**1. Date of Preparation of CV**

Created: September 25, 2020

Updated: July 24, 2022

**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](http://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 M3 poster judging, The Chicago Medical School, IL

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

*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

*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

**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

 Graduate Student, Rosalind Franklin University

*Undergraduate Students*

2022 Perla Arias

 INSPIRE Research Intern, Lake Forest College

Olivia Godek

 Summer Research Intern, Lake Forest College

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

1. *Wearable health tracker for rodents*

Patent Application No. 63/359,188

Filed: July 7, 2022

**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.*

1. 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.*

1. 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.*

1. **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.*

1. 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.*

1. **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.*

1. 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.*

1. **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.*

1. **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](https://www.jove.com/video/55418/using-enzyme-based-biosensors-to-measure-tonic-phasic-glutamate5%29)).

*Impact Factor: 1.325*

*Citations: 6*

*Role: Project head. Organized filming of the experiment and wrote sections of the manuscript.*

1. **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.*

1. **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.*

1. **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.
	1. 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.*

1. **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.*

1. **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.*

1. 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.*

1. 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***

2022 Helix Interview

 Inscopix Podcast Interview

2021 [Project Encephalon Brain Awareness Week Seminar](https://www.youtube.com/watch?v=BbTV09RXIeM&t=151s)

[International Science Interview](https://www.youtube.com/watch?v=UhxZlc8JW1g&t=17s)

2020 [SfN’s TPDA Insight](https://www.youtube.com/watch?v=7DeRzTjBnko)

 [Alz Afternoon Talk](https://www.youtube.com/watch?v=3__8gQKtOM0&t=2142s)

2017 [JOVE](https://www.jove.com/t/55418/using-enzyme-based-biosensors-to-measure-tonic-phasic-glutamate)

 [ADDF Young Investigator Scholarship](https://vimeo.com/231398332)

 [Cell Advice Article – What would you tell your younger self?](https://www.sciencedirect.com/science/article/pii/S0092867417301940?via%3Dihu)

2015 [3-Minute thesis competition](https://www.youtube.com/watch?v=I2_fBP_-KxU)

***Thesis***

2016 Hunsberger, HC. Ph.D. Dissertation. [Effects](https://researchrepository.wvu.edu/etd/5839/) 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.](https://researchrepository.wvu.edu/etd/667/)

***Other Non-Peer Reviewed Publications in Print or Other Media***

1. **Hunsberger HC,** Jin M, Logan R, Denny CA (2022, April). Sex-specific onset of sundowning behavior in an Alzheimer’s mouse model. Panel talk Society of Biological Pyschiatry, New Orleans, LA. **\*Travel Award**
2. **Hunsberger HC,** Jin M, Logan R, Denny CA (2022, January). Sex-specific onset of sundowning behavior in an Alzheimer’s mouse model. Panel talk Winter Conference on Brain Research (WCBR), Snowmass, CO. **\*Travel Award**
3. **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**
4. **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.
5. **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.
6. **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**
7. **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.
8. **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**
9. **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**
10. **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.
11. **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.
12. **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.
13. **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.
14. **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.
15. **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.
16. **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.
17. **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).**
18. **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.
19. **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**
20. **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.
21. **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**
22. **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.
23. **Hunsberger HC** & Denny CA (2018, April). The sex specific impact of anxiety on Alzheimer’s disease progression. Lightening talk presented at The International Learning and Memory Conference, Huntington Beach, CA. **\*Travel award winner**
24. **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**
25. **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**
26. **Hunsberger HC,** Wang D, Konat G, & Reed MN (2016 March). Elevated extracellular glutamate and enhanced synaptic transmission resulting from peripheral viral challenge. Posted presented at the Alzheimer's drug discovery foundation conference, Miami, FL. **\*ADDF Young Investigator Scholarship winner**
27. **Hunsberger HC (**2015, November). Targeting glutamate to treat Alzheimer’s disease. Auburn University 3-Minute Thesis Competition. **\*Top visiting scholar finalist**
28. **Hunsberger HC** (2015, April). Glutamate’s role in Alzheimer’s disease. West Virginia University 3-Minute Thesis competition. **\*Finalist and people’s choice winner.**
29. **Hunsberger HC,** Weitnzer 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**
30. **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**
31. **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**
32. **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**

***Regional***

1. **Hunsberger HC,** Lee S, Whye A, Jayaseelan K, Scarlata M, Cha J, Jin M, Logan R, Denny CA (2022, March). Uncovering the roles of sex, anxiety, and sleep in Alzheimer’s disease progression. Innovative Research Seminar Series, Rosalind Franklin University, North Chicago. **\*Invited talk**
2. **Hunsberger HC,** Jin M, Logan R, Denny CA (2022, February). Sex-specific onset of sundowning behavior in an Alzheimer’s mouse model. AAIC Neuropsychiatric Symptoms PIA, Zoom. **\*Invited talk**
3. **Hunsberger HC,** Jin M, Logan R, Denny CA (2022, February). Sex-specific onset of sundowning behavior in an Alzheimer’s mouse model. Dr. Alex Leow Laboratory Meeting, Zoom. **\*Invited talk**
4. **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**
5. **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**
6. **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**
7. **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**
8. **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**
9. **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**