

KATHARINE M. CAMMACK

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APPOINTMENTS

Associate Professor of Psychology, The University of the South, 2022-present
Chair, Neuroscience Program, The University of the South, 2021-present
Assistant Professor of Psychology, The University of the South, 2016-2022
Visiting Assistant Professor of Psychology, The University of the South, 2015-2016
Faculty, Citizen Science Program, Bard College, 2011, 2012, 2013, 2015
Visiting Assistant Professor, Psychology Program, Bard College, 2012
Adjunct Assistant Professor, Department of Psychology, Hunter College (CUNY), 2011
Doctoral Candidate, Laboratory of Behavioral Neuroendocrinology, Rutgers University, 2004-2009
Research Assistant & Lab Manager, Laboratory of Learning & Memory, Santa Clara University, 2002-2004
Research Assistant, Laboratory of Educational Psychology, Stanford University, 2003

EDUCATION & TRAINING

Postdoctoral Fellow, Friedman Brain Institute, Icahn School of Medicine at Mount Sinai, 2012-2015
Dorothea Dix Postdoctoral Fellow, Biology of Addictive Diseases, The Rockefeller University, 2009-2012
Ph.D., Integrative Neuroscience, Rutgers University & University of Medicine & Dentistry of New Jersey, 2009
B.S., Psychology, Santa Clara University, 2004

SELECT COURSES TAUGHT

The University of the South

NEUR101 Introduction to Neuroscience	PSYC251 Research Methods & Data Analysis w/ Lab
NEUR254 Behavioral Neuroscience	PSYC349 Drugs & Behavior
NEUR359 Advanced Behavioral Neuroscience w/ Lab	PSYC350 Drugs & Behavior w/ Lab
NEUR195 Introduction to Research in Neuroscience	PSYC419 Addiction
NEUR295 Mentored Research in Neuroscience	PSYC421 Sex, Brain & Behavior
NEUR395 Advanced Research in Neuroscience	PSYC444 Independent Study
NEUR444 Independent Study	

Other institutions

Citizen Science, <i>Bard College</i>	Sex & Behavior, <i>Hunter College, CUNY</i>
Sex, Brain & Behavior, <i>Bard College</i>	

FELLOWSHIPS, AWARDS & HONORS

Dean of the College's Excellence in Teaching Award, The University of the South, 2022

- *awarded to one College faculty member per academic year; also a nominee in 2016, 2018, 2020, 2021*

Kennedy Endowed Faculty Fellowship, The University of the South, 2018-2020
Community Partner of the Year Award, Grundy County Safe Communities Coalition, 2019
APA Division 6 D.B. Marquis Behavioral Neuroscience Award, 2017

- *awarded to best paper published in the journal that year*

Postdoctoral Fellow Travel Award, Icahn School of Medicine at Mount Sinai, 2014
Co-Chair, Oral Communications Session, College on Problems of Drug Dependence Annual Conference, 2010

Early Career Investigator Travel Award, College on Problems of Drug Dependence, 2010
 Award for Graduate Excellence, Graduate Student Government Association, Rutgers University, 2008
 Graduate Merit Award, Executive Women of New Jersey, 2008
 Chapters Graduate Student Travel Award, Society for Neuroscience, 2008
 NIDA Women & Gender Junior Investigator Travel Award, College on Problems of Drug Dependence, 2007
 Competitive Applicant Award, Integrative Neuroscience Program, Rutgers University, 2004
 Wilhelm Wundt Award for Excellence in Research, Academics & Service in Psychology, Santa Clara Univ, 2004

- *awarded to top graduating senior from department*

Phi Beta Kappa, Santa Clara University, 2004
 Dean's Scholarship, Santa Clara University, 2000-2004

GRANTS & FUNDING

Cammack KM, Cecala K (2022) Being Human in STEM: Building a course to improve persistence and belonging in STEM. DEI Pedagogy Grant, The University of the South, \$2,000
Cammack KM (2022) The impact of the gut microbiome on drug preference. Faculty Research Stipend, The University of the South, \$8000
Cammack KM (2021) Analyzing brain circuits involved in opioid preference in mice. University Research Grant, The University of the South, \$4994
Cammack KM, Smith C, McGhee K, Schrader M (2021) "Science Fridays": Building science identity & self-efficacy through co-curricular sessions. DEI Pedagogy Grant, The University of the South. \$3,500
Cammack KM (2021) Consultation with stakeholders in a problem-based learning course. Center for Teaching Mini-grant, The University of the South, \$450
Cammack KM (2021) Brain circuits supporting drug preference in rodents. University Research Grant & Faculty Research Stipend, The University of the South, \$13,000
Cammack KM (2020) Persistence and inclusion in STEM: Putting yourself in the shoes of neuroscientists. DEI Pedagogy Grant, The University of the South. \$1,500
Cammack KM (2020) Women in Science WIST Fund COVID Relief. \$500
Cammack KM (2018-2020) Kennedy Endowed Faculty Fellowship. The University of the South, \$13,000
Cammack KM (2018) Using service learning to enrich a laboratory course on substance use in Grundy County. Center for Teaching Innovative Teaching Grant, The University of the South, \$510
Cammack KM (2017) Opioid use in Southern Appalachia: How drug education framing can be informed by local perceptions, attitudes and worldviews. Mellon Collaborative for Southern Appalachian Studies, \$7,940
Cammack KM (2017) Opioid use in Southern Appalachia: Addendum. Mellon Collaborative for Southern Appalachian Studies, \$2,400
Cammack KM, Moore BC (2016) An inquiry-driven, cross-disciplinary laboratory experience for Sewanee students. Center for Teaching Innovative Teaching Grant, The University of the South, \$2969.08
Cammack KM (2016) Introducing electrophysiology via Spikerboxes. Center for Teaching Mini-Grant, The University of the South, \$500
Seip KM (2011-2014) Heroin withdrawal: modulation of aversive states by kappa opioid receptors. F32-DA030831 Ruth L. Kirschstein NRSA for Individual Postdoctoral Fellows, NIDA. \$150,234

Student Undergraduate Research Fellowships (Sewanee)

** undergraduate student*

Dueñas-Pincay LD*, **Cammack KM** (2022) The impact of a cocaine antagonist in male and female mice, \$3200
 Atkinson R*, **Cammack KM** (2022) Antibiotic exposure and opioid preference in mice, \$3200

Najjar A*, **Cammack KM** (2022) Protein expression in drug-related brain circuits, \$3200
 Dueñas-Pincay LD*, **Cammack KM** (2021) Blocking the rewarding effects of cocaine in mice, \$3000
 Kearley S*, **Cammack KM** (2021) Study of sex differences in oxycodone-induced protein expression in reward- and learning-related brain circuits, \$3000
 Fain E*, **Cammack KM** (2021) Substance use amongst adolescents in rural Appalachia (remote), \$1000
 Pusok A*, **Cammack KM** (2020) The impact of opioids on the brain and behavior of mice (remote), \$2000
 Fain E*, **Cammack KM** (2020) Substance use amongst adolescents in rural Appalachia (remote), \$1000
 Bansal S*, **Cammack KM** (2020) Sex differences in oxycodone-induced protein expression (remote), \$2000
 Krueger A*, **Cammack KM** (2018) Alcohol & substance use in a Southern Appalachian community, \$3000
 Sands LP*, **Cammack KM** (2017) The impact of sex and estrus stage motivational and physiological responses to opiates across the addiction-like cycle in the rodent, \$2800
 Watters A*, **Cammack KM** (2017) Behavioral and neurobiological effects of prescription opioids across the reproductive cycle of female rats, \$2800

PUBLICATIONS & PRESENTATIONS

Peer-reviewed articles

* *undergraduate student*

1. **Cammack KM**, Reppert T, Cook-Snyder D (2021) The Simpsons neuron: A case study exploring neuronal coding and hypothesis testing for introductory and advanced neuroscience courses. *Journal of Undergraduate Neuroscience Education* 20(1): C1-C10
2. **Cammack KM**, Melton C (2021) Integrating service learning into a neuropsychopharmacology course. *Journal of Undergraduate Neuroscience Education* 19(2): A192-A200
3. Watters AB*, Sands LP*, **Cammack KM** (2020) Pre-gestational oxycodone exposure does not impact future maternal care or drug preference in the postpartum mouse. *Experimental & Clinical Psychopharmacology* 30(1):1-14 doi: 10.1037/pha0000427
 - *Reviewer comment: "Considering the overall quality of the writing and given the labor intensive and detailed nature of the experiment, this speaks highly of the undergraduate training environment."*
4. Avigan P, **Cammack KM**, Shapiro ML (2020) Flexible spatial learning requires both the dorsal and ventral hippocampus and their functional interactions with the prefrontal cortex. *Hippocampus*, 30(7): 733-744 <https://doi.org/10.1002/hipo.23198>
 - *Received a "Top Cited Article 2020-2021" distinction by Wiley Publishing*
5. **Cammack KM** (2018) Mystery neurotransmitters! An active learning activity on synaptic function for undergraduate students. *Journal of Undergraduate Neuroscience Education* 17(1):A26-A33
6. **Cammack KM**, Young JJ, Young ME, Shapiro ML (2017) Partial lesion of the nigrostriatal dopamine pathway in rats impairs egocentric learning but not spatial learning or behavioral flexibility. *Behavioral Neuroscience* 131(2): 135-142
 - *Winner of the 2017 APA Division 6 D.B. Marquis Behavioral Neuroscience Award for best paper published in the journal that year*
7. **Cammack KM** (2017) A critical thinking activity on drug tolerance for undergraduate neuroscience courses. *Journal of Undergraduate Neuroscience Education* 15(2):A157-A161
8. Deutch-Feldman M, Picetti R, **Seip-Cammack KM**, Zhou Y, Kreek MJ (2015) Effects of handling and vehicle injections on adrenocorticotrophic and corticosterone concentrations in Sprague-Dawley compared with Lewis rats. *Journal of the American Association for Laboratory Animal Science* 54(1): 1-5
9. **Seip-Cammack KM**, Shapiro ML (2014) Behavioral flexibility and response selection are impaired after limited exposure to oxycodone. *Learning & Memory* 21(12): 686-695

10. **Seip-Cammack KM**, Reed B, Zhang Y, Ho A, Kreek MJ (2013) Tolerance and sensitization to chronic escalating-dose heroin following extended withdrawal: possible role of mu-opioid receptors. *Psychopharmacology* 225(1): 127-140
11. **Seip KM**, Reed B, Ho A, Kreek MJ (2012) Measuring the incentive value of escalating doses of heroin in heroin-dependent Fischer rats during acute spontaneous withdrawal. *Psychopharmacology* 219(1): 59-72
12. **Seip KM**, Morrell JI (2009) Transient inactivation of the ventral tegmental area selectively disrupts the expression of conditioned place preference for pup- but not cocaine-paired contexts. *Behavioral Neuroscience* 123(6): 1325-1338
13. **Seip KM**, Morrell JI (2008) Exposure to pups influences the strength of maternal motivation in virgin female rats. *Physiology & Behavior* 95(4): 599-608
14. **Seip KM**, Pereira M, Wansaw MP, Dziopa EI, Reiss JI, Morrell JI (2008) Incentive salience of cocaine across the postpartum period of the female rat. *Psychopharmacology* 199: 119-30
15. **Seip KM**, Morrell JI (2007) Increasing the incentive salience of cocaine challenges preference for pup- over cocaine-associated stimuli during early postpartum: place preference and locomotor analyses in the lactating female rat. *Psychopharmacology* 194: 309-19
16. Bell MC, **Seip KM**, Fitzsimmons KS (2007) Signal effects on resistance to change in a multiple schedule. *Behavioural Processes* 74: 33-48

In progress

1. Gazzola MG, MacLean E*, Beitel M, **Cammack KM**, Eggert KF, Roehrich T, Madden LM, Jegede O, Zheng X, Bergman E, Barry DT (*under review*) What's in a name? Counselor terminology preferences among patients receiving methadone maintenance treatment.
2. Dueñas-Pincay LD*, Najjar A*, Püsök A*, Pagan O, Sweet E, **Cammack KM** (*in preparation*) The impact of parthenolide on cocaine preference and locomotor activity in mice.
3. Atkinson R*, Najjar A*, Van den Abeele Y*, **Cammack KM** (*in preparation*) The role of the gut microbiome in opioid preference and affective behaviors in male and female mice.

Peer-reviewed articles in undergraduate journals

** undergraduate student*

1. Kearley S*, **Cammack KM** (*in press*) Using immunohistochemistry to study addiction. *Journal of Sewanee Science*
2. Erickson K*, **Cammack KM** (*in press*) Alleviating stress: Benefits of prosocial behavior and oxytocin. *Journal of Sewanee Science*
3. Wiseman HC*, Bruce RD*, **Cammack KM** (2021) The Opioid Crisis: A Review of Genetic Predispositions, Current Policy & Future Directions. *IMPULSE: The Premier Undergraduate Neuroscience Journal* 2021:1-12
4. Maclean E*, **Cammack KM** (2021) The importance of attending to community-based needs in response to the opioid crisis. *Journal of Sewanee Science*
5. Worsham R*, **Cammack KM** (2021) Perceptions of e-cigarettes. *Journal of Sewanee Science*
6. Minor A*, **Cammack KM** (2021) The opioid crisis. *Journal of Sewanee Science*
7. Williams K*, Palmer A*, **Cammack KM** (2018) Ethanol preference is impacted by estrus stage but not housing or stress in female C57BL/6J mice. *IMPULSE: The Premier Undergraduate Neuroscience Journal* 2018: 1-14
8. Watters A*, **Cammack KM** (2018) Pregestational oxycodone exposure impacts maternal motivation but not maternal caregiving or drug seeking in the postpartum mouse. *Journal of Sewanee Science*

- Fitzgerald ND*, **Cammack KM** (2017) Chronic traumatic encephalopathy: Animal models, clinical diagnosis, sex differences, and revised return-to-play protocol. *IMPULSE: The Premier Undergraduate Neuroscience Journal* 2017: 1-16

Book chapters

- Shapiro ML, Riceberg JS, **Seip-Cammack K**, Guise K (2014) Functional interactions of prefrontal cortex and the hippocampus in learning and memory. In: Space, time and memory in the hippocampal formation. D. Derdikman and J. Knierim, eds. Springer-Verlag
- Pereira M, **Seip KM**, Morrell JI (2008) Maternal motivation and its neural substrate across the postpartum period. In: The neurobiology of the parental mind. Amsterdam: Elsevier

Invited lectures & talks

^ *presenting speaker* * *undergraduate student*

- Cammack KM**^ (2021) The Simpsons Neuron: A neuroscience journal article presented as a case study. First Annual Neuroscience Teaching Conference (virtual)
- Cammack KM**^, Cecala K^, Moore BC^ (2018) Engaging thematic learning to build an integrative science literacy course for undergraduates. Discussion Session, AAC&U Transforming STEM Higher Education Conference, Atlanta GA
- Cammack KM**^, Moore BC^ (2018) Mind over matter: Integrating undergraduate curricula in neuroscience and anatomical histology. Innovation/Ideation Session, AAC&U Transforming STEM Higher Education Conference, Atlanta GA
- Cammack KM**^ (2016) Sex, drugs and everyday choices: Factors influencing motivated behavior. The University of the South, TN
- Seip-Cammack KM**^ (2015) The effect of prescription opiate drugs on learning, memory and cognition. Bard College, NY
- Guise K, **Seip-Cammack KM**, Shapiro ML^ (2014) Cognition guided by coordinated oscillations in distributed neural networks: prefrontal-hippocampal interactions in spatial reversal learning. Neurobiology of Learning & Memory Winter Conference, Park City UT
- Seip-Cammack KM**^ (2012) Sex, drugs and everyday choices: understanding motivation-related neurobiology. Bard College, NY
- Reed B, **Seip KM**^, Zhang Y, Ho A, Kreek MJ (2011) Chronic escalating-dose heroin in the rat: Behavioral characterization of exposure versus re-exposure after extended withdrawal. Nanosymposium: "Opioid Reward: Neural Mechanisms." Society for Neuroscience, Washington D.C.
- Seip KM**^, Zhang Y, Reed B, Ho A, Kreek MJ (2010) Rewarding properties of heroin differ by dose and across individuals of an inbred rat strain. College on Problems of Drug Dependence, Scottsdale AZ
- Morrell JI^, **Seip KM**, Pereira M (2009) What stimulus choice reveals about maternal motivation in the rat. Annual Conference, Society for Behavioral Neuroendocrinology, East Lansing MI
- Seip KM**^ (2009) Behavioral and neurobiological correlates of maternal motivation in the postpartum female rat. Johns Hopkins University, Baltimore MD
- Seip KM**^ (2008) Careers in the sciences – interviewing techniques. Baruch College, NYC
- Seip KM**^ (2008) Offspring as a natural drug: maternal behavior and motivation in the female rat. Fairfield University, Fairfield CT

In preparation

- Cammack KM**^ (accepted, Fall 2022) Implementing specifications grading in an intermediate science course. SoTL Summit, Kennesaw State University

2. **Cammack KM**[^] (accepted, Fall 2022) Building an upper-level psychology seminar around problem-based learning. Annual Teaching Conference, Society for the Teaching of Psychology

The University of the South

1. **Cammack KM**, Cecala K (2022) Being Human in STEM: Cultivating belonging & persistence. *Office of Undergraduate Research & Scholarship*
2. **Cammack KM**[^] (2021) Drugs and the brain. *VERGE: Flourishing by Design co-curricular experience*
3. Thompson L[^], Irarte-Diaz P[^], Misra K[^], **Cammack KM**[^] (2021) Preparing for and applying to graduate programs. Panel, *Summer Undergraduate Research Fellows Program*
4. **Cammack KM**[^], Reed K[^] (2021) Planning Ahead: Translating your Summer Experience for Application Materials for Grad School & Jobs. Workshop, *Summer Undergraduate Research Fellows Program*
5. **Cammack KM**[^] (2021) Drugs & the brain. Invited lecture, *Peer Health Educators & Brain Awareness Week*
6. **Cammack KM**[^], Pongdee R[^], O'Connor R[^] (2021) Variations on Scholarship of Teaching & Learning. Panel, *Center for Teaching*
7. **Cammack KM**[^], Kikis E[^], Matthews J[^], Song T[^], Watson K[^] (2020) Mentoring summer undergraduate research. Panel, *Office of Undergraduate Research & Scholarship*
8. **Cammack KM**[^] (2020) Neuroscience at Sewanee. *Parents' Council Meeting*
9. **Cammack KM**[^] (2020) Making connections outside the classroom. *Teach & Tell, Center for Teaching*
10. **Cammack KM**[^] (2019) Case studies: Using storytelling to foster creative and critical thinking. *Faculty Flash Presentation Showcase*
11. **Cammack KM**[^] (2019) Case studies: Using storytelling to foster creative and critical thinking. *The Craft: Sewanee Center for Teaching Newsletter*
12. **Cammack KM**[^], Moore BC[^] (2018) Collaborating across the sciences: Ways to develop an inquiry-based, cross-disciplinary lab experience. *Teach & Tell, Center for Teaching*
13. Noffsinger-Frazier N[^], West N[^], **Cammack KM**[^] (2019) "Alcohol and You," *Healthy Hut Event*
14. Noffsinger-Frazier N[^], West N[^], **Cammack KM**[^] (2018) "Should College Students Take Smart Drugs?" *Brain Awareness Week*
15. **Cammack KM**[^] (2018) Taking the edge off: Drinking, stress and the brain. *University Wellness Center Colloquium Series*
16. **Cammack KM**[^] (2016) Drugs & brain health. *Brain Awareness Week*
17. **Cammack KM**[^] (2016) Neuroscience/Psychology. "Behind the Scenes: The Sciences at Sewanee" event
18. **Cammack KM**[^] (2015) "Science Monday: Schmoozin and Boozin," *Smith Residence Hall*

Conference presentations & posters

** undergraduate student*

1. Püsök A*, Moore K*, Atkinson R*, **Cammack KM** (2022) The importance of reliable identification of estrus stage in behavioral neuroscience research. Oral presentation, Mid-South Psychology Conference, Memphis TN
2. Dueñas-Pincay LD*, Püsök A*, **Cammack KM** (2022) Assessing conditioned preference and locomotor properties of a possible cocaine antagonist in mice. Oral presentation, Neuroscience Undergraduate Research Virtual Symposium (FUN NURVS II)
3. Püsök A*, **Cammack KM** (2020) Sex differences in oxycodone place preference in mice. Oral presentation, Neuroscience Undergraduate Research Virtual Symposium (FUN NURVS I)
4. Watters A*, **Cammack KM** (2019) The impact of adolescent oxycodone exposure on future maternal behaviors in the postpartum mouse. Society for Neuroscience, Chicago IL
5. **Cammack KM** (2019) Integrating service learning into a neuropsychopharmacology course. Teaching Neuroscience in College, Society for Neuroscience, Chicago IL

6. Probasco K*, Minor A*, **Cammack KM** (2019) Optimizing conditioned place preference for oxycodone. Middle Tennessee Psychological Association, Murfreesboro TN
7. Watters A*, **Cammack KM** (2017) Pre-gestational oxycodone exposure impacts maternal motivation but not maternal caregiving or drug seeking in the postpartum mouse. Southeastern Medical Scientist Symposium, Atlanta GA
8. **Seip-Cammack KM**, Moore BC (2017) An inquiry-driven, cross-disciplinary laboratory experience on neurogenesis for undergraduates. Teaching Neuroscience in College, Society for Neuroscience, Washington DC
9. Williams M*, Krueger A*, Crumbliss M*, Caldwell S*, Coffey JK, **Cammack K** (2017) Extracurricular activities are associated with subjective happiness in an undergraduate sample. Annual Meeting of the Southeastern Psychological Association, Atlanta GA
10. Watters A*, Stackhouse S,* Hunley A*, Scott E*, **Cammack K**, Coffey JK (2017) Effects of Instagram on body image in a college setting. Annual Meeting of the Southeastern Psychological Association, Atlanta GA
11. Avigan P, **Seip-Cammack KM**, Shapiro M (2016) Prefrontal-CA1 interaction supports flexible spatial learning within a CA1-dependent task framework. Champalimaud Neuroscience Symposium, Lisbon, Portugal
12. **Seip-Cammack KM** (2016) A critical thinking activity on synaptic function for undergraduate neuroscience courses. Annual Meeting of Sigma Xi: The Scientific Research Honor Society, Atlanta GA
13. Avigan P, **Seip-Cammack KM**, Shapiro M (2015) Flexible spatial learning in rats requires intact hippocampal-prefrontal circuits. Society for Neuroscience, Chicago IL
14. **Seip-Cammack KM**, Guise KG, Shapiro M (2014) Transient inactivation of hippocampal-prefrontal circuitry impairs flexible spatial learning in rats. Society for Neuroscience, Washington DC
15. **Seip-Cammack KM**, Shapiro M (2013) Repeated oxycodone exposure impairs reversal behavior when contingencies change rapidly. Society for Neuroscience, San Diego CA
16. Young JJ, **Seip-Cammack KM**, Shapiro M (2013) Dopamine depletion in the dorsolateral striatum impairs the acquisition of an egocentric task but not spatial reversal or strategy switch. Society for Neuroscience, San Diego CA
17. **Seip-Cammack KM**, Buonora M, Deutsch-Feldman M, Brownstein A, Picetti R, Kreek MJ (2013) Handling and vehicle injections impact corticosterone but not adrenocorticotrophic hormone levels in Sprague-Dawley but not Lewis rats. College on Problems of Drug Dependence, San Diego CA
18. **Seip-Cammack KM** (2012) Using case studies to explore the biological roots of sexual development. Society for Neuroscience, New Orleans LA
19. **Seip-Cammack KM**, Reed B, Zhang Y, Ho A, Kreek MJ (2011) Chronic escalating-dose heroin alters the expression of mu-opioid receptors in the rat brain: impact of exposure versus re-exposure after extended withdrawal. Early Career Investigator Session, NIDA Frontiers in Addiction Research Miniconvention, Washington DC
20. **Seip KM**, Zhang Y, Reed B, Ho A, Kreek MJ (2011) Extended withdrawal from heroin is associated with altered mu-opioid receptor expression and G-protein activation. Society for Neuroscience, Washington DC
21. **Seip KM**, Morrell JI (2009) Transient inactivation of the ventral tegmental area disrupts the expression of place preference for a natural but not a drug stimulus. Society for Neuroscience, Chicago IL
22. **Seip KM**, Morrell JI (2008) Exposure to pups affects the manifestation of maternal motivation and maternal behavior in virgin female rats. Society for Neuroscience, Washington DC
23. Morrell JI, **Seip KM**, Pereira M (2008) Identifying components of the neural circuit mediating maternal motivation and expression of maternal behavior with reversible inactivation by lidocaine microinjection. Society for Neuroscience, Washington DC

24. **Seip KM**, Morrell JI (2008) Expression of conditioned preference for pup- or cocaine-associated chambers is impaired following transient inactivation of the ventral tegmental area. Pavlovian Society, Weehawken NJ
25. **Seip KM**, Oswald L, Abele K (2008) Reflecting on the Science Communication Consortium – How and why should neuroscientists care about communication? Society for Neuroscience, Washington DC
26. **Seip KM**, Morrell JI (2007) Maternal motivation is strikingly similar in both early postpartum females and maternally-induced virgin females after maternal behavior is expressed for eight days. Society for Neuroscience, San Diego CA
27. **Seip KM**, Dziopa EI, Wansaw MP, Morrell JI (2007) Localization and cellular characterization of neural substrates contributing to pup-associated preference in the lactating female rat. Parental Brain Conference, Boston MA
28. **Seip KM**, Pereira M, Dziopa EI, Morrell JI (2007) Locomotor correlates of cocaine-associated chamber preference in the postpartum dam: cocaine-induced locomotion and sensitization during conditioning and locomotor rate during preference testing. College on Problems of Drug Dependence, Quebec City
29. Pereira M, **Seip KM**, Dziopa EI, Morrell JI (2007) Incentive salience of cocaine is remarkably similar across the postpartum period. College on Problems of Drug Dependence, Quebec City
30. **Seip KM**, Dziopa EI, Morrell JI (2006) Challenges to preference for pups in early postpartum and cocaine in late postpartum using stringent methodological manipulations to the place preference paradigm. Society for Neuroscience, Atlanta GA
31. **Seip KM**, Dziopa EI, & Morrell JI (2006) Dramatic pup avoidance in late postpartum contrasts with preference for pups over cocaine in early postpartum: Studies using 2- and 3-chambered place preference paradigms. Society for Behavioral Neuroendocrinology, Pittsburgh PA
32. Morrell JI, Mattson BJ, Wansaw MP, Smith KS, **Seip KM** (2006) Postpartum neuroendocrine and endocrine changes may participate in postpartum phases of maternal motivation as measured by neuronal activation during pup-associated place preference. International Congress of Neuroendocrinology, Pittsburgh PA
33. **Seip KM**, Reiss JI, Dziopa EI, Wansaw MP, Morrell JI (2005) Further place preference studies on the rewarding effects of cocaine in the postpartum female rat. Society for Neuroscience, Washington D.C.
34. Morrell JI, Mattson BJ, Wansaw MP, Smith KS, **Seip KM** (2005) Medial preoptic area is a neural hot spot involved in the motivation to perform maternal behavior. Society for Neuroscience, Washington D.C.
35. Fitzsimmons KS, **Seip KM**, Bell MC (2005) Preference and resistance to change in chain and tandem schedule components. Abstract, 31st Annual Convention of the Association for Behavior Analysis, Chicago
36. **Seip KM**, Bell MC (2004) The effect of a signal on resistance to change. 30th Annual Convention of the Association for Behavior Analysis, Boston MA
37. **Seip KM**, Bell MC (2004) The relationship between preference and persistence in pigeons. 32nd Annual Western Psychology Conference for Undergraduate Research, Santa Clara CA

Undergraduate conferences

** undergraduate student*

1. Atkinson R*, Najjar A*, **Cammack KM** (2022) Anxiety-like behavior following antibiotic exposure. Summer Research Frenzy, SURF Program, The University of the South, TN
2. Najjar A*, Atkinson R*, **Cammack KM** (2022) The impact of the gut microbiome on depressive-like behaviors. Summer Research Frenzy, SURF Program, The University of the South, TN
3. Dueñas-Pincay LD*, **Cammack KM** (2022) Assessing conditioned preference and locomotor properties of a possible cocaine antagonist in mice. Summer Research Frenzy, SURF Program, The University of the South
4. Atkinson R*, van den Abbeele Y*, Reece T*, **Cammack KM** (2022) The impact of the gut-brain axis on responses to drugs of abuse. Scholarship Sewanee, The University of the South, TN

5. Dueñas-Pincay LD*, Püsök A*, **Cammack KM** (2022) Conditioned place preference for a possible cocaine antagonist. Scholarship Sewanee, The University of the South, TN
6. Dueñas-Pincay LD*, Gomez E, **Cammack KM** (2022) Place conditioning for cocaine in male and female mice. Scholarship Sewanee, The University of the South, TN
7. Moore K*, Atkinson R*, Püsök A*, Botros L*, Najjar A*, Ruffin-Douglas Y*, Sullivan R*, Reece T*, Van Den Abbeele Y*, **Cammack KM** (2022) Relevance & reliability in estrus stage identification: Applications to behavioral neuroscience research. Scholarship Sewanee, The University of the South, Sewanee, TN
8. Kearley S*, **Cammack KM** (2022) Using immunohistochemistry to identify brain circuits involved in drug response. Scholarship Sewanee, The University of the South, TN
9. van den Abbeele Y*, Walker K*, Atkinson R*, Reece T*, Smith EC, **Cammack KM** (2022) A pilot study assessing indicators of antibiotic administration in mice. Scholarship Sewanee, The University of the South
10. Seegars JC*, **Cammack KM** (2021) Music therapy and the brain. Scholarship Sewanee Undergraduate Research Conference, The University of the South, Sewanee TN
11. Pusok A*, Minor A, **Cammack KM** (2020) Exploring sex differences in oxycodone place preference in the mouse. Scholarship Sewanee Undergraduate Research Conference, The University of the South, Sewanee TN
12. Collins V*, **Cammack KM** (2020) Ethanol preference, affective withdrawal and relapse-like behavior in female mice. Scholarship Sewanee Undergraduate Research Conference, The University of the South
13. Probasco K*, Minor A*, **Cammack KM** (2019) Optimizing conditioned place preference for oxycodone. Scholarship Sewanee Undergraduate Research Conference, The University of the South, Sewanee TN
14. Krueger A*, Collins V*, **Cammack KM** (2018) Alcohol & substance use amongst adolescents in a Southern Appalachian community. Scholarship Sewanee Undergraduate Research Conference, The University of the South, Sewanee TN
15. Fitzgerald ND*, **Cammack KM** (2018) Chronic Traumatic Encephalopathy: Animal models, clinical diagnosis, sex differences, and revised return-to-play protocol. Scholarship Sewanee Undergraduate Research Conference, The University of the South, Sewanee TN
16. Watters A*, **Cammack KM** (2018) Pre-gestational oxycodone exposure impacts maternal motivation but not maternal caregiving or drug seeking in the postpartum mouse. Scholarship Sewanee Undergraduate Research Conference, The University of the South, Sewanee TN
17. Fitzgerald ND*, **Cammack KM** (2018) The long-term effects of concussions: Diagnosis, CTE, and sex differences. Sewanee Neurds Colloquium, Brain Awareness Week, Sewanee TN
18. Watters A*, **Cammack KM** (2018) Pre-gestational oxycodone exposure impacts maternal motivation but not maternal caregiving or drug seeking in the postpartum mouse. Sewanee Neurds Colloquium, Brain Awareness Week, Sewanee TN
19. Gray K*, Green S*, Palmer A*, Sands P*, Watters A*, Bueso M*, Blevins A*, Williams K*, Matthews M*, Shattuck A*, Walker S*, Van Why N*, Blake D*, **Cammack KM** (2017) The impact of cycling gonadal hormones on ethanol preference and affective responses in female mice. Scholarship Sewanee Undergraduate Research Conference, The University of the South, Sewanee TN
20. Blake D*, Van Why N*, Walker S*, Shattuck A*, Matthews M*, Williams K*, Blevins A*, Bueso M*, Watters A*, Sands P*, Palmer A*, Green S*, Gray K*, **Cammack KM** (2017) The effects of environmental enrichment and stress on ethanol preference in female mice. Scholarship Sewanee Undergraduate Research Conference, The University of the South, Sewanee TN
21. Bueso M*, Blevins A*, Williams K*, Watters A*, Sierra O*, Palmer A*, Pittman H*, Gray K*, Woody S*, Walker S*, Earp H*, Shattuck A*, Allison T*, Sands P*, Penland S*, Green S*, Williams M*, Matthews M*, Womack B*, Blake D*, Malpica A*, Van Why N*, Moore BM, **Cammack KM** (2017) Neuroplasticity

- induced by voluntary exercise: Quantifying cell proliferation in the brain and small intestine of adult female mice. Scholarship Sewanee Undergraduate Research Conference, Sewanee TN
22. Gabriel D*, **Cammack KM** (2017) Reducing stigma surrounding mental health disorders in Nigerian adolescents: A pilot study on the efficacy of new mental health literacy curricula. Scholarship Sewanee Undergraduate Research Conference, The University of the South, Sewanee TN
 23. Reece H*, **Cammack KM** (2017) Clinical and neurobiological effects of brain injury: Diagnostic issues and potential therapeutics. Sewanee Neurds Colloquium, Brain Awareness Week, Sewanee TN
 24. Absi G*, Rumbika K*, Guise K, **Seip-Cammack KM**, Shapiro M (2014) Exploring the role of prefrontal-hippocampal circuitry in spatial reversal learning using muscimol and DREADD technology. Undergraduate Research Opportunity Program Conference, Boston University, Boston MA
 25. Gagliardi C*, Nagy J*, Guise K, **Seip-Cammack KM**, Shapiro M (2013) Transient inactivation of hippocampal-prefrontal circuitry may impair spatial learning. Undergraduate Research Opportunity Program Conference, Boston University, Boston MA

SERVICE

National/international:

ad hoc Reviewer, *Psychopharmacology*; *Neuroscience*; *Behavioral Neuroscience*; *Neuroscience Letters*; *Brain Sciences*; *British Journal of Pharmacology*; *Frontiers in Child & Neurodevelopmental Psychiatry*; *Hippocampus*; *Behavioural Brain Research*; *Experimental & Clinical Psychopharmacology*; *Journal of Undergraduate Neuroscience Education*

Faculty Advisor, IMPULSE Undergraduate Neuroscience Research Journal, 2016-present

Session Moderator, Neuroscience Undergraduate Research Virtual Symposium (NURVS I & II), 2020 & 2022

Judge, NEURON Competition, International Youth Neuroscience Association (IYNA), 2021

Reviewer, Posters on the Hill, Council on Undergraduate Research, 2019, 2020

Neuroscientist/Teacher Partners, Society for Neuroscience, 2006-2015

Co-Chair, Oral Communications Session III - Preclinical Opioid Research, College on Problems of Drug Dependence Annual Conference (Scottsdale AZ), 2010

Panelist, Professional Skills Workshop, Society for Neuroscience Annual Conference (Chicago IL), 2009

State/local:

Coalition Member, Grundy Safe Communities Coalition, 2020-present

Speaker, Grundy County Health Council Meeting, 2021

Speaker, Grundy County Principals' Meeting & Teacher In-service Day (3 sessions), 2019

Invited Speaker, Franklin County Jail Re-Entry Program (3 sessions), 2017

Volunteer, Brain Awareness Week, Icahn School of Medicine at Mount Sinai, 2013-2015

Speaker, Pre-Freshmen Summer Program, Research Initiative for Scientific Enhancement, Brooklyn College, 2014

Chair, Professional Development Committee, New York Women in STEM, 2013

Judge, New York City Science & Engineering Fair, CUNY/NYC Board of Education, 2010-2011

Co-Chair and Moderator, Science Communication Consortium, New York NY, 2007-2009

University:

The University of the South

Member, Center for Leadership Advisory Board, 2022-present

Chair, Neuroscience Program, Fall 2021-present

Member (5-year term), Center for Teaching Advisory Board, 2020-present

Faculty Liaison, Sewanee-at-Yale Program, 2019-present
 Member, Library/Information Technology Service Committee (LITSC), 2019-present
 Member, Institutional Animal Care & Use Committee (IACUC), 2016-present
 Faculty Advisor, Psi Chi Psychological Honors Society, 2016-present
 Peer Review Faculty Advisor, IMPULSE Undergraduate Neuroscience Research Journal, 2016-present
 Member, Neuroscience Steering Committee, 2015-present
 Search Committee, Assistant Professor of Psychology, 2022
 Member, Advisory Committee on Alcohol & Narcotics (ACAN), 2020-2021
 Member, Undergraduate Research Advisory Council, 2018-2020
 Member, Smith Experiential Learning Fund Review Board, 2020, 2021
 Member (1-year term), Center for Teaching Advisory Board, 2019-2020
 Faculty Advisor, Psychology Club, Spring 2020
 Search Committee, Visiting Assistant Professor of Psychology (Cognitive Neuroscience), 2020
 Member, Health Professions Advisory Committee, 2019
 Search Committee, Visiting Assistant Professor of Psychology (Open area), 2018, 2019, 2020, 2022
 Search Committee, Assistant Professor of Biology (Neurobiology), 2016 & 2017
 Judge, Scholarship Sewanee Undergraduate Research Conference, 2017, 2018
 Institutional Delegate, Sigma Xi Scientific Research Honor Society, 2016-2017

Icahn School of Medicine at Mount Sinai

Vice President, Women in Science, 2012-2015
 Executive Board, Women in Science & Medicine, 2012-2015
 Member, Postdoc Executive Committee, 2013-2015
 Planning Committee, SINAInnovations Trainee Entrepreneurship Forum & Reception, 2013-2014
 Chair, Professional Development Subcommittee, Women in Science, 2013

Rutgers University

President, Graduate Student Government Association, 2007-2008
 Program Representative, Integrative Neuroscience Graduate Program, 2007-2008
 Campus Liaison, New York Academy of Science, 2006-2008
 Secretary, Graduate Student Government Association, 2006-2007
 Mentor, SEED High School Summer Scholarship Program, American Chemical Society, 2005

PEDAGOGICAL TRAINING

Fellowships:

NeuroCaseNet Fellow, The Neuroscience Case Studies Network (RCN-UBE), 2018-2020
 Civic Engagement Faculty Fellow, The University of the South, 2017-2018

Select courses & workshops:

Authentic Assessment Strategies Workshop (virtual), Associated Colleges of the South, 2022
 The Inclusive STEM Teaching Project, edX, 2022
 Defining Inclusive Teaching Practices, Accelerating Systemic Change Network (ASCN), 2022
 Equity by Design: Embracing University Design for Learning, Univ of Northern Colorado (virtual), 2022
 A Fearless Framework for Infusing Inclusion Throughout Your Course, Sewanee, 2021
 Neuroscience Case Studies Workshop (virtual), Emory University, 2019, 2021
 Summer Teaching Workshop, Associated Colleges of the South, 2019

Practical Strategies for Enhancing Inclusivity in Undergraduate Courses (Barbara Lom, Ph.D.), Sewanee, 2018
Community Engagement & Service-Learning Pedagogy (Marshall Welch, Ph.D.), Sewanee, 2017
Scientists Teaching Science, New York Academy of Sciences, 2014
Introduction to Teaching Science Online, New York Academy of Sciences, 2014
Effective College Teaching, Rutgers University, 2008

STUDENTS & TRAINEES

The University of the South

Behavioral Neuroscience Laboratory

- Fall 2022: Revie Atkinson, AbdAlrahman Najjar, Yana Van Den Abbeele, Yoshi Ruffin-Douglas, Tyler Reese, Kelly Walker, Nicholas Clate, Rob Sullivan, Laura Botros, Kendall Moore, Mark Wilson, Lyberti Bradley, Christopher Le
- Summer 2022: Revie Atkinson, AbdAlrahman Najjar, Daniela Dueñas-Pincay
- Spring 2022: Daniela Dueñas-Pincay, Revie Atkinson, Yana Van Den Abbeele, AbdAlrahman Najjar, Yoshi Ruffin-Douglas, Tyler Reese, Kelly Walker, Nicholas Clate, Rob Sullivan, Maya Quick, Laura Botros, Kendall Moore, Kendall Buck
- Fall 2021: Daniela Dueñas-Pincay, Emma Fain, Gabby Acker, Anna Püsök, Carter Cooper, Revie Atkinson, Yana Van Den Abbeele, Tyler Reese, Kelly Walker
- Summer 2021: Daniela Dueñas-Pincay, Sam Kearley, Emma Fain, Anna Püsök, Revie Atkinson, Yana Van Den Abbeele, Kairi Gardner
- Spring 2021: Anna Püsök, Carter Cooper, Emma Fain, Jordan Besh, Alice Charbonteau, Revie Atkinson, Gabby Acker, Raleigh Bruce, Colin Seegars, Kallysta Erickson
- Summer 2020 (remote): Anna Pusok, Sambhav Bansal, Emma Fain, Carter Cooper
- 2019-2020: Andrew Minor, Anna Pusok, Victoria Collins, Sambhav Bansal, Alice Charbonteau, Sophia Harnew-Spradley, Mac Gortney
- 2018-2019: Amanda Watters, Kate Probasco, Andrew Minor
- 2017-2018: Amanda Watters, Victoria Collins, Marq Schieber
- 2016-2017: Paul Sands, Amanda Watters

NEUR444 Independent Study

1. Gabby Acker (F21) – *Racial bias & healthcare inequities contributing to the opioid crisis*
2. Kallysta Erickson (S21) – *Prosocial behavior and the brain*
3. Carter Cooper (F20, S21) – *The role of exercise in opioid recovery & relapse*
4. Colin Seegars (F20, S21) – *Music therapy & neuroscience*
5. Anna Pusok (S20) - *Exploring sex differences in oxycodone place preference in the mouse*
6. Hayden Wiseman (S20) – *Cognitive neuroscience: Bilingualism*
7. Hayden Wiseman (F19) – *Factors contributing to individual differences in opioid dependence*
8. Andrew Minor (S19/F19) – *Behavioral and neurobiological effects of prescription opioids across the reproductive cycle of female rats.*

PSYC444 Independent Study

1. Emma Fain (F20, S21) – *Perceptions and attitudes about substance use in Grundy County schools.*
2. Rebecca Worsham (F19) – *Perceptions about vaping and e-cigarette use in Grundy County schools.*
3. Emma Maclean (S19/F19) – *The intergenerational impacts of the opioid crisis in Grundy County.*

4. Kate Probasco (F17/S18/S19) – *The interaction between sex steroid hormones and mesolimbic dopamine in opioid reinforcement.*
5. Meredith Heitland, Rachel Vincent, Ashlyn Blevins, Dalton Fitzgerald (S18) – *Sex differences and the influence of gonadal hormones in opioid use, dependence and addiction.*
6. Amanda Watters (F17/S18) - *Behavioral and neurobiological effects of prescription opioids across the reproductive cycle of female rats.*
7. Ashley Krueger (F17/S18) - *Alcohol & substance use amongst adolescents in Southern Appalachia*
8. Daniel Gabriel (S17/F17) – *Feasibility and efficacy of a semester-long mental health literacy program in two Nigerian high schools: A pilot study*
9. Elizabeth Eidson (S17/F17) – *Investigating the opioid epidemic: How patient perceptions, diagnoses and access to treatment shape prescription opioid use in rural Appalachia*
10. Paul Sands (F16/S17) – *Behavioral econometrics of addiction: Dopamine dynamics in nucleus accumbens*
11. Hayden Reece (F16/S17) – *Clinical and neurobiological effects of traumatic brain injury*
12. Dalton Fitzgerald (F16) – *Chronic traumatic encephalopathy: clinical markers and neuropathology*

Teaching assistants

1. Victoria Collins – PSYC251 (S18, F19) and PSYC350 (S20)
2. Anne-Stuart Bell – PSYC359 (S17) and PSYC251 (F16)
3. Ariyan Cox – PSYC251 (F16)
4. Allison Smith – PSYC251 (F15)

Icahn School of Medicine at Mount Sinai

Undergraduate

1. Gianna Absi, Boston University, 2014
2. Kendra Rumbika, Boston University, 2014
3. Elisa Caffrey, Bard College, 2013
4. Celia Gagliardi, Boston University, 2013
5. Jamie Nagy, Boston University, 2013

Graduate

1. Philip Avigan, 2014-2015
2. Vincent Luo, 2014
3. Prashanth Rajarajan, 2013

PROFESSIONAL AFFILIATIONS AND MEMBERSHIPS

Society for Neuroscience

Faculty for Undergraduate Neuroscience

APA Division 02 – Teaching of Psychology

APA Division 28 – Psychopharmacology & Substance Abuse

Psi Chi Psychological Honors Society

Phi Beta Kappa

APA Division 06 – Behavioral Neuroscience