Ryan T. LaLumiere Psychological and Brain Sciences

Curriculum Vitae

Campus Address: 474 Psychological and Brain Sciences Building, University of Iowa

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EDUCATION AND PROFESSIONAL HISTORY

Higher Education

2005 **PhD**, Biological Sciences, Department of Neurobiology and Behavior,

University of California, Irvine

2000 **BS**, Psychology, Summa cum laude, Mt. St Mary's University

Professional and Academic Positions

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Honors and Awards

2002

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2023-2025	Collegiate Scholar, College of Liberal Arts and Sciences, University of Iowa.
2023	Outstanding Faculty Mentor Award, Graduate College, University of Iowa.
2019	Elected Full Member, American College of Neuropsychopharmacology
2014	Associate Member, American College of Neuropsychopharmacology, Elected
	Associate Member of the ACNP
2010	Travel Fellowship, American College of Neuropsychopharmacology (ACNP)
2010	Travel Fellowship, For Winter Conference on Brain Research
2009	Travel Award, NIDA, for Julius Axelrod Lecture Poster Session at the Society for
	Neuroscience Meeting
2008	Travel Award, NIDA, for Early Career Investigator Poster Session at the NIDA
	Mini-Convention "Frontiers in Addiction Research" at the Society for Neuroscience
	meeting
2008	Travel Award, NIDA, for Early Career Investigator Poster Session at the
	American Psychological Association Annual Convention
2004	2nd Place in Best Data Blitz Presentation, University of California, Irvine,
	Annual Spring Meeting for the Center of the Neurobiology of Learning and
	Memory
2003	Steinhaus Teaching Award, University of California, Irvine

Wisconsin Symposium Emotion Travel Award, University of Wisconsin,

Madison, Symposium on Emotion, Learning & Memory

2000 Graduated Summa Cum Laude, Mt. St. Mary's University, originally, Collge

Memberships

American Association for the Advancement of Science

American Psychological Society

International Behavioral Neuroscience Society Molecular and Cellular Cognition Society

Society for Neuroscience

2019 - Full Member, American College of Neuropsychopharmacology

Present

2016 - European Behavioural Pharmacology Society

Present

2014 - 2018 Associate Member, American College of Neuropsychopharmacology

2016 New York Academy of Science

SCHOLARSHIP

Publications

CLAS * System * = Senior Author, Major Contribution, ** = Secondary Contribution *** = Equal Contribution, *** = Minor Contribution

Refereed Articles

- 1. ***LaLumiere, R.T.**, Buen, T.-V., and McGaugh, J.L. (2003). Posttraining intra-basolateral amygdala infusions of norepinephrine enhance consolidation of memory for contextual fear conditioning. <u>Journal</u> of Neuroscience, 23, 6754-6758.
- 2. **Miranda, M.I., **LaLumiere, R.T.**, Buen, T.V., Bermudez-Rattoni, F., and McGaugh, J.L. (2003). Blockade of noradrenergic receptors in the basolateral amygdala impairs taste memory. <u>European Journal of Neuroscience, 18</u>, 2605-2610.
- *LaLumiere, R.T., Pizano, E., and McGaugh, J.L. (2004). Intra-basolateral amygdala infusions of AP-5 impair or enhance retention of inhibitory avoidance depending on training conditions. Neurobiology of Learning and Memory, 81, 60-66.
- 4. *LaLumiere, R.T., Nguyen, L.T., and McGaugh, J.L. (2004). Posttraining intra-basolateral amygdala infusions of dopamine modulate consolidation of inhibitory avoidance memory: Involvement of noradrenergic and cholinergic systems. European Journal of Neuroscience, 20, 2804-2810.
- 5. ***LaLumiere**, **R.T.**, Nawar, E.M., and McGaugh, J.L. (2005). Modulation of memory consolidation by the basolateral amygdala or nucleus accumbens shell requires concurrent dopamine receptor activation in both brain regions. <u>Learning & Memory</u>, 12, 296-301.
- 6. ***LaLumiere, R.T.,** and McGaugh, J.L. (2005). Memory enhancement induced by intra-basolateral amygdala infusions of β-adrenergic or muscarinic agonists require activation of dopamine receptors: Involvement of right, but not left, basolateral amygdala. Learning & Memory, 12, 527-532.
- 7. ****Shen, H., Korutla, L., Champtiaux, N., Toda, S., LaLumiere, R., Vallone, J., Klugmann, M., Blendy, J.A., Mackler, S.A., and Kalivas, P.W. (2007). NAC1 regulates the recruitment of the proteasome complex into dendritic spines. <u>Journal of Neuroscience</u>, <u>27</u>, 8903-8913.

- 8. *LaLumiere, R.T., and Kalivas, P.W. (2008). Glutamate Release in the Nucleus Accumbens Core Is Necessary for Heroin-Seeking. Journal of Neuroscience, 28, 3170-7.
- 9. ***LaLumiere, R.T.**, and Kalivas, P.W. (2008). Cocaine Addiction: Mechanisms of Action. <u>Psychiatric Annals</u>, 38, 252-258.
- 10. *Peters, J., **LaLumiere**, **R.T.**, and Kalivas, P.W. (2008) The Projection from Infralimbic Prefrontal Cortex to the Nucleus Accumbens Shell is Necessary for Inhibiting Cocaine seeking in Extinguished Rats. Journal of Neuroscience, 28, 6046-53.
- 11. *Uys, J.D, and **LaLumiere**, **R.T.** (2008). Glutamate: The new frontier in pharmacotherapy for cocaine addiction. <u>CNS & Neurological Disorders Drug Targets</u>, 7, 482-491.
- 12. **Kalivas, P.W., **LaLumiere**, **R.T**., Knackstedt, L.A., and Shen, H. (2009). Glutamate Transmission in Addiction. Neuropharmacology, 56, supplement 1, 169-173.
- 13. **Berglind, W., Whitfield, T., **LaLumiere, R. T.**, Kalivas, P.W., and McGinty, J.F. (2009). A Single Intra-PFC Infusion of BDNF Prevents Cocaine-Induced Alterations in Extracellular Glutamate Within the Nucleus Accumbens. Journal of Neuroscience, 29, 3715-3719.
- 14. *LaLumiere, R.T., Niehoff, K.E., and Kalivas, P.W. (2010). The infralimbic cortex regulates the consolidation of extinction training after cocaine self-administration. <u>Learning and Memory</u>, 17, 168-175.
- 15. **Knackstedt, L.A., Moussawi, K., **LaLumiere, R.,** Schwendt, M., Klugmann, M., & Kalivas, P.W. (2010). Extinction training after cocaine self-administration induces glutamatergic plasticity to inhibit cocaine-seeking. <u>Journal of Neuroscience</u>, 30, 7984-7992.
- 16. *LaLumiere, R.T. (2011). A new technique for controlling the brain: Optogenetics and its potential for use in research and the clinic. <u>Brain Stimulation</u>, 4, 1-6.
- 17. *LaLumiere, R.T., Smith, K.C., and Kalivas, P.W. (2012). Neural circuit competition in cocaine-seeking: Roles of the infralimbic cortex and nucleus accumbens shell. <u>European Journal of Neuroscience</u>, 35, 614-622.
- 18. **Trantham-Davidson, H., **LaLumiere, R.T.**, Reissner, K., Kalivas, P., and Knackstedt, L. (2012). Ceftriaxone normalizes nucleus accumbens synaptic transmission, glutamate transport and export following cocaine self-administration and extinction training. <u>Journal of Neuroscience</u>, 32: 12406-12410.
- 19. *Stefanik, M.T., Moussawi, K., Kupchik, Y.M., Smith, K.C., Miller, R.L., Huff, M.L., Deisseroth, K., Kalivas, P.W., and **LaLumiere, R.T.** (2013). Optogenetic inhibition of cocaine seeking in rats. <u>Addiction Biology</u>, 18: 50-53.
- 20. *Huff, M.L., Miller, R.L., Deisseroth, K., Moorman, D.E., and **LaLumiere, R.T.** (2013). Posttraining optogenetic manipulations of basolateral amygdala activity modulate consolidation of inhibitory avoidance memory in rats. Proceedings of the National Academy of Sciences of the United States of America, 110: 3597-3602.
- 21. **Mahler, S.V., Hensley-Simon, M., Tahsili-Fahadan, P., **LaLumiere, R.T.,** Thomas, C., Fallon, R.V., Kalivas, P.W., and Aston-Jones, G. (2014). Modafinil attenuates reinstatement of cocaine seeking: role for cystine-glutamate exchange and metabotropic glutamate receptors. <u>Addiction Biology</u>, 19, 49-60.
- 22. *LaLumiere, R.T. (2014). Optogenetic dissection of amygdala functioning. Frontiers in Behavioral Neuroscience, 8.

- 23. *Kreple, C.J., Lu, Y., Taugher, R.J., Schwager-Gutman, A.L., Du, J., Stump, M., Wang, Y., Ghobbeh, A., Fan, R., Cosme, C.V., Sowers, L.P., Welsh, M.J., Radley, J.J., **LaLumiere, R.T**, and Wemmie, J.A. (2014). Acid-sensing ion channels in the nucleus accumbens contribute to synaptic transmission and inhibit cocaine-associated plasticity. Nature Neuroscience, 17: 1083-91.
- 24. *Huff, M.L., and **LaLumiere**, **R.T**. (2015). The rostromedial tegmental nucleus modulates behavioral inhibition following cocaine self-administration in rats. <u>Neuropsychopharmacology</u>, 40: 861-73.
- 25. *Cosme, C.V., Gutman, A.L., and **LaLumiere, R.T.** (2015). The dorsal agranular insular cortex regulates the cued reinstatement of cocaine-seeking, but not food-seeking, behavior. Neuropsychopharmacology, 40: 2425-2433.
- 26. *Radley, J.J., Anderson, R.M., Cosme, C.V., Glanz, R.M., Miller, M.C., Romig-Martin, S.A., and **LaLumiere, R.T.** (2015). The contingency of cocaine administration accounts for structural and functional medial prefrontal deficits and increased adrenocortical activation. <u>Journal of Neuroscience, 35:</u> 11897-11910.
- 27. *Huff, M.L., Emmons, E.B., Narayanan, N.S., and **LaLumiere, R.T**. (2016). Basolateral amygdala projections to ventral hippocampus modulate the consolidation of footshock, but not contextual, learning in rats. <u>Learning & Memory, 23</u>: 51-60.
- 28. **Johnson, S.B., Emmons, E.B., Anderson, R.M., Glanz, R.M., Romig-Martin, S.A., Narayanan, N.S., **LaLumiere**, **R.T.**, and Radley, J.J. (2016). A basal forebrain site coordinates the modulation of endocrine and behavioral stress responses via divergent neural pathways. <u>Journal of Neuroscience</u>, 36: 8687-8699. doi: 10.1523/JNEUROSCI.1185-16.2016.
- 29. *Gutman, A.L., Ewald, V.A., Cosme, C.V., Worth, W.R., and **LaLumiere, R.T.** (2017). The infralimbic and prelimbic cortices contribute to the inhibitory control of cocaine-seeking behavior during a discriminative stimulus task in rats. <u>Addiction Biology</u>, 22: 1719-1730. doi: 10.1111/adb.12434.
- 30. *Cosme, C.V., Gutman, A.L., Worth, W.R., and **LaLumiere, R.T.** (2018). D1, but not D2, receptor blockade within the infralimbic cortex and medial orbitofrontal cortex impairs the reinstatement of cocaine seeking in a region-specific manner. <u>Addiction Biology</u>, 2: 16-27. doi: 10.1111/adb.12442
- 31. *LaLumiere, R.T., McGaugh, J.L., and McIntyre, C.K. (2017). Emotional modulation of learning and memory: Pharmacological implications. <a href="https://press.org/pharmacological-new-emoty-new-
- 32. *Gutman, A.L., Nett, K.E., Cosme, C.V., Worth, W.R., Gupta, S.C., Wemmie, J.A., and **LaLumiere**, **R.T**. (2017). Extinction of cocaine seeking requires a window of infralimbic pyramidal neuron activity after unreinforced lever presses. <u>Journal of Neuroscience</u>, 37: 6075-6086. doi: 10.1523/JNEUROSCI.3821-16.2017.
- 33. *Ewald, V.A., and **LaLumiere**, **R.T**. (2018). Neural systems mediating the inhibition of cocaine-associated memories. <u>Pharmacology</u>, <u>Biochemistry</u>, and <u>Behavior</u>, <u>174:</u>53-63. doi: 10.1016/j.pbb.2017.07.006.
- 34. *Wahlstrom, K.L., Huff, M.L., Emmons, E.B., Freeman, J.H., Narayanan, N.S., McIntyre, C.K., and **LaLumiere**, **R.T.** (2018). Basolateral amygdala inputs to the medial entorhinal cortex selectively modulate the consolidation of spatial and contextual learning. <u>Journal of Neuroscience</u>, 38: 2698-2712. doi: 10.1523/JNEUROSCI.2848-17.2018.
- 35. *Muller Ewald, V.A., De Corte, B.J., Gupta, S.C., Lillis, K.V. Narayanan, N.S., Wemmie, J.A., and LaLumiere, R.T. (2019). Attenuation of cocaine seeking in rats via enhancement of infralimbic

- cortical activity using stable step-function opsins. <u>Psychopharmacology</u>, <u>236</u>: <u>479-490</u>. doi: 10.1007/s00213-018-4964-y.
- 36. *Gutman, A.L., Cosme, C.V., Noterman, M.F., Worth, W.R., Wemmie, J.A., and **LaLumiere, R.T**. (2020). Overexpression of ASIC1A in the nucleus accumbens of rats potentiates cocaine-seeking behavior. Addiction Biology, 25. doi: 10.1111/adb.12690.
- 37. **Ghobbeh, A., Taugher, R., Alam, S., Fan, R., **LaLumiere, R.T.**, and Wemmie, J.A. (2018). A novel role for acid-sensing ion channels (ASIC1A) in Pavlovian reward conditioning. <u>Genes, Brain and Behavior</u>, doi: 10.1111/gbb.12531. [Epub ahead of print].
- 38. **Johnson, S., Emmons, E., Lingg, R., Anderson, R., Romig-Martin, S., **LaLumiere, R.T.**, Narayanan, N., Viau, V., and Radley, J.J. (2018). Prefrontal-bed nucleus circuit modulation of a passive coping response. Journal of Neuroscience, 39: 1405-1419. doi: 10.1523/JNEUROSCI.1421-18.2018
- 39. **Hannapel, R., Ramesh, J., Ross, A., **LaLumiere, R.T.,** Roseberry, A.G., and Parent, M.B. (2019). Postmeal optogenetic inhibition of dorsal or ventral hippocampal pyramidal neurons increases future intake. <u>eNeuro</u>. doi: 10.1523/ENEURO.0457-18.
- *Lingg, R.T., Johnson, S.B., Emmons, E.B., Anderson, R.M., Romig-Martin, S.A., Narayanan, N.S., McGaugh, J.L., LaLumiere, R.T., and Radley, J.J. (2020). Bed nuclei of the stria terminalis modulate memory consolidation via glucocorticoid-dependent and -independent circuits. Proceedings of the National Academy of Sciences of the United States of America, 117: 8104-8114. doi: 10.1073/pnas.1915501117.
- 41. *Wahlstrom, K.L., Alvarez-Dieppa, A., McIntyre, C.K., and **LaLumiere, R.T**. (2021). The medial entorhinal cortex mediates basolateral amygdala effects on spatial memory and downstream activity-regulated cytoskeletal-associated protein expression. Neuropsychopharmacology, 46: 1172-1182. doi: 10.1038/s41386-020-00875-6.
- 42. **Briggs, S.B., Ware, C.B., Sharma, K., Davis, S., **LaLumiere, R.T.,** and Parent, M.B. (2021). Postmeal optogenetic inhibition of dorsal hippocampal principal neurons increases future intake in a time-dependent manner. <u>Neurobiology of Learning and Memory</u>, 183. doi: 10.1016/j.nlm.2021.107478.
- 43. *Roesler, R., Parent, M.B., **LaLumiere, R.T.**, and McIntyre, C.K. (2021). Amygdala-hippocampal interactions in synaptic plasticity and memory formation. <u>Neurobiology of Learning and Memory</u>, 184: doi: 10.1016/j.nlm.2021.107490.
- 44. ****Meyer, H.C., Sangha, S., Radley, J.J., **LaLumiere, R.T.,** and Baratta, M.V. (2021). Environmental certainty influences the neural systems regulating threat and stress. <u>Neuroscience and Biobehavioral Reviews, 131</u>:1037-1055. doi: 10.1016/j.neubiorev.2021.10.014
- 45. *Nett, K.E., and **LaLumiere**, **R.T**. (2021). Infralimbic cortex functioning across motivated behaviors: Can the differences be reconciled? Neuroscience and Biobehavioral Reviews. 131: 704-721. doi: 10.1016/j.neubiorev.2021.10.002
- 46. *Muller Ewald, V.A., Kim, J., Farley, S.J., Freeman, J.H., and **LaLumiere, R.T**. (2022). Neurophysiological encoding of the inhibition of cocaine seeking in the rat infralimbic cortex. <u>Addiction</u> Biology. DOI:10.1111/adb.13106.
- 47. **Canto-de-Souza, L., Demetrovich, P.G., Plas, S., Souza, R.R., Epperson, J., Wahlstrom, K.L., Nunes-de-Souza, R.L., **LaLumiere, R.T.**, Planeta, C.S., and McIntyre, C.K. (2021). Daily optogenetic stimulation of the left infralimbic cortex reverses extinction impairments in male rats exposed to single prolonged stress. <u>Frontiers in Behavioral Neuroscience</u>. doi: 10.3389/fnbeh.2021.780326.

- 48. **Gupta, S.C., Ghobbeh, A., Taugher, R.J., Fan, R., Hardie, J.B., **LaLumiere, R.T.**, and Wemmie, J.A. (2022). Carbonic anhydrase 4 disruption prevents synaptic and behavioral adaptations induced by cocaine withdrawal. Science Advances. doi: 10.1126/sciadv.abg5058.
- 49. *Nett, K.E., and **LaLumiere**, **R.T**. (2023). Pair housing does not alter incubation of craving, extinction, and reinstatement after heroin self-administration in female and male rats. <u>Behavioral Neuroscience</u>, 137: 111-119. doi: 10.1037/bne0000544.
- 50. *Nett, K.E., Zimbelman, A.R., McGregor, M.S., Alizo Vera, V., Harris, M.R., and **LaLumiere, R.T.** (2023). Infralimbic projections to the nucleus accumbens shell and amygdala regulate the encoding of cocaine extinction learning. <u>Journal of Neuroscience</u>, 43: 1348-1359. doi: 10.1523/JNEUROSCI.2023-22.2022.

In press:

- Glickman, B., and LaLumiere, R.T. Theoretical considerations for optimizing the use of optogenetics with complex behavior. <u>Current Protocols</u>.
- McGregor, M.S., and LaLumiere, R.T. Still a "Hidden Island"? The rodent insular cortex in drug seeking, reward, and risk. <u>Neuroscience and Biobehavioral Reviews</u>.

Non-refereed Articles

Book Chapters

- * Gutman, A. L., LaLumiere, R. T. Optogenetics in reward and drug addiction. K. Appasani (Ed.), Optogenetics: From Neuronal Function to Mapping and Disease Biology. Cambridge University Press. Accepted/In Press November 9, 2015
- * LaLumiere, R. T. (2014). Dopamine and Memory. A. Meneses (Ed.), *Identification of Neural Markers Accompanying Memory*. Amsterdam: Elsevier.
- * LaLumiere, R. T., Kalivas, P. W. (2012). Motivational Systems: Rewards and Incentive Value. I. Weiner, R. J. Nelson, & S. Mizumori (Eds.), *Handbook of Psychology (2nd ed.) Volume 3: Biological Psychology and Neuroscience*. Wiley.

Encyclopedia Entry

- 1 LaLumiere, R. T. Drug Priming. *Neuroscience and Biobehavioral Psychology*. Elsevier. Accepted/In Press December 9, 2015
- * LaLumiere, R. T., Kalivas, P. W. (2010). Drug Priming. G. Koob, M. Le Moal, & R. Thompson (Eds.), *Encyclopedia of Behavioral Neuroscience*. Elsevier.

Commentaries and Perspectives

- 1 ** Kreple, C., Lu, Y., LaLumiere, R. T., Wemmie, J. (2014). *Drug abuse and the simplest neurotransmitter* (vol. 5, pp. 746-748). ACS Chemical Neuroscience.
- * LaLumiere, R. T. (2013). Opening the genome to reduce cocaine-seeking behavior (vol. 110, pp. 2442-2443). Proceedings of the National Academy of Sciences of the United States of America.
- * Müller Ewald, V. A., LaLumiere, R. T. (2019). Response-contingent optogenetics to discover the mechanisms of nicotine-cue associations. *Neuropsychopharmacology: official publication of the American College of Neuropsychopharmacology.*

Grants and Contracts

Funded Current

June 2023 – May 2028

Circuit versus stress hormonal influences in consolidation of fear memory strength and precision.

R01 MH132223-01A1. Funded by NIH/NIMH. Award amount: \$2,320,181. LaLumiere percent effort: 15%. Contact PI: Jason Radley. MPI: RYAN T.

LALUMIERE.

April 2023 – January 2028 Estradiol signaling pathways mediating sex differences in striatal synaptic plasticity.

R01 DA056113-01A1. Award amount: \$3,262,065. LaLumiere percent effort: 10%. Principal investigator: Kim Blackwell (George Mason University). Co-Investigator: Ted Abel (University of Iowa). Co-Investigator: RYAN T. LALUMIERE.

Feb 2023 – Dec 2027

Neural circuits and mechanisms underlying active and passive stress coping. R01 MH132207-01A1. Funded by NIH/NIMH. Award Amount: \$3,439,695. LaLumiere percent effort: 15%. Contact PI: Jason Radley. MPI: RYAN T. LALUMIERE. Co-Investigator: Nandakumar Narayanan and Alan K. Johnson (University of Iowa).

Sept 2021 – July 2025 Novel mechanisms for correcting opioid-induced synaptic abnormalities. R01 DA052953. Funded by NIH/NIDA. Award amount: \$2,321,445.00. Percent effort: 10%. Principal investigator: John Wemmie. Co-Investigator: Ryan T. LALUMIERE.

July 2020 – April 2025 Neural systems mediating the extinction and inhibition of cocaine seeking. R01 – DA049139. Funded by NIH/NIDA. Award amount: \$2,214,605.00. Percent effort: 20%. Principal Investigator: Ryan T. LALUMIERE.

Sep 2019 - Jul 2024

Neural systems controlling the inhibition of heroin seeking. R01 - DA048055 Funded by NIH/NIDA. Award amount: \$2,133,375.00. Percent effort: 20%. Principal Investigator: Rvan T LALUMIERE.

Mar 2019 - Nov 2022

Neural Circuit Basis of Maladaptive Endocrine and Behavioral Responses Following Chronic Stress. R01 MH119106A

Funded by NIH/NIMH. Percent effort: 10. Investigator/s Jason Radley (Principal Investigator), RYAN T. LALUMIERE (Co-Investigator).

Pending

Completed

Feb 2018 - Nov Basolateral amygdala circuits in defensive behavior regulation R01 MH113325-2022 01A1

Funded by NIH/NIMH. Award amount: **\$1,814,375.00**. Percent effort: 5. Investigator/s **Ryan LaLumiere** (Co-Investigator), John Wemmie (Principal Investigator), Nandakumar Narayanan (Co-Investigator).

Sept 2021 – Oct 2022 Diversity Supplement for Yasmine Sherafat – DA048055-S1. Funded by NIH/NIDA. Award amount: \$214,764. Percent Effort: 0%. Principal Investigator: Ryan T. LaLumiere. This supplement covers postdoctoral fellow Dr. Yasmine Sherafat for work under R01 DA048055.

Sep 2018 - Jun Hippocampal modulation of energy intake DK1114700 2021 Funded by NIH/NIDDK. Award amount: (\$1,292,280.00) Percent effort: 5. Investigator/s Marise Parent (Principal Investigator), Ryan T. LALUMIERE (Co-Investigator). Neural pathways modulating memory consolidation R01 – MH104384 Mar 2015 - Feb Funded by NIH/NIMH. Award amount: (\$1,935,000.00). Investigator/s 2022 Rvan T. LaLumiere (Principal Investigator), Christa K. McIntvre (Multi-PI). Modulation of Synaptic and Behavioral Measures of Addiction by Acid-sensing Sep 2014 - Jun *Ion Channels R01 – DA037216* 2019 Funded by NIH/NIDA. Award amount: (\$1,793,125.00). Investigator/s John Wemmie (Principal Investigator), Ryan T. LaLumiere (Multi-PI). Circuits and cellular mechanisms of chronic stress-induced HPA axis Aug 2017 - Jul hyperactivity R56MH095972 2018 Funded by NIH/NIMH. Percent effort: 5. Investigator/s Jason Radley (Principal Investigator), Ryan LaLumiere (Co-Investigator). Sep 2013 - May *Isolating the Extinction Circuit for Cocaine Seeking R01 – DA034684* 2018 Funded by NIH/NIDA. Award amount: (\$1,665,000.00). Investigator/s Ryan T. LaLumiere (Principal Investigator). Optogenetic modulation of memory consolidation for footshock-based learning Sep 2012 - Aug 2013 R21 - MH097111Award amount: (\$275,000.00). Dec 2012 Old Gold Summer Fellowship

Invited talks/lectures/conference/short course presentations

in the extinction of cocaine-seeking

Award amount: (\$6,000.00). The role of the rostromedial tegmental nucleus

a. International

- Panel member of a special Professional Development session at Winter Conference on Brain Research, Jan/Feb 2022. Panel was entitled "The lifecycle of an NIH grant application".
- Symposium panel, presenter. Title of talk: "Basolateral amygdala-entorhinal cortex influences on contextual and spatial memory consolidation". Winter Conference on Brain Research, Jan/Feb 2022. Part of a panel entitled "New developments on novel circuits that govern responses to threat and safety."

- Symposium panel, presenter. Title of talk: "Infralimbic cortex and the inhibition of drug-seeking behavior: Insights from multiple drugs and approaches". International Behavioral Neuroscience Society, Puerto Vallarta, Mexico. June 2021. (Part of a panel entitled: "The cognitive basis of drug relapse: Neural circuitry underlying extinction and reinstatement of reward-seeking behavior")
- Chair, symposium panel. "Neural systems regulating responses to stress, threat, and safety".
 International Behavioral Neuroscience Society, Puerto Vallarta, Mexico. June 2021.
- Symposium panel. Title of talk: "Specific projections from the amygdala modulate the consolidation of different aspect of memory". International Behavioral Neuroscience Society, Boca Raton, FL. June 2018. Chair and presenter.
- Symposium panel. Title of talk: "Prefrontal mechanisms underlying the extinction and inhibition of cocaine seeking". International Learning and Memory meeting, Huntington Beach, CA. April 2018. Chair and presenter.
- Panelist for Mini-Symposium at annual Society for Neuroscience Meeting. Title of talk: "The infralimbic cortex: What does it actually do during cocaine-seeking behavior?" Washington, D.C. November 2017.
- Invited talk. "Corticolimbic regulation of behavior: Insights from multiple memory systems and cocaine seeking". Sapienza University of Rome, Rome, Italy. September 2017.
- Symposium panel. Title of talk: "Recent insights into the Infralimbic Cortical Regulation of the Extinction and Inhibition of Cocaine seeking". European Behavioral Pharmacology Society annual meeting. September 2017. Heraklion, Greece. Served as chair and presenter.
- Invited talk. "Investigations into the neural circuits involved in memory consolidation and cocaine-seeking behavior." University of New South Wales, Sydney, Australia. February 2016.
- Invited talk. "Investigations into the neural circuits involved in memory consolidation and cocaineseeking behavior." Florey Institute of Neuroscience and Mental Health, University of Melbourne, Australia. February 2016.
- Invited talk. "Investigations into the neural circuits involved in memory consolidation and cocaineseeking behavior." Translational Research Institute, Queensland University of Technology, Brisbane, Australia. February 2016.
- Title: "Short Course in Optogenetics". I provided a short course in optogenetics, comprising three onehour lectures given to graduate students at the Universidad Nacional Autonoma de Mexico (UNAM) in Queretaro, Mexico. The course focused on: 1) the history and background on the opsins and the basic description of the opsins; 2) the technical aspects of opsin delivery and light delivery to neurons; and 3) the benefits/drawbacks of optogenetics and a tour through selected optogenetic findings. August 16, 2012.
- Title: "Neural circuits driving and suppressing drug-seeking behavior in rats". August 17, 2012. Colloquium at the Universidad Nacional Autonoma de Mexico (UNAM) in Queretaro, Mexico.

b. <u>National</u>

 Invited talk, "Mechanisms mediating competing motivations for control over drug-seeking behavior". California State University – San Marcos. April 2023.

- Invited talk, "Mechanisms mediating competing motivations for control over drug-seeking behavior". University of Pittsburgh, Pittsburgh, PA. March 2023.
- Invited talk, "Frontal cortical mechanisms for inhibiting drug seeking in rodents". University of Tennessee Health Science Center, November 2021.
- Presenter, Annual Pavlovian Society meeting. "Amygdala influences on memory consolidation: Insights from multiple memory systems". Iowa City, IA, October 2018.
- Invited talk. "Amygdala influences on memory consolidation: Insights from multiple memory systems". Scripps Research Institute, Jupiter, FL. June 2018.
- Invited speaker for Presidential Symposium. Title: "Amygdala influences on memory consolidation:
 How emotionally arousing events influence our memories for them." Psychiatric Research Society,
 Park City, Utah. February 2017.
- Chair/organizer and presenter for Symposium Panel entitled, "The Extinction and Inhibition of Drug Seeking and Fear-related Memories: Mechanisms and Therapeutic Targets". My presentation is entitled: "Recent insights into the infralimbic cortical regulation of the extinction and inhibition of cocaine seeking". American College of Neuropsychopharmacology. Hollywood, Florida. December 2016.
- Invited talk. "Optogenetic approaches in studies of drug addiction and memory consolidation." Bradley University, Peoria, IL. September 2016.
- Invited talk. "Prefrontal cortical regulation of cocaine seeking: Insights from extinction and discriminative stimuli-based tasks." Marquette University, Milwaukee, WI. September 2016.
- Invited talk. "Back-and-forth influences: How cocaine alters the prefrontal cortex and the prefrontal cortex alters cocaine seeking." Medical University of South Carolina, Charleston, SC. June 2016.
- Chair and organizer for Symposium Panel entitled, "Novel Molecular Targets in Cocaine Addiction".
 American College of Neuropsychopharmacology. Hollywood, Florida. December 2015.
- Invited talk. "Prefrontal mechanisms underlying cocaine addiction". Rutgers University, Brain Health Institute. November 2015.
- Invited talk. "Prefrontal mechanisms underlying cocaine addiction". University of Pennsylvania, Department of Psychology. November 2015.
- Invited talk. "Prefrontal mechanisms underlying cocaine addiction". University of Texas-Dallas, School of Behavioral and Brain Sciences. June 17, 2015.
- Chair and organizer for symposium panel entitled, "The double black diamonds of stress and drug abuse: Crossing trails in the mesocorticolimbic system". Winter Conference on Brain Research, January 24-30, 2015. Big Sky, Montana.

- Title: "Role of the amygdala in forebrain modulation of anxiety-related learning and memory". March 29, 2014. Part of symposium entitled, "Amygdala and pH Chemosensitivity in Panic Versus Anxiety." Annual meeting for the Anxiety and Depression Association of America, Chicago, IL.
- Chair and organizer for panel entitled, "Midbrain systems and the regulation of aversion and reward". Presentation as part of this panel: "Driving and inhibiting cocaine-seeking behavior: Interactions between cortical and midbrain systems". Winter Conference on Brain Research, January 25, 2014 – January 30, 2014. Steamboat Springs, CO.
- Title: "Optogenetic uses in drug-seeking behavior and memory consolidation". May 2, 2013. Presentation as part of a symposium. Optogenetics-2013 Meeting, Waltham, MA.
- Title: "Competition for control over cocaine-seeking behavior: Opposing roles within the prefrontal cortex". 1/26/11. Winter Conference on Brain Research. Keystone, CO. Part of panel titled: To ski or not to ski, that is the cortical question: Prefrontal regulation of behavioral and cognitive flexibility. Organizer and chair of panel: LaLumiere.
- Title: "Regulation of heroin-seeking behavior by prefrontal cortical inputs to the nucleus accumbens". 1/24/10. Winter Conference on Brain Research. Breckenridge, CO. Part of panel titled: Glutamate's Roles in Opiate Addiction.

c. University of Iowa

- Colloquium for Psychological and Brain Sciences. "Multiple memory systems: Historical tour to current work in the laboratory." September 2022.
- Presentation for Behavioral-Biomedical Interface Program seminar. "How to give a scientific talk effectively". September 2021.
- Invited talk for Department of Biology. "Prefrontal mechanisms underlying cocaine addiction".
 January 2016.
- Presentation at Neuroscience Research Day, Neuroscience Program, University of Iowa. Title: "Driving and inhibiting cocaine-seeking behavior: Interactions between cortical and midbrain systems". November 11, 2014.
- Presentation at the Molecular Psychiatry Interest Group, University of Iowa. Title: "Role of the amygdala in forebrain modulation of anxiety-related learning and memory". April 1, 2014.
- Title: "Drug addiction: Lessons from neurobiology". November 26, 2012. Special colloquium for Clinical Psychology area in Department of Psychology at University of Iowa.
- Title: "Neural circuits governing drug-seeking behavior in rats: Lessons from studies with heroin and cocaine". March 28, 2012. Brown Bag series for Department of Psychology.

TEACHING

Other teaching contributions

Individual lecture for MOHD IV

Oct 2015 - I was asked to participate in the new medical school curriculum by giving a double lecture May 2016 for the Mechanisms of Health and Disease (MOHD) IV course. My lecture to the medical

students was entitled "Reward and Salience (including substance use disorders)" and the

first one was delivered on October 16, 2015

Undergraduate mentorship

- Summer Research Opportunity Program, a program designed to provide promising underrepresented undergraduate students with in-depth research experiences.
 - O Summer 2011. Alexandria Pitzer, student from Pennsylvania State University.
 - Summer 2012. Mentored Alyse Gray, student from Ohio State University.
 - Summer 2014. Mentored Krystal Wynter, University of Virgin Islands; and Salimot Ojerinde, Indiana University.
 - o Summer 2015. Mentored Stephanie Munoz, Vassar University.
 - Summer 2016. Mentored Sandry Garcia, Brooklyn College; and AnnMarie Bennett, Adams State University.
- Iowa Center for Research by Undergraduates (ICRU) Fellowships
 - o Academic year 2011-2012. Nathan Myhre
 - Summer 2012. Julia Collison
 - Academic vear 2012-2013 Julia Collison
 - Summer 2013. Alexandra Toft.
 - Academic year 2013-2014. Erin Naffziger.
 - O Summer 2015. Adiceson Peppels.
 - Academic year 2015-2016. Chelsea Ryan
 - o Fall 2016. Emily Beltz.
 - O Spring 2017. Madison Owen.
 - Summer 2017. Katherine (Katie) Lillis.
 - Academic year. 2017-2018. Jesse Gray.
 - Spring 2018. Cody Zak.
 - Summer 2018. Christina Grimes
 - o Academic year 2018-2019. Kaylie Lyons
 - O Summer 2019. Maria Greufe.
 - o Academic year 2020-2021. Gabriel Gaudencio.
- Core Research Mentor (2016 present), Iowa Biosciences Academy. Internal program designed to prepare
 promising underrepresented minorities currently at the University of Iowa for graduate school in the
 biosciences. I provided mentoring for the following students in the program.
 - Danny Carson 2021 present.
 - Vanessa Alizo 2018 2020. Performed her Honors project for Honors in the Major (neuroscience) in my laboratory. Currently a Ph.D. (neuroscience) student at the University of California, Irvine.
 - Zosia (Zoe) Horak. Spring 2016 2017.

- Rachel Vasquez. Summer and Fall 2015.
- Undergraduates completing honors theses in my laboratory:
 - o Jesse Gray, 2016-2018.
 - O Vanessa Alizo, 2018-2020, defended her honors thesis in Neuroscience, Spring 2020
 - o Gabriel Gaudencio, 2019 2022.
- Three undergraduates designated Biological Psychology as an honors course (Fall 2011). Students wrote 5-page papers on special topic.
- One undergraduate designated Biological Psychology as an honors course (Fall 2012). Student wrote a 5-page paper on special topic.
- Two undergraduates designated Biological Psychology as an honors course (Fall 2013). Students wrote a 5-page paper on special topic.

Graduate student mentoring/advising

Graduate (Ph.D.) students in LaLumiere laboratory

In progress

In progress	
August 2022 - present	Kabasele, Shion. Behavioral and Cognitive Neuroscience, Psychology. University of Iowa. Serve as dissertation advisor/chair and mentor.
August 2020 - Present	Zimbelman, Alexa. Behavioral and Cognitive Neuroscience, Psychology. University of Iowa. Serve as dissertation advisor/chair and mentor.
June 2020 - Present	McGregor, Matt. Interdisciplinary Neuroscience Program, University of Iowa. Serve as dissertation advisor/chair and mentor.
June 2019 - Present	Glickman, Bess Interdisciplinary Neuroscience Program, University of Iowa, Serve as dissertation advisor/chair and mentor
<u>Completed</u>	
August 2016 – September 2022	Nett, Kelle Interdisciplinary Neuroscience Program, Interdisciplinary, University of Iowa, Serve as dissertation advisor/chair and mentor
August 2015 – May 2021	Wahlstrom, Krista Behavioral and Cognitive Neuroscience, Psychology, Psychological and Brain Sciences, University of Iowa, Servd as dissertation advisor/chair and mentor. Received an F31 NRSA under me.
June 2015 – May 2020	Muller Ewald, Victoria Interdisciplinary Neuroscience Program, University of Iowa, Served as dissertation advisor/chair and mentor.
August 2012 - September 2017	Cosme, Caitlin Behavioral and Cognitive Neuroscience, Psychology, Psychological and Brain Sciences, University of Iowa, Served as dissertation advisor/chair and mentor. Received an F31 NRSA under me.
August 2011 - September 2016	Huff, Mary Behavioral and Cognitive Neuroscience, Psychology, Psychological and Brain Sciences, University of Iowa, Served as dissertation advisor/chair and mentor.

Received an F31 NRSA under me.

PhD - Dissertation Committee Member (for students not in LaLumiere laboratory)

2022 – present	Wachter, Shannon. Psychology. Freeman laboratory.
2022 – present	Gupta, Stuti. Psychology. Freeman laboratory.
2021 – present	Pierson, Samantha. Neuroscience. Marcinkiewcz laboratory.
2021 – present	Houlton, Sydney. Neuroscience. Strathearn laboratory.
2021 – present	Skog, Timothy. Neuroscience. Freeman laboratory.
2021 – present	Sodoma, Matthew. Psychology, Voss laboratory
2021 – present.	Glanz, Ryan. Psychology. Blumberg laboratory.
2020 – 2021.	Heslin, Kelsey. Neuroscience. Parker laboratory.
2019 – 2021	Harmata, Gail. Neuroscience. Wemmie laboratory.
2019 – present.	Broschard, Matthew. Psychology. Freeman laboratory.
2019 – 2022	Lingg, Ryan. Psychology. Radley laboratory.
2019 - 2021	Farley, Sean. Psychology. Freeman laboratory.
2019 – 2020	Pak, Thomas. Neuroscience. Sheffield laboratory.
2016 - 2018	Del Rio Bermudez, Carlos, Psychology. Blumberg laboratory
2015 - 2017	Johnson, Shane. Neuroscience. Radley laboratory.
Summer 2015 - Fall 2018	Weng, Timothy. Psychology. Voss laboratory.
Fall 2015 - Spring 2018	Mukherjee, Didhiti. Psychology. Blumberg laboratory.
Spring 2015 - Spring 2018	Anderson, Rachel. Psychology. Radley laboratory
2014 - Spring 2016	Tiriac, Alexander. Psychology. Blumberg laboratory.
2014 - Spring 2015	Hurley, Seth. Psychology. Johnson laboratory.
2013 - Spring 2015	Bigelow, James. Psychology. Poremba laboratory.
2013 - 2014	Steinmetz, Adam. Psychology. Freeman laboratory.
2012 - 2014	Gaznick, Natassia. Neuroscience. Tranel laboratory.
2011 - Spring 2012	Todd, William D. Psychology. Blumberg laboratory.

External students (non-UI)

2023	Dana Smith. University of Pittsburgh. Defended in March 2023. Laboratory of Mary Torregrossa.
2022 – present	Nicole Cook. University of Texas-San Antonio. Thesis proposal in Fall 2022. Laboratory of Isabel Muzzio.
2021 – present	Luisa Alatorre – Rutgers University-Newark – Thesis proposal August 2022. Laboratory of Denis Pare.
2017 - 2019	Vasiliki Kanta-Chantzi – Rutgers University-Newark – Defended May 2019. Laboratory of Denis Pare.

Comprehensive Exam Committee for Neuroscience Program (that I can remember)

Summer 2021	Angela Richardson, Blumberg Laboratory
Summer 2021	Samantha Pierson, Marcinkewcz laboratory
Summer 2019	Timothy Skog, Radley laboratory
Summer 2018	Thomas Pak, Sheffield Laboratory
Summer 2018	Tien Tong

Research Advisory Committee

Fall 2022 – present	Khamma, Jacqueline (Jae). Radley
Fall 2022 – present	Kabasele, Shion. LaLumiere
Fall 2021 – present	Ahmad, Midha. Blumberg
Fall 2020 - present	Zimbelman, Alexa. LaLumiere
Fall 2019 – present	Hinz, Dalton. Radley
Fall 2018 – Spring 2021	Wachter, Shannon. Freeman
Fall 2016 – Spring 2019	Lingg, Ryan. Radley
Fall 2015 – Spring 2018	Wahlstrom, Krista. LaLumiere
Fall 2014 - Spring 2016	Bowden, Jessica, Poremba
Fall 2013 - Spring 2015	Del Rio, Carlos, Blumberg

Fall 2012 - Spring 2014	Anderson, Rachel, Radley
Fall 2012 - Spring 2014	Cosme, Caitlin
Fall 2012 - Spring 2014	Mukherjee, Didhiti, Blumberg
Fall 2011 - Spring 2013	Brzykcy, Stephen, Wasserman
Fall 2011 - Spring 2013	Davis, Tobin, Freeman
Fall 2011 - Spring 2013	Huff, Mary L.
Fall 2010 - Spring 2012	Hurley, Seth, Johnson
Fall 2010 - Spring 2012	Tiriac, Alexander, Blumberg

Professional Mentoring

Postdoctoral fellows

July 2021 – Sherafat, Yasmine – now tenure-track faculty at Cal State – San

September Marcos

2022

June 2021 – Farley, Sean

Feb 2023

August 2013- Elliott (Schwager-Gutman), Andrea

July 2017

SERVICE

Professional

Grant reviewing

2021

- **Regular member**, Neurobiology of Motivated Behavior (NMB) study section. NIH, July 2021 present.
- Ad hoc member, Molecular Neuropharmacology and Signaling (MNPS) study section. NIH.
 February 25-26, 2021

2020

- Ad hoc member, Molecular Neuropharmacology and Signaling (MNPS) study section. NIH. October 22-23, 2020.
- Ad hoc member, Neurobiology of Motivated Behavior (NMB) study section. NIH. June 11-12, 2020.
 - Ad hoc member, Special Emphasis Panel. CEBRA grant review for NIDA (ZDA1-SXM-M-04. November 4, 2019.
 - Ad hoc member, Special Emphasis Panel (conflict panel). ZRG1-BBBP-X-03 for NIH. November 1, 2019.

Ad hoc member, Special Emphasis Panel. CEBRA grant review for NIDA. (ZDA1-SXM-M-22).
 March 27, 2019.

2018

- Ad hoc member, Special Emphasis Panel (Conflict panel). ZRG1-IFCN-Y-02 for NIH. October 31, 2018.
- Ad hoc member, Biobehavioral Regulation, Learning, and Ethology (BRLE) study section. NIH. February 15-16, 2018.

2017

- Ad hoc member, Neurobiology of Learning and Memory (LAM) study section. NIH. October 24, 2017.
- Ad hoc member, Special Emphasis Panel (ZRG1-BBBP-Y-02). July 20, 2017.

2016

- Ad hoc member, Neurobiology of Learning and Memory (LAM) study section. NIH. November, 2016.
- Ad hoc member, Neurobiology of Learning and Memory (LAM) study section. NIH. February 11, 2016.

2015 and earlier

- K99/R00 Review for NIMH. June 2015.
- K99/R00 Review for NIMH. November 10, 2014.
- Swiss National Science Foundation. Ambizione grant review. May 2014.
- National Institute on Drug Abuse. Special Emphasis Panel/Scientific Review Group (2014/01 ZRG1 MDCN-G (91) S meeting. Internet Assisted Review for one grant application. January 6, 2014.
- National Institute on Drug Abuse. Special Emphasis Panel/Scientific Review Group 2013/05 ZDA1 SXC-E meeting on 3-28-13. Internet Assisted Review for two grant applications.
- National Science Foundation Proposal Review Panel. Modulation within the Neural Systems Cluster, 10/3/10-10/6/10.
- Mail-in reviewer for National Science Foundation Proposal Review Panel. Modulation within the Neural Systems Cluster. October 2011.
- Mail-in reviewer for Québec Consortium for Drug Discovery (CQDM). May 2011.
- Mail-in reviewer for the RCMI (Research Centers in Minority Institutions) Small Grant Initiative at the University of Puerto Rico. February 2012.

Manuscript reviewing

Though I do not always keep track of every paper I review, over the past review period, I know that I have reviewed at least 50 new manuscripts (not including re-reviews of resubmissions).

External letter writer

- Individual being promoted to Associate Professor in the tenure stream (Investigator Educator pathway) at the University of Pittsburgh (2021)
- Individual being promoted to Associate Professor without tenure at Medical University of South Carolina (2018)
- Individual being promoted to Associate Professor with tenure at Emory University (2018)

External Ph.D. thesis committee member

- Luisa Alatorre Rutgers University-Newark Thesis proposal December 2021.
- Vasiliki Kanta-Chantzi Rutgers University-Newark Defended May 2019.

Other service

Member, Education and Training Committee. American College of Neuropsychopharmacology

(ACNP). 2015-2018. This committee is responsible for organizing the educational components of ACNP and includes running the travel award program, reviewing and evaluating travel award applicants, and running the different mentoring programs at ACNP.

- Mentor for the Neuroscience Scholars Program (NSP), Fall 2016 2018. The NSP is a mentored program run by the Society for Neuroscience that provides multiyear support and mentorship for graduate and postdoctoral trainees that are members of underrepresented groups. As part of this program, mentees are paired with mentors, who then serve as a mentor for the student for the several years that the mentee is part of the program. The overall goal of the program is to increase the number of people in neuroscience who are members of underrepresented groups. As part of this, I have participated in NSP activities at the SFN annual neuroscience meeting, beginning in Fall 2016.
- Reviewer for a chapter of the <u>Biological Psychology</u> textbook (Breedlove, Watson, and Rosenzweig) in preparation for a new edition (7th edition). February 2012, June 2015.
- Mentor for the Neuroscience Scholars Program (NSP), Fall 2012 Fall 2014. The NSP is a mentored program run by the Society for Neuroscience that provides multiyear support and mentorship for graduate and postdoctoral trainees that are members of underrepresented groups. As part of this program, mentees are paired with mentors, who then serve as a mentor for the student for the several years that the mentee is part of the program. The overall goal of the program is to increase the number of people in neuroscience who are members of underrepresented groups. As part of this, I have participated in NSP activities at the SFN annual neuroscience meeting, beginning in Fall 2012 through the fall of 2014
- Proposal review for a book entitled "The Wiley-Blackwell Handbook on the Cognitive Neuroscience of Addiction", edited by Stephen Wilson. February 2012.
- 2014 2016. Winter Conference on Brain Research, Program Committee, Assistant, assisted with poster selection.

<u>Department</u> 2021 – present	Director of Graduate Studies, Department of Psychological and Brain Sciences.
2019-2020.	Chair, Faculty Search Committee for Clinical Science faculty member, Department of Psychological and Brain Sciences. As part of this, we were involved in the University's Path to Distinction program, serving as one of four departments in the pilot program. This search led to the successful hiring of Drs. Amanda McCleery and Bengi Baran.
2019 – 2020	Tenure review committee for an assistant professor, Member. Psychological and Brain Sciences.
2018 – 2019	Faculty Search Committee, Member. Department of Psychological and Brain Sciences. This search led to the successful hiring of Drs. Jiefeng Jiang, Dorit Kliemann, and James Traer.
2017 – 2021	Member, Teaching Observations Committee. Department of Psychological and Brain Sciences. This committee served as a group of faculty members charged

	with engaging in the annual classroom observations of instructors.
2010 – 2018	Animal Care and Use Committee, Member
2016 – 2018	Departmental Area Coordinator, Behavioral and Cognitive Neuroscience Training Area
2012 - 2017	Committee on Undergraduate Studies, Member
2015	Ad hoc committee for departmental organization, Member
College 2022 - present	Member of the Neuroscience Major Steering committee
2018	CLAS – Department Review Committee Member, Departmental Review of Health and Human Physiology.
2017 – 2021	Director of undergraduate studies for the Neuroscience major.
2017 – 2021	Honors Coordinator for Neuroscience Major. This involved coordinating the students were taking "Honors in the Major", including approval of thesis proposals, approval of the final thesis, and managing the presentation of the thesis at the end of the semester.
2016 - 2017	Creation of Neuroscience major, Co-creator, Dr. Joshua Weiner (Biology) and I worked together to form the Neuroscience major, an interdisciplinary major between the Department of Biology and the Department of Psychological and Brain Sciences. Currently, there are ~280 neuroscience majors.
2021 – 2022	Faculty Assembly (CLAS)
<u>University</u>	
2019 – present	Controlled substance in Research Committee, Member
2017 – present	Iowa Neuroscience Institute Seminar Committee, Member
2014 - 2021	Awards Committee Chair for Neuroscience Graduate Program. This committee designed and administered 6 new awards for the students and oversees the administration of the Graduate College awards.
2014 – 2021	Executive Committee, Neuroscience Graduate Program. This committee provides oversight for the program and works with the director to provide feedback.

Center for Scientific Engagement, Board of Advisor

2014 – 2021