

1. Date of Preparation of CV

Created: September 25, 2020
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2. Personal Data:

Name

Holly Christian Hunsberger, Ph.D.

Contact Information

Assistant Professor
Center for Neurodegenerative Diseases and Therapeutics
Department of Foundational Sciences and Humanities
Rosalind Franklin University of Medicine and Science
The Chicago Medical School

3333 Green Bay Road
North Chicago, IL 60064
Office: (224) 570-7330
Cell: (609) 501-6819
E-mail: holly.hunsberger@rosalindfranklin.edu
Website: www.hollyhunsberger.com
Faculty Website: <https://www.rosalindfranklin.edu/academics/faculty/holly-c-hunsberger/>

Birthplace

Bridgeton, NJ, USA

Citizenship

United States of America

3. Academic Appointments, Hospital Appointments, and Other Work Experience

Academic Appointments

11/2021	Assistant Professor Department of Foundational Sciences & Humanities Center for Neurodegenerative Diseases and Therapeutics The Chicago Medical School Rosalind Franklin University of Medicine and Science
11/2018-11/2021	Adjunct Associate Research Scientist Department of Psychiatry Columbia University
11/2018-11/2021	Research Scientist III Division of Systems Neuroscience Research Foundation for Mental Hygiene, Inc. (RFMH) New York State Psychiatric Institute (NYSPI)
09/2018-11/2021	Columbia Technology Ventures Fellow CTV Patent Office
11/2016-11/2018	Postdoctoral Fellow Department of Psychiatry

Columbia University Irving Medical Center (CUIMC)

11/2016-11/2016 **Research Scientist I**
Division of Integrative Neuroscience
Research Foundation for Mental Hygiene, Inc. (RFMH)

Other Work Experience

01/2022 **Co-Editor**
Frontiers in Neuroscience special topics: *Sex and gender differences in neurodegeneration*

09/2016-09/2017 **Associate Editor**
Translational Issues Psychological Science

09/2012-09/2016 **Psychology 101 Teaching Assistant**
West Virginia University

09/2011-05/2012 **Undergraduate Researcher**
Hawley Montgomery-Down's Laboratory
Department of Psychology
West Virginia University

Organic Chemistry Teaching Assistant
West Virginia University

4. Education

09/2014-05/2016 **Ph.D. in Behavioral Neuroscience, West Virginia University, Morgantown, WV**
Dissertation Title: Effects of anti-viral acute phase response on hippocampal glutamate regulation
Mentor: Miranda Reed, Ph.D.
Areas of Specialization: Animal learning, behavioral neuroscience, western blot, microelectrode arrays, *in vivo* rodent surgery, neurochemical networks

09/2012-05/2014 **M.S. in Psychology, West Virginia University, Morgantown, WV**
Dissertation Title: Glutamate dysregulation in a TauP301L mouse model of Alzheimer's disease
Mentor: Miranda Reed, Ph.D.
Areas of Specialization Animal learning, behavioral neuroscience, western blot, microelectrode arrays, *in vivo* rodent surgery, neurochemical networks, drug therapy

09/2008-05/2012 **B.S. in Chemistry, West Virginia University, Morgantown, WV**
Honors Program
Major: Chemistry, Minor: Political Science

09/2004-06/2008 **Cumberland Regional High School, Seabrook, NJ**

5. Training

11/2016-11/2018 **Post-doctoral fellow, Columbia University, New York, NY**
Department of Psychiatry
Discipline: Aging and Alzheimer's Disease

6. Explanation of Any Gaps in Work/Training/Education

I have no gaps in my education or career.

7. Honors and Awards

- 2022 R00AG059953 “The sex-specific impact of anxiety on Alzheimer’s disease progression”
- 2021 Winter Conference on Brain Research (WCBR) Travel Award, Snowmass, CO
American College of Neuropsychopharmacology (ACNP) Travel Award, Puerto Rico
Neuropsychiatric Syndromes PIA: New Investigator Award, Alzheimer’s Association
Alzheimer’s Association International Conference (AAIC), Travel Award, Denver, CO.
- 2020 American Society of Clinical Psychopharmacology New Investigator Award Program, Miami Beach, FL
Society of Biological Psychology (SOBP) Travel Award, San Diego, CA
Plexon Postdoctoral Travel Award, IBNS, Glasgow, Scotland, UK
Butler-Williams Scholar (NIA)
- 2019 K99AG05995 “The sex-specific impact of anxiety on Alzheimer’s disease progression”
Trainee Professional Development Award, SfN, Chicago, IL
Leadership Development Program, SfN
NIA Research for Collaborative Center Network Workshop Travel Award, Los Angeles, CA
Reserve and Resilience research definitions Workshop Travel Award, Bethesda, MD
- 2018 Postdoctoral Research Symposium First Place Presenter, Columbia University
BrightFocus Foundation Travel Award (International Learning & Memory Conference), Huntington Beach, CA
- 2017 Children’s Hospital of Philadelphia Translational Neuroscience Workshop Award Recipient
ADDF Young Investigator Scholarship (Jersey City Conference)
- 2016 ADDF Young Investigator Scholarship (Miami Conference)
Eberly College of Arts and Sciences Travel Award, West Virginia University
Academic Affairs Travel Award, West Virginia University
Doctoral Student Travel Program, West Virginia University
- 2015 ADDF Young Investigator Scholarship (San Diego Conference)
STEM Mountains of Excellence Scholarship, West Virginia University
Behavioral and Biomedical Training Scholarship, West Virginia University
Academic Affairs Funding, West Virginia University
Eberly College of Arts and Sciences Dissertation Award, West Virginia University
- 2014 Behavioral and Biomedical Training Scholarship, West Virginia University
ADDF Young Investigator Scholarship (Jersey City Conference)
- 2013 Department of Psychology Student Research Fund, West Virginia University
Eberly College of Arts and Sciences Travel Award, West Virginia University
Academic Affairs Travel Award, West Virginia University

8. Academic Service

- 2022 Careers in Academia Panelist: Columbia University, NY
- 2021 Study Section: Florida Department of Health Ed and Ethel Moore Alzheimer’s Disease Research Program
IBNS Peer Mentor Program
Project Encephalon Brain Awareness Week: Lecture on Learning and Memory

- 2018 Biobus Mentor, Variety Boys and Girls Club of Queens, NY
Columbia Neuroscience Outreach: High School Lab visit and Lecture
- 2017-2018 Columbia Postdoctoral Poster Session Judge, Columbia University
- 2016-2017 “Scientista” Symposium Poster Judge, Microsoft Technology Center, NY
“This is Research” Symposium Poster Judge, Auburn University
- 2012-2014 Psychology 101 Undergraduate Capstone Poster Session Judge, West Virginia University
Student Ambassador for Visiting Professors, West Virginia University
Behavioral Neuroscience Training Committee, West Virginia University Student Representative
Graduate Interview Weekend Coordinator, West Virginia University

9. Professional Organizations and Societies

Memberships and Positions

1. Member, Society for Neuroscience (SfN)
2. Member, International Behavioral Neuroscience Society (IBNS)
3. New Investigator Awardee, American Society of Clinical Psychopharmacology (ASCP)
4. Member, Society of Biological Psychiatry (SOBP)
5. New Investigator Award, ISTARRT Neuropsychiatric Syndromes PIA
6. Member, ISTARRT Sex and Gender Differences PIA
7. Columbia University Postdoctoral Society (Vice President, 2017)
8. Columbia University Neuroscience Outreach (Past member 2016-2021)

Journal Reviewer (Ad hoc Reviewer)

American Journal of Respiratory and Critical Care Medicine
Behavioural Brain Research
Biochemistry and Behavior
Hippocampus
Journal of Affective Disorders
Journal of Negative Results in Biomedicine
JOVE
Learning and Memory
Nature Communications
Neural Regeneration Research
Neurobiology of Aging
Neurobiology of Disease
Neuroscience Letters
Neurotoxicology
Pharmacology
PLOS One
Sleep Medicine
Toxicology letter

10. Fellowship and Grant Support

Present Support

The sex-specific impact of anxiety on Alzheimer's disease progression (Hunsberger, PI)

Project Number	K99AG059953 / R00AG059953
Source	NIA
Role	PI
Dates of Project	04/01/19-03/31/24
Direct Costs	\$999,500

Identification and Manipulation of neural ensembles mediating sundowning in an Alzheimer's disease mouse model (Denny, PI)

Project Number	5R21AG064774-02
Source	NIA
Role	Postdoctoral Scientist
Dates of Project	09/01/19-05/31/21
Direct Costs	\$125,000

Cognitive training to enhance cognitive reserve in aging mice (Hunsberger, PI)

Project Number	R24AG061421
Source	Reserve and Resilience (NIA)
Role	PI
Dates of Project	09/01/20-03/31/22
Direct Costs	\$20,000

Past Support

Translational Neuroscience Training Grant (Hen, PI)

Project Number	2T32MH015174-40
Source	NIMH
Role	Post-doctoral fellow
Major Goals	The primary goal of this proposal is to train postdoctoral fellows for careers as independent researchers at the interface between neuroscience and psychiatry as well as neurology.
Dates of Project	11/01/16-10/31/18

11. Educational Contributions

Direct Teaching/Preception/Supervising

2022	Research Mentor for Lake Forest College Summer Research Scholars Program, Rosalind Franklin University
2021	Research Mentor for Summer Undergraduate Research Fellowship (SURF), Columbia University
2019	Research Mentor for an Undergraduate Honors Thesis Project, Columbia University
2018	Research Mentor for the Summer Undergraduate Research Internship (SURI), Columbia University Research Mentor the Amgen Research Internship, Columbia University
2015-2017	Research Mentor, Biology 4980, Auburn University
2012-2016	Psychology 101 Teaching Assistant, West Virginia University
2012-2015	Project Supervisor for the Summer Undergraduate Research Internship (SURI), West Virginia

University
Project Supervisor for the Summer Undergraduate Research Experience (SURE), West Virginia University
Organic Chemistry Teaching Assistant, Chemistry Department, West Virginia University

Advising and Mentorship

Graduate Students

2022-present Kameron Kaplan
Rotating Graduate Student, Rosalind Franklin University

Undergraduate Students

2021 Robert Chen
Summer Volunteer, Columbia University

2019-2022 Alicia Whye
Research Assistant, Columbia University
Summer Undergraduate Research Fellowship (SURF), Columbia University

2017-2019 Keerthana Jayaseelan
Columbia University Honors Thesis Project

2018 Miranda Scarlata
Summer Undergraduate Research Fellowship (SURF), Columbia University

2017-2018: Yasmine Raya Ayman
Research Assistant, Columbia University

2016 Ryan Heslin, Brandon Honeywell
Research Assistant, Auburn University

2012-2015 Eric Libell, James Hickman
Research Assistant, West Virginia University

2014 Rebecca Speer, Lindsey Mosmiller
Summer Undergraduate Research Experience (SURE), West Virginia University

Sylvia Terlecki
Capstone, West Virginia University

2013 Kirsten Schoonover
Summer Undergraduate Research Internship, West Virginia University

High School Students

2018: Elsie Wang
Summer Internship Program Princeton Day School

2017-2018: Nicole Moiseyev
Summer Volunteer, Bergen County School

12. Patents & Inventions

1. *Compositions and methods for the treatment of Alzheimer's disease and other neurodegenerative diseases*
Patent Application No. 63/236,418
Filed: August 24, 2021

13. Publications

Peer-Reviewed Research Publications in Print or Other Media

1. **Hunsberger HC**, Sharay SE, Rudy CC, Weitzner DS, Pfitzer JC, McDonald KL, Hong H, Bhattacharya S, Suppiramaniam V, Reed MN. (2021) Differential effects of human P301L tau expression in young versus aged mice. *Int J Mol Sci.* 22(21). PMID: 34769068.
Impact Factor: 5.923
Citations:0
Role: *Project head. This experiment was part of my graduate school education. I organized, ran, and analyzed all behavioral and electrode data. I wrote sections of the manuscript and designed the figures.*
2. Chen BK, Luna VM, Shannon ME, **Hunsberger HC**, Mastrodonato A, Stackmann M, McGowan JC, Rubinstenn G, Denny CA. (2021) Fluroethylnormemantine, a novel NMDA receptor antagonist, for the prevention and treatment of stress-induced maladaptive behavior. *Biological Psychiatry.* Epub ahead of print.
Impact Factor: 12.095
Citations: 1
Role: *Running behavioral experiments.*
3. Anacker C, Syndor E, Chen BK, LaGamma CT, McGowan JC, Mastrodonato A, **Hunsberger HC**, Shores R, Dixon R, McEwen B, Byne W, Meyer-Bahlburg HFL, Bockting W, Ehrhardt AA, and Denny CA. (2020) Behavioral and neurobiological effects of GnRH agonist treatment in mice - potential implications for puberty suppression in transgender individuals. *Neuropsychopharmacology.* 46(5). PMID: 32919399.
Impact Factor: 7.160
Citations: 4
Role: *Running behavioral experiments.*
4. **Hunsberger HC**, Greenwood BP, Tolstikov V, Narain NR, Kiebish MA, and Denny CA. (2020) Divergence in the metabolome between natural aging and Alzheimer's disease. *Sci Reports* 10:12171. PMID: 32699218.
Impact Factor: 3.998
Citations: 0
Role: *Project head. Organized, and ran all behavioral experiments. I analyzed all data including the large metabolomics dataset. Additionally, I wrote the manuscript and designed the figures.*
5. Mastrodonato A, Cohensedgh O, LaGamma CT, McGowan JC, **Hunsberger HC**, and Denny CA. (2019) Prophylactic (*R,S*)-ketamine selectively protects against inflammatory stressors. *Behav Brain Res.* 378:112238. PMID: 31563463.
Impact Factor: 3.002
Citations: 14
Role: *Collaborator. Helped with the PIC experiments and introduced PIC into the laboratory from my graduate school work.*
6. **Hunsberger HC**, Pinky P, Smith W, Suppiramaniam V, Reed MN (2019). The role of APOE4 in Alzheimer's disease: strategies for future therapeutic interventions. *Neuronal Signal.* 3(2): PMID: 32269835.
Impact Factor: 0.27
Citations: 13
Role: *Project head. Organized and wrote multiple sections of the review paper. Additionally, designed all of the figures.*
7. Setti S, **Hunsberger HC**, Reed MN (2017). Alterations in hippocampal activity and Alzheimer's disease. *Transl Issues in Pscyhol Sci.* 3(4): 348-356. PMID: 29862310.
Impact Factor:

Citations: 29

Role: Collaborator. Helped write the review and design the figures.

8. **Hunsberger HC**, Konat GW, Reed MN (2017). Peripheral viral challenge elevates extracellular glutamate in the hippocampus leading to seizure hypersusceptibility. *J Neurochem.* 141(3): 341-346. PMID: 28244106.
Impact Factor: 4.870
Citations: 7
Role: Project head. This experiment was part of my dissertation. I was responsible for creating a new freely-moving microelectrode array (MEA). This was the first freely-moving behavioral/MEA experiment in our laboratory. I organized, ran, and analyzed all behavioral and electrode data. I wrote the manuscript and designed the figures.
9. **Hunsberger HC**, Setti SE, Heslin RT, Quintero JE, Gerhardt GA, Reed MN (2017). Using enzyme-based biosensors to measure tonic and phasic glutamate in Alzheimer's mouse models. *J Vis Exp.* 123: 55418. PMID: 28518111. (<https://www.jove.com/video/55418/using-enzyme-based-biosensors-to-measure-tonic-phasic-glutamate5>).
Impact Factor: 1.325
Citations: 6
Role: Project head. Organized filming of the experiment and wrote sections of the manuscript.
10. **Hunsberger HC**, Wang D, Petrisko TJ, Alhowail A, Setti SE, Suppiramaniam V, Konat GW, Reed MN (2016). Peripherally restricted viral challenge elevates extracellular glutamate and enhances synaptic transmission in the hippocampus. *J Neurochem.* 138(2): 307-316. PMID: 27168075.
Impact Factor: 4.870
Citations: 13
Role: Project head. This experiment was part of my dissertation. I organized, ran, and analyzed all behavioral and electrode data. I wrote the manuscript and designed the figures.
11. **Hunsberger HC**, Hickman JE, Reed MN (2016). Riluzole rescues alterations in rapid glutamate transients in the hippocampus of rTg4510 mice. *Metab Brain Dis.* 31(3): 711-715. PMID: 26744018.
Impact Factor: 2.638
Citations: 6
Role: Project head. This experiment was part of my masters thesis. I organized, ran, and analyzed all behavioral and electrode data. I wrote the manuscript and designed the figures. This was the first time we were able to examine glutamate transients, which are spontaneous burst of glutamate. This type of data collection requires very precise and well coated electrodes.
12. **Hunsberger HC**, Weitzner DS, Rudy CC, Hickman JE, Libell EM, Speer RR, Gerhardt GA, Reed MN (2015). Riluzole rescues glutamate alterations, cognitive deficits, and tau pathology associated with P301L tau expression. *J Neurochem.* 135(2): 381-389. PMID: 26146790.
 - a. Editorial Highlight: Whitcomb DJ & Molnar E (2015). Is riluzole a new drug for Alzheimer's disease? *J Neurochem.* 135: 207-209. PMID: 26451974.Impact Factor: 4.870
Citations: 51
Role: Project head. This experiment was part of my masters thesis. I organized, ran, and analyzed all behavioral and electrode data. I wrote sections of the manuscript and designed the figures. This manuscript earned us an editorial highlight.
13. **Hunsberger HC**, Rudy CC, Batten SR, Gerhardt GA, Reed MN (2015). P301L tau expression affects glutamate release and clearance in the hippocampal trisynaptic pathway. *J Neurochem.* 132(2): 169-182. PMID: 25319522.
Impact Factor: 4.870
Citations: 60

Role: This experiment was part of my masters thesis. I was responsible for setting up the microelectrode array (MEA) system in our laboratory. I organized, ran, and analyzed all behavioral and electrode data. I wrote the manuscript and designed the figures.

14. **Hunsberger HC**, Rudy CC, Weitzner DW, Zhang C, Tosto DE, Xu Y, Reed MN (2014). Effect size of memory deficits in mice with adult-onset P301L tau expression. *Behav Brain Res.* 272: 181-195. PMID: 25004446.
Impact Factor: 3.002
Citations: 30
Role: Collaborator. Analyzed the data, wrote sections of the manuscript, and designed the figures.
15. Rudy CC, **Hunsberger HC**, Weitzner DS, Reed MN (2014). The role of the tripartite glutamatergic synapse in the pathophysiology of Alzheimer's disease. *Aging Dis.* 6(2): 131-148. PMID: 25821641.
Impact Factor: 4.130
Citations: 115
Role: Collaborator. Helped to write sections of the review and designed the tripartite synapse diagram.
16. Povroznik JM, Rudy CC, **Hunsberger HC**, Tosto DE, Reed MN (2014). Effects of an alpha-5GABAA inverse agonist on MK-801-induced learning deficits in an incremental repeated acquisition task. *Behav Pharmacol.* 25(4): 331-335. PMID: 25006978.
Impact Factor: 2.148
Citations: 4
Role: Collaborator. Helped run behavior and wrote sections of the manuscript.

Other Media

- 2021 [Project Encephalon Brain Awareness Week Seminar](#)
[International Science Interview](#)
- 2020 [SfN's TPDA Insight](#)
[Alz Afternoon Talk](#)
- 2017 [JOVE](#)
[ADDF Young Investigator Scholarship](#)
[Cell Advice Article – What would you tell your younger self?](#)
- 2015 [3-Minute thesis competition](#)

Thesis

- 2016 Hunsberger, HC. Ph.D. Dissertation. [Effects of anti-viral acute phase response on hippocampal glutamate regulation.](#)
- 2014 Hunsberger, HC. M.S. Thesis. [Glutamate dysregulation in a TauP301L mouse model of Alzheimer's disease.](#)

Other Non-Peer Reviewed Publications in Print or Other Media

1. **Hunsberger HC**, Lee S, Whye A, Jayaseelan K, Scarlata M, Cha J, Denny CA (2021, December). Anxiety impacts cognitive decline in female Alzheimer's disease mice and predicts dementia transition in the ADNI human dataset. Poster presentation at the American College of Neuropsychopharmacology (ACNP) conference, San Juan, Puerto Rico. ***Travel Award**
2. **Hunsberger HC**, Lee S, Whye A, Jayaseelan K, Scarlata M, Cha J, Denny CA (2021, October). The sex-specific effect of anxiety on Alzheimer's disease progression. Oral presentation at the Sex and Gender Differences Personal Interest Area (PIA) for AAIC, virtual.
3. **Hunsberger HC**, Lee S, Whye A, Jayaseelan K, Scarlata M, Cha J, Denny CA (2021, September). The

sex-specific effect of anxiety on Alzheimer's disease progression. Oral presentation at the Neuropsychiatric Syndromes Personal Interest Area (PIA) for AAIC, virtual.

4. **Hunsberger HC**, Lee S, Whye A, Jayaseelan K, Scarlata M, Cha J, Denny CA (2021, July). Anxiety throughout Alzheimer's disease progression: Of mice and (Wo)men. Poster presentation at the American Alzheimer's International Conference (AAIC), Denver, CO (virtual). ***Travel Award**
5. **Hunsberger HC**, Lee S, Whye A, Jayaseelan K, Scarlata M, Cha J, Logan R, Denny CA (2021, June). The impact of anxiety, sleep, and sex on Alzheimer's disease progression. Oral and Poster presentation at the International Behavioral Neuroscience Society (IBNS), virtual.
6. **Hunsberger HC**, Lee S, Whye A, Jayaseelan K, Scarlata M, Cha J, Logan R, Denny CA (2021, April). Sex differences in cognition, neuropsychiatric symptoms, and sleep in an Alzheimer's disease mouse model. Poster presentation at Society of Biological Society, virtual. ***Travel Award**
7. **Hunsberger HC**, Lee S, Whye A, Jayaseelan K, Scarlata M, Cha J, Logan R, Denny CA (2021, May). Of mice and wo(men): The sex-specific impact of anxiety on Alzheimer's disease. Poster presentation at the American Society of Clinical Psychopharmacology (ASCP), virtual. ***New Investigator Award**
8. **Hunsberger HC**, Lee S, Whye A, Jayaseelan K, Scarlata M, Cha J, Logan R, Denny CA (2021, January). The impact of anxiety on Alzheimer's disease progression: Of mice and (Wo)men. Oral presentation at Systems Neuroscience Seminar Series, Columbia University, Zoom.
9. **Hunsberger HC**, Lee S, Cha J, Denny CA (2020, September). The sex-specific impact of anxiety on Alzheimer's disease progression. Zuckerman Institute Postdoctoral Seminar (ZIPS), Columbia University, Zoom.
10. **Hunsberger HC**, Lee S, Cha J, Denny CA (2020, August). Using anxiety as a sex-specific neuropsychiatric biomarker of Alzheimer's disease. Poster presentation at the International Behavioral Neuroscience Society, virtual.
11. **Hunsberger HC**, Lee S, Cha J, Denny CA (2020, July). Using anxiety as a sex-specific neuropsychiatric biomarker of Alzheimer's disease. Poster presentation at Alzheimer's Association International Conference, virtual.
12. **Hunsberger HC**, Lee S, Cha J, Denny CA (2020, June). The sex-specific impact of anxiety on Alzheimer's disease progression. Oral presentation at Hippocampus Club, virtual.
13. **Hunsberger HC**, Lee S, Cha J, Denny CA (2020, May). The sex-specific impact of anxiety on Alzheimer's disease progression. Oral presentation at Alzheimer Afternoons, virtual.
14. **Hunsberger HC**, & Denny CA (2019, October). Prior life stress impacts late adulthood anxiety-like behavior in a sex-specific manner. Oral presentation at Society for Neuroscience, Chicago, IL.
15. **Hunsberger HC**, Lee S, Cha J, Denny CA (2019, October). Of mice and (wo)men: the sex-specific impact of anxiety on Alzheimer's disease progression. Poster presented at Society for Neuroscience, Chicago, IL. ***Trainee Professional Development Award winner (TPDA)**.
16. **Hunsberger HC**, Lee S, Cha J, Denny CA (2019, October). Of mice and (wo)men: the sex-specific impact of anxiety on Alzheimer's disease progression. Poster presented at Columbia Postdoctoral Research Symposium, New York, NY.
17. **Hunsberger HC & Denny CA** (2019, June). The impact of anxiety on female Alzheimer's disease progression. Data blitz presented at the RCCN's Sex Differences in Aging Workshop. ***Travel award winner**

18. **Hunsberger HC** & Denny CA (2019, June). Sex, anxiety, and the hippocampus: Intersections in Alzheimer's disease. Data blitz presented at the Spring Hippocampal Research Conference, Taormina, Italy.
19. **Hunsberger HC**, Kitayev A, Hill C, Narain NR, Kiebish MA, & Denny CA (2018, December). A longitudinal analysis of hippocampal metabolomic alterations following cognitive decline in aged mice and APP/PS1 Alzheimer's disease mice. Poster presented at Columbia Postdoctoral Research Symposium, New York, NY. ***1st place presenter**
20. **Hunsberger HC**, Kitayev A, Hill C, Narain NR, Kiebish MA, & Denny CA (2018, November). A longitudinal analysis of hippocampal metabolomic alterations following cognitive decline in aged mice and APP/PS1 Alzheimer's disease mice. Poster presented at Society for Neuroscience (SfN), San Diego, CA.
21. **Hunsberger HC** & Denny CA (2018, April). The sex specific impact of anxiety on Alzheimer's disease progression. Lightning talk presented at The International Learning and Memory Conference, Huntington Beach, CA. ***Travel award winner**
22. **Hunsberger HC** (2017, September). Sex differences in Alzheimer's disease: Using optogenetics and neurochemical assays to rescue cognitive decline. Poster presented at the Alzheimer's drug discovery foundation conference, Jersey City, NJ. ***ADDF Young Investigator Scholarship winner**
23. **Hunsberger HC**, Wang D, Konat G, & Reed MN (2016, April). Peripherally restricted viral challenge elevates extracellular glutamate and enhances synaptic transmission in the hippocampus. Poster presented at Harrison School of Pharmacy Research Day: Auburn University, Auburn, AL. ***1st place presenter - Neuroscience Category**
24. **Hunsberger HC**, Wang D, Konat G, & Reed MN (2016 March). Elevated extracellular glutamate and enhanced synaptic transmission resulting from peripheral viral challenge. Poster presented at the Alzheimer's drug discovery foundation conference, Miami, FL. ***ADDF Young Investigator Scholarship winner**
25. **Hunsberger HC** (2015, November). Targeting glutamate to treat Alzheimer's disease. Auburn University 3-Minute Thesis Competition. ***Top visiting scholar finalist**
26. **Hunsberger HC** (2015, April). Glutamate's role in Alzheimer's disease. West Virginia University 3-Minute Thesis competition. ***Finalist and people's choice winner.**
27. **Hunsberger HC**, Weitzner D, Rudy CC, & Reed MN (2015, June). Riluzole rescues glutamate alterations associated with Alzheimer's disease. Poster presented at the Regional Pharmacy Research Forum: West Virginia University, Morgantown, WV. ***1st place presenter - Neurodegeneration Category**
28. **Hunsberger HC**, Weitzner DS, Rudy CC, & Reed MN (2015, March). Riluzole attenuates glutamate dysregulation and cognitive impairment associated with P301L Tau expression. Poster presented at the Alzheimer's drug discovery foundation conference, San Diego, CA. ***ADDF Young Investigator Scholarship winner**
29. **Hunsberger HC**, Weitzner DS, Rudy CC, & Reed MN (2014, September). Riluzole reduces cognitive deficits and glutamate dysregulation in a mouse model of frontotemporal dementia and Alzheimer's disease. Poster presented at the Alzheimer's drug discovery foundation conference, Jersey City, NJ. ***ADDF Young Investigator Scholarship winner**
30. **Hunsberger HC**, Rudy CC, Weitzner DS, & Reed MN (2014, July). Glutamate dysregulation correlates

with memory deficits in a mouse model of Alzheimer's disease. Poster presented at the West Virginia University Neuroscience Retreat, Wheeling, WV. ***1st place in poster competition.**

14. Invited and/or Peer-Selected Presentations at Regional, National or International Levels (Select)

Regional

1. **Hunsberger HC**, Lee S, Cha J, Denny CA (2020, August). The sex-specific impact of anxiety on Alzheimer's disease progression. Boston College, Zoom. ***Invited talk**
2. **Hunsberger HC**, Lee S, Cha J, Denny CA (2019, October). Of mice and (wo)men: the sex-specific impact of anxiety on Alzheimer's disease progression. Talk for the Columbia University Cognitive Neuroscience seminar series. ***Invited talk**
3. **Hunsberger HC & Denny CA** (2019, May). Anxiety impacts cognitive decline in a sex-specific manner in Alzheimer's disease mice. Panel talk presented at the Organization for the Study of Sex Differences Conference, Washington, DC. ***Invited talk**
4. **Hunsberger HC & Denny CA** (2018, October). Anxiety predicts cognitive decline in a sex-specific manner in Alzheimer's disease mice. Panel speaker at The Pavlovian Society Conference, Iowa City, IA. ***Invited talk**
5. **Hunsberger HC** (2017, October). Sex differences in Alzheimer's disease: Using optogenetics and neurochemical assays to rescue cognitive decline. Poster presented at the Sex as a Biological Variable Workshop, Bethesda, MD. ***Invited presentation**
6. **Hunsberger HC** (2017, July). Sex differences in Alzheimer's disease: Using optogenetics and neurochemical assays to rescue cognitive decline. Talk given at the Columbia University Postdoctoral Seminar Series, New York, NY. ***Invited talk**