.M., Reichel, C.M., Leong, J.C., Garcia-Keller, C., **Gipson, C.D.,** Spencer, S.M., McFaddin, J.A., Hooker, K.N., Kalivas, P.W., Scofield, M.D. (2019). Effects of methamphetamine self-administration and extinction on astrocyte structure and function in the nucleus accumbens core. *Neuroscience*, doi: 10.1016/j.neuroscience.2019.03.040. PMID: 30926546. **Impact Factor:** 3.38
- 46. *Powell, G.L., Namba, M.D., Cabrera-Brown, G.*, Neisewander, J.L., Marusich, J.A., Beckmann, J.S., **Gipson, C.D.** (2019). Economic demand analysis of within-session dose-reduction during nicotine self-administration. *Drug and Alcohol Dependence, 201*,188-196. PMID: 31238241. **Impact Factor: 4.49.**
- 47. Dunn, K.E., Huhn, A.S., Bergeria, C.L., **Gipson, C.D.,** Weerts, E.M. (2019)*. Non-opioid neurotransmitter systems that contribute to opioid withdrawal syndrome: A review of preclinical and clinical evidence. *Journal of Pharmacology and Experimental Therapeutics*. pii: jpet.119.258004. doi: 10.1124/jpet.119.258004. PMID: 31391211. **Impact Factor: 3.87**
 - *This in-depth review is the first to thoroughly evaluate opioid withdrawal evidence across human and non-human animal models, and determine if withdrawal syndromes can be accurately translated. This has critically informed the opioid field, and has been cited 23 times.
- 48. *Goenaga**, *J.*, *Powell**, *G.L.*, *Piña*, *J.*, *Namba*, *M.D.*, Koebele, S., Prakapenka, A., McClure, E.A., Bimonte-Nelson, H.B., **Gipson, C.D.** (2020)*. *N*-Acetylcysteine inhibits cue-induced reinstatement of nicotine seeking in a sex-specific manner. *Addiction Biology*, *25*(*1*), e12711. doi: 10.1111/adb.12711. PMID: 30734439. **Impact Factor: 5.93**
 - *This was the first empirical paper to show that a commonly studied therapeutic for addiction, N-Acetylcysteine, may not show efficacy when sex as a biological variable is taken into account. This has led to a number of subsequent evaluations of this compound in female subjects across the field, and has been cited 24 times.

- 49. *Roberts-Wolfe, D.J.*, Heinsbroek, J.A., Spencer, S.M., Bobadilla, A.C., Smith, A.C.W., **Gipson, C.D.**, Kalivas, P.W. (2020). Transient synaptic potentiation in nucleus accumbens shell during refraining from cocaine seeking. *Addiction Biology*, *25*(*3*), e12759. doi: 10.1111/adb.12759. PMID: 31062493. **Impact Factor: 5.93.**
- 50. *Namba*, *M.D.*, Kupchik, Y.M., Spencer, S.M., Garcia-Keller, C., *Goenaga*, *J.G.*, *Powell*, *J.L.*, Vicino, I.A., Hogue, I.B., **Gipson, C.D.** (2020)*. Accumbens Neuroimmune Signaling and Dysregulation of Astrocytic Glutamate Transport Underlie Conditioned Nicotine Seeking Behavior. *Addiction Biology*, 25(5), e12797. doi: 10.1111/adb.12797. PMID: 31330570. **Impact Factor:** 5.93.

*In this publication, my lab was the first to show that nicotine use and seeking elicits a robust neuroimmune response, and that treatment efficacy for pharmacotherapeutics requires inhibition of pro-inflammatory signaling in the reward pathway. This has been cited 28 times.

Publications since joining University of Kentucky:

- 51. *Powell, G.L.*, Beckmann, J.S., Marusich, J.A., **Gipson, C.D.** (2020). Nicotine reduction does not alter essential value of nicotine or reduce cue-induced reinstatement of nicotine seeking. *Drug and Alcohol Dependence*. 212:108020. doi: 10.1016/j.drugalcdep.2020.108020. PMID: 32362438. **Impact Factor: 4.49.**
- 52. *Leyrer-Jackson, J.M., Overby, P.F., Bull, A.*, Marusich, J.A., **Gipson, C.D.** (2020). Strain and sex matters: Differences in nicotine self-administration between outbred and recombinase-driver transgenic rat lines. *Experimental and Clinical Psychopharmacology*, 29(4):375-384. *doi:* 10.1037/pha0000376. PMID: 32297781. **Impact Factor: 3.16.**
- 53. **Gipson, C.D.,** Dunn, K.E., *Bull, A., Ulangkaya, H., Hossain, A.* (2020)*. Establishing preclinical withdrawal syndrome symptomatology following heroin self-administration in male and female rats. *Experimental and Clinical Psychopharmacology,* 2020 Apr 16. doi: 10.1037/pha0000375. Online ahead of print. PMID: 32297787. **Impact Factor: 3.16.**
 - *This empirical publication was the first to evaluate somatic signs of opioid withdrawal across both acute and protracted phases following volitional self-administration in rats as a function of biological sex.
- 54. *Leyrer-Jackson*, *J.M.*, Nagy, E.K., Hood, L.E., Newbern, J.M., **Gipson, C.D.**, Olive, M.F. (2020). Ethanol has concentration-dependent effects on hypothalamic POMC neuronal excitability. *Alcohol*, 86,103-112. doi: 10.1016/j.alcohol.2020.04.001. PMID: 32304714. **Impact Factor: 2.01.**
- 55. *Leyrer-Jackson*, *J.M.*, *Pina*, *J.A.*, *McCallum*, *J.*, Olive, M.F., **Gipson**, **C.D.** (2020). Direct administration of ifenprodil and citalopram into the nucleus accumbens inhibits cue-induced nicotine seeking and associated glutamatergic plasticity. *Brain Structure and Function*, 225(7),1967-1978. doi: 10.1007/s00429-020-02103-9. PMID: 32591928. **Impact Factor: 3.62**

- 56. **Gipson, C.D.,** Bimonte-Nelson, H.A. (2020). Interactions between reproductive transitions during aging and addiction: Promoting translational crosstalk between different fields of research. *Behavioural Pharmacology*, 2020 Sep 21. doi: 10.1097/FBP.000000000000591. PMID: 32960852. **Impact Factor: 2.2.**
- 57. *Leyrer-Jackson, J.M., Overby, P.F.*, Newbern, J., Holter, M., Olive, M.F., **Gipson, C.D**. (2021). Accumbens cholinergic interneurons control cue-induced nicotine seeking and associated glutamatergic plasticity. *eNeuro*, 2020 Nov 23;ENEURO.0276-20.2020. doi: 10.1523/ENEURO.0276-20.2020. PMID: 33239269. **Impact Factor: 4.36.**
- 58. **Gipson, C.D.**, Rawls, S., Scofield, M.D., Siemsen, B., *Bondy, E.O., Maher, E.E.* (2021)*. Interactions of Neuroimmune Signaling and Glutamate Plasticity in Addiction. *Journal of Neuroinflammation*, 18(1).doi: 10.1186/s12974-021-02072-8. **Impact Factor: 6.3**.
 - *This is the first extensive review to link a commonly known pathology in addiction, disrupted glutamate signaling in the brain reward pathway, with proinflammatory signaling following use of drugs of abuse.
- 59. McClure, E.A., Wahlquist, A.E., Tomko, R.L., Baker, N.L., Carpenter, M.J., Bradley, E.D., Cato, P.A., **Gipson, C.D.,** & Gray, K.M. (2021). Evaluating N-acetylcysteine for early and end-of-treatment abstinence in adult cigarette smokers. *Drug and Alcohol Dependence*. 225:108815. doi: 10.1016/j.drugalcdep.2021.108815. Epub ahead of print. **Impact Factor: 4.49.**
- 60. Huhn, A.S., **Gipson, C.D.** (2021). Promoting harm reduction as a treatment outcome for substance use disorders. *Experimental and Clinical Psychopharmacology*, 29(3), 217–218. **Impact Factor:** 3.16.
- 61. *Maher, E., Overby, P.F., Bull, A.H., Leyrer-Jackson, J.M.*, Beckmann, J.S., Koebele, S.V., Bimonte-Nelson, H.A., **Gipson, C.D.** (2021)*. Natural and synthetic estrogens specifically alter nicotine demand and cue-induced nicotine seeking in female rats. *Neuropharmacology*, 10.1016/j.neuropharm.2021.108756. **Impact Factor: 5.25.**
 - *This empirical publication is the first to show that contraceptive and natural estrogens alter nicotine demand and estrogen receptor expression in the reward pathway. This is an entirely new area of research.
- 62. Rzeszutek, M.J., Kaplan, B., Gipson, C.D., Koffarnus, M.N. (2022). Using crowdsourcing to study the differential effects of cross-drug withdrawal for cigarettes and opioids in a behavioral economic demand framework. Experimental and Clinical Psychopharmacology. Impact Factor: 3.16.
- 63. Strickland, J., Stoops, W.W., Banks, M.L., **Gipson, C.D.** (2022)*. Logical fallacies and misinterpretations that hinder progress in translational addiction neuroscience. Invited submission to a special issue of the *Journal of the Experimental Analysis of Behavior*. **Impact Factor: 2.48**
 - *This theoretical commentary and review turned the field on its head, bringing together both clinical and preclinical experts in substance use research and challenging interpretations of commonly utilized preclinical and clinical models of addiction.

- 64. Strickland, J.C., **Gipson, C.D.,** Dunn, K.E. (2022). Dopamine Supersensitivity Develops Following Chronic Opioid Exposure: A Narrative Review with Implications for the Opioid-Stimulant Co-Use Epidemic and Opioid Relapse. *Frontiers in Psychiatry* special issue on stimulant-opioid co-use.
- 65. **Gipson, C.D.,** Soto, P.L., Calipari, E.S., Platt, D.M., Salamone, J.D., Bevins, R.A. (2022)*. Using complex behavior to understand brain mechanisms in health and disease. Introduction to a special issue of the *Journal of the Experimental Analysis of Behavior*. **Impact Factor: 2.48**
 - *This is an introduction to a special issue on complex behavioral paradigms and their utility in understanding brain function in health and disease states for which I served as Guest Editor. This special issue in JEAB has had significant impact toward the mission of bridging neuroscience and behavior analysis, and attracted articles from leaders in the fields of neuroscience and behavior.
- 66. *Maher, E.E., Kipp, Z.A., Leyrer-Jackson, J.M., Khatri, S.N., Bondy, E.O., Martinez, G.J.*, Beckmann, J.S., Hinds Jr., T.D., Bimonte-Nelson, H.A., **Gipson, C.D.** (2022)*. Ovarian hormones regulate nicotine consumption and accumbens glutamatergic plasticity in female rats. *eNeuro*. PMID: 35697512 DOI: 10.1523/ENEURO.0286-21.2022. **Impact Factor: 4.36**
 - *This empirical publication is the first to show that nicotine suppresses the ability of estrogen to regulate estrogen receptor gene transcription in the brain reward pathway, opening up an entire line of research into the mechanisms by which nicotine may disrupt steroid hormone signaling cascades.
- 67. **Gipson, C.D.**, Beckmann, J.S. (2022). Compulsion and Substance Use Disorder: Potential Importance of Boundary Conditions. *Neuropsychopharmacology*. PMID: 36175552. doi: 10.1038/s41386-022-01462-7. **Impact Factor: 8.29**.
- 68. *Maher, E.E., Strzelecki, A.M.*, Weafer, J.J., **Gipson, C.D.** (in press)*. The Importance of Translationally Evaluating Steroid Hormone Contributions to Substance Use. Invited Review, *Frontiers in Neuroendocrinology* Special Issue: Addiction in Females. **Impact Factor: 8.33.**
 - *This is an invited review to one of the top neuroendocrinology journals in the field. Our review focuses on the impacts of contraceptive and ovary-derived hormones on cocaine, opioid, and nicotine use at both the clinical and preclinical levels of analysis. The importance of this review is that it highlights gaps in the field regarding focus on vulnerable populations at risk for substance use disorders. We also place focus on female-specific health issues, and how steroid hormones may interact with and contribute to the neurobehavior of addiction from a translational perspective.
- 69. *Khatri*, S., *Sadek*, S., *Kendrick Jr.*, *P.T.*, *Bondy*, *E.O.*, Hong, M., *Pauss*, S., Luo, D., Prisinzano, T., Dunn, K.E., Marusich, J.A., Beckmann, J.S., Hinds Jr., T.D., **Gipson, C.D.** (in press)*. Xylazine couse suppresses fentanyl consumption during self-administration and induces a unique sex-specific withdrawal syndrome that is naloxone-resistant in rats. *Experimental and Clinical Psychopharmacology*. **Impact Factor: 3.16.**
 - *Xylazine is becoming increasingly prevalent in the fentanyl drug supply within the United States, and opioid overdoses are on the rise, which is being attributed to the adulteration of fentanyl with

- the veterinary anesthetic xylazine. This is the <u>first empirical publication</u> demonstrating the impacts of intravenous xylazine on fentanyl self-administration and withdrawal as a function of xylazine dose and sex. This is also the first to quantitatively show that naloxone resistance occurs following xylazine/fentanyl co-use, and that these effects display a sex-specific trajectory whereby females are more susceptible to naloxone insensitivity and enhanced protracted withdrawal symptomatology following acute naloxone administration, which has enormous translational impact.
- 70. Gipson, C.D., Strickland, J.C. (invited Hot Topic, in press). Integrating Public Health and Translational Basic Science to Address Challenges of Xylazine Adulteration of Fentanyl. *Neuropsychopharmacology*. **Impact Factor: 8.29**.
- 71. Maher, E.E., Khatri, S., Bondy, E.O., Khatri, S. Sweatt, O., Kaplan, B., Pallem, N., Breakfield, G., Botkins, M., Kendrick Jr., P.T., Griffin, W.T., Beckmann, J.S., Weafer, J.J., Gipson, C.D. (in press). Synthetic contraceptive hormones occlude the ability of nicotine to reduce ethanol consumption in ovary-intact female rats. Drug and Alcohol Dependence. PMID: 37778097 DOI: 10.1016/j.drugalcdep.2023.110983
- 72. Strzelecki, A., **Gipson, C.D.,** Childs, E., Weafer, J.J. (in press). Preliminary evidence of increased alcohol use associated with ethinyl estradiol levels in women using oral contraceptives. *Drug and Alcohol Dependence Reports. DOI:* 10.1016/j.dadr.2023.100194.
- 73. Khatri, S., Ulangkaya, H., Maher, E.E., Sadek, S., Hong, M., Woodcox, A., Stoops, W.W., **Gipson, C.D**. (in press). Oxycodone Withdrawal is Associated with Increased Cocaine Self-Administration and Aberrant Accumbens Glutamate Plasticity in Rats. Neuropharmacology. Oct 21:242:109773. doi: 10.1016/j.neuropharm.2023.109773. **Impact Factor: 5.27**
- 74. Smith, M., Kirkpatrick, M.G., **Gipson, C.D.** (2023). The role of social variables in drug use and addiction. *Pharmacology, Biochemistry, and Behavior, 232:173656. doi:* 10.1016/j.pbb.2023.173656.
- 75. *Sadek, S., Khatri, S.N.*, Dunn, K.E., Beckmann, J.S., Stoops, W.W., Hinds, T., **Gipson, C.D.** (in press). Xylazine Shifts the Fentanyl Dose-Response Curve Downward, Suppresses Demand Intensity, and Transiently Suppresses Acute Fentanyl Withdrawal: A Comparison to Lofexidine. *Neuropharmacology*.

Manuscripts Submitted, in Revision, or in Preparation:

- 1. *Khatri, S., Craig, A., White, A., Kendrick, Jr., P.T.*, Mitra, S., *Bondy, E.O.*, **Gipson, C.D**. (review paper in preparation). The Pro- versus Anti-Inflammatory Effects of Nicotine.
- 2. *Kendrick, Jr., P.T., Craig, A., Khatri, S.N., Bondy, E.O.*, Bimonte-Nelson, H.A., **Gipson, C.D**. (in preparation). Nicotine induces a pathological accumbens neuroimmune landscape that drives use in a sex-specific fashion.

3. Bergeria, C.L., **Gipson, C.D.,** Smith, K.E., Stoops, W.W., Strickland, J.C. (under review). Opioid craving does not incubate over time in clinical research: Is the preclinical incubation of craving model lost in translation? *Neuroscience and Biobehavioral Reviews*.

Book Chapters

- 1. Gipson, C.D. & Kalivas, P.W. Neural Basis of Drug Addiction. In: *Neurobiology of Drug Abuse in Adolescents*, São Paulo, Brazil (2011).
- 2. **Gipson, C.D.,** & Kalivas, P.W. Pharmacotherapies in drug addiction. *In: Drug Discovery for Psychiatric Disorders*. Rankovic, Z., Bingham, M., Hargreaves, R., & Nestler, E. (Eds). Royal Society of Chemistry (2012).
- 3. Olive, M.F., & **Gipson**, **C.D.** (book chapter). Conditioning of Addiction. 2nd edition of *Addiction Medicine* (2016).
- 4. Olive MF, *Powell G*, McClure EA, & **Gipson, C.D.** Neurotransmitter systems: glutamate. In: *The Therapeutic Use of NAC in Medicine* (RE Frye, M Berk, eds), Adis Publications, Springer Healthcare, Auckland, New Zealand (2018).
- 5. *Powell G*, McClure EA, Olive MF, & **Gipson, C.D.** Clinical treatment of addictive disorders with N-acetylcysteine. In: *The Therapeutic Use of NAC in Medicine* (RE Frye, M Berk, eds), Adis Publications, Springer Healthcare, Auckland, New Zealand (2018).
- 6. Olive, M.F., *Del Franco*, A.P., & **Gipson**, **C.D**. Diolistic labeling and analysis of dendritic spines. In: *Neurotrophic Factors: Methods and Protocols*, 2nd Ed. (SD Skaper, ed). Springer Protocols, Methods in Molecular Biology series (2018), 1727: 179-200. PMID: 29222782.
- 7. *Namba, M., Powell, G., & Gipson, C.D.* Brain gene expression in the context of nicotine rewards. In: *Neuroscience of Nicotine: Mechanisms and Treatments, 1st Ed.* (V Preedy, ed). Academic Press, Elsevier, (2019)
- 8. *Leyrer-Jackson*, *J.M.*, Olive, M.F., & **Gipson**, **C.D**. Whole-Cell Patch-Clamp Electrophysiology to Study Ionotropic Glutamatergic Receptors and Their Roles in Addiction. Methods Mol Biol 1941: 107-135 (2019).
- 9. **Gipson, C.D.**, & Fowler, C.D. (2020). Nicotinic receptors underlying nicotine dependence: Evidence from transgenic mouse models. In: Cholinergic modulation of behavior. Current Trends in Behavioural Neurosciences. Springer.
- 10. *Leyrer-Jackson*, *J.M.*, Spencer, S., **Gipson**, **C.D.** (2020). Co-labeling of nervous cells using DiI neuronal filling and immunohistochemistry to explore metabotropic glutamate receptor expression. Methods Mol Biol.
- 11. Khatri, S.N., Maher, E.E., Bondy, E.O., **Gipson, C.D.** (2023). Neurobiology of Opioid Use. The Oxford Handbook of Opioids and Opioid Use Disorder.

Pharmaceutical Reports

- 1. Bardo, M.T., **Gipson, C.D.,** & Denehy, E.D. (2008). Effects of Targacept compounds TI-297455, TI-308691, and TI-314017 on intravenous nicotine self-administration in rats. Targacept, Inc.
- 2. Bardo, M.T., **Gipson, C.D.,** & Denehy, E.D. (Supplement, 2008). Effects of repeated TI-314017 on intravenous nicotine self-administration in rats. Targacept, Inc.

B. ABSTRACT PRESENTATIONS

Kev:

Bolded name = personal contribution

Italicized name = trainee

- 1. **05/2005 Gipson, C.D.,** & Wixted, J. T. (poster presentation). Retention-test ambiguity versus single sample detection as an explanation for retention biases. Poster for the Association for Behavioral Analysis Annual Convention. Poster Presentation, Chicago, IL.
- 2. **03/2007 Gipson, C.D.,** DiGian, K.A., & Zentall, T.R. (oral presentation). Evidence for coding strategies in pigeons may result from faulty assumptions. Oral Presentation, Conference of Comparative Cognition, Melbourne, FL.
- 3. **04/2007 Gipson, C.D.,** & Zentall, T.R. (oral presentation). Pigeons May Use Neither Retrospective Nor Prospective Spatial Coding When Performing on the Radial Maze with Delays. Tri-State Conference, Purdue University.
- 4. **04/2007 Gipson, C.D.,** & Zentall, T.R. (oral presentation). Pigeons' Coding Strategies in a Radial-Arm Maze. The University of Kentucky Center for Ecology, Evolution, and Behavior Spring Research Symposium, Lexington, KY.
- 5. **05/2007 Gipson, C.D.,** & Zentall, T.R. (poster presentation). Coding strategies in pigeons: Planning ahead or remembering the past? Association of Behavioral Analysis Annual Convention, San Diego, CA.
- 6. **05/2007 Gipson, C.D.,** & Zentall, T.R. (poster presentation). Coding strategies in pigeons: Planning ahead or remembering the past? Society for the Quantitative Analysis of Behavior Annual Convention, San Diego, CA.
- 7. **03/2008 Gipson, C.D.,** DiGian, K.A., & Zentall, T.R. (oral presentation). Dual Coding in Pigeons. Cognitive Science Day, University of Kentucky, Lexington, KY.
- 8. **03/2008 Gipson, C.D.,** Alessandri, J., & Zentall, T.R. (oral presentation). Preference for Intermittent Reinforcement in Pigeons. Conference of Comparative Cognition, Melbourne, FL.

- 9. **04/2008 Gipson, C.D.,** Alessandri, J., & Zentall, T.R. (oral presentation). Preference for Intermittent Reinforcement in Pigeons. Tri-State Conference, University of Kentucky, Lexington, KY.
- 10. **05/2008** Stagner, J.P., **Gipson, C.D.,** Alessandri, J., Miller, H.C., & Zentall, T.R. (oral presentation). Preference for 50% Reinforcement Over 75% Reinforcement by Pigeons. Comparative Cognition and Learning, Chicago, IL.
- 11. **05/2009** Stagner, J.P., **Gipson, C.D.,** Miller, H., Alessandri, J., & Zentall, T.R. (oral presentation). A gambling analogy: Pigeons prefer 50% reinforcement over 75% reinforcement. Midwestern Psychological Association, Chicago, IL.
- 12. **02/2009 Gipson, C.D.,** & Bardo, M.T. (oral presentation). The effect of short versus long access to d-amphetamine self-administration on a delay discounting task in rats. Oral Presentation, NIDA Training Grant Symposium, University of Kentucky, Lexington, KY.
- 13. **03/2009 Gipson, C.D.,** & Bardo, M.T. (poster presentation). Effects of varied access to damphetamine self-administration on a delay discounting task in rats. Bluegrass Society for Neuroscience Spring Neuroscience Day, University of Kentucky, Lexington, KY.
- 14. **05/2009 Gipson**, **C.D.**, & Bardo, M.T. (poster presentation). Effect of varied access to damphetamine self-administration on impulsive choice in a delay discounting task in rats. Society for the Quantitative Analysis of Behavior, Phoenix, AZ.
- 15. **06/2009 Gipson**, **C.D.**, & Bardo, M.T. (poster presentation). The effect of long and short access to d-amphetamine self-administration on a delay discounting task in rats. College on Problems of Drug Dependence, Reno, NV.
- 16. **09/2009 Gipson, C.D.,** Beckmann, J., & Bardo, M.T. (poster presentation). Effect of environmental enrichment on escalation of cocaine self-administration in rats. European Behavioural Pharmacology Society, Rome, Italy.
- 17. **10/2009 Gipson, C.D.,** & Bardo, M.T. (oral presentation). The role of dopamine and serotonin receptors in the orbitofrontal cortex on impulsive choice in rats. NIDA Training Grant Symposium, University of Kentucky.
- 18. **02/2010 Gipson, C.D.,** Beckmann, J.S. & Bardo, M.T. (poster presentation). Environmental enrichment protects against acquisition but not escalation of cocaine self-administration in rats. Center for Clinical and Translational Science, University of Kentucky, Lexington, KY.
- 19. **05/2010 Gipson, C.D.,** Beckmann, J.S., & Bardo, M.T. (oral presentation). Social Facilitation as a Preclinical Model of Drug Abuse. Midwestern Psychological Association, Chicago, IL.
- 20. **05/2010 Gipson**, **C.D.**, *El-Maraghi*, *S.*, Beckmann, J.S., & Bardo, M.T. (poster presentation). Environmental enrichment protects against acquisition but not escalation of cocaine self-administration in rats. Midwestern Psychological Association, Chicago, IL.

- 21. **05/2010 Gipson, C.D.,** Kelly, T.H., & Bardo, M.T. (poster presentation). The reinforcement omission effect as a translational model of negative urgency. Society for the Quantitative Analysis of Behavior, San Antonio, TX.
- 22. **06/2010 Gipson**, **C.D.**, & Bardo, M.T. (oral presentation). An animal model of negative urgency and the effect of reward omission on d-amphetamine self-administration. College on the Problems of Drug Dependence, Scottsdale, AZ.
- 23. **08/2010 Gipson**, **C.D.**, Beckmann, J.S., & Bardo, M.T. (poster presentation). Environmental enrichment and escalation of cocaine self-administration in rats. American Psychological Association, Division 28, San Diego, CA.
- 24. **11/2010 Gipson, C.D.**, Perry, J.L., Yates, J., Meyer, A.C., Beckmann, J.S., & Bardo, M.T. (poster presentation). Role of dopamine and serotonin receptors in medial prefrontal and orbitofrontal cortex on impulsive choice in rats. Society for Neuroscience, San Diego, CA.
- 25. **03/2011** El-Maraghi, S., Beckmann, J.S., **Gipson**, **C.D.**, & Bardo, M.T. (poster presentation) Stimulus control of escalated cocaine intake and short access sessions. Midwestern Psychological Association, Chicago, IL.
- 26. **04/2011 Gipson, C.D.,** Shen, H., & Kalivas, P.W. (poster presentation). The role of dendritic spine morphology in cue-induced reinstatement of cocaine-seeking behavior in rats. Frontiers in Neuroscience, Seabrook Island, SC.
- 27. **06/2011 Gipson**, **C.D.**, Marusich, J.A., Alvers, K.A., & Bardo, M.T. (poster presentation). Differences in environmental enrichment predict self-administration of a low unit dose of methylphenidate in rats. College on Problems of Drug Dependence, Hollywood, FL.
- 28. **06/2011** Beckmann, J.S., **Gipson**, **C.D.**, & Bardo, M.T. (poster presentation). Stimulus control of cocaine escalation and short access sessions. College on Problems of Drug Dependence, Hollywood, FL.
- 29. **08/2011 Gipson**, **C.D.** (oral presentation) A translational model of mood-based drug abuse. American Psychological Association Division 28, Washington, DC.
- 30. **11/2011 Gipson**, **C.D.**, Shen, H., & Kalivas, P.W. (poster presentation). Opposite changes in spine morphology are produced by cue- and context-induced versus cocaine-induced drug seeking. Society for Neuroscience, Washington, D.C.
- 31. **03/2012 Gipson, C.D.,** Kupchik, Y., Shen, H., Reissner, K.J., Thomas, C.A., & Kalivas, P.W. (poster presentation). Rapid synaptic and morphological changes in nucleus accumbens core during cocaine relapse. Frontiers in Neuroscience, Seabrook Island, SC.

- 32. **04/2012 Gipson**, C.D., & Kalivas, P.W. (oral presentation). Preclinical approaches to preventing cigarette use: Understanding the neurobiology of addiction to discover new pharmacotherapeutic targets. Tobacco Research Interest Group, Medical University of South Carolina, Charleston, S.C.
- 33. **11/2012 Gipson, C.D.,** & Kalivas, P.W. (oral presentation). Individual differences in cue-induced cocaine relapse are associated with rapid synaptic potentiation. Society for Neuroscience nanosymposium: Vulnerability to Drug Self-Administration and Addiction. New Orleans, L.A.
- 34. **11/2012 Gipson, C.D.,** Kupchik, Y.M., Reissner, K.J., Smith, A.W., & Kalivas, P.W. (invited poster presentation through SRNT). Alterations in synaptic potentiation and glutamatergic signaling in nicotine abuse. NIDA presymposium, Society for Neuroscience. New Orleans, L.A.
- 35. **11/2012 Gipson, C.D.,** Kupchik, Y.M., Reissner, K.J., Smith, A.C., & Kalivas, P.W. (invited poster presentation through the 6th Annual Julius Axelrod Symposium). Rapid Synaptic Potentiation in Nicotine Relapse: Role of GluR1 and NMDA2b-Containing Receptors. 6th Annual Julius Axelrod Symposium (NIDA), Society for Neuroscience, New Orleans, L.A.
- 36. **11/2012** Shen, H., **Gipson, C.D.,** & Kalivas, P.W. (poster presentation). Prelimbic prefrontal cortex and ventral tegmental area cooperatively modulate synaptic adaptation in nucleus accumbens during cocaine-reinstated drug seeking. Society for Neuroscience, New Orleans, LA.
- 37. **11/2012** Roberts-Wolfe, D.J., Kalivas, P.W., & **Gipson, C.D.** (poster presentation) Differential rapid synaptic potentiation in nucleus accumbens core versus shell during cocaine cue-induced relapse and extinction. Neuropalooza, College of Charleston/Medical University of South Carolina, SC.
- 38. **11/2012** *Stankeviciute*, *N.*, Kupchik, Y., Reissner, K., Kalivas, P.W., & **Gipson**, **C.D.** (poster presentation). Rapid synaptic potentiation in nicotine relapse: Role of GluR1 and NR2B-containing NMDA receptors. Neuropalooza, College of Charleston/Medical University of South Carolina, SC.
- 39. **11/2012** Smith, A.C.W., **Gipson**, **C.D.**, & Kalivas, P.W. (poster presentation). Gelatinase inhibition prevents cue-induced reinstatement of cocaine seeking and associated morphological changes in dendritic spines. Neuropalooza, College of Charleston/Medical University of South Carolina, SC.
- 40. **12/2012** *Stankeviciute*, *N.*, Kalivas, P.W., & **Gipson**, **C.D**. (poster presentation). Changes in spine morphology produced by context-induced cocaine seeking. MUSC Research Day, Charleston, SC.
- 41. **12/2012** Smith, A.W., **Gipson, C.D.,** & Kalivas, P.W. (poster presentation). Inhibition of matrix metalloproteinases-2 and -9 attenuate cue-induced reinstatement of cocaine seeking and associated morphological plasticity. MUSC Research Day, Charleston, S.C.
- 42. **12/2012** Roberts-Wolfe, D.J., Kalivas, P.W., & **Gipson, C.D.** (poster presentation). Differential rapid synaptic potentiation in nucleus accumbens core versus shell during cocaine cue-induced relapse and extinction. MUSC Research Day, Charleston, S.C.

- 43. **12/2012 Gipson, C.D.,** & Kalivas, P.W. (invited poster presentation/travel award). Alterations in synaptic plasticity and glutamatergic signaling in nicotine addiction. American College of Neuropsychopharmacology, Hollywood, FL.
- 44. **03/2013 Gipson, C.D.,** Kupchik, Y., Reissner, K.J., Smith, A.C., & Kalivas, P.W. (oral presentation). Nicotine relapse is associated with rapid synaptic potentiation: Role of GluR1 and NMDA2B-containing receptors. SRNT, Boston MA.
- 45. **04/2013** Kupchik, Y.M., **Gipson, C.D.,** Kalivas, P.W. (poster presentation). Rapid synaptic changes occur during cue-induced relapse to cocaine and nicotine. Abstract for the Israeli Society for Biological Psychiatry, Kibuts HaGoshrim, Israel.
- 46. **06/2013 Gipson, C.D.** (Chair and oral presenter in a minisymposium). Rapid synaptic potentiation and alterations in glutamatergic signaling: New pharmacotherapeutic targets in reversing nicotine addiction. College on Problems of Drug Dependence, San Diego.
- 47. **09/2013 Gipson, C.D.,** Kupchik, Y., Reissner, K.J., *Stankeviciute, N.*, Smith, A.C.W., & Kalivas, P.W. (poster presentation). Reinstatement of nicotine seeking is mediated by glutamatergic plasticity. Frontiers in Neuroscience, Charleston, S.C.
- 48. **12/2013 Gipson, C.D.,** Kalivas, P.W. (poster presentation). Contributions of Glial Glutamate Transport and NMDA Receptors in Nicotine Relapse. American College of Neuropsychopharmacology, Hollywood, FL.
- 49. **06/2014 Gipson, C.D.,** *Stankevicuite, N.*, McClure, E.A., Gray, K., Froeliger, B., Kalivas, P.W. (oral presentation). Contributions of glial glutamate transport and NMDA receptors in nicotine relapse. College on Problems of Drug Dependence, San Juan, Puerto Rico.
- 50. **11/2014 Gipson**, C.D., Spencer, S., *Stankeviciute*, *N.*, *Allen*, *N.*, Smith, R.J., & Kalivas, P.W. (poster presentation). Cue induced cocaine seeking involves nucleus accumbens core glutamate overflow mediated by mGluR2/3 and mGluR5. Society for Neuroscience, Washington DC.
- 51. **11/2014** Kupchik, Y., Brown, R., **Gipson**, C.D., Stefanik, M.T., & Kalivas, P.W. (poster presentation). When motivation becomes maladaptive similarities between drug addiction and obesity. European Neuropsychopharmacology.
- 52. **11/2014** Heinsbroek, J., Kupchik, Y., Scofield, M.D., Kalivas, P.W., & **Gipson, C.D.** (poster presentation). Rapid transient plasticity in dopamine D1 and D2 receptor expressing medium spiny neurons in the addiction circuitry mediate relapse to cocaine seeking. Society for Neuroscience, Washington DC.
- 53. **06/2015 Gipson, C.D.,** Kalivas, P.W. (oral presentation and session co-chair). N-Acetylcysteine inhibits nicotine relapse-associated synaptic plasticity in nicotine-withdrawn animals. College on Problems of Drug Dependence, Phoenix, AZ, June 2015.

- 54. **01/2016** *Powell, G., del Franco, A., Pagni, B., Goenaga, J.,* Scofield, M.D., **Gipson-Reichardt, C.D.** (poster presentation). Role of accumbens nicotinic acetylcholine receptors in cue-induced nicotine seeking and synaptic plasticity. Barrow Neurological Institute Neuroscience Symposium.
- 55. **03/2016 Gipson, C.D.,** *Powell, G., del Franco, A., Pagni, B., Goenaga, J., Scofield, M.D.* (poster presentation). Nicotinic acetylcholine receptors modulate cue-induced nicotine seeking and synaptic plasticity. Society for Research on Nicotine and Tobacco.
- 56. **06/2016** *del Franco*, A., *Powell*, G., *Goenaga*, J., Scofield, M.D., & **Gipson**, C.D. (poster presentation). Nicotinic acetylcholine receptors regulate cue-induced nicotine seeking and accumbens synaptic plasticity. College on Problems of Drug Dependence, Palm Springs CA.
- 57. **11/2016** Roberts-Wolfe, D., Shields, C., **Gipson, C.D.,** Heinsbroek, J., Bobadilla, A.C., & Kalivas, P.W. (poster presentation). Extinction training is required for transient synaptic potentiation in accumbens core and shell. Society for Neuroscience, San Diego CA.
- 58. **11/2016** *Powell, G., del Franco, A.*, Garcia-Keller, C., Spencer, S., *Stankeviciute, N.*, Schwartz, D., **Gipson, C.D.** (poster presentation). N-Acetylcysteine inhibits cue-induced nicotine seeking and relapse-associated synaptic plasticity. Society for Neuroscience, San Diego CA.
- 59. 11/2016 Scofield, M.D., Heinsbroek, J.A, Garcia-Keller, C., Smith, A.W., Gipson, C.D., & Kalivas, P.W. (poster presentation). Evaluating of the Role of Nucleus Accumbens Nitric Oxide and Somatostatin Release in Cocaine Seeking. Society for Neuroscience, San Diego CA.
- 60. **01/2017** *Powell, G.*, Neisewander, J.L., Beckmann, J.S., Marusich, J.A., *Del Franco, A.*, **Gipson, C.D.** (poster presentation). Analysis of a new behavioral economics protocol for examination of consumption of drugs of abuse. Neuroscience 7th Research Symposium, Arizona State University, Phoenix Arizona.
- 61. **01/2017** *Powell, G., del Franco, A.,* Garcia-Keller, C., Spencer, S., *Stankeviciute, N.*, Schwartz, D., **Gipson, C.D.** (poster presentation). N-Acetylcysteine inhibits cue-induced nicotine seeking and relapse-associated synaptic plasticity. Neuroscience 7th Research Symposium, Arizona State University, Phoenix Arizona.
- 62. **02/2017** *Powell, G.L., Goenaga, J., Del Franco, A., Holter, M., Garcia, R., Vannan, A.*, Neisewander, J.L., & **Gipson, C.D.** (oral presentation). Developmental nicotine exposure induces persistent alterations in accumbens glutamatergic circuitry. Society for Research on Nicotine & Tobacco, Florence, Italy.
- 63. **05/2017 Gipson, C.D.,** *Powell, G.L., Del Franco, A., Holter, M., Garcia, R., Vannan, A., Goenaga, J.,* Neisewander, J.L. (oral presentation). Developmental nicotine exposure induces persistent alterations in accumbens glutamatergic circuitry. Society of Biological Psychiatry, San Diego, CA.
- 64. **05/2017** *Overby, P.F.*, Daniels, C.W., **Gipson, C.D.,** & Sanabria, F. (poster presentation). Self-administration of nicotine transiently enhances sign-tracking in rats. Society for the Quantitative Analysis of Behavior, Denver, CO.

- 65. **09/2017 Gipson, C.D.,** *Namba, M., Goenaga, J., Powell, G., Del Franco, A.D., McCallum, J.J.* (poster presentation). N-acetylcysteine inhibits cue-induced nicotine seeking through a GLT-1-dependent mechanism and modulates neuroimmune signaling in the nucleus accumbens. European Behavioural Pharmacology Society, Crete, Greece.
- 66. **11/2017** *Goenaga, J., McCallum, J.J., Del Franco, A., Powell, G., Namba, M., Gipson, C.D.* (poster presentation). Nicotine relapse-induced rapid potentiation of excitatory synapses is regulated by GluN2B-containing NMDA receptors in the nucleus accumbens core. Society for Neuroscience, Washington DC.
- 67. 11/2017 Gipson, C.D., Powell, G.L., Del Franco, A., Holter, M., Garcia, R., Vannan, A., Goenaga, J., Neisewander, J.L. (poster presentation). Developmental nicotine exposure induces persistent alterations in accumbens glutamatergic circuitry. Society for Neuroscience, Washington D.C.
- 68. **11/2017** Marusich, J.A., *Powell, G.*, Beckmann, J.S., Neisewander, J.L., *Del Franco, A., Goenaga, J.*, **Gipson**, **C.D.** (poster presentation). Analysis of economic demand for nicotine using an abbreviated behavioral economics protocol in rats. Society for Neuroscience, Washington DC.
- 69. **12/2017** Zaczek, R., Myers, S.J., **Gipson, C.D.**, Wong, H., Lyuboslavsky, P., Kalivas, P.W., Laskowitz, D.T., Ruppa, K., Koszalka, G.W. (poster presentation). NP10679: A pH-sensitive GluN2B inhibitor is effective in models of eschemia and nicotine relapse. American College of Neuropsychopharmacology, Palm Springs CA.
- 70. **12/2017 Gipson, C.D.,** *Namba, M.N., Goenaga, J., Powell, G., McCallum, J.J.* (poster presentation). *N*-Acetylcysteine inhibits cue-induced nicotine seeking in a GLT-1-dependent manner and suppresses pro-inflammatory TNF-α expression in the nucleus accumbens core. American College of Neuropsychopharmacology, Palm Springs CA.
- 71. **02/2018 Gipson, C.D.,** *Powell, G., Cabrera-Brown, G.*, Marusich, J.A., Beckmann J.S. (oral presentation). Abrupt nicotine reduction increases essential value of nicotine and exacerbates reinstated nicotine seeking. Society for Research on Nicotine and Tobacco, Baltimore, MD.
- 72. **06/2018 Gipson, C.D.,** *Goenaga, J., Piña, J., Namba, M.D.*, Prakapenka, A., Koebele, S.V., Bimonte-Nelson, H. (poster presentation). *N*-Acetylcysteine exacerbates cue-induced reinstatement of nicotine seeking in an estrous cycle phase-dependent manner. College on Problems of Drug Dependence, San Diego, CA.
- 73. **06/2018** *Namba*, *M.D.*, *Goenaga*, *J.*, **Gipson**, **C.D**. (oral presentation). *N*-Acetylcysteine-mediated restoration of GLT-1 and inhibition of neuroinflammation in the nucleus accumbens core attenuates cue-induced nicotine seeking. College on Problems of Drug Dependence, San Diego, CA.
- 74. **11/2018** *Namba*, *M.D.*, *Goenaga*, *J.*, **Gipson**, **C.D**. (poster presentation). *N*-Acetylcysteine-mediated restoration of GLT-1 and inhibition of neuroinflammation in the nucleus accumbens core attenuates cue-induced nicotine seeking. Society for Neuroscience, San Diego, CA.

- 75. **12/2018** *Namba*, *M.D.*, **Gipson**, **C.D**. (poster presentation). Glutamatergic and Neuroimmune Mechanisms of N-acetylcysteine-Mediated Inhibition of Cue-Induced Nicotine Seeking. American College of Neuropsychopharmacology, Hollywood, FL.
- 76. **12/2018** *Leyrer-Jackson, J., McCallum, J.J., Namba, M.D.*, **Gipson, C.D**. (poster presentation). Role of accumbens serotonin transport and NMDA receptors in nicotine relapse. American College of Neuropsychopharmacology, Hollywood, FL.
- 77. **02/2019 Gipson**, **C.D.**, *Namba*, *M.D.*, Narayanan, S., Aktipis, A. (oral presentation). Gut, Brain, and Nicotine Addiction: Nicotine Self-Administration is Associated with Changes in Gut Microbiota and Accumbens Pro-Inflammatory Cytokines. Society for Research on Nicotine and Tobacco, San Francisco, CA.
- 78. **06/2019** *Leyrer-Jackson, J., Pina, J., Ulangkaya, H.*, Bimonte-Nelson, H.A., **Gipson, C.D.** (poster presentation). Ovarian hormones mediate acquisition of nicotine self-administration and accumbens glutamatergic plasticity. College on Problems of Drug Dependence, San Antonio, TX.
- 79. **06/2019** *Leyrer-Jackson, J., Pina, J., McCallum, J., Ulangkaya, H.,* **Gipson, C.D**. (poster presentation). The role of accumbens serotonin transport and GluN2B-containing NMDA receptors in nicotine relapse. College on Problems of Drug Dependence, San Antonio, TX.
- 80. **10/2019 Gipson, C.D.,** *Powell, G.*, Marusich, J.A., Beckmann, J.S. (oral presentation). Abrupt nicotine reduction does not alter nicotine demand or reduce reinstated nicotine seeking. Tobacco Regulatory Science meeting, National Institutes of Health.
- 81. **11/2019** *Leyrer-Jackson, J.*, Holter, M., Newbern, J., *Brickner, M.*, *Overby, P.F.*, **Gipson, C.D.** (dynamic poster presentation and hot topic). Chemogenetic inhibition of accumbens cholinergic interneurons inhibits nicotine seeking behavior. Society for Neuroscience, Chicago, IL.
- 82. **12/2019** *Leyrer-Jackson, J.*, Holter, M., Newbern, J., *Brickner, M.*, *Overby, P.F.*, **Gipson, C.D.** (poster presentation). Chemogenetic inhibition of accumbens cholinergic interneurons inhibits nicotine seeking behavior. American College of Neuropsychopharmacology.
- 83. **06/2020 Gipson, C.D.** (Chair and Discussant, Accepted Full Symposium). Aging and Addiction: Promoting Crosstalk Between Two Fields. College on Problems of Drug Dependence, Virtual Conference.
- 84. **08/2020** *Kaplan, B.A.*, **Gipson, C.D.**, Koffarnus, M.N. (poster presentation). Bidirectional Increases in Valuation for Cigarettes and Opioids under Withdrawal of Either Substance in Co-Users. American Psychological Association, Division 28.
- 85. **12/2020 Gipson, C.D.**, *Maher, E., Overby, P.F., Leyrer-Jackson, J.*, Koebele, S.V., Bimonte-Nelson, H.A. (virtual poster presentation). Ovarian hormones and contraceptive estrogen specifically alter nicotine demand and the reward pathway. American College of Neuropsychopharmacology.

- 86. **02/2021 Gipson, C.D.**, *Maher, E., Overby, P.F., Leyrer-Jackson, J.*, Koebele, S.V., Bimonte-Nelson, H.A. (virtual oral presentation). Ovarian hormones and contraceptive estrogen specifically alter nicotine demand and the reward pathway. Society for Research on Nicotine and Tobacco (in the "On the Basis of Sex" panel).
- 87. **02/2021 Gipson, C.D.** (virtual symposium chair). Novel therapeutic targets for cessation. Society for Research on Nicotine and Tobacco.
- 88. **02/2021** *Maher*, *E.*, *Overby*, *P.F.*, *Leyrer-Jackson*, *J.*, Koebele, S.V., Bimonte-Nelson, H.A., **Gipson**, **C.D.** (virtual poster presentation). Natural and Synthetic Estrogen Specifically Alter Nicotine Demand and the Reward Pathway. Third annual Substance Use Research Event, University of Kentucky.
- 89. **06/2021 Gipson, C.D.**, *Maher, E., Overby, P.F., Leyrer-Jackson, J.*, Koebele, S.V., Bimonte-Nelson, H.A. (full symposium, virtual oral presentation, and co-chair). Ovarian hormones and contraceptive estrogen specifically alter nicotine demand and the reward pathway. College on Problems of Drug Dependence.
- 90. **06/2021** *Maher, E.E., Bondy, E.O.,* **Gipson, C.D.** (virtual oral presentation). Diestrus is Associated with Higher Nicotine Consumption and Estrogen Receptor Localization Varies with Region-Specificity within the Mesolimbic Reward Pathway of Freely Cycling Female Rats. College on Problems of Drug Dependence.
- 91. **06/2021** *Bondy, E.O., Maher, E.E.,* **Gipson, C.D.** (virtual oral presentation). Accumbens Microglial CX3CR1 is Increased following Chronic Nicotine Self-Administration in Adult Female Rats. College on Problems of Drug Dependence.
- 92. **06/2021** *Khatri, S., Ulangkaya, H.,* Stoops, W.W., **Gipson, C.D.** (virtual oral presentation). Withdrawal from Oxycodone Self-Administration Increases Cocaine Intake. College on Problems of Drug Dependence.
- 93. **11/2021** *Khatri, S., Ulangkaya, H., Maher, E., Bondy, E.O.*, Stoops, W.W., **Gipson, C.D.** (poster presentation). Oxycodone withdrawal increases consumption of cocaine and alters accumbens glutamate plasticity. Society for Neuroscience (switched to virtual).
- 94. **11/2021** *Maher*, *E.*, *Bondy*, *E.O.*, *Khatri*, *S.*, Weafer, J., **Gipson**, **C.D.** (poster presentation). Contraceptive hormones differentially alter ethanol and nicotine consumption in female rats. Society for Neuroscience (switched to virtual).
- 95. **11/2021** *Bondy, E.O., Maher, E., Khatri, S.,* **Gipson, C.D.** (poster presentation). Microglia are activated following nicotine self-administration with sex-specificity. Society for Neuroscience (switched to virtual).
- 96. **12/2021** *Bondy, E.O., Maher, E., Khatri, S.,* **Gipson, C.D.** (poster presentation). Microglia are activated following nicotine self-administration with sex-specificity. American College of Neuropsychopharmacology. Virtual hybrid format.

- 97. **03/2022** *Khatri, S.N., Maher, E.E., Bondy, E.O.,* Stoops, W.W., **Gipson, C.D.** (poster). Cocaine use during oxycodone withdrawal reduces somatic signs and is associated with aberrant accumbens glutamatergic plasticity. Substance Use Research Event (SURE), University of Kentucky.
- 98. **03/2022** *Bondy, E.O., Khatri, S.N., Maher, E.E.,* **Gipson, C.D.** (poster). Chemogenetic inhibition of accumbens microglia reduces cue-induced nicotine seeking behavior. Substance Use Research Event (SURE), University of Kentucky.
- 99. **03/2022** *Maher*, *E.E.*, *Bondy*, *E.O.*, *Khatri*, *S.N.*, **Gipson**, **C.D.** (poster). Estrogens critically regulate nicotine consumption and accumbens glutamatergic plasticity. Substance Use Research Event (SURE), University of Kentucky.
- 100. **03/2022 Gipson, C.D.**, *Bondy, E.O., Maher, E., Khatri, S.* (accepted symposium). *On the basis of sex: Nicotine's differential actions in the male and female brain.* Society for Research on Nicotine and Tobacco, Baltimore, MD.
- 101. **03/2022** *Maher*, *E.*, *Strzelecki*, *A.*, Weafer, J., **Gipson**, **C.D**. Contraceptive hormones differentially impact ethanol and nicotine consumption in a rat co-use model. In the symposium: *Utilizing translational strategies to uncover neurobehavioral mechanisms of substance use disorders*. Society for Research on Nicotine and Tobacco, Baltimore, MD.
- 102. **03/2022** *Maher*, *E.*, Weafer, J., **Gipson, C.D**. Contraceptive hormones differentially impact ethanol and nicotine consumption in a rat co-use model. In the symposium: Utilizing translational strategies to uncover neurobehavioral mechanisms of substance use disorders. Substance Use Research Event (SURE), University of Kentucky.
- 103. **03/2022** *Bondy, E.O., Maher, E., Khatri, S.,* **Gipson, C.D.** (accepted oral presentation). Activation of accumbens microglia and adenosine A2a receptors contributes to nicotine self-administration and cue-induced reinstatement. Society for Research on Nicotine and Tobacco, Baltimore, MD.
- 104. **04/2022** *Bondy, E.O., Maher, E., Khatri, S.,* **Gipson, C.D.** (poster). Activation of accumbens microglia and adenosine A2a receptors contributes to nicotine self-administration and cue-induced reinstatement. Naff Symposium, University of Kentucky.
- 105. **04/2022** *Swanbeck, O., Khatri, S., Maher, E., Bondy, E.O., Pettey, A., Kendrick, P.T.*, Hong, M., **Gipson, C.D.** (poster). Characterizing the role of suvorexant and orexinergic neurons of the lateral hypothalamus in fentanyl withdrawal and seeking behavior. Showcase of Undergraduate Scholars (Chellgren award winner), University of Kentucky.
- 106. **06/2022** *Maher*, *E.*, *Strzelecki*, *A.*, Weafer, J., **Gipson, C.D.** (oral presentation). Chronic Administration of Synthetic Contraceptive Hormones Alters Nicotine Consumption in an Ethanol Co-Use Model in Ovary-Intact Female Rats. College on Problems of Drug Dependence, Minneapolis MN.
- 107. **06/2022** *Khatri, S.N., Bondy, E.O., Maher, E.E., Pettey, A., Kendrick Jr., P.T.*, Stoops, W.W., **Gipson, C.D**. Cocaine Use during Oxycodone Withdrawal Reduces Somatic Signs of Withdrawal

- and is Associated with Aberrant Accumbens Glutamatergic Plasticity. College on Problems of Drug Dependence, Minneapolis MN.
- 108. **07/2022** *Sally N. Pauss, Zachary A. Kipp*, **Gipson, C.D.,** and Hinds, Jr., T.D. (2022) Estrogen Induces Nicotine Use in Females, and OLFM1 and OLFM3 Expression. Summer Training in Environmental Health and Pharmacological Sciences (SURES) Program, University of Kentucky College of Medicine.
- 109. 08/2022 Gipson, C.D. (invited talk, included in full symposium, "Synaptic Mechanisms of Drug Addiction"). Novel non-neuronal cell signaling mechanisms of synaptic plasticity during nicotine seeking. Gordon Research Conference on the Neurobiology of Drug Addiction: Addiction Research: From Molecules to Circuits to Treatment. Newry, ME.
- 110. **10/2022** *McNealy, K.R.*, Oevermann, M.W., Knabel, M.L., **Gipson, C.D.**, Barrett S.T., and Bevins R.A. Characterizing the effects of contraceptive hormones on responding maintained by a sensory reinforcer in ovary-intact female Sprague-Dawley rats. Poster session at 2022 Midwestern Association for Behavior Analysis Conference, St. Louis, MO.
- 111. **12/2022** *Khatri, S.N.*, **Gipson, C.D**. Cocaine Use During Oxycodone Withdrawal Reduces Somatic Signs of Withdrawal and Exacerbates Oxycodone-Induced Glutamate Dyshomeostasis. American College of Neuropsychopharmacology, Phoenix, AZ.
- 112. **12/2022** *Kendrick Jr.*, *P.T.*, **Gipson, C.D**. Chronic Progesterone Treatment Reduces Nicotine Consumption and Accumbens Microglial Activation in a Sex-Specific Fashion. American College of Neuropsychopharmacology, Phoenix, AZ.
- 113. **12/2022** *Bondy, E.O.,* **Gipson, C.D.** Adenosine 2a Receptor Agonism Decreases Nicotine Seeking and Associated Accumbens Microglial Activation. American College of Neuropsychopharmacology, Phoenix, AZ.
- 114. **01/2023 Gipson, C.D.** Contributions of ovarian hormone loss and estrogen replacement to nicotine place preference during aging in estropausal female rats (accepted full symposium, "Interactions between Substance Use and Aging in Animal Models"). Winter Conference on Brain Research, Snowbird, Utah.
- 115. **06/2023** *Strzelecki*, A., Childs, E., **Gipson, C.D.,** Weafer, J. (poster). Influence of oral contraceptive hormone dose and pill phase on alcohol use in young adult women. Research Society on Alcoholism, Bellevue, WA.
- 116. **06/2023** *Kendrick, Jr., P.T., Bondy, E.O., Maher, E.E., Khatri, S.N.*, Bimonte-Nelson, H.A., **Gipson, C.D.** (oral presentation). Chronic Progesterone Treatment Reduces Nicotine Consumption and Alters Accumbens Microglial Morphometrics in a Sex-Specific Fashion. College on Problems of Drug Dependence, Denver, CO.
- 117. **06/2023** *Khatri, S.N., Bondy, E.O., Kendrick, Jr., P.T.*, Hong, M., Hinds Jr., T., Prisinzano, T., Dunn, K.E., **Gipson, C.D.** (oral presentation). Xylazine reduces intravenous fentanyl consumption

- but does not impair lever discrimination in male and female rats. College on Problems of Drug Dependence, Denver, CO.
- 118. **06/2023 Gipson, C.D.,** *Khatri, S.N., Kendrick Jr., P.T., Bondy, E.O.,* Scofield, M.D., (poster). Chronic nicotine use induces a unique neuroimmune landscape that critically impacts aberrant accumbens synaptic plasticity. College on Problems of Drug Dependence, Denver, CO.
- 119. **09/2023 Gipson, C.D.** Tranq matters: Patterns of fentanyl use and withdrawal when xylazine is used as an adulterant. Invited talk, Cure Addiction Now Symposium. Beverly Hills, CA.
- 120. **09/2023 Gipson, C.D.** Why does xylazine (Tranq) matter in the opioid epidemic? Invited talk, Cure Addiction Now Forum. Beverly Hills, CA.
- 121. **12/2023 Gipson, C.D.** Xylazine Co-Self-Administration Suppresses Fentanyl Consumption during Self-Administration and Induces a Unique Sex-Specific Withdrawal Syndrome that is Not Altered by Naloxone in Rats. (accepted mini symposium as presenter and chair (7/18/2023), "New Challenges in the Opioid Use Landscape: Translational Studies on Xylazine, Fentanyl, and Adulterants in the Drug Supply" to present at the 62nd annual meeting of the American College on Neuropsychopharmacology, Tampa FL.
- 122. **12/2023** *Kendrick, P.T.*, **Gipson, C.D**. Nicotine Use Engenders Sex-Specific Suppression of Neuroimmune Signaling in the Brain Reward Pathway That is Differentially Regulated by Steroid Hormones. American College of Neuropsychopharmacology, Tampa, FL
- 123. **12/2023** *White, A.M.*, Maher, E.E., **Gipson, C.D.** Synthetic Contraceptive Hormones Occlude the Ability of Nicotine to Reduce Ethanol Consumption in Ovary-Intact Female Rats. American College of Neuropsychopharmacology, Tampa, FL
- 124. **03/2024** *Craig, A.J., Kendrick, Jr., P.T.,* **Gipson, C.D.** (poster). Nicotine induces a pathological accumbens neuroimmune landscape that drives use in a sex-specific fashion. Society for Research on Nicotine and Tobacco, Edinburgh, Scotland.
- 125. **05/2024 Gipson, C.D.** Patters of Intravenous Fentanyl Use and Withdrawal When Xylazine is Used as an Adulterant". Accepted symposium, ASPET, Washington, DC.
- 126. **06/2024 Gipson, C.D.** Accepted Invited Symposium, "*Translationally Evaluating Causes and Consequences of Xylazine Adulteration in the Opioid Supply*". Presentation title, "Patterns of Fentanyl Use and Withdrawal when Xylazine is Used as an Adulterant: Leveraging Preclinical Addiction Neuroscience to Address a Pressing Public Health Crisis". College on Problems of Drug Dependence, Montreal, Canada.

C. SPONSORED RESEARCH PROJECTS, GRANTS, & CONTRACT ACTIVITIES

ACTIVE:

Project Title: Interactions of e-cigarette vapor exposure during adolescence with natural and synthetic hormones on subsequent addiction neurobiology in female rats

Project Number: N/A

Principal Investigator(s): Cassandra Gipson-Reichardt, PhD

Role in Project: PI

Effort: N/A

Institution/University: University of Kentucky **Duration of Project**: 07/01/2023-06/30/2024

Source of Funding: UK Cares Career Award, NIEHS

Total Award: \$50,000

Project Title: Neurobehavioral mechanisms of xylazine and fentanyl co-use and withdrawal

Project Number: R01 DA058933

Principal Investigator(s): Cassandra Gipson-Reichardt, Ph.D. (Contact), Terry Hinds, Jr. (MPIs)

Role in Project: PI

Effort: 3.0 calendar months

Institution/University: University of Kentucky **Duration of Project:** 06/15/2023-04/30/2028

Source of Funding: NIDA **Total Award:** \$2,656,540

Project Title: Neuroinflammatory and glutamatergic mechanisms of nicotine addiction and relapse

Project Number: R01 DA046526-S1

Principal Investigator(s): Cassandra Gipson-Reichardt, Ph.D.

Role in Project: PI

Effort: 0 calendar months

Institution/University: University of Kentucky **Duration of Project:** 02/01/2023-08/30/2024

Source of Funding: NIDA **Total Award:** \$75,948

Project Title: Contributions of Progestins Independently and Interactively with Contraceptive Estrogen

to Nicotine Use

Project Number: R21 DA055879-01A1

Principal Investigator(s): Cassandra Gipson-Reichardt, Ph.D.

Role in Project: PI

Effort: 3.0 calendar months

Institution/University: University of Kentucky **Duration of Project:** 09/27/2022-08/30/2024

Source of Funding: NIDA **Total Award:** \$434,847

Project Title: Neuroinflammatory and glutamatergic mechanisms of nicotine seeking

Project Number: R01 DA046526

Principal Investigator(s): Cassandra Gipson-Reichardt, Ph.D.

Role in Project: PI

^{*}Diversity supplement to support Percell Tyrone Kendrick, Jr.

^{*}Received a score of 10 (1st percentile) on resubmission

Effort: 3.9 calendar months

Institution/University: University of Kentucky **Duration of Project:** 09/30/2019-08/31/2024

Source of Funding: NIH/NIDA **Total Award:** \$1,516,838.00

Project Title: Glutamatergic mechanisms in opioid and cocaine co-use

Project Number: R21/R33 DA049130

Principal Investigator(s): Cassandra Gipson-Reichardt, Ph.D. (Contact), William Stoops, Ph.D.

(MPIs)

Role in Project: MPI

Effort: 2.0 calendar months in the R21 phase, 1.0 calendar months in the R33 phase

Institution/University: University of Kentucky **Duration of Project:** 09/01/2020-08/30/2025

Source of Funding: NIH/NIDA Total Award: \$2,278,716.00 *R33 awarded August 2022

Project Title: Evaluating the neurobiological mechanisms of suvorexant in reducing fentanyl

withdrawal and relapse **Project Number: N/A**

Principal Investigator(s): Cassandra Gipson-Reichardt, Ph.D.

Role in Project: PI

Effort: 0 calendar months

Institution/University: University of Kentucky **Duration of Project:** 07/01/2021-12/30/2022 **Source of Funding:** SUPRA Pilot Grant Award

Total Award: \$50,000

Project Title: Neurobiological Impacts of Ovarian Hormones on Nicotine Use

Project Number: N/A

Principal Investigator(s): Erin Maher, Ph.D.

Role in Project: Mentor **Effort:** 0 calendar months

Institution/University: University of Kentucky **Duration of Project:** 04/01/2022-09/30/2023

Source of Funding: SUPRA Post-Doctoral Pilot Grant Award

Total Award: \$10,000

Project Title: Center for Research on Existing & Alternative Treatment Endpoints (CREATE)

Principal Investigator(s): William Stoops, Ph.D.

Role in Project: Co-I **Effort:** 0 calendar months

Institution/University: University of Kentucky **Duration of Project:** 07/01/2022-12/30/2023

Source of Funding: SUPRA Complex Grant Pilot Award

Total Award: \$50,000

*Awarded to fund the submission of a P50 to NIDA in September 2023

PENDING:

Project Title: Advancing Troriluzole for the Treatment of Comorbid Alcohol and Tobacco

Use Disorder

Project Number: 1 R01 DA059200-01

Principal Investigator(s): William Stoops, Ph.D.

Role in Project: Co-I

Effort: 0.6 calendar months

Institution/University: University of Kentucky **Duration of Project**: 07/01/2023-06/30/2026

Source of Funding: NIDA **Total Award**: \$2,197,409.00

Project Title: Neuroimmune, Glutamate, and Cognitive Consequences of Nicotine use in a Rodent

Model of HIV

Project Number: 1 R03 DA060057-01

Principal Investigator(s): Cassandra Gipson-Reichardt, PhD

Role in Project: PI

Effort: 2.28 calendar months

Institution/University: University of Kentucky **Duration of Project**: 12/01/2023-11/30/2025

Source of Funding: NIDA **Total Award:** \$306,000

COMPLETED while at University of Kentucky:

Project Title: Glutamatergic mechanisms underlying nicotine addiction and relapse following nicotine

reduction

Project Number: R03 DA045881

Principal Investigator(s): Cassandra Gipson-Reichardt, Ph.D.

Role in Project: PI

Effort: 1.5 calendar months

Institution/University: University of Kentucky **Duration of Project:** 09/30/2018-08/31/2022

Source of Funding: NIH/NIDA

Total Award: \$95,288

Project Title: Cholinergic modulation of glutamatergic signaling in nicotine addiction and relapse

Project Number: R21 DA044479

Principal Investigator(s): Cassandra Gipson-Reichardt, Ph.D., M. Foster Olive

Role in Project: MPI

Effort: 2.5 calendar months

Institution/University: University of Kentucky

Duration of Project: 07/15/2018-06/30/2022

Source of Funding: NIH/NIDA

Total Award: \$201,749

Project Title: Translational Studies Examining the Effects of Synthetic Estrogens and Progestins on

Motivation for Alcohol and Nicotine Co-Use in Rats and Humans

Project Number: N/A

Principal Investigator(s): Jessica Weafer, Ph.D. (Contact), Cassandra Gipson-Reichardt, Ph.D. (MPIs)

Role in Project: MPI **Effort:** 0 calendar months

Institution/University: University of Kentucky **Duration of Project:** 01/01/2021-08/30/2021

Source of Funding: Ignite Research Collaboration Pilot

Total Award: \$42,000

COMPLETED while at Arizona State University:

Institute for Social Science Research Seed Grant (Gipson, PI) 05/08/2017-12/31/2017 **Arizona State University**

"Sex hormone matters: Do ovarian hormones impact treatment efficacy of *N*-Acetylcysteine for nicotine relapse?"

This goal of this grant is to examine if estrous cycle phase is correlated with nicotine relapse vulnerability, and if the efficacy of *N*-Acetylcysteine to reduce nicotine relapse in females is estrous phase-dependent.

Co-I: Heather A. Bimonte-Nelson

Arizona Alzheimer's Consortium (Gipson-Reichardt, PI; Bimonte-Nelson, Co-I) 09/01/2018-06/30/2019

"An evaluation of age-related changes in the neurobehavioral underpinnings of nicotine addiction vulnerability in females"

The goal of this grant is to determine the impact of ovarian hormone cessation in young and aged rats on acquisition of nicotine self-administration and mesolimbic circuitry underlying nicotine addiction.

R00 DA036569-03 (Gipson-Reichardt, PI)

01/15/2016-12/31/2019

NIH/NIDA

"Contributions of Glial Glutamate Transport and NMDA Receptors in Nicotine Relapse"

This goal of this 5-year transition to independence grant is to investigate nicotine-induced changes in synaptic strength, with a focus on alterations in the glial glutamate transporter and the GluN2B subunit of the glutamate NMDA receptor. This grant has the potential to reveal novel neurobiological mechanisms of nicotine addiction, and could contribute to the development of novel therapeutic options aimed at reversing nicotine-induced neurobiological alterations.

 $R00\ DA036569\text{-}03S1\ (Gipson\text{-}Reichardt,\ PI)$

06/23/2016-12/31/2019

NIH/NIDA

Diversity supplement to support Mark Namba (graduate student)

Institute for Social Science Research Seed Grant (Gipson, PI) **Arizona State University**

05/08/2019-12/31/2019

"Prefrontal cortical mechanisms of compulsive cocaine seeking"

The goal of this grant is to dissect neurophysiological mechanisms that drive compulsive cocaine seeking using a preclinical model.

R21 DA044479-S1 (Gipson-Reichardt, PI)

01/15/2019-06/30/2020

NIH/NIDA

Diversity supplement to support post-doctoral fellow Dr. Robert Oliver

R21 DA044479-S2 (Gipson-Reichardt, PI)

05/15/2019-09/01/2019

NIH/NIDA

Supplement to support Megan Brickner in the Summer Undergraduate Research Program.

R41 DA046266 (Gipson-Reichardt, PI of subcontract)

07/15/2018-06/30/2020

NeurOp., Inc.

"Preclinical assessment of the GluN2B inhibitor clinical candidate NP10679 as a medication to prevent opiate abuse relapse"

The goal of this proposal to use preclinical rodent models to assess the therapeutic potential of orally bioavailable GluN2B antagonists in the treatment of opiate addiction.

Arizona Alzheimer's Consortium (Gipson-Reichardt, PI; Bimonte-Nelson, Co-I) 07/01/2019-06/30/2020

"An evaluation of neuroinflammatory processes in nicotine relapse during young adulthood and normal aging in females"

The goal of this grant is to determine ovarian hormone-neuroinflammatory interactions in nicotine addiction in young adult and aging females