

Curriculum Vitae
Amy S. Kohtz, Ph.D.
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PERSONAL STATEMENT

My research program applies my graduate training in *sex differences and memory* with my postdoctoral training in *addiction research* to address one of the most complex issues associated with the successful treatment of substance use disorder (SUD); *the initiation and maintenance of abstinence following addiction*. Relapse often occurs when exposure to a prior drug context (e.g. the addicts home, a bar) elicits a memory that drives motivation for the drug. To add further intricacy, there are substantial sex differences in craving indicating that women may face significantly greater hurdles in maintaining drug abstinence. Thus, understanding mechanisms of drug memory and sex differences in addiction are the critical foci of my research with the ultimate goal of identifying translational therapeutic targets for SUDs.

My work advances a unique and successful research program that combines basic research in clinically translational animal models with molecular techniques to discover sex differences in molecular signatures that respond to circuit activation during drug seeking, pathological motivation for drug, and drug relapse. My overarching experimental topics include: determining the impact of initial abstinence on persistent cocaine-seeking, investigation of the relationship between oxytocin and hormonal cyclicity in extended drug access, leveraging behavioral economics paradigms to identify drug demand for opiates in pain, and the role of developmental agents (e.g. environmental toxicants) on sex differences in the progression of addiction.

PROFESSIONAL POSITIONS

Current Position.

Brain Health Institute¹, Rutgers University (2015-Present; previously Medical University of South Carolina 2014-2015)

Post-Doctoral Scholar, Dr. Gary Aston-Jones Laboratory

EDUCATION

2009 B.A.

Psychology, University at Albany
(Minor: Biology, Education)

Thesis Title: *Low doses of cocaine decrease, and high doses increase, anxiety-like behavior and brain progesterone levels among intact rats.*

Advisor: Dr. Cheryl Frye

2011 M.A. Equivalency

Behavioral Neuroscience, University at Albany
Behavioral Neuroscience Program

Thesis title: *Mating can improve cognitive performance of male rats concomitant with androstane neurosteroidogenesis in the midbrain ventral tegmental area.*

Advisor: Dr. Cheryl Frye

2014 Ph.D.

Behavioral Neuroscience, University at Albany
Research Laboratory: Dr. Cristina Alberini, New York University

Thesis title: *The role of IGF-II in memory enhancement: implications for Autism Spectrum Disorders.*

Dissertation Committee: Cristina M. Alberini, Bruce C. Dudek, Christine K. Wagner

FUNDING SOURCES

Current Funding.

1K99DA045758 NIH Pathway to Independence Award, *awarded, 12/2018-11/2023* (PI: **Kohtz, Amy S**).

Project Title: “Mechanisms of Sex Differences in Drug Addiction.”

The aims of these studies are to 1) Determine sex differences in activity of locus coeruleus norepinephrine (LC-NE) and dorsal hippocampus (dHPC) neurons during cocaine seeking-persistence. 2) Determine the role of LC(NE) input to dorsal hippocampus CA1 on cocaine seeking-persistence in male and female rats. 3) Identify RNA transcripts that predict resilience against, or susceptibility to, drug relapse in male and female rats.

Proposed and Pending Funding.

R21DA050876, *Impact Score: 31, Percentile 23. Resubmission deadline November 16th 2020* (PI: Gary Aston-Jones, **Co-I: Kohtz, Amy S**).

Project Title: “Oxytocin, cocaine demand and addiction: modulation by progesterone.”

The aims of these studies are to 1) Determine effects of interactions between estradiol, progesterone and oxytocin signaling on cocaine demand in ovariectomized and intact female rats. 2) Determine the role of oxytocin projections to NAc on hormone-dependent cocaine demand.

Alkermes Foundation Award, *submission deadline Oct 30th, 2020.* (PI: **Kohtz, Amy S**).

Project Title: “Oxytocin and Progesterone: Implications for Sex-Specific Drug Abuse Therapies”

The aims of these studies are to 1) Determine the role of progesterone signaling in rostral paraventricular nucleus oxytocin neurons on cocaine demand in male and female rats. 2) Investigate the effects of cocaine on progesterone, estrus cyclicity, and increased motivation for drug over time in females. 3) Determine the therapeutic potential of oxytocin to reverse estrous cycle disruption by, and decrease motivation for, drugs of abuse.

Completed Funding.

4T32ES007148-30 Rutgers University: Environmental Health and Safety T32 *01/2017-01/2019* (Aleksunes, Lauren M P.I.; **Kohtz, Amy S. Post-Doctoral Trainee Award**)

Position: Post-Doctoral Associate

Project Title: “Sex differences in the behavioral toxicology of addictive drugs: contributions of initial abstinence and exposure to Chlorpyrifos.”

The aims of these studies were to: 1) Identify monoamine signaling pathways that are altered following exposure to cocaine, and 2) Identify the recruitment of sex specific signaling pathways following exposure to toxic insult by the insecticide Chlorpyrifos.

Project 3 of P50 DA016511 (K. Brady, Center Director; G. Aston-Jones Project 3).

Position: Post-Doctoral Scholar (2014-2017)

Center Title: “SCOR on Sex and Gender Factors Affecting Women's Health”, Project 3 title: “Stress Circuits and Sex Differences in Drug Seeking”; 7/1/12-6/30/18.

The aims of these studies were to: 1) Determine the roles of β -adrenergic and corticotropin-releasing factor (CRF) receptors in drug seeking in males and females, 2) Identify CRF, serotonin (5-HT), noradrenergic (NE) and oxytocin neurons that are stimulated during cocaine seeking in males and females, and 3) Determine the role of 5-HT and NE input to hippocampus on cocaine seeking in males and females.

HONORS AND AWARDS

Travel Award, American College of Neuropsychopharmacology (2019)

Travel Award, CRAN Mentored K Awardee Career Development Meeting (2019)

Travel Award, International Steroids and Nervous System Meeting (2019)

Blavatnik Regional Post-Doctoral Nominee (2019)

Society of Toxicology reproductive and developmental toxicology specialty section honorarium (2018)

Travel Award, Organization for the Study of Sex Differences (2016)
Poster Award, International Steroids and Nervous System Meeting (2011)
Travel Award, International Steroids and Nervous System Meeting (2011)
University at Albany-SUNY, University Auxiliary Services (2010)
Presidential Award for Undergraduate Research, University at Albany-SUNY (2009)
Honorable Mention Provost Award, University at Albany-SUNY (2009)
University at Albany-SUNY, University Auxiliary Services (2009)
Travel Award, Faculty for Undergraduate Research Society for Neuroscience (2009)
University at Albany-SUNY, Mentored Undergraduate Research Award (2009)

PENDING PUBLICATIONS * indicates corresponding author

1. **Kohtz A.S.***, Zhao, J., and Aston-Jones, G. (*Submitted*) Serotonin signaling in hippocampus during initial cocaine abstinence drives persistent drug seeking. *Neuropsychopharmacology*.
2. **Kohtz A.S.**, and Frye C.A. (*In Revision*) Long term mating experience reduces the impact of anticipation versus consummation on mating induced neurosteroidogenesis of male rats.
3. **Kohtz A.S.***, Lin B., Davies H.E., Presker M.A., Aston-Jones G. (*In Preparation*) Hormonal Milieu Drives Economic Demand for Cocaine in Female Rats. *Neuropsychopharmacology*.
4. **Kohtz A.S.***, Kim D., Krishna, T., Zhao, J., Aston-Jones G. (*In Preparation*) Toxicology of developmental exposure to Chlorpyrifos I: Behavioral, endocrine, and noradrenergic effects on female rats.
5. **Kohtz A.S.***, Kim D., Krishna, T., Aston-Jones G. (*In Preparation*) Toxicology of developmental exposure to Chlorpyrifos II: Behavioral, endocrine, and noradrenergic effects on male rats.
6. **Kohtz A.S.**, Davies, H.E., Lin B., Presker M.A., Zhao, J., Aston-Jones G. (*In Preparation*) Progesterone-Oxytocin Interactions in Motivation for Cocaine. *Biological Psychiatry*.

CURRENT PUBLICATIONS

7. **Kohtz A.S.**, Frye C.A. (2020) Learning and the Lifespan: what's sex got to do with it? Frontiers in Neuroscience: Love, Attraction and Sex: from Neuronal Mechanisms to Neuroprosthetic Applications Special Issue. doi: 10.3389/fnins.2020.00216
8. **Kohtz A.S.**, Walf, A.A., Frye, C.A. (2019) Effects of non-contingent cocaine on 3alpha-androstanediol. II. Disruption of lordosis of proestrous rats. Physiology and Behavior: Special Issue on Hormones, Sex Differences, and Drugs of Abuse. pii: S0031-9384(17)30438-9. doi: 10.1016/j.physbeh.2017.12.016. PMID: 29273454
9. **Kohtz A.S.**, Walf, A.A., Frye, C.A. (2019) Effects of non-contingent cocaine on 3alpha-androstanediol. I. Disruption of male sexual behavior. Physiology and Behavior: Special Issue on Hormones, Sex Differences, and Drugs of Abuse. pii: S0031-9384(17)30439-0. doi: 10.1016/j.physbeh.2017.12.017 PMID: 29248633
10. **Kohtz A.S.**, Lin B., Smith M.E., Aston-Jones G. (2018) Attenuated cocaine-seeking after oxytocin administration in male and female rats. Psychopharmacology. (Berl). *Epub, ahead of print*. doi: 10.1007/s00213-018-4902-z. PMID: 29671014

11. Steinmetz A.B., Stern S.A., **Kohtz A.S.**, Descalzi G., Alberini C.M. (2018) Insulin-like Growth Factor II Targets the mTOR Pathway to Reverse Autism-like Phenotypes in Mice. Journal of Neuroscience. pii: 2010-17. doi: 10.1523/jneurosci.2010-17.2017. PMID: 29217683
12. **Kohtz A.S.***, Aston-Jones G. (2017). Drug seeking during initial abstinence is driven by hippocampus β -ARs and 5-HTRs in a sex-dependent manner. Neuropsychopharmacology. doi: 10.1038/npp.2016.150. PMID: 27515792
13. McRae-Clark A. Cason A., **Kohtz A.**, Moran-Santa Maria M., Aston-Jones G. and Brady K. (2017) Impact of sex and gender on corticotropin releasing factor and noradrenergic sensitivity in cocaine use disorder. Journal of Neuroscience Research doi: 10.1002/jnr.23860. PMID: 27870396.
14. Cason A.M., **Kohtz A.**, Aston-Jones G. (2016) Role of Corticotropin Releasing Factor 1 Signaling in Cocaine Seeking during Early Extinction in Female and Male Rats. PLOSOne. 11(6):e0158577. doi: 10.1371/journal.pone.0158577.
15. Ye X., **Kohtz A.S.**, Pollonini G., Riccio A., & Alberini C.M. (2015). IGF-II mRNA induction in response to training is allele specific in a brain region dependent manner. PLOSOne.10(10):e0141078. PMID: 26495851.
16. Stern S.A., **Kohtz A.S.**, Pollonini G., Alberini C.M. (2014). Enhancement of memories by systemic administration of Insulin-like growth factor II. Neuropsychopharmacology. doi: 10.1038/npp.2014.69.
17. Frye C.A., Walf A.A., **Kohtz A.S.**, Zhu Y. (2014). Membrane progesterin receptors in the midbrain ventral tegmental area are required for progesterone-facilitated lordosis of mice. Steroids. 81:17-25. doi: 10.1016/j.steroids.2013.11.009.
18. Frye C.A., Walf A.A., **Kohtz A.S.**, Zhu Y. (2013) Membrane progesterin receptors in the midbrain ventral tegmental are required for progesterone-facilitated lordosis of rats. Hormones and Behavior. S0018-506X(13)00124-4.
19. **Kohtz A.S.**, & Frye C.A. (2012). Dissociating behavioral, autonomic, and neuroendocrine effects of androgen steroids in animal models. Methods in Molecular Biology. 829:397-431.
20. **Kohtz A.S.**, Paris J.J., Frye C.A. (2010). Low doses of cocaine decrease, and high doses increase, anxiety-like behavior and brain progesterone levels among intact rats. Hormones and Behavior. 57(4-5):474-80.

INVITED TALKS

1. **Kohtz, A.S.** (2020) Can Chemicals in the Environment Prime Susceptibility to Addiction Behaviors? *Rutgers University SURF Program Seminar Series*. Rutgers University, Piscataway, NJ.
2. **Kohtz, A.S.** (2019) Sex Differences in Addiction: Motivation or Memories? *Legacy Health Research Institute*, Oregon WA.
3. **Kohtz, A.S.** (2019) Sex Differences in Addiction: Memory or Motivation? *Neuroscience Department Seminar Series*. SUNY Downstate, Brooklyn, NY.
4. **Kohtz, A.S.**, Aston-Jones, G. (2018) Serotonin and norepinephrine signaling in dorsal CA1 drive sex differences in persistent cocaine-seeking. *48th annual Society for Neuroscience*. San Diego, CA. Co-Chair of “looking for biological interventions for cocaine use disorder” Nanosymposium.
5. **Kohtz, A.S.**, Aston-Jones, G. (2018) Sex Differences in the Behavioral Toxicology of Cocaine: Contributions of Initial Abstinence and Exposure to Chlorpyrifos. *Rutgers Toxicology Department Three-Minute Thesis Seminar Series*. Rutgers University, Piscataway, NJ.

6. **Kohtz, A.S.**, Aston-Jones G. (2017) Chlorpyrifos influences sex differences in hippocampal monoamine signaling to drive cocaine seeking behavior. *Rutgers Toxicology Department Seminar Series*. Rutgers University, Piscataway, NJ.
7. **Kohtz, A.S.**, Aston-Jones G. (2016) Sex differences in hippocampal monoamine signaling drives cocaine seeking behavior. *Rutgers Toxicology Department Seminar Series*. Rutgers University, Piscataway, NJ.
8. **Kohtz, A.S.** Aston-Jones G. (2016) Cocaine seeking during initial abstinence is driven by hippocampal β -adrenergic and serotonergic receptors in a sex-dependent manner. *Organization for the Study of Sex Differences*, 10th Annual Meeting, Philadelphia, PA.
9. **Kohtz, A.S.** Aston-Jones G. (2016) Stress Circuits and Sex Differences in Cocaine Seeking. Rutgers University, Newark, NJ. *Newark-New Brunswick Post-Doctoral and Faculty Exchange Seminar Series*. Rutgers University, Piscataway, NJ.
10. **Kohtz, A.S.** Aston-Jones G. (2016) Stress Circuits and Sex Differences in Cocaine Seeking. Neuroconnections Seminar Series. Rutgers University, Piscataway, NJ. *Neuroconnections Seminar Series*. Rutgers University, Piscataway, NJ.
11. **Kohtz A.S.**, Frye, C.A. (2010). Symposium presentation at the 18th annual meeting of the *North-Eastern Undergraduate/graduate Research Organization for Neuroscience*, Hunter College, CUNY, NY. "SUNY at Albany Brain Awareness Week: The Capital District Brain Bee."
12. Walf, A.A., **Kohtz A.S.**, Osborne, D.M., Paris, J.J., Frye, C.A. (2010). Symposium presentation at the 18th annual meeting of the *North-Eastern Undergraduate/graduate Research Organization for Neuroscience*, Hunter College, CUNY, NY. "Impact of environmental stressors on autonomic, neuroendocrine, and affective responding in rats, mice, and people: Implications of epigenetics?"
13. **Kohtz, A.S.**, Paris, J.J., & Frye, C.A. (2009). "Sex differences and endogenous hormonal milieu influence dose-dependent response to cocaine for effects on anxiety and sexual behavior." *SUNY Albany Undergraduate Research Conference* Albany, NY
14. **Kohtz, A.S.**, Paris, J.J., & Frye, C.A. (2009). "Sex differences and endogenous hormonal milieu influence dose-dependent response to cocaine for effects on anxiety and sexual behavior." *Biological Research Conference* SUNY Albany, Albany, NY.
15. Richards, M.C., & **Kohtz, A.S.** (2008) "Common Psychological and Psychiatric Conditions" *Brain Awareness Week*, St. Anne's Institute, Albany, NY

POSTER PRESENTATIONS

1. **Kohtz, A.S.**, Zhao, J., Aston-Jones G. (2019) Serotonin and Norepinephrine Signaling in Dorsal CA1 Drive Sex Differences in Persistent Cocaine-Seeking. 58th Annual American College of Neuropsychopharmacology Meeting. Orlando, FL. *Received a Travel Award*.
2. **Kohtz, A. S.**, Lin, B, Davies, H., Shumyatsky, A., Aston-Jones, G. (2019) Sex Differences in Motivation for Cocaine: Role of Progesterone and Oxytocin. Society for Neuroscience, 49th Annual Meeting, Chicago, IL.
3. Davies, H., Shumyatsky, A.G., Lin, B., **Kohtz, A.S.**, Aston-Jones, G. (2019) Sex Differences in Motivation for Cocaine: The Role of Oxytocin. Aresty undergraduate research conference. Rutgers University, Piscataway, NJ.
4. Shumyatsky, A.G., Davies, H., Lin, B., **Kohtz, A.S.**, Aston-Jones, G. (2019) Hormone-induced sex differences in cocaine demand elasticity. Aresty undergraduate research conference. Rutgers University, Piscataway, NJ.
5. Kim, D., Zhao, J., **Kohtz, A.S.**, Aston-Jones, G. (2019) Sex-Specific Effects of Developmental Chlorpyrifos Exposure on Cocaine-Seeking Behaviors. Aresty undergraduate research conference. Rutgers University, Piscataway, NJ.
6. **Kohtz, A. S.**, Zhao, J., Aston-Jones G. (2019) Serotonin and Norepinephrine in Dorsal CA1 Drive Sex Differences in Persistent Cocaine Seeking. CRAN Mentored K Awardee Career Development Meeting.

Bethesda, MD.

7. **Kohtz, A. S.**, Aston-Jones, G. (2019). Sex Differences in Motivation for Cocaine: Role of Oxytocin. 10th International Steroids and Nervous System Meeting, Torino, Italy. *Received a Travel Award.*
8. Gandhi, N., **Kohtz, A.S.**, Aston-Jones, G. (2018) Gestational exposure to Chlorpyrifos eliminates sex-differences in cocaine-seeking behavior of rats. Aresty undergraduate research conference. Rutgers University, Piscataway, NJ.
9. **Kohtz, A.S.**, Gandhi, N., Zhao, J., Aston-Jones, G. (2018) Sex differences in cocaine-seeking: contributions of hippocampal monoamine signaling and exposure to Chlorpyrifos. Society of Toxicology 57th Annual Meeting and ToxExpo. San Antonio, TX. *Honorarium awarded for participation in the reproductive and developmental toxicology specialty section.*
10. **Kohtz, A.S.**, Gandhi, N., Zhao, J., Aston-Jones, G. (2018) Sex differences in cocaine-seeking: contributions of hippocampal monoamine signaling and exposure to Chlorpyrifos. Pharmacy Research Day. Rutgers University, Piscataway, NJ.
11. **Kohtz, A.S.**, Gandhi, N., Zhao, J., Aston-Jones, G. (2018) Sex differences in cocaine-seeking: contributions of hippocampal monoamine signaling and developmental exposure to Chlorpyrifos. 19th Annual Department of Psychiatry Poster Session, Piscataway, NJ.
12. **Kohtz, A.S.**, Zhao, J., Aston-Jones G. (2018) Serotonin and Norepinephrine Signaling to Dorsal CA1 Drive Sex Differences in Cocaine-Seeking Persistence. Society for Neuroscience, 48th Annual Meeting, San Diego, CA.
13. **Kohtz, A.S.**, Zhao, J., Aston-Jones G. (2017) Attenuating locus coeruleus norepinephrine signaling on extinction day 1 prevents cocaine relapse in female rats. Society for Neuroscience, 47th Annual Meeting, Washington, DC.
14. Lin, B., **Kohtz, A.S.**, Aston-Jones G. (2017) Sex differences in motivation for cocaine: Role of oxytocin. Society for Neuroscience, 47th Annual Meeting, Washington, DC.
15. **Kohtz, A.S.**, Aston-Jones, G. (2017) Manipulating hippocampal serotonin receptors during context-dependent drug memory retrieval prevents cocaine relapse. 18th Annual Department of Psychiatry Poster Session, Rutgers University, Piscataway, NJ.
16. Lin, B., **Kohtz, A.S.**, Smith, M.E., Aston-Jones. G (2017) Role of Oxytocin in Cocaine-Seeking Behavior during Initial Abstinence. Aresty Research Center, 13th Annual Undergraduate Research Symposium, Piscataway, NJ.
17. **Kohtz, A.S.**, Aston-Jones, G. (2017) Manipulating hippocampal serotonin receptors during context-dependent drug memory retrieval prevents cocaine relapse. 18th Annual Department of Psychiatry Poster Session, Piscataway, NJ.
18. **Kohtz, A.S.**, Aston-Jones, G. (2016) Attenuating noradrenergic or serotonergic signaling in hippocampus during initial abstinence from cocaine persistently decreases later relapse to cocaine seeking in a sex-dependent manner. Society for Neuroscience, 46th Annual Meeting, San Diego, CA.
19. Lin, B., **Kohtz, A.S.**, Smith, M.E., Aston-Jones. G (2016). The role of oxytocin neuron activity in drug-seeking during initial abstinence from cocaine self-administration Society for Neuroscience, 46th Annual Meeting, San Diego, CA.
20. **Kohtz, A.S.**, Aston-Jones G. (2016) Cocaine seeking during initial abstinence is driven by hippocampal β -adrenergic and serotonergic receptors in a sex-dependent manner. Rutgers Pioneer in Endocrinology Workshop. Rutgers University, Piscataway, NJ.
21. **Kohtz, A.S.**, Aston-Jones G. (2016) Cocaine seeking during initial abstinence is driven by hippocampal β -adrenergic and serotonergic receptors in a sex-dependent manner. Organization for the Study of Sex Differences, 10th Annual Meeting, Philadelphia, PA. *Received Travel Award to attend and present poster at this event.*
22. Lin, B. **Kohtz, A.S.**, Aston-Jones G. (2016) Influence of Oxytocin Neuron Activation on Drug-Seeking during Initial Abstinence in the PVN and SON. Aresty undergraduate research conference. Rutgers

University, Piscataway, NJ.

23. Goldmeier, D., **Kohtz, A.S.**, Aston-Jones G. (2016) Cortical neuron activation correlates to cocaine-seeking behavior among rats in a sex-dependent manner. Aresty undergraduate research conference. Rutgers University, Piscataway, NJ.
24. Goldmeier, D., **Kohtz, A.S.**, Aston-Jones G. (2016) Cocaine-seeking on extinction day 1 drives neuronal activation in anterior cingulate cortex and retrosplenial cortex of male and female rats. Harvard Undergraduate Research Conference. Cambridge, MA.
25. **Kohtz, A.S.**, Cason, A.M., Aston-Jones, G. (2015) Drug seeking during initial abstinence is driven by hippocampal β -adrenergic and serotonergic receptors in a sex-dependent manner. Society for Neuroscience, 45th Annual Meeting, Chicago, IL.
26. Steinmetz, A.B., Stern, S.A., **Kohtz, A.S.**, Alberini, C.M. (2015) Mechanisms by which systemic administration of insulin-like growth factor ii reverses autism spectrum disorder phenotypes in mice. Society for Neuroscience, 45th Annual Meeting, Chicago, IL.
27. **Kohtz, A.S.**, Osborne, J.I., Smith, M.E., Cason, A.M., Aston-Jones, G. (2014) Sex differences in hippocampal activation during initial abstinence from cocaine: effects of the beta-adrenergic antagonist, propranolol. Society for Neuroscience, 44th Annual Meeting, Washington, DC.
28. Stern, S.A., **Kohtz, A.S.**, Alberini, C.A. (2013) Systemic IGF-II treatment enhances memories and rescues autistic phenotypes. Society for Neuroscience, 43rd Annual Meeting, San Diego, CA.
29. Stern, S.A., **Kohtz, A.S.**, Alberini, C.A. (2013) Systemic IGF-II treatment enhances memories and rescues autistic phenotypes. 12th Annual Molecular and Cellular Cognition Society Meeting, San Diego.
30. Stern, S.A., **Kohtz, A.S.**, Alberini, C.A. (2012) Memory enhancing effects of IGF-II and its role in social interaction in a mouse model of autism. Society for Neuroscience, 42nd Annual Meeting, New Orleans, LA.
31. Stern, S.A., **Kohtz, A.S.**, Alberini, C.A. (2012) Memory enhancing effects of IGF-II and its role in social interaction in a mouse model of autism spectrum disorders. 11th Annual Molecular and Cellular Cognition Society Meeting, New Orleans.
32. **Kohtz, A. S.**, Walf, A. A., Santarelli, A., Zhu, Y., & Frye, C.A. (2011) Knockdown of membrane progesterin receptors in the ventral tegmental area inhibits progesterin-facilitated lordosis of rats. Society for Neuroscience, 41st Annual Meeting, Washington, D.C.
33. Marchinek, A.M., **Kohtz, A. S.**, & Frye, C.A. (2011) A novel model for socially-relevant, psychological stressors: Social Approach. North East Under/Graduate Research Organization for Neuroscience (N.E.U.R.O.N.) Hunter College, New York, NY.
34. **Kohtz, A. S.**, Walf, A. A., Zhu, Y., & Frye, C.A. (2011) Membrane progesterin receptors in the ventral tegmental area may mediate progesterone-facilitated reproductive behavior of female rats. International Steroids and Nervous System Meeting, 6th Meeting, Turin, Italy.
35. **Kohtz, A. S.**, Walf, A. A., Zhu, Y., & Frye, C.A. (2010) Knockdown of membrane progesterin receptors in the ventral tegmental area inhibits progesterin-facilitated reproductive and social behaviors of rats Society for Neuroscience, 40th Annual Meeting, San Diego, CA.
36. Edinger, K. L., **Kohtz, A. S.**, Osborne, D. M., Llana, D. C., DaCosta, D. J., Koonce, C. J., Paris, J. J., Walf, A. A., & Frye, C.A. (2010) Effects of environmental stress and enrichment on autonomic, neuroendocrine, and depression-like status among male and female rats and mice Society for Neuroscience, 40th Annual Meeting, Chicago, IL.
37. **Kohtz, A.S.**, Frye, C.A. (2010). Brain Awareness Week: Capital District Brain Bee. Society for Neuroscience, 40th Annual Meeting, Chicago, IL.
38. **Kohtz, A.S.**, Paris, J.J., & Frye, C.A. (2009). Cocaine's dose-dependent effects on anti-anxiety and sexual behavior are predicted by levels of $3\alpha,5\alpha$ -THP among female rats. Society for Neuroscience, 39th Annual Meeting, Chicago, IL. Received FUN Faculty Travel Award to attend and present poster at this event.
39. **Kohtz, A.S.**, Frye, C.A. (2009). Brain Awareness Week: Capital District Brain Bee. Society for Neuroscience, 39th Annual Meeting, Chicago, IL.

40. **Kohtz, A.S.**, Paris, J.J., & Frye, C.A. (2009). Anxiety-like behaviors have dose-dependent modulation by cocaine in rats, with respect to cycle and hormone differences. Organization for the Study of Sex Differences Toronto, ON.
41. **Kohtz, A.S.**, Paris, J.J. & Frye, C.A. (2008). Cocaine's Effect on Anxiety, Sexual, and Motor Behavior of Female Rats in a Cycle-Dependent Manner. *Conversations in the Discipline on Hormones*, S.U.N.Y. at Albany, Albany, NY
42. Idrees, M.T., **Kohtz, A.S.**, Kalir, T., Burstein, D. (2005) X-Linked Inhibitor of Apoptosis expression in benign, hyperplastic, and endometrial carcinoma. College of American Pathologists Annual Meeting.

TEACHING INTERESTS

Research Methods, Biostatistics, Statistics for Biology, Statistics in Psychology, Introduction to Psychology, Introduction to Biology, Introduction to Neuroscience, Neuroanatomy, Neurophysiology, Neurotoxicology, Behavioral Neuroscience, Molecular and Cellular Neuroscience, Psychopharmacology, Animal Behavior, Learning and Memory, Nervous Systems Disorders, Endocrinology.

TEACHING EXPERIENCE

Rutgers University

Summer Undergraduate Research Fellowship (2020)

Guest Lecture

"Can Chemicals in the Environment Prime Susceptibility to Addiction Behaviors?"

*****In 2020, this class was taught in an online format.*****

Rutgers University

Statistics Workshop (2018-2020)

Instructor.

"Statistics for Biology Studies: What does the age of rigor and reproducibility mean for researchers?"

Taught graduate level statistics workshop for ~15 students and post-docs.

*****In 2020, this class was taught in an online format.*****

Rutgers University

Toxicology, Health and Environmental Disease (THED) High School Summer Program (2017-2019).

Core Instructor.

"Immunohistochemistry"

"Genetics"

Taught two week-long summer introduction to research courses for 30 high school students with 5 other graduate student/post-doc instructors.

State University of New York at Albany

Undergraduate Advising (2011-2013).

Held office hours, advised ~300 psychology and biology majors on coursework and advancement towards graduation.

Teaching Assistant, (2009-2011).

"Psychopharmacology – APSY388" (2009-2010)

Held office hours, grading, lectures

"Introduction to Psychology - APSY101" (2011)

Held 1 hour review lectures weekly for 20 students.

RESEARCH MENTORSHIP

Student Name	Years	Department	Awards	Current Location
Jeremy Westaway	2019-Present	Undergraduate Assistant – Psychology		Post-Bac Research Assistant
Tara Krishna	2019-Present	Undergraduate Assistant – Cell Biology and Neuroscience		Current Student; Junior
Dennis Kim	2018 - 2020	Undergraduate Assistant – Cell Biology and Neuroscience *Honors with Distinction in Research	Aresty Honors College Award (2018, \$750; 2019 \$750)	Post-Bac Research Assistant
Joshua Zhao	2017-Present	Undergraduate Assistant – Cell Biology and Neuroscience	Robert Wood Johnson Selected Trainee Aresty Research Award (2017, \$1000)	Rutgers/RWJMS BA/MD program
Alexandra Shumyatsky	2018-2019	Undergraduate Assistant – Cell Biology and Neuroscience	SAS Honors College Award (2019, \$1000)	
Hannah Davies	2018-2019	Undergraduate Assistant – Psychology	Aresty Undergraduate Research Assistant	Student - University of Michigan Ann Arbor
Belle Lin	2015-2018	Undergraduate Assistant – Molecular Biology and Biochemistry *Honors with Distinction in Research	Aresty Undergraduate Research Assistantship (2015; \$1000), Aresty Conference Travel (2016; \$700, 2017; \$250) Aresty Research Award (2016, \$1000); Henry Rutgers Award; Honors with Distinction in Molecular Biology	Cooper Medical School at Rowan University
Jeremy Autore	2016-2018	Undergraduate Assistant – Physics and Astronomy *Honors with Distinction in Research		Princeton Review Tutoring
Neil Gandhi	2017-2018	Undergraduate Assistant – Department of Computer Science	Aresty Undergraduate Research Assistant	Student - Rutgers University
Caren Nassif	2017	Undergraduate Assistant – Psychology Department		Northwestern University, Psychology Ph.D. student
Nikki Kole	2016	Post-Baccalaureate Assistant		DO Student - NYIT College of Osteopathic Medicine
David Goldmeier	2015-2016	Undergraduate Assistant – Department of Biology	Aresty Undergraduate Research Assistantship (2015; \$1000), Harvard Undergraduate Research Conference, Aresty Conference Travel (2015 \$300)	MD Student – Ben-Gurion University
Kate Sohn	2015	Undergraduate Assistant – Cell Biology and Neuroscience	Aresty Summer Research Assistantship (\$3000)	Fulbright Scholar, UPenn-Korea
Jennifer Osborne	2014	Post-Baccalaureate Technician		National Association of Pharmaceutical Sales

				Representatives
Skyye Watson	2014	Undergraduate Assistant: Psychology Department		Psy.D Student - The Citadel Graduate College
Daniel DaCosta, M.D.	2009- 2010	Undergraduate Assistant: Biology Department	Honors Biology Thesis Mentored Undergraduate Research Award (\$450)	Internal Medicine Resident – Harbor UCLA Medical Center

PROFESSIONAL MEMBERSHIPS

Society of Toxicology (2017-Present)

American Psychology Association (2009-Present)

Sigma Xi (2009-Present)

Society for Neuroscience (2008-Present)

International Behavioral Neuroscience Society (2008-Present)

Organization for the Study of Sex Differences (2008-Present)

NorthEast Under/graduate Research Organization for Neuroscience (2008-2011)

COMMUNITY OUTREACH

Graduate Women in Science (GWIS) National Fellowship Program Committee (2018-2020). *Reviewer.*

Sports Foundation Inc. “SFI Opioid Symposium” (2018-2020). *Consultant.* Workshop on sex differences in adolescent opiate use. Bronx, NY.

SciWomen Rutgers “Women in Biology” (2017). *Presenter.* Women in science workshop presenter on neural imaging. Rutgers University, Piscataway, NJ.

North Jersey Regional Science Fair (2017). *Judge.* New Providence, NJ.

Brain Awareness Week (2009-2011). *Coordinator.* High school “Brain Bee” for the city of Albany, NY.

Brain Awareness Week (2009). *Instructor.* Community outreach at St. Anne’s Institute for girls. Albany, NY.

Middle Earth Peer Counseling (2007-2009). *Peer Counselor.* Outreach coordinator on diversity, addiction, and sex education. SUNY at Albany, Albany, NY.

New York Civil Liberties Union (2002-2003). *Administrative Volunteer.* Volunteer staff for women’s reproductive rights subcommittee. NYCLU, New York, NY.

Leave Out Violence (2001-2005). *Peer Counselor.* NYC peer outreach advisor for addiction and interpersonal trauma. NYC Public School District 2, New York, NY.

REFERENCES

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