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*Updated: May 2024*

## **1. Lab and Other Work Experience**

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### **Lab Experience**

- 08/2022-present     **Postdoctoral Fellow**  
NINDS F99/K00 (D-SPAN) Award  
Dr. William Carlezon Laboratory  
McLean Hospital of Harvard Medical School
- 01/2017-08/2022     **Ph.D. Candidate**  
Dr. Christine Ann Denny Laboratory  
Columbia University  
Neurobiology and Behavior Program
- 01/2018-05/2018     **Visiting Graduate Student**  
Chateaubriand Fellowship  
Dr. Denis David Laboratory  
University Paris-Sud XI
- 09/2016-01/2017     **Rotation Student**  
Dr. René Hen Laboratory  
Columbia University  
Neurobiology and Behavior Program
- 01/2014-09/2016     **Advanced Undergraduate Researcher**  
Dr. Christine Ann Denny Laboratory  
Columbia University Irving Medical Center (CUIMC)  
Research Foundation for Mental Hygiene, Inc. (RFMH)  
New York State Psychiatric Institute (NYSPI)
- 01/2013-01/2014     **Undergraduate Researcher**  
Dr. Stuart Firestein Laboratory  
Columbia University  
Department of Biological Sciences

### **Other Work Experience**

- 09/2013-05/2016     **Resident Assistant**  
Barnard College Office of Residential Life and Housing
- 09/2014-05/2016     **Writing Fellow**  
Barnard College Writing Fellows Program
- 09/2012-05/2014     **News Production Associate Editor**  
Columbia Daily Spectator

## **2. Education**

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- 09/2016-05/2022     **Ph.D. in Neurobiology and Behavior, Columbia University, New York, NY**  
Mentor: Christine Ann Denny, Ph.D.

Areas of Specialization: Molecular biology, mouse breeding and genetics, confocal microscopy, *in vivo* calcium imaging, controlled cortical impact, behavioral neuroscience, immunohistochemistry, MATLAB data analysis, Python programming

09/2012-05/2016 **B.A. in Neuroscience, Barnard College, New York, NY**  
Dean's List  
Major: Neurobiology and Behavior, Minor: English

09/2008-05/2012 **Egg Harbor Township High School, Egg Harbor Township, NJ**

### 3. Honors and Awards

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- 2024 **Eric Dorris Memorial Fellowship**  
*An internal McLean one-year fellowship of \$40k starting July 2024*
- 2024 American Society of Hispanic Psychiatry (ASHP) Critical Research Issues in LatinX Mental Health (NYC) Don Quixote Travel Award & **Best Talk Award**  
*1 of 15 awards given in 2024 nationally.*
- 2023 Career Development Institute for Psychiatry at the University of Pittsburgh  
*1 of 10 awards given in 2023 nationally.*
- 2021 American College of Neuropsychopharmacology (ACNP) Travel Award (San Juan, Puerto Rico)
- 2021 **NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN) (F99/K00) Award Recipient**
- 2021 University of Utah Rising Stars in Neuroscience Symposium Award (Virtual Symposium)  
*1 of 8 awards given in 2021 nationally.*
- 2020 Society of Biological Psychiatry (SOBP) Travel Award (Virtual Conference)
- 2020 **Ruth L. Kirschstein National Research Service Award (NRSA) Predoctoral F31 Fellowship**
- 2019 American Society of Clinical Psychopharmacology (ASCP) New Investigator Award (Scottsdale, AZ)  
*1 of 20 awards given in 2019 nationally; only graduate student to receive the award to date.*
- 2018 Gordon Research Conference (GRC) Carl Storm Underrepresented Minority Travel Fellowship (Ventura, CA)
- 2017 **Chateaubriand Fellowship**
- 2017 European Behavioral Pharmacology Society (EBPS) Biennial Meeting Travel Award (Heraklion, Crete, Greece)  
*1 of 8 selected internationally.*
- 2017 Poster Award: 3<sup>rd</sup> Place at the 30<sup>th</sup> International Stress and Resilience Symposium
- 2017 **National Science Foundation Graduate Research Fellowship (NSF GRFP) Recipient**
- 2017 **Honorable Mention, Ford Foundation Predoctoral Fellowship**
- 2017 Alumnae Association of Barnard College Fellowship  
*Awarded to one Barnard alumna who shows exceptional promise in their field.*
- 2017 Wisconsin Symposium on Emotion Travel Award  
*1 of 10 selected internationally.*
- 2016 Neuroscience Scholars Program Fellow.  
*1 of 15 awards given in 2016 nationally.*
- 2016 Grace Potter Rice Fellowship  
*Awarded to Barnard seniors who show promise of distinction in the natural sciences.*
- 2016 **Honorable Mention, National Science Foundation Graduate Research Fellowship Program (NSF GRFP)**
- 2016 Summer Program for Under-Represented Students (SPURS) Fellowship at Columbia University
- 2016 Writing Center Fellowship Award Recipient
- 2015 Summer Undergraduate Research Fellowship (SURF) at Columbia University
- 2014 National Science Foundation (NSF) Barnard Noyce Teacher Scholars Program Summer Research Grant
- 2014 Student Government Association Leadership Award

#### 4. Professional Organizations and Societies

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##### **Memberships and Positions**

1. Member, Society for Neuroscience (SfN)
2. Member, Society of Biological Psychiatry (SOBP)

#### 5. Fellowship and Grant Support

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##### **Present Support**

*Elucidating interactions among early life adversity, sleep architecture, and immune function.* (McGowan, PI)  
Project Number K00 HD112293-03  
Source NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN) Award (F99/K00)  
Role PI (post-doctoral fellow)  
Major Goals The goal during the post-doctoral phase is to investigate developmental changes that emerge after early life adversity to reveal translational biomarkers for susceptibility or resilience to stress.  
Dates of Project 09/01/22-08/31/26

##### **Past Support**

*Dissecting the contribution of the ventral hippocampus to (R,S)-ketamine's fear buffering effects.* (McGowan, PI)  
Project Number F99 NS124182-01  
Source NIH Blueprint Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience (D-SPAN) Award (F99/K00)  
Role PI (pre-doctoral to post-doctoral fellow)  
Major Goals The main goal of the pre-doctoral phase of this grant is to dissect the contribution of the ventral hippocampus to (R,S)-ketamine's fear buffering effects using *in vivo* techniques.  
Dates of Project 09/01/21-08/31/22

*Elucidating the mechanisms underlying ketamine-induced protection against fear overgeneralization.*

(McGowan, PI)  
Project Number F31 MH122187-01  
Source NIMH Ruth L. Kirschstein National Research Service Award (NRSA) Predoctoral F31 Fellowship  
Role PI (pre-doctoral fellow)  
Major Goals The overall goal of this grant is to determine the neurochemical and neural dynamic changes that underlie prophylactic ketamine efficacy. Aim 1) Test the hypothesis that neurochemical changes in vCA3 mediate (R,S)-ketamine's effect on fear generalization by using *in vivo* microdialysis. Aim 2) By utilizing *in vivo* Ca<sup>2+</sup> imaging in awake-behaving mice, we will test the hypothesis that (R,S)-ketamine alters Ca<sup>2+</sup> activity in vCA3, resulting in decreased fear generalization.  
Dates of Project 09/01/20 – 08/31/21

*Elucidating the cellular and molecular mechanisms underlying resilience.* (McGowan, PI)

Project Number DGE 16-44869  
Source National Science Foundation Graduate Research Fellowship (NSF GRFP)  
Role PI (pre-doctoral fellow)  
Major Goals The main goal of this grant was to identify the molecular target of (R,S)-ketamine as a rapid-acting antidepressant. Aim 1) Genetically dissect the role of NR2B as a resilience enhancer. Aim 2) Optogenetically modulate vHPC neurons to determine if they are required for stress resilience.

Dates of Project 09/01/17-08/31/20

*Neurobiology & Behavior Research Training Grant* (Grueber, PI)

Project Number T32 HD007430-19

Source NIH

Role Pre-doctoral fellow

Major Goals The primary goal was to train graduate students in the broad fundamentals of biomedical sciences.

Dates of Project 09/01/16-08/31/17

## 6. Educational Contributions

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### ***Direct Teaching/Preception/Supervising***

2023-present: **Planning & Curriculum Committee Lead, McLean Mental Health Research Summer Program (MMHRSP)**

*Coordinate full-time mental health research experiences at McLean and plan the learning curriculum for 8 undergraduate BIPOC students in the wider Massachusetts area.*

2023-present: Planning Committee, Center for Depression, Anxiety, and Stress Research Speaker Series

2019-2022: Mentor, Científico Latino

2020-2021: Teaching Assistant, Components of an NIH NRSA, Columbia University

2019-2021: Graduate Science Writing Fellow, Barnard College Writing Center

2018-2021: Teaching Assistant, Psychology of Learning, Barnard College

2017-2021: Program Head, Summer Undergraduate Research Fellowship (SURF) Program, Columbia University

*Taught a weekly class on science communication during the summer.*

*Approximately 10-15 students per year.*

2017-2019: Teaching Assistant, Crafting a Research Proposal, Columbia University

2017: Teacher, Citizen Schools 10-week after-school Neuroscience 101 Program, Isaac Newton Middle School, East Harlem

2016: Teaching Assistant, Cellular and Molecular Neuroscience Laboratory, Barnard College

2016: Student Ambassador, Barnard Alumnae Reunion Weekend, Barnard College

2013-2014: Coordinator, Community Impact Leadership Program, Columbia University

### ***Advising and Mentorship***

#### *Research Technicians*

2023-present: Jed Katzenstein

Behavioral Genetics Laboratory

2022-2023: Emma Fritch

Behavioral Genetics Laboratory

#### *PhD Rotation Students*

2023: Zoe Beatty

Harvard University Program in Neuroscience

2021-2022: Amanda Anqueira-González

Columbia University Neurobiology and Behavior Program

#### *Masters Students*

2021-2022: Ariana DeFrancesco

Queens College Behavioral Neuroscience Program

2018: Jessica Kwon

Columbia University Masters in Psychiatry

### *Undergraduate Students*

- 2021-2023: Juliana Tapia  
Barnard College Neurobiology & Behavior, Summer Science Research Institute
- 2018-2022: Claire Shubeck  
Work Exemption Program
- 2018-2021: Liliana Ladner  
Barnard College Summer Science Research Institute
- 2018-2019: Shariq Jumani  
Columbia University Work Exemption Program
- 2017-2018: Omid Cohensedgh  
Columbia University Summer Program for Under-Represented Students

### *High School Students*

- 2023: Bianca Summers  
Oak Park and River Forest High School Investigational Research Design and Innovation Course
- 2019-2021: Brian Whitfield, Monroe Woodbury High School  
ROTC 3-year Science Research Fellowship

### **Community Education**

- 2023-2024: Social Media Lead, SPARED Conte Center at McLean (Twitter account)
- 2023: Panel for Barnard College's Neuroscience and Behavior Students. (Virtual).  
*Spoke to Barnard College students about life as an academic, advocacy, and advice for finding their passion.*
- 2020-2022: Co-Editor-in-Chief and Writer for Scientist on the Subway (SciSub) Blog  
*Write and edit features on students from underrepresented backgrounds to tell their stories of growing up and getting into science. Written for a lay audience.*
- 2019: Spoke to High School Students through the Eureka Program. (New York, NY).  
*Spoke to students about my personal journey through science, challenges, and advice.*
- 2019: Panel at the New York Academy of Sciences for High School Students. (New York, NY).  
*Spoke to high school students about careers in STEM for women and non-gender binary people. Q&A followed.*
- 2018: Panel for Barnard College's 5<sup>th</sup> Annual Summer Science Research Institute. (New York, NY).  
*Spoke to Barnard College students about how to succeed in academia as a minority and/or a woman. Q&A followed.*
- 2013-2014: Coordinator and Treasurer / Volunteer, Columbia Youth Adventurers (New York, NY).  
*Spanish translator and leader of weekly educational trips (many science-related) in NYC for 35 young children from the Harlem area and 20 volunteers.*

## **7. Patents & Inventions**

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1. Identification of biomarkers for efficacy of prophylactic treatments against stress-induced psychiatric disorders, U.S. Provisional Patent Application Serial No.: 62/583,734. McGowan, Denny.

## **8. Publications (n = 15 publications)**

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PubMed Bibliography: <https://www.ncbi.nlm.nih.gov/myncbi/josephine.mcgowan.1/bibliography/public/>

Google Scholar Profile: <https://scholar.google.com/citations?user=Re0Ksp0AAAAJ&hl=en>

### **Published journal articles:**

1. Bulthuis N\*, **McGowan JC\***, Ladner LR, LaGamma CT, Lim SC, Shubeck CX, Sydnor E, Pavlova I, Seo D, Drew MR, and Denny CA. (*R,S*)-ketamine's rapid-acting antidepressant effects are modulated by NR2B-containing NMDA receptors on adult-born hippocampal neurons. *BioRxiv*. (\*co-first author)
2. **McGowan JC#**, Ladner LR, Shubeck CX, Tapia J, LaGamma CT, Anqueira-González A, DeFrancesco A, Chen BK, Hunsberger H, Sydnor EJ, Logan RW, Yu TS, Kernie SG, and Denny CA#. Traumatic brain injury-induced fear generalization in mice involves hippocampal memory trace dysfunction and is prevented by (*R,S*)-ketamine. *Biological Psychiatry*. Online ahead of print. PMID: 37423591. (#co-corresponding author)
3. Doan J, Defaix C, Mendez-David I, Gardier AM, Colle R, Corruble E, **McGowan JC**, David DJ, Guilloux JP, and Tritschler L. (2023). Intrahippocampal injection of a selective blocker of NMDA receptors containing the GluN2B subunit, Ro25-6981, increases glutamate neurotransmission and induces antidepressant-like effects. *Fundam Clin Pharmacol* Online ahead of print. PMID: 3716789.
4. Mastrodonato A, Pavlova I, Kee N, Pham VA, **McGowan JC**, Mann JJ, and Denny CA. (2022). Prophylactic (*R,S*)-ketamine is effective against stress-induced behaviors in adolescent but not aged mice. *The International Journal of Neuropsychopharmacology*. 25: 512-523. PMID: 35229871.
5. Mastrodonato A, Pavlova I, Kee N, **McGowan JC**, Mann JJ, and Denny CA. (2022). Acute (*R,S*)-ketamine administration induces sex-specific behavioral effects in adolescent but not aged mice. *Frontiers of Neuroscience* 16: 852010. PMID: 35527817.
6. Nguyen TML, **McGowan JC**, and Gardier AM. (2021). CYP 450 enzymes influence (*R,S*)-ketamine brain delivery and its antidepressant activity. *Neuropharmacology*. 206: 108936. PMID: 34965407.
7. Chen BK, Luna VM, Shannon ME, Hunsberger HC, Mastrodonato A, Stackmann M, **McGowan JC**, Rubinstenn G, and Denny CA. (2021) Fluoroethylnormemantine, a novel NMDA receptor antagonist, for the prevention and treatment of stress-induced maladaptive behavior. *Biological Psychiatry*. 90: 458-472. PMID: 34274107.
8. Anacker C, Sydnor E, Chen BK, LaGamma CT, **McGowan JC**, Mastrodonato A, Hunsberger HC, Shores R, Dixon R, McEwen B, Byne W, Meyer-Bahlburg H, Bockting W, Ehrhardt AA, and Denny CA. (2020) Behavioral and neurobiological effects of GnRH agonist treatment in mice – potential implications for puberty blockade in transgender individuals. *Neuropsychopharmacology*. 46: 882-890. PMID: 32919399.
9. Mastrodonato A, Cohensedgh O, LaGamma CT, **McGowan JC**, Hunsberger HC, and Denny CA. Prophylactic ketamine to protect against inflammation-induced depressive-like behavior. (2020) *Invited submission for Behavioural Brain Research, Ketamine Special Issue*, 378: 112238. PMID: 31563463.
10. Tadayon MA, Chaitanya S, Martyniuk KM, **McGowan JC**, Roberts SP, Denny CA, and Lipson M. 3D microphotonic probe for high resolution deep tissue imaging. (2019) *Optics Express*, 27: 22352-22362. PMID: 31510530.
11. **McGowan JC**, Hill C, Mastrodonato A, LaGamma CT, Kitayev A, Brachman RA, Narain N, Kiebish MA, and Denny CA. Prophylactic ketamine alters nucleotide and neurotransmitter metabolism in brain and plasma following stress. (2018) *Neuropsychopharmacology*, 43: 1813-1821. PMID: 29599484.
12. LaGamma CT, Tang WW, Morgan A, **McGowan JC**, Brachman RA, and Denny CA. Antidepressant but not prophylactic ketamine administration alters calretinin and calbindin expression in the ventral hippocampus. (2018) *Frontiers of Molecular Neuroscience*, 11: 404. PMID: 30459554.
13. Faye C\*, **McGowan JC\***, Denny CA#, and David DJ#. Neurobiological mechanisms of stress resilience and implications for the aged population. (2018) *Current Neuropharmacology*, 16: 234-270. PMID: 28820053. (\*co-first author; #co-last author).
14. **McGowan JC**, LaGamma CT, Lim SC, Tsitsiklis M, Neria Y, Brachman RA, and Denny CA. Prophylactic ketamine attenuates learned fear. (2017) *Neuropsychopharmacology*, 42: 1577-1589. PMID: 28128336.
15. Brachman RA, **McGowan JC**, Perusini JN, Lim SC, Pham TH, Faye C, Gardier AM, Mendez-David I, David DJ, Hen R, and Denny CA. (2016) Ketamine as a prophylactic against stress-induced depressive-like behavior. *Biological Psychiatry*, 79: 776-786. PMID: 26037911.  
*Reviewed in:* Price RB. (2016) From Mice to Men: Can Ketamine Enhance Resilience to Stress? *Biological Psychiatry*. 79: e57-e59. PMID: 27079496.

### **Publications in review:**

16. Nguyen TML, Guilloux JP, Defaix C, Mendez-David I, Etting I, Alvarez JC, **McGowan JC**, Highland JN, Zanos P, Lovett J, Moaddel R, Corruble E, David DJ, Gould TD, Denny CA, and Gardier AM. Ketamine metabolism via hepatic CYP450 isoforms contributes to its sustained antidepressant actions. *In review*.

**Publications in preparation:**

17. **McGowan JC**, Berry JE, Defaix C, Yusufov S, Pham TH, Gardier A, David D, Hen R, and Denny CA. Ventral hippocampal neural ensemble activity modulates (R,S)-ketamine's prophylactic fear buffering effects. *In preparation*.
18. Anderson AK, Lazcano-Etchbarne C, Gerson J, Roig AM, **McGowan JC**, ... and Folorunso OO. Addressing representation in tissue and brain donations for neuroscience research. *In preparation*.
19. Perusini JN, Hunsberger H, Lauria M, Lim SC, Cajigas SA, Tomm NK, **McGowan JC**, and Denny CA. Activation of dentate gyrus memory traces rescues age-related cognitive decline. *In preparation*.

**Poster Presentations (Select First Author at International Conferences Only):**

1. **McGowan JC**, Folorunso OO, Katzenstein JL, Fritsch EL, Baram TC, and Carlezon WA. (December 2023). Early life adversity induces behavioral and peripheral biomarker alterations during early development in mice. American College of Neuropsychopharmacology (ACNP), 62<sup>nd</sup> Annual Meeting, Tampa, FL.
2. **McGowan JC**, Ladner LR, Shubeck CX, Anqueira-González A, LaGamma CT, Tapia J, DeFrancesco A, Yu TS, Kernie SG, and Denny CA. (December 2022). Traumatic brain injury increases contextual fear generalization, which is paralleled by hippocampal memory trace dysfunction and can be decreased by (R,S)-ketamine administration. American College of Neuropsychopharmacology (ACNP), 61<sup>st</sup> Annual Meeting, Phoenix, AZ.
3. **McGowan JC**, Berry JE, Hen R, and Denny CA. (December 2021). Ventral hippocampal neural ensemble activity modulates (R,S)-ketamine's prophylactic fear buffering effects. American College of Neuropsychopharmacology (ACNP), 60<sup>th</sup> Annual Meeting, San Juan, Puerto Rico.
4. **McGowan JC** and Denny CA. (April 2021). Ventral hippocampal neural ensemble activity modulates (R,S)-ketamine's prophylactic fear buffering effects. Society of Biological Psychiatry (SOBP), 76<sup>th</sup> Annual Meeting, Virtual Conference.
5. **McGowan JC** and Denny CA. (May 2019). Ketamine's prophylactic effects on attenuating learned fear are partially mediated by long-term changes in ventral hippocampal excitatory neural activity patterns. American College of Clinical Psychopharmacology (ASCP), 5<sup>th</sup> Annual Meeting, Scottsdale, AZ.
6. **McGowan JC**, Hill C, Mastrodonato A, LaGamma CT, Brachman RA, Narain N, Kiebish MA, and Denny CA. (December 2017). Prophylactic ketamine alters nucleotide and neurotransmitter metabolism in brain and plasma. American College of Neuropsychopharmacology (ACNP), 56<sup>th</sup> Annual Meeting, Palm Springs, CA.
7. **McGowan JC**, Hill C, Mastrodonato A, LaGamma CT, Brachman RA, Narain N, Kiebish MA, and Denny CA. (November 2017). Prophylactic ketamine alters nucleotide and neurotransmitter metabolism in brain and plasma. Molecular and Cellular Cognition Society (MCCS), 16<sup>th</sup> Annual Meeting, Washington, D.C.
8. **McGowan JC**, LaGamma CT, Lim SC, Seo D, Drew MR, Brachman RA, and Denny CA. (August 2017). Hippocampal GluN2B-containing NMDA receptors are critical for the antidepressant actions of ketamine. European Behavioral Pharmacology Society (EBPS), 17<sup>th</sup> Biennial Meeting, Heraklion, Crete, Greece.
9. **McGowan JC**, LaGamma CT, Lim SC, Seo D, Drew MR, Brachman RA, and Denny CA. (May 2017). Hippocampal GluN2B-containing NMDA receptors are critical for the antidepressant actions of ketamine. Stress and Resilience Conference, 30<sup>th</sup> Annual Meeting, New York, NY.
10. **McGowan JC**, LaGamma CT, Lim SC, Seo D, Drew MR, Brachman RA, and Denny CA. (April 2017). Hippocampal GluN2B-containing NMDA receptors are critical for the antidepressant actions of ketamine. Wisconsin Symposium on Emotion, 23<sup>rd</sup> Annual Meeting, Madison, WI.
11. **McGowan JC**, LaGamma CT, Lim SC, Tsitsiklis M, Neria Y, Brachman RA, and Denny CA. (December 2016). Prophylactic ketamine reduces fear expression if administered prior to a stressor but does not facilitate extinction. American College of Neuropsychopharmacology (ACNP), 55<sup>th</sup> Annual Meeting, Hollywood, FL.
12. **McGowan JC**, LaGamma CT, Lim SC, Tsitsiklis M, Neria Y, Brachman RA, and Denny CA. (November 2016). Prophylactic ketamine reduces fear expression but does not facilitate extinction. Society for Neuroscience (SfN), 46<sup>th</sup> Annual Meeting, San Diego, CA.

13. **McGowan JC**, LaGamma CT, Lim SC, Tsitsiklis M, Neria Y, Brachman RA, and Denny CA. (November 2016). Prophylactic ketamine reduces fear expression but does not facilitate extinction. Molecular and Cellular Cognition Society (MCCS), 15<sup>th</sup> Annual Meeting, San Diego, CA.
14. **McGowan JC**, LaGamma CT Lim SC, Seo D, Drew MR, Brachman RA, and Denny CA. (May 2016). Hippocampal GluN2B-containing NMDA receptors are critical for the antidepressant actions of ketamine. Society of Biological Psychiatry (SOBP), 71<sup>st</sup> Annual Meeting, Atlanta, GA.
15. **McGowan JC**, LaGamma CT, Lim SC, Seo D, Drew MR, Brachman RA, and Denny CA. (October 2015). Ketamine's rapid-acting antidepressant effects are modulated by NR2B-containing NMDA receptors on 6-week-old adult born hippocampal neurons. Molecular and Cellular Cognition Society (MCCS), 14<sup>th</sup> Annual Meeting, Chicago, IL.

#### **9. Invited and/or Peer-Selected Presentations at Regional, National, or International Levels**

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1. Early life adversity induces behavioral and peripheral biomarker alterations during early development in mice. May 2024. American Society of Hispanic Psychiatry (ASHP) – **Selected for best talk.**
2. Early life adversity induces behavioral and peripheral biomarker alterations during early development in mice. November 2023. Boston College, seminar hosted by Dr. Caroline Smith's Lab.
3. The promise and perils of ketamine: revolutionary drugs for stress-induced psychiatric diseases. April 2023. Neuroscience of Addiction Undergraduate Course (Guest Lecture), Harvard University, Cambridge, MA.
4. Ventral hippocampal neural ensembles modulate (*R,S*)-ketamine's prophylactic fear buffering effects. April 2021. Utah Rising Stars in Neuroscience Symposium, Virtual Conference. *One of 8 selected speakers.*
5. Why a Women's College? – The Impact of Promoting Women's Leadership. March 2018. Political Science course: "Law and Gender," Paris Institute of Political Studies (Sciences Po), Reims, France.
6. Ketamine as a prophylactic against stress-induced depressive-like behavior. February 2018. Pharmacology Master's Students Class: "Drugs and other health products," University Paris-Sud Faculty of Pharmacy, Châtenay-Malabry, France.
7. Hippocampal GluN2B-containing NMDA receptors are critical for the antidepressant actions of ketamine. August 2017. European Behavioral Pharmacology Society, 17<sup>th</sup> Meeting, Heraklion, Crete, Greece.