

CURRICULUM VITAE

Joshua A. Burk
College of William & Mary
Department of Psychology
P.O. Box 8795
Williamsburg, VA 23187
jabur2@wm.edu
757-221-3882 (office)
757-221-3896 (FAX)

Last Updated: June 2025

Education:

- 1999 Ph.D., Experimental Psychology from the University of New Hampshire
Thesis: Effects of Prefrontal Cortical, Hippocampal, and Intralaminar
Thalamic Nuclei Lesions on a Seven Choice Serial Reaction Time Task
- 1999 M.S.T., College Teaching from the University of New Hampshire
- 1996 M.A., Experimental Psychology from the University of New Hampshire
Thesis: Excitotoxic Lesions of the Nonspecific Nuclei, but Not the Medial
Dorsal Nucleus Lead to Deficits on a Delayed Matching to Sample Task
- 1993 B. S., Psychology (Biological Emphasis) from the University of California, Davis

Current Academic Appointments:

- 2025 (beginning Aug 10) Provost Liaison for Academic Innovation
- 2017-present Professor, Department of Psychological Sciences, William & Mary
- 2016-present Faculty Affiliate, Neuroscience Program, William & Mary

Previous Academic Appointments and Research Positions:

- 2022-2025 Provost Faculty Fellow, William & Mary
- 2009-2022 Faculty Affiliate, Department of Applied Science, William & Mary
- 2016-2022 Chair, Department of Psychological Sciences, William & Mary
- 2008-2017 Associate Professor of Psychology, William & Mary
- 2011-2015 Director, Neuroscience Program
- 2010-2011 Faculty Affiliate, Neuroscience Program, William & Mary
- 2002-2008 Assistant Professor of Psychology, William & Mary

- 2001-2002 Postdoctoral Research Associate, Department of Psychology, Ohio State University
- 1999-2001 Postdoctoral Fellow, Department of Psychology, Ohio State University
- 1994- 1999 Teaching Assistant, Department of Psychology, University of New Hampshire
- 1993- 1994 Research Assistant for John Capitanio, California Regional Primate Center
- 1993- 1994 Research Assistant for Chris Tromborg, University of California at Davis Animal Facilities

Edited Book

Burk JA, Fadel JR (eds.) (2019) The orexin/hypocretin system: Functional roles and therapeutic potential. Elsevier, NY.

Publications *=denotes W&M undergrad **=denotes W&M grad student

- 60. Dickter, C. L. & Burk, J. A. (in press) Implicit and explicit attitudes towards autistic individuals: a review. *Autism in Adulthood*.
- 59. Bierce LF**, Dickter CL, Burk JA (in press) Simulated contact and attitudes toward autistic adults: effects of gender of the autistic adult and mediation by intergroup anxiety. *Journal of Autism and Developmental Disorders*.
- 58. Bivins-Sanchez*, Y., Dickter, C. L., & Burk, J. A. (2025). The effect of imagined contact on attitudes towards individuals with mental illness. *Journal of Interpersonal Relations: Intergroup Relations and Identity*, 18, 90-98.
- 57. Dickter CL, Chang I*, Burk JA, Bravo AJ (2025) Autistic traits, emotion regulation, social anxiety, drinking to cope, and problematic alcohol use: A cross-cultural examination among young adults from seven countries. *Substance Use and Misuse*, 60, 766-774.
- 56. Allen AM*, Burk JA, Dickter CL (2025) The effect of labeling during simulated contact on attitudes toward autistic adults. *Autism in Adulthood*, 7, 93-99.
- 55. Mallipeddi S*, Burk JA, Dickter CL (2025) The impact of an autistic character media portrayal on autistic stereotypes. *Journal of Autism and Developmental Disorders*, 55, 540-546.
- 54. Maness EB**, Blumenthal SA**, Burk JA (2023) Dual orexin/hypocretin receptor antagonism attenuates NMDA receptor hypofunction-induced attention deficits in a rat model of schizophrenia. *Behavioural Brain Research*, 450, 114497.
- 53. Ball H, Said H, Chapman K, Fu R, Xiong Y**, Burk JA, Rosenbaum D, Veneziano R, Cotten ML (2023) Orexin A, an Amphipathic α -helical Neuropeptide Involved in Pleiotropic Functions in the Nervous and Immune Systems: Synthetic Approach and Biophysical Studies of the Membrane-bound State. *Biophysical Chemistry*, 107007.

52. Maness, EB, Burk JA, McKenna JT, Schiffino FL, Strecker RE, McCoy JG (2022) Role of the locus coeruleus and basal forebrain in arousal and attention. *Brain Research Bulletin*, 188, 47-58.
51. Dickter CL, Burk JA (2021) The effects of contact and labeling on attitudes towards individuals with autism. *Journal of Autism and Developmental Disorders*, 51, 3929-3936.
50. Dickter CL, Burk JA (2021) The role of social anxiety in autism and the Broader Autism Phenotype: evidence from childhood through adulthood. In Factors affecting neurodevelopment: genetics, neurology, behavior and diet. Martin C, Preedy VR, Rajendram R (eds.). Elsevier, NY, pp. 551-560.
49. Dickter, C. L., Burk, J. A., Anthony, L. G., Robertson, H. A., Verbalis, A., Seese, S., Myrick, Y., & Anthony, B. J. (2021). Assessment of Sesame Street online autism resources: Impacts on parental implicit and explicit attitudes towards autistic children. *Autism*, 25, 114-124.
48. Dickter CL, Burk JA (2021) Classroom supports. In Supporting neurodiverse college student success: a guide for librarians, student support services, and academic learning environments. Coghill EMH, Coghill JG (eds.) Rowman & Littlefield Publishing, Lanham, MD, pp. 71-91.
47. Lipson J, Taylor C, Burk JA, Dickter CL (2020) Perceptions of and behavior toward university students with autism. *Basic and Applied Social Psychology*, 42, 354-368.
46. Dickter CL, Burk JA, Zeman JL, Taylor SC (2020) Implicit and explicit attitudes toward autistic adults. *Autism in Adulthood*, 2, 144-151.
45. Burk JA, Maness EB, Blumenthal SA, Fadel J (2019) Orexins and cognition: neuroanatomical and neurochemical substrates. In *The orexin/hypocretin system: Functional roles and therapeutic potential* (eds. Burk JA, Fadel JR). Elsevier, NY.
44. Burk JA, Blumenthal SA, Maness EB (2018) Neuropharmacology of attention. *European Journal of Pharmacology*, 835, 162-168 (Invited review for a Special Issue, 50 Years of EJP).
43. Dickter CL, Burk JA, Fleckenstein K*, Kozikowski CT** (2018) Autistic traits and social anxiety predict differential performance on social cognitive tasks in typically developing college students. *PLOS ONE*, 13(3): e0195239 <https://doi.org/10.1371/journal.pone.0195239>
42. Burk JA (2017) Reducing falls in a model of impaired cognitive control of attention (Commentary on Kucinski et al.). *European Journal of Neuroscience*, 45, 215-216 (invited commentary).
41. Hunt PS, Burk JA, Barnett RC (2016) Adolescent transitions in reflexive and non-reflexive behavior: Review of fear conditioning and impulse control in rodent models. *Neuroscience and Biobehavioral Reviews*, 70, 33-45 (Invited review for a Special Issue, *The Adolescent Brain*).
40. Kozikowski CT**, Burk JA (2016) Promoting cognitive flexibility under attention-demanding conditions in aged rats. *Current Aging Science*, 9, 144-149.
39. Zajo KN**, Fadel JR, Burk JA (2016) Orexin A induced enhancement of attentional processing in rats: role of basal forebrain neurons. *Psychopharmacology*, 233, 639-647.

38. Burk JA (2013) Roles of cholinergic receptors during attentional modulation of cue detection. *World Journal of Pharmacology*, 2, 84-91.
37. Hardcastle K*, Smith GD, Burk JA (2013) A population activity model of cortico-striatal circuitry underlying behavioral inhibition in rats. *Globus Pallidus: Regional Anatomy, Functions/Dysfunctions and Role in Behavioral Disorders* (eds. Gordon CR, Abbadelli TG) . Nova Science Publishers, Hauppauge, NY, pp. 67-92.
36. Hirsh AH**, Burk JA (2013) Repeated exposure to a visual distracter enhances new discrimination learning and sustained attention task performance in rats. *Behavioural Processes*, 92, 147-151.
35. Barnett RC, Hunt PS, Burk JA (2012) Cognitive consequences of adolescent and adult nicotine exposure: utility of animal models. *Nicotine Addiction: Prevention, Health Effects and Treatment Options* (ed. Di Giovanni G). Nova Science Publishers, Hauppauge, NY, pp. 171-202.
34. Robinson AM**, Mangini DF*, Burk JA (2012) Task demands dissociate the effects of muscarinic M1 receptor blockade and PKC inhibition on attentional performance in rats. *Journal of Psychopharmacology*, 26, 1153-1160.
33. Spaeth AM**, Barnett RC, Hunt PS, Burk JA (2010) Adolescent nicotine exposure disrupts context conditioning in adulthood in rats. *Pharmacology, Biochemistry and Behavior*, 96, 501-506.
32. Burk JA, Robinson AM** (2010) Muscarinic M1 receptors, protein kinase C and attention: targets for treating Alzheimer's disease and schizophrenia. *Handbook of Drug Targeting and Monitoring* (eds. Andreev B, Egorov V). Nova Science Publishers, Hauppauge, NY, pp. 113-129.
31. Fadel J, Burk JA (2010) Orexin/hypocretin modulation of the basal forebrain cholinergic system: role in attention. *Brain Research*, 1314, 112-123. (*Special issue on "Neuropeptides in Stress and Addiction"*)
30. Boschen KE**, Fadel JR, Burk JA (2009) Systemic and intrabasalis administration of the orexin-1 receptor antagonist, SB-334867, disrupts attentional performance in rats. *Psychopharmacology*, 206, 205-213.
29. Burk JA, Lowder MW**, Altemose KE* (2008) Attentional demands for demonstrating deficits following intrabasalis infusions of 192 IgG-saporin. *Behavioural Brain Research*, 195, 231-238.
28. Burk JA (2008) Neuroscience. *Encyclopedia for Educational Psychology* (ed. Salkind NJ). Sage Publications: Thousand Oaks, CA, 724-729.
27. Howe WM**, Burk JA (2007) Dizocilpine-induced accuracy deficits in a visual signal detection task are not present following D-cycloserine administration. *European Journal of Pharmacology*, 577, 87-90.
26. Johnson RT**, Burk JA, Kirkpatrick LA (2007) Dominance and prestige as differential predictors of aggression and testosterone levels in men. *Evolution and Human Behavior*, 28, 345-351.
25. McQuail JA*, Burk JA (2006) Evaluation of muscarinic and nicotinic receptor antagonists on attention and working memory. *Pharmacology, Biochemistry and Behavior*, 85, 796-803.

24. Johnson RT**, Burk JA (2006) Effects of gonadectomy and androgen supplementation on attention in male rats. *Neurobiology of Learning and Memory*, 85, 219-227.
23. Burk JA (2006) A multidisciplinary approach for studying attention. A review of Cognitive Neuroscience of Attention (Posner MI, ed.). *Applied Cognitive Psychology*, 20, 419-420.
22. Woolfrey KM**, Hunt PS, Burk JA (2005) Postnatal ethanol exposure disrupts signal detection in adult rats. *Neurotoxicology and Teratology*, 27, 815-823.
21. Newman LA*, Burk JA (2005) Effects of excitotoxic thalamic intralaminar nuclei lesions on attention and working memory. *Behavioural Brain Research*, 162, 264-271.
20. Woolfrey KM**, Musisca NJ**, Hunt PS, Burk JA (2005) Early postnatal ethanol administration does not affect prepulse inhibition. *Physiology & Behavior*, 84, 747-752.
19. Echevarria DJ, Brewer A, Burk JA, Brown SN, Manuzon H, Robinson JK (2005) Construct validity of an operant signal detection task for rats. *Behavioural Brain Research*, 157, 283-290.
18. Yttri EA*, Burk JA, Hunt PS (2004) Intermittent ethanol exposure in adolescent rats: dose-dependent impairment in trace conditioning. *Alcoholism: Clinical and Experimental Research*, 28, 1433-1436.
17. Burk JA (2004) Introduction of a retention interval in a sustained attention task in rats: effects of presenting a visual distracter and increasing the inter-trial interval. *Behavioural Processes*, 67, 521-531.
16. Kondrad RL*, Burk JA (2004) Transient disruption of attentional performance following escalating amphetamine administration in rats. *Psychopharmacology*, 175, 436-442.
15. Mair RG, Burk JA, Porter MC (2003) Impairment of radial maze delayed nonmatching after lesions of anterior thalamus and parahippocampal cortex. *Behavioral Neuroscience*, 117, 596-605.
14. Burk JA, Herzog CD, Porter MC, Sarter M (2002) Interactions between aging and cortical cholinergic deafferentation on attention. *Neurobiology of Aging*, 23, 467-477.
13. Nelson CL, Burk JA, Sarter M, Bruno JP (2002) Effects of acute and repeated systemic administration of ketamine on prefrontal acetylcholine release and sustained attention performance in rats. *Psychopharmacology*, 161, 168-179.
12. Arnold HM, Burk JA, Sarter M, Bruno JP (2002) Differential cortical acetylcholine release in rats performing a sustained attention task versus behavioral control tasks that do not explicitly tax attention. *Neuroscience*, 114, 451-460.
11. Mair RG, Koch JK, Newman JB, Howard J, Burk JA (2002) A double dissociation within striatum between serial reaction time and radial maze delayed nonmatching performance in rats. *The Journal of Neuroscience*, 22, 6756-6765.
10. Burk JA, Mair RG (2001) Effects of dorsal and ventral striatal lesions on delayed matching trained with retractable levers. *Behavioural Brain Research*, 122, 67-78.

9. Burk JA, Mair RG (2001) Effects of intralaminar thalamic lesions on sensory attention and motor intention in the rat: a comparison with lesions involving frontal cortex and hippocampus. *Behavioural Brain Research*, 123, 49-63.
8. Burk JA, Sarter M (2001) Dissociation between the attentional functions mediated via basal forebrain cholinergic and GABAergic neurons. *Neuroscience*, 105, 899-909.
7. Porter MC, Burk JA, Mair RG (2000) A comparison of the effects of hippocampal or prefrontal cortical lesions on three versions of delayed non-matching-to-sample based on positional or spatial cues. *Behavioural Brain Research*, 109, 69-81.
6. Burk JA, Mair RG (1999) Delayed matching-to-sample trained with retractable levers is impaired by lesions of the intralaminar or ventromedial but not the laterodorsal thalamic nuclei. *Psychobiology*, 27, 351-363.
5. Mair RG, Burk JA, Porter MC, Ley JE (1999) Thalamic amnesia and the hippocampus: Unresolved questions and an alternative candidate. *Behavioral Brain Sciences*, 22, 458-459.
4. Burk JA, Glode BM, Drugan RC, Mair RG (1999) Effects of chlordiazepoxide and FG 7142 on a rat model of diencephalic amnesia as measured by delayed-matching-to-sample performance. *Psychopharmacology*, 142, 413-420.
3. Burk JA, Mair RG (1998) Thalamic amnesia reconsidered: excitotoxic lesions of the intralaminar nuclei, but not the mediodorsal nucleus disrupt place delayed matching-to-sample performance in rats (*Rattus norvegicus*). *Behavioral Neuroscience*, 112, 54-67.
2. Zhang Y, Burk JA, Glode BM, Mair RG (1998) Effects of thalamic and olfactory cortical lesions on continuous olfactory delayed nonmatching-to-sample and olfactory discrimination in rats (*Rattus norvegicus*). *Behavioral Neuroscience*, 112, 39-53.
1. Mair RG, Burk JA, Porter MC (1998) Lesions of the frontal cortex, hippocampus, and intralaminar thalamic nuclei have distinct effects on remembering in rats. *Behavioral Neuroscience*, 112, 772-792.

Manuscripts Under Review or In Preparation

- Dickter CL, Burk JA, Lipson J (under review) Perceptions of autistic traits in a face-to-face interaction: the effects of label, behavior, and attitudes.
- Blumenthal SA**, Maness EB**, Fadel J, Burk JA (in preparation) Effects of an orexin-2 receptor agonist on attention following loss of cortical cholinergic inputs.

Honors

- | | |
|-----------|--|
| 2016 | Plumeri Award for Faculty Excellence |
| 2013-2015 | English-Stonehouse Faculty Fellow |
| 2013 | Phi Beta Kappa's John D. Rockefeller Award for Advancement of Scholarship |
| 2011 | Raymond L. Erickson Award, University of New Hampshire
• Award given to one UNH doctoral program alum each year |
| 2002 | Young Investigator Award, The National Alliance for Research on Schizophrenia & Depression (NARSAD) |
| 1999 | NIMH Training Grant Award |

1998 Dissertation Year Fellowship, University of New Hampshire

National/International Conference Presentations

116. Dickter, C. L., Burk, J. A., Burton, K.*, Allen, A.*, Blanco, M.*, Mallipeddi, S.*, Fergus, M.*, & Carter, K.* (May, 2022). Improving university students' attitudes towards individuals with autism. *International Society for Autism Research meeting*.
115. Burk JA, Haffner G*, Dintino C*, Dickter CL (2021) Attentional bias to positive and negative social scenes differs based on traits related to social anxiety. *International Society for Autism Research meeting*.
114. Dickter CL, Burk JA, Carter K*, Burton K*, Allen A*, Mallipeddi S*, Fergus K* (2021) Imagined contact with individuals with autism improves typically developing university students' attitudes towards autism. *International Society for Autism Research meeting*.
113. Maness EB**, Blumenthal SA**, Burk JA (2021) Dual orexin/hypocretin antagonism attenuates dizocilpine-induced attentional impairments in a NMDA receptor hypofunction model of schizophrenia. *Society for Neuroscience Global Connectome*.
112. Blottner M*, Burk, JA, Dickter CL (2020) Young adults' autistic Behaviors and social anxiety predict eye fixations in social scenes. *International Society for Autism Research meeting*.
111. Borja C*, Sanchez Castaneda L*, Dickter, CL, Burk J (2020) Explicit and implicit attitudes towards and judgments of job candidates with autism. *Eastern Psychological Association meeting*.
110. Maness EB**, Blumenthal SA**, Burk JA (2019) Dual orexin receptor antagonism attenuates dizocilpine-induced attentional impairments in a rat model of acute psychosis. *Society for Neuroscience Meeting*.
109. Burk JA, Patel R*, Maness EB**, Blumenthal SA**, Fadel J (2019) Effects of medial prefrontal cortical administration of the orexin-1-receptor antagonist, SB-334867, on attentional performance in rats. *Society for Neuroscience Meeting*.
108. Blumenthal SA**, Maness EB**, Fadel JR, Burk JA (2019) Effects of an orexin-2 receptor agonist on attention following loss of cortical cholinergic inputs. *Society for Neuroscience Meeting*.
107. Zeman J, Dickter C, Burk J (2019) Implicit attitudes towards adults with autism: a multi-study investigation. *International Society for Autism Research meeting*.
106. Burk JA, Hamborg MR*, Van Valkenburgh A*, Dickter CL (2019) Attention processing of emotion faces in those high and low in autistic traits and social anxiety. *International Society for Autism Research meeting*.
105. Dickter CL, Taylor S*, Daugherty B*, Acors E*, Hoyt N*, Burk J (2019) Psychophysiological processing of emotions in individuals varying in autistic traits. *International Society for Autism Research meeting*.
104. Burk JA, Feldmann J*, Maness E**, Blumenthal S** (2018) Effects of intranasal orexin-A on attentional performance. *Society for Neuroscience meeting*.
103. Blumenthal SA**, Tapp A*, Maness EB**, Burk JA (2018) Effects of medial prefrontal cortical orexin-2 receptor blockade on attention. *Society for Neuroscience Meeting*.

102. Maness EB**, Burk JA (2018) The effects of manipulating orexinergic neurotransmission on attentional performance in an NMDA receptor hypofunction model of schizophrenia. *Society for Neuroscience Meeting*.
101. Burk JA, Dickter CL, Zeman JL (2017) Implicit Attitudes towards Individuals with Autism from College Students and the General Population. *International Meeting for Autism Research*.
100. Dickter CL, Burk JA, Taylor S* (2017) Autistic Traits and Social Anxiety as Unique Predictors of Neural Attentional Responses during Facial Emotion Identification. *International Meeting for Autism Research*.
99. Vij AP*, Burk JA (2017) Blocking orexin-2 receptors depresses attentional performance in adult rats. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience*.
98. Tapp A*, Maness EB**, Vij AP*, Burk JA (2017) Effects of medial prefrontal cortical administration of the orexin-2 receptor antagonist, TCS-Ox2-29, on attentional performance in rats. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience*.
97. Leong CS*, Burk JA (2016) Effects of protein kinase C activation on attention deficits following loss of corticopetal cholinergic neurons. Presented at the Annual meeting of the Society for Neuroscience.
96. Maness EB**, Leong CS*, Burk JA (2016) Effects of N-desmethylozapine on attentional performance following loss of basal forebrain corticopetal cholinergic inputs. Presented at the Annual Society for Neuroscience conference.
95. Burk JA, Fadel J (2016) Orexin projections to the basal forebrain contribute to attentional processing: implications for Alzheimer's Disease. Poster presented at the VirginiaBrainRx conference, hosted by the Virginia Drug Discovery Symposium.
94. Dickter C, Zeman J, Burk J, Mitchell C**, Chaney K*, Ball JD, Urbano M (2016) The use of an online intervention to improve emotion identification in clinical and non-clinical young adults with a range of autistic behaviors. Poster presented at annual meeting of the International Society for Autism Research.
93. Burk J, Dickter C, Zeman J, Fleckenstein KM* (2016). Differences in reaction time to detect emotion faces varies based on autistic social skills and communication abilities in young adults. Poster presented at annual meeting of the International Society for Autism Research.
92. Mitchell CM**, Dickter CL, Burk JA (2016) Assessing temporal and contextual factors affecting attention to faces in individuals with high and low levels of autistic traits. Poster presented at annual meeting of the International Society for Autism Research.
91. Zeman J, Dickter CL, Burk JA, Kittel JA**, Fleckenstein, K.* (2016). Implicit vs explicit attitudes towards individuals with Autism. Poster presented at annual meeting of the International Society for Autism Research. Baltimore, MD.
90. Taylor, S.*, Dickter, C., Burk, J. (2016) Working memory and emotional processing related to autistic behaviors. Poster presented at annual meeting of the International Society for Autism Research.

89. Maness EB**, Burk J.A. (2016) Effects of muscarinic-1 receptor stimulation on attentional deficits induced by loss of cortical cholinergic projections. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
88. Leong CS*, Maness EB**, Baraki D*, Burk JA (2016) Effects of protein kinase C activation on attention deficits following loss of corticopetal cholinergic neurons. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
87. Tapp A*, Maness E**, Kittle J*, Vij P*, Feldmann J*, Crawford E*, Burk J (2016) Risky reward decision making in rats: effects of increasing choices. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
86. Kozikowski CT**, Tapp A*, Leong C*, Burk JA (2015) Effects of prior distractor exposure on learning in aged rats. *Presented at the Society for Neuroscience Meeting.*
85. Burk JA, Zeman JL, Wulf KA, Robison JE, Dickter CL (2015) Supporting neurological difference on college campuses: the Neurodiversity Initiative at the College of William and Mary. *Presented at the Society for Neuroscience Meeting.*
84. Dickter CL, Taylor SC*, Burk JA, Zeman JL (2015) Attention to emotional faces in adults as a function of autism-related attention switching abilities. *Presented at the International Meeting for Autism Research.*
83. Zeman JL, Dickter CL, Borowski S**, Johnson J*, Gadre A*, Burk JA (2015) University students' explicit stereotypes of peers on the autism spectrum. *Presented at the International Meeting for Autism Research.*
82. Burk JA, Zeman JL, Thrash T, Dickter CL (2015) Re-evaluating the structure of the Autism Quotient: a novel 3-factor solution. *Presented at the International Meeting for Autism Research.*
81. Mitchell K**, Zeman JL, Dickter CL, Burk JA, Chaney KE*, Ball JD, Urbano M (2015) Enhancing cognitive processing of complex emotional cues in young adults on the autism spectrum through an online intervention. *Presented at the International Meeting for Autism Research.*
80. Kozikowski CT**, Zajo K**, Boschen K**, Fadel J, Burk JA (2015) How does motivation-related circuitry recruit attentional processing? Role of orexin projections to the basal forebrain. *Presented at "Motivational Circuits in Natural and Learned Behaviors" at Janelia Farm.*
79. Kozikowski CT**, Albert-Stone E*, Leong CS*, Tapp A*, Burk JA (2015) The effects of introducing a visual distracter on cognitive flexibility in aged rats. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
78. Burk JA, Zeman JL, Wulf KA, Robison JE, Dickter CL (2014) Embracing autism and neurological difference at the College of William & Mary: A novel neurodiversity initiative. *Presented at the Society for Neuroscience Meeting.*
77. Reich C*, Burk JA (2014) Effects of nicotine exposure on probability discounting in rats. *Presented at the Society for Neuroscience Meeting.*
76. Burk JA, Otoy D*, Leong C*, Ng A*, Kozikowski CT* (2014) Assessing removal of illumination as a signal: effects of loss of basal forebrain corticopetal cholinergic neurons. *Presented at the Society for Neuroscience Meeting.*

75. Kozikowski CT**, Wolfe EL*, Yanev PG*, Burk JA (2014) Interactions between noncholinergic basal forebrain neurons and muscarinic receptors in attentional processing. *Presented at the Society for Neuroscience Meeting.*
74. Zeman J, Dickter C, Burk J, & Wulf K (2014) Neurodiversity in higher education: Psychological correlates and peer perceptions. *Presented at the Association for Behavior and Cognitive Therapy.*
73. Kozikowski C**, Babbar A*, Tandet S*, Dickter C, Burk J, Zeman J (2014) Processing of facial emotional stimuli in high-functioning students with autistic behaviors. *Presented at the American Psychological Association annual meeting.*
72. Yanev P*, Altherr E*, Kozikowski CT**, Kittle J*, Burk JA (2014) Interactions between basal forebrain noncholinergic neurons and cholinergic system blockade on attention. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
71. Reich C*, Mendoza N*, Hughes C*, MacLeod J*, Burk JA (2014) Effects of nicotine on probability discounting. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
70. Otoy D*, Ng A*, Leong C*, McConnell N*, Burk JA (2014) Effects of decreasing light illumination as a visual signal: role of basal forebrain cholinergic neurons. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
69. Zajo KN**, Fadel JR, Burk JA (2013) Assessment of the contributions of baseline performance and prefrontal cortical cholinergic projections to orexin A-induced attentional enhancement. *Presented at the Society for Neuroscience conference.*
68. Yonezaki K, Fadel JR, Burk JA (2013) Effects of nicotine exposure termination and subsequent nicotine administration on responding for delayed rewards. *Presented at the Society for Neuroscience conference.*
67. Burk JA, Yonezaki K (2013) Loss of medial prefrontal cortical cholinergic projections increases preference for an immediately available reward in a delay discounting task. *Presented at the Society for Neuroscience conference.*
66. Zajo KN**, Fadel J, Burk JA (2013) Effects of infusions of orexin A into the basal forebrain on attentional performance in rats. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
65. Barnett RC, Hunt PS, Burk JA (2012) Dissociable effects of acute nicotine on learned fear and unlearned anxiety in rats. *Presented at the Society for Neuroscience conference.*
64. Hardcastle K*, Smith GD, Burk JA (2012) A population activity model of cortico-striatal circuitry underlying behavioral inhibition in rats. *Presented at the Society for Neuroscience conference.*
63. Burk JA, Agate FT*, Battaller H*, Haque S*, Wolfe E* (2012) Effects of acute nicotine on delay discounting in rats. *Presented at the Society for Neuroscience conference.*
62. Zajo KN**, Fadel JR, Burk JA (2012) Effects of orexin A administered into the basal forebrain on attentional performance in rats. *Presented at the Society for Neuroscience conference.*

61. Zajo KN**, Yanev P*, Fujita A*, Burk JA (2012) Effects of intrabasalis orexin A on attentional performance. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
60. Haque S*, Agate FT*, Bataller H*, Wolfe E*, Burk JA (2012) Effects of acute nicotine on delay discounting in rats. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
59. Hardcastle K*, Smith GD, Burk JA (2012) A population-activity model of cortico-striatal circuitry underlying impulsive action selection. *Presented at the Symposium of the Central Virginia Chapter of the Society for Neuroscience.*
58. Burk JA, Hirsh AH**, Jayasinghe S*, Keenan W*, Mian M*, Spinella MK*, Bacharach S*, Coughenour P, Fadel J (2011) Central orexin A administration enhances attentional performance in rats. *Presented at the Society for Neuroscience conference.*
57. Hardcastle K*, Smith GD, Burk JA (2011) A population activity model of cortico-striatal circuitry underlying behavioral inhibition in rats. *Presented at the Society for Neuroscience conference.*
56. Haque SS*, Solano S*, Fujita A*, Moore RH*, Lim H*, Duckett C*, Spinella MK*, Keenan W*, Burk JA (2011) Effects of nicotine on delay discounting with multiple alternative choices in a radial arm maze. *Presented at the Society for Neuroscience conference.*
55. Burk JA, Easterling KE*, Fadel J (2010) Centrally administered orexin A attenuates visual distracter-related deficits in rats. *Presented at the Society for Neuroscience conference.*
54. Roseman PL*, Burk JA (2010) Delay aversion in an automated radial arm maze: evaluation of nicotinic receptor blockade. *Presented at the Society for Neuroscience conference.*
53. Burk JA, Easterling KE*, Fadel J (2010) Effects of centrally administered orexin A on attentional performance in rats. *Presented at the Neurobiology of Cognition Gordon Research Conference.*
52. Robinson AM**, Burk JA (2009) M1 receptor blockade disrupts signal detection in an attention-demanding visual discrimination task. *Presented at the Society for Neuroscience Conference.*
51. Spaeth AM**, Easterling KE*, Barnet RC, Burk JA (2009) Adolescent nicotine exposure disrupts radial arm maze performance tested in adulthood. *Presented at the Society for Neuroscience Conference.*
50. Burk JA, Mangini DF* (2009) Protein kinase C inhibition decreases signal detection in a sustained attention task in rats. *Presented at the Society for Neuroscience Conference.*
49. Kaplan CM*, Smith GD, Burk JA (2009) Computational modeling of attention task performance decrements induced by muscarinic M1 receptor blockade or PKC inhibition in rats. *Presented at the Society for Neuroscience Conference.*
48. Barnet, R.C., Burk, J.A., & Hunt, P.S. (2009). Adolescent exposure to nicotine is associated with changes in hippocampus-dependent memory that persist into adulthood. *Presented at the meeting of the Virginia Forum on Youth Tobacco Use: Translating Research into Policy and Practice.*

47. Spaeth AM**, Barnet RC, Hunt PS, Burk JA (2009) The long-term effects of adolescent nicotine exposure on context conditioning, extinction learning and latent inhibition. *Presented at the Meeting of the Eastern Psychological Association.*
46. Robinson AM**, Burk JA (2008) Effects of M1/M4 receptor blockade on performance in an attention-demanding visual discrimination task. *Society for Neuroscience Conference.*
45. Boschen KE**, Fadel J, Burk JA (2008) Effects of systemic and intra-basalis blockade of orexin-1 receptors on attentional performance in rats. *Society for Neuroscience Conference.*
44. Burk JA, Hunt PS, Barnet RC, Feghali AC*, Besho JM*, Kempself AA*, Moore JD* (2008) Acute nicotine administration disrupts fear conditioning measured by potentiated startle but not by freezing. *Society for Neuroscience Conference.*
43. Spaeth AM**, Smyth JC, Hunt PS, Burk JA, Barnet RC (2008) Adolescent nicotine exposure disrupts context conditioning in adulthood. *Society for Neuroscience Conference.*
42. Barnet RC, Burk JA, Hunt PS, Smyth JC (2008) Long-term effects of adolescent nicotine exposure on context conditioning and the character of fear expression. *Society for Neuroscience Conference.*
41. Burk JA, Altemose KE*, Lowder MW** (2008) Effects of cueing on visual discrimination performance of rats following loss of corticopetal cholinergic neurons. *Presented at "Neural Circuits and Decision Making in Rodents" at Janelia Farms.*
40. Boschen K**, Fadel J, Burk JA (2008) Systemic administration of the orexin-1 receptor antagonist, SB-334867, disrupts attentional performance in rats. *Presented at the meeting of the Eastern Psychological Association.*
39. Hunt PS, Barnet RC, Burk JA, Smyth JC (2008) Effects of acute nicotine administration on Pavlovian fear conditioning in rats as measured by freezing and potentiated startle. *Presented at the meeting of the Eastern Psychological Association.*
38. Boschen K**, Fadel J, Burk JA (2007) Systemic administration of the orexin-1 receptor antagonist, SB-334867, disrupts attentional performance in rats. *Society for Neuroscience Conference.*
37. Burk JA, Altemose KE*, Lowder MW** (2007) Effects of spatial cueing on visual discrimination performance of rats following loss of basal forebrain corticopetal cholinergic neurons. *Society for Neuroscience Conference.*
36. Burk JA, Ball CT, Shean GD (2006) Relationships between attention, working memory, and schizotypal-like characteristics in humans. *Society for Neuroscience Conference.*
35. Howe WM**, Burk JA (2006) Effects of cholinotoxic and excitotoxic posterior parietal cortical lesions on attention in rats. *Society for Neuroscience Conference.*
34. Burk JA, Hunt PS, Barnet RC (2006). Effects of adolescent administration of nicotine or alcohol on trace and delay fear conditioning. *Paper presented at a conference for the Virginia Youth Tobacco Project.*

33. Howe WM**, Harrington MD*, Burk JA (2005) Dizocilpine-induced attentional deficits are reversed by D-cycloserine in rats. *Society for Neuroscience Conference*.
32. Kondrad RL*, Burk JA (2005) Lesions of the prefrontal cortex, but not the thalamic mediodorsal nucleus, disrupt attentional performance in rats. *Society for Neuroscience Conference*.
31. Johnson RT**, Cameron AP*, Burk JA (2005) Effects of gonadectomy and androgen supplementation on attention in male rats. *Society for Neuroscience Conference*.
30. Burk JA, Musisca NJ**, Barnet RC, Hunt PS (2005) Effects of acute alcohol administration on long delay and trace conditioning in adolescent and adult rats. *Society for Neuroscience Conference*.
29. Newman LA*, Burk JA (2004) Effects of thalamic intralaminar lesions on attention and working memory in rats. *Meeting of the International Behavioral Neuroscience Society*.
28. Burk JA, Woolfrey KM**, Musisca NJ**, Hunt PS (2004) Early postnatal ethanol administration does not affect prepulse inhibition in rats. *Society for Neuroscience Conference*.
27. Woolfrey KM**, Hunt PS, Burk JA (2004) Postnatal ethanol administration disrupts sustained attention performance in rats. *Society for Neuroscience Conference*.
26. McQuail JA*, Burk JA (2004) Effects of muscarinic and nicotinic receptor antagonists on sustained attention in rats. *Society for Neuroscience Conference*.
25. Newman LA*, Burk JA (2004) Effects of thalamic intralaminar nuclei lesions on attention and working memory in rats. *Society for Neuroscience Conference*.
24. Kondrad RL*, Burk JA (2004) Escalating amphetamine transiently increases false alarms in a sustained attention task in rats. *Society for Neuroscience Conference*.
23. Johnson RT**, Yttri E*, Mason D*, Carron C*, Dieckmann R*, Barnet RC, Hunt PS, Burk JA (2004) Effects of adolescent administration of alcohol and nicotine on trace and delay fear conditioning in rats. *Society for Neuroscience Conference*.
22. Woolfrey K**, Hunt PS, Burk JA (2003) Effects of postnatal alcohol administration on sustained attention performance in rats. *Presented at the meeting of the International Society for Developmental Psychobiology*.
21. Martinez V, Burk JA, Sarter M, Bruno JP (2003) Effects of repeated amphetamine administration on attentional performance in rats. *Society for Neuroscience Conference*.
20. Burk JA, Arnold HM, Breitfeller K, Lanker M, Bruno JP, Sarter M (2002) Nicotine-induced enhancement of attentional performance in rats: necessity of chronic and intermittent exposure. *Society for Neuroscience Conference*.
19. Herzog CD, Burk JA, Sarter M, Bruno JP (2002) Cortical acetylcholine release in aged rats performing a sustained attention task. *Society for Neuroscience Conference*.
18. Burk JA, Herzog CD, Porter MC, Mahoney J, Bruno JP, Sarter M (2001) Interactions between partial cortical cholinergic deafferentation and aging on sustained attention performance in rats. *Society for Neuroscience Conference*.

17. Nelson CL, Burk JA, Sarter M, Bruno JP (2001) Effects of acute and repeated ketamine on cortical acetylcholine and sustained attention. *Society for Neuroscience Conference*.
16. Sarter M, Burk JA, Graf A, Russell J, Bruno JP (2001) Basal forebrain cholinergic and GABAergic neurons mediate different aspects of sustained attention performance in rats. *Society for Neuroscience Conference*.
15. Arnold HM, Burk JA, Hodgson EM, Sarter M, Bruno JP (2001) Cortical acetylcholine release in rats performing an operant sustained attention task or operant control procedures. *Society for Neuroscience Conference*.
14. Burk JA, Russell J, Graf A, Bruno JP, Sarter M (2000) Effects of basal forebrain ibotenic acid lesions on sustained attention performance in rats. *Society for Neuroscience Conference*.
13. Mair RG, Koch J, Bapp J, Howard J, Burk JA, Toupin M (2000) A double dissociation of habit and working memory in striatum of rats. *Society for Neuroscience Conference*.
12. Burk JA, Koch J, Mair RG (1999) Effects of intralaminar thalamic, prefrontal cortical, or hippocampal lesions on a seven choice serial reaction time task. *Society for Neuroscience Conference*.
11. Mair RG, Burk JA, Porter MC, Koch J (1999) Only combined lesions of perirhinal cortex and anterior thalamus produce similar effects to hippocampal lesions in radial maze DNMS. *Society for Neuroscience Conference*.
10. Porter MC, Burk JA, Koch J, Mair RG (1999) The effects of permanent striatal lesions or reversible inactivation of ventral striatum or intralaminar nuclei on DMS using position cues. *Society for Neuroscience Conference*.
9. Burk JA, Ley J, Toupin M, Coy E, Koch J, Mair RG (1998) Lesions of the intralaminar (IL) but not ventromedial (VM) or anterior thalamic (AT) nuclei disrupt olfactory continuous DNMS. *Society for Neuroscience Conference*.
8. Burk JA, Porter MC, Seidel LF (1998) Preparing graduate students for academia: The preparing future faculty (PFF) program at the University of New Hampshire. *Society for Neuroscience Conference*.
7. Mair RG, Burk JA, Porter MC, Koch J (1998) Both hippocampal (H) and frontal cortical (FC) lesions impair DNMS trained with retractable levers in a delay-independent fashion. *Society for Neuroscience Conference*.
6. Porter MC, Burk JA, Koch J, Mair RG (1998) Effects of hippocampal (H) and frontal cortical (FC) lesions on radial arm maze DNMS depend on training procedures. *Society for Neuroscience Conference*.
5. Burk JA, Glode BM, Porter MC, Pelletier JR, Mair RG (1997) Place DMTS performance is impaired by discrete lesions of the intralaminar (IL) or ventromedial (VM) but not the laterodorsal (LD) thalamic nuclei. *Society for Neuroscience Conference*.
4. Mair RG, Burk JA, Koch J, Porter MC, Glode BM, Pelletier JR (1997) A comparison of the effects of frontal cortical (FC), hippocampal (HP), and intralaminar (IL) thalamic lesions on two delayed conditional discrimination tasks. *Society for Neuroscience Conference*.
3. Porter MC, Glode BM, Burk JA, Pelletier JR, Mair RG (1997) Differential patterns of impairment on tasks trained in the radial arm maze (RAM) following lesions of

- frontal cortical (FC), hippocampus (HP), or the intralaminar thalamic nuclei (IL). *Society for Neuroscience Conference.*
2. Burk JA, Glode BM, Pelletier JR, Mair RG (1996) Thalamic amnesia reconsidered: Excitotoxic lesions of the intralaminar nuclei (ILn), but not the mediodorsal nucleus (MDn) disrupt place DMTS performance. *Society for Neuroscience Conference.*
 1. Mair RG, Zhang YP, Burk JA, Glode BM, Foye M, Pelletier JR (1996) Thalamic amnesia reconsidered: Excitotoxic lesions of the intralaminar nuclei (ILn), but not the mediodorsal nucleus (MDn) disrupt olfactory continuous DNMTS. *Society for Neuroscience Conference.*

Local Graduate/Undergraduate Conference Presentations

47. Blumenthal SA**, Burk JA (2019) Effects of an orexin-2 receptor agonist on attention following loss of cortical cholinergic inputs. *Presented at the William & Mary Graduate Research Symposium.*
46. Maness EB**, Burk JA (2019) The effects of orexinergic manipulations in a pharmacological model of schizophrenia: identifying novel therapeutic targets. *Presented at the William & Mary Graduate Research Symposium.*
45. Maness EB, Burk JA (2018) The effects of intra-nasal orexin-A on MK-801-induced attentional deficits. *Presented at the William & Mary Graduate Research Symposium.*
44. Maness EB**, Burk JA (2017) Effects of N-desmethyloclozapine on attentional performance following loss of basal forebrain corticopetal cholinergic inputs. *Presented at the William & Mary Graduate Research Symposium.*
43. Maness EB**, Burk JA (2016) Effects of Muscarinic-1 Receptor Stimulation on Attentional Deficits Induced by Loss of Cortical Cholinergic Projections. *Presented at the William & Mary Graduate Research Symposium.*
42. Tapp A*, Burk JA (2016) Risky Reward Decision Making in Rats: Effects of Increasing Choices. *Presented at the William & Mary Undergraduate Science Conference.*
41. Leong CS*, Burk JA (2016) Effects of PKC activation on attention deficits following loss of corticopetal cholinergic neurons. *Presented at the William & Mary Undergraduate Science Conference.*
40. Kozikowski CT**, Kittle J*, Tapp A*, Vij P* (2015) Effects of distractor exposure in aged rats. *Presented at the William & Mary Undergraduate Science Conference.*
39. Kozikowski CT**, Burk JA (2014) Interactions between cholinergic and noncholinergic basal forebrain neurons on attentional performance. *Presented at the William & Mary Graduate Research Symposium.*
38. Yanev P*, Altherr E*, Kozikowski CT**, Kittle J*, Burk JA (2014) Interactions between basal forebrain noncholinergic neurons and cholinergic system blockade on attention. *Presented at the William & Mary Undergraduate Science Conference.*
37. Reich C*, Mendoza N*, Hughes C*, MacLeod J*, Burk JA (2014) Effects of nicotine on probability discounting. *Presented at the William & Mary Undergraduate Science Conference.*

36. Otoy D*, Ng A*, Leong C*, McConnell N*, Burk JA (2014) Effects of decreasing light illumination as a visual signal: role of basal forebrain cholinergic neurons. *Presented at the William & Mary Undergraduate Science Conference.*
35. Zajo KN**, Fadel JR, Burk JA (2013) Effects of infusions of orexin A on attentional performance in rats. *Presented at the William & Mary Graduate Research Symposium.*
34. Yanev PG*, Altherr EB*, MacLeod JR*, Pinnoi N*, Wolfe EL*, Zajo KN**, Fadel JR, Burk JA (2013) Effects of intrabasal orexin A administration on attentional performance in rats. *Presented at the William & Mary Undergraduate Science Conference.*
33. Menzel LM*, Ng AB*, Yonezaki K, Burk JA (2013) Nicotine and impulsivity: the effects of nicotine cessation and re-exposure on delay discounting in rats. *Presented at the William & Mary Undergraduate Science Conference.*
32. Zajo KN**, Burk JA (2012) Effects of intrabasal orexin-A administration on attentional performance in rats. *Presented at the William & Mary Graduate Research Symposium.*
31. Hardcastle, K*, Smith G, Burk JA (2012) A population-activity model of cortico-striatal circuitry underlying impulsive action selection. *Presented at the William & Mary Undergraduate Science Conference.*
30. Fujita A*, Yanev P*, Zajo K**, Burk JA (2012) Effects of intrabasal orexin A on attentional performance. *Presented at the William & Mary Undergraduate Science Conference.*
29. Haque S*, Agate T*, Bataller H, Wolfe E, Burk JA (2012) Effects of acute nicotine on delay discounting. *Presented at the William & Mary Undergraduate Science Conference.*
28. Fujita A*, Mian M*, Solano S*, Coughenour P, Moore RH*, Jayasinghe S*, Duckett C*, Roseman P*, Hirsh A**, Burk JA (2011) Validation of a delay discounting task that uses water reward. *Presented at the William & Mary Undergraduate Science Conference.*
27. Hirsh AH**, Burk JA (2011) Orexins and attention. *College of William & Mary Graduate Research Symposium.*
26. Jayasinghe S*, Yoo E*, Montgomery M*, Easterling K*, Clifford L*, Minor B*, Hirsh A**, Burk JA (2010) Effects of long-term exposure to distracters on sustained attention task performance and concurrent new discrimination learning. *Meeting of the Society for Young Neuroscientists and Professors in the Southeast.*
25. Roseman PL*, Liu G*, Younkin J*, Montgomery M*, Yoo E*, Moore RH*, McGarry L*, Burk JA (2010) Development of a novel delay discounting task: evaluation of nicotinic receptor blockade. *Meeting of the Society for Young Neuroscientists and Professors in the Southeast.*
24. Hirsh AH**, Burk JA (2010) Effects of long-term exposure to distracters on sustained attention task performance and concurrent new discrimination learning. *College of William & Mary Graduate Research Symposium.*
23. Robinson AM**, Burk JA (2009) Effects of M1 receptor blockade on performance in an attention-demanding task. *College of William & Mary Graduate Research Symposium.*

22. Boschen K**, Mangini D*, Parekh P*, Burk JA (2007) Systemic administration of the orexin-1 receptor antagonist, SB-334867, disrupts attentional performance in rats. *William & Mary Undergraduate Neuroscience Symposium*.
21. Marzuk J*, Lowder MW**, Burk JA (2006) Effects of loss of basal forebrain corticopetal cholinergic neurons on visual attentional performance. *William & Mary Undergraduate Neuroscience Symposium*.
20. Perazza GD*, Burk JA (2006) Effects of excitotoxic posterior parietal cortical lesions on automated radial arm maze performance in rats: a pilot study. *William & Mary Undergraduate Neuroscience Symposium*.
19. Howe WM**, Burk JA (2006) Effects of posterior parietal cortical lesions on sustained attention performance in the rat. *College of William & Mary Graduate Research Symposium*.
18. Aiken JR*, Johnson RT**, Burk JA (2006) Effects of gonadectomy and androgen supplementation on attention in male rats. *Verizon Undergraduate Science Symposium*.
17. Altemose KE*, Howe WM**, Burk JA (2006) Effects of posterior parietal cortical lesions on sustained attention performance in the rat. *Verizon Undergraduate Science Symposium*.
16. Aiken JR*, Johnson RT**, Burk JA (2005) Effects of gonadectomy and androgen supplementation on attention in male rats. *William & Mary Undergraduate Neuroscience Symposium*.
15. Burk JA (2005) NMDA receptors and attention. *Presentation at the undergraduate neuroscience symposium*.
14. Burk JA (2005) Acetylcholine, attention, and aging. *Presentation to the Center for Excellence in Aging and Geriatric Health*.
13. Howe WM**, Burk JA (2005) The effects of D-cycloserine on MK-801-induced attentional deficits in rats. *College of William & Mary Graduate Research Symposium*.
12. Johnson RT**, Burk JA (2005) Androgen-cholinergic interactions: the effects of androgen deprivation and supplementation on attention in adult male rats. *College of William & Mary Graduate Research Symposium*.
11. Dow LA*, Harrington MD*, Palmer KA*, Henwood K*, Burk JA (2004) NMDA receptor antagonists impair attention in rats. *William & Mary Undergraduate Neuroscience Symposium*.
10. Kondrad RL*, Burk JA (2004) Escalating amphetamine transiently increases false alarms in a sustained attention task in rats. *William & Mary Undergraduate Neuroscience Symposium*.
9. Johnson RT**, Yttri E*, Mason D*, Carron C*, Dieckmann R*, Barnet RC, Hunt PS, Burk JA (2004) Effects of adolescent administration of alcohol and nicotine on trace and delay fear conditioning in rats. *William & Mary Undergraduate Neuroscience Symposium*.
8. Woolfrey K**, Burk JA (2004) Effects of postnatal ethanol administration on sustained attention performance in rats. *College of William & Mary Graduate Research Symposium*.

7. McQuail J*, Burk JA (2004) Effects of cholinergic receptor antagonists on sustained attention performance in the rat. *Undergraduate Research Conference of the Colonial Academic Alliance*.
6. Johnson R**, Burk JA, Kirkpatrick L (2004) Salivary testosterone and domain-specific self-esteem. *College of William & Mary Graduate Research Symposium*.
5. Kondrad R*, Burk JA (2003) Effects of repeated amphetamine treatment on sustained attention performance in rats. *Meeting of the Society for Young Neuroscientists and Professors in the Southeast*.
4. McQuail J*, Newman L*, Burk JA (2003) Effects of introducing a retention interval in a measure of sustained attention in the rat. *Meeting of the Society for Young Neuroscientists and Professors in the Southeast*.
3. Newman L*, Burk JA (2003) The effects of thalamic intralaminar nuclei lesions on sustained attention. *Verizon William & Mary Undergraduate Science Research Symposium*.
2. McQuail J*, Burk JA (2003) Effects of cholinergic receptor antagonists on sustained attention performance in rats. *Verizon William & Mary Undergraduate Science Research Symposium*.
1. Burk JA (2002) Role of cortical acetylcholine in attention: implications for aging. *Presentation to Monroe Scholar's Program*.

Current Grants

- 2022-2027 R01, National Institute on Aging [NIA], "Hypocretin/orexin modulation of cognitive correlates of brain aging"; Role: PI on subcontract to W&M; PI: Dr. Jim Fadel (University of South Carolina School of Medicine). Funded renewal.

Previous External Grants

- 2015-2022 R01, National Institute on Aging [NIA], "Hypocretin/orexin modulation of cognitive correlates of brain aging"; Role: PI on subcontract to W&M; PI: Dr. Jim Fadel (University of South Carolina School of Medicine). Total W&M budgeted subcontract costs: \$332,338
- 2017-2018 Virginia Neuroscience Initiative, Virginia Biosciences Health Research Corporation, "Establishment and maintenance of the infrastructure for the Virginia Neuroscience Initiative (VNI). Role: PI, \$87,620
- 2008-2013 R01, National Institute on Aging [NIA], "Aging, Acetylcholine and the Hypothalamus"; Role: PI on subcontract to W&M; PI: Dr. Jim Fadel (University of South Carolina School of Medicine). Total W&M subcontract costs: \$244,584.
- 2006-2009 Virginia Tobacco Settlement Foundation, "Long-term impact of adolescent nicotine on cognitive function", Role: Co-PI; PI: Dr. Robert Barnet. Total costs: \$362,360.
- 2005-2008 Jeffress Memorial Trust, "Posterior parietal cortical acetylcholine and attention"; 2005-2008, Role: PI. Total costs: \$34,000

2003-2006	Virginia Youth Tobacco Project (Role: PI), “Adolescent Nicotine and Alcohol Administration and Cognition; Total costs: \$60,000
2002-2005	Young Investigator Award (Role: PI), The National Alliance for Research on Schizophrenia & Depression, “Cortical acetylcholine and attention in a repeated amphetamine model of schizophrenia”; Total costs: \$43,901.40
1999-2001	NIMH Training Grant Award, Ohio State University

Previous Internal Grants

2022-2023	IDEA grant (co-PIs: Cheryl Dickter, Janice Zeman), \$1,100
2019-2020	Faculty Research Grant, William & Mary, \$6,000
2015	Joint Eastern Virginia Medical School/W&M Collaborative Grant Program, “Neurobiological substrates of anxiety disorders” Role: Co-PI with Larry Sanford, Christopher Del Negro, Gyorgi Lonart and Laurie Wellman; Total costs: \$25,000
2015	Joint Eastern Virginia Medical School/W&M Collaborative Grant Program, “The Development and Validation of an Online Intervention to Improve Emotion Identification of Complex Facial Emotions in Young Adults with an Autism Spectrum Disorder” Role: Co-PI with Cheryl Dickter, Janice Zeman, Maria Urbano, Kathrin Hartmann and J.D. Ball; Total costs: \$20,000
2014	Joint Eastern Virginia Medical School/W&M Collaborative Grant Program, “Enhancing Selective Attention in Young Adults on the Autism Spectrum: Development of an Online Intervention” Role: Co-PI with Cheryl Dickter, Janice Zeman, Maria Urbano, and J.D. Ball; Total costs: \$19,877
2014-2015	Creative Adaptation Fund, “Developing a Neurodiversity Curriculum for the W&M Washington, D.C. Office” Role: co-PI with Cheryl Dickter, Karin Wulf, Janice Zeman, John Robison and Joel Schwartz; Total costs: \$40,000
2011	Faculty Interdisciplinary Research Grant (co-PI with Dr. Greg Smith in the W&M Department of Applied Science); Total costs: \$10,000
1998-1999	Dissertation Year Fellowship from the University of New Hampshire
1996-1998	Summer Fellowship from the University of New Hampshire (Awarded three times)
1997	Graduate Fellowship from Teaching Excellence Program for Lilly Conference on University and College Teaching
1996-1998	Travel Award from the University of New Hampshire (\$200/each; Awarded three times)

Unfunded Grants that Passed Initial Review

Virginia Biosciences Health Research Corporation (July 2017). Copper-based theranostic tools for glioblastoma. 18-month grant. Co-PIs with Myriam Cotton, Bijoy Kindu and Benjamin Purow. Based on LOI, we were invited to give a presentation to VBHRC, but were not funded.

Department of Defense (Nov. 2013). *Emotional face processing in college students with*

Autistic behaviors: Modification of the PEERS intervention. 2-year ARP Pilot Award. Co-PIs with Janice Zeman and Cheryl Dickter. Invited to submit full application but not funded

Editorial Boards and Manuscript Reviewing Activities

2021-present Editor, European Journal of Pharmacology
 2015-present Review Editor for Neuropharmacology; Frontiers in Neuroscience, Pharmacology, Neurology and Psychiatry
 2012-present Associate Editor, BMC Neuroscience
 2013-2020 Editorial Board Member, European Journal of Pharmacology
 2011-2019 Editorial Board Member, World Journal of Pharmacology
 2012-2017 Editorial Board Member, Dataset Papers in Science: Pharmacology

Ad hoc reviewer:

European Journal of Neuroscience; Journal of Psychopharmacology; Neuroscience Letters; Pharmacology, Biochemistry and Behavior; Behavioural Brain Research; Evidence Based Complementary and Alternative Medicine; International Journal of Neuropsychopharmacology; Life Sciences; European Journal of Pharmacology; Journal of Neuroscience Methods; Biological Psychiatry; Neurobiology of Learning and Memory; Journal of Undergraduate Neuroscience Education; Psychopharmacology; Brain and Cognition; Brain Research; Synapse; Hippocampus; Physiology & Behavior; Neuropsychopharmacology; Neuropharmacology; Behavioural Pharmacology; Journal of Neural Transmission; Recent Patents on CNS Drug Discovery; Psychoneuroendocrinology; Autism Research; Advances in Geosciences; Journal of Autism and Developmental Disorders, Journal of Cognitive Neuroscience; Neural Regeneration Research; Engineering Applications of Artificial Intelligence; Journal of Clinical and Experimental Neuropsychology; British Journal of Special Education; Journal of Affective Disorders; Neuropsychopharmacology - Digital Psychiatry and Neuroscience; Research in Autism Spectrum Disorders

Other Professional Service

2024 Co-Guest Editor (along with Suzanne Reeves), “Tackling Age-Related Neurodegenerative Diseases”, European Journal of Pharmacology
 2016 Co-organizer, Minisymposium, “Hypocretins and orexins: What have we learned in nearly 20 years?” Annual Meeting of the Society for Neuroscience
 2013-2016 Faculty Council Member, Central Virginia Chapter of the Society for Neuroscience
 2014 Steering Committee Member, Hampton Roads Neuroscience Network
 2014 Reviewer, Student poster awards, Central Virginia Chapter of the Society for Neuroscience
 2012 Grant Reviewer, Canada Foundation for Innovation
 2012 Member, Virginia Tobacco Settlement Foundation Small Grants Program Review Panel
 2011 Grant Reviewer, APF/COGDOP Graduate Research Scholarship Program
 2009-2010 Mentor, Society for Neuroscience conference

- 2007-2008 Chair, Membership Committee, International Behavioral Neuroscience Society
- 2007 Grant Reviewer, South Carolina Research Authority
- 2006 Grant Referee, Neurological Foundation of New Zealand
- 2005-2007 Co-chair, Membership Committee, International Behavioral Neuroscience Society
- 2005 Co-facilitator, session at the Virginia Youth Tobacco Project Conference
“Aging/Developmental Stage of Nicotine Dependence”

Invited Talks

- 2017 “Cognitive and emotion processing differences in neurodiverse individuals”
Eastern Virginia Medical School (talk given with Cheryl Dickter)
- 2015 “Autistic characteristics of young adults: emotion and attention processing
differences” Eastern Virginia Medical School (talk given with Janice Zeman)
- 2014 Neurodiversity Initiatives at William & Mary: Teaching and Research; Virginia
Tech (talks given with Janice Zeman)
- 2013 “Cortical cholinergic mechanisms and attention”; Symposium of the Central
Virginia Chapter of the Society for Neuroscience
- 2011 “The cortical cholinergic system and cognition: implications for neuropsychiatric
disorders”; University of New Hampshire
- 2010 “Cholinergic system regulation and attention”; Presentation at the undergraduate
neuroscience symposium, College of William & Mary
- 2009 “The cortical cholinergic system and attention”; Department of Applied Science,
College of William & Mary.
- 2005 “NMDA receptors and attention”; Presentation at the undergraduate
neuroscience symposium, College of William & Mary.
- 2005 “Acetylcholine, attention, and aging”; Presentation to the Center for
Excellence in Aging and Geriatric Health, College of William & Mary.
- 2002 “Role of cortical acetylcholine in attention: implications for aging”;
Presentation to Monroe Scholar’s Program, College of William & Mary.
- 2000 “The effects of basal forebrain lesions and distracters on attention”; The Ohio
State University
- 1998 “The role of the thalamic intralaminar nuclei and mediodorsal nucleus in
diencephalic amnesia”; The Ohio State University

Teaching Experience (full responsibility for all courses, unless noted below)

- 2002-present Psychopharmacology, Research in Physiological Psychology, Cognitive
Neuroscience, Introduction to Psychology as a Natural Science, Graduate
Proseminar in Behavioral Neuroscience, Elementary Statistics,
Physiological Psychology, Graduate Professional Development Seminar,
Freshmen Seminar: Normal and Pathological Aging, Neurodiversity (co-
instructor); College of William & Mary
- 1996- 1998 Introductory Psychology, Statistics, Biopsychology, University of New
Hampshire

Current and Previous William & Mary Graduate Students (graduation year in parentheses)

Kevin Woolfrey (2004)
Ryan Johnson (2005)
Matt Howe (2006)
Karen Boschen (2008)
Andrea Robinson (2009)
Andrea Spaeth (2009; co-advised with Prof. Robert Barnet)
Adam Hirsh (2011)
Kristin Zajo (2013)
Teal Kozikowski (2015)
Katie Mitchell (2016; co-advised with Prof. Cheryl Dickter)
Eden Maness (MA in 2017)
Sarah Blumenthal (2019)
Josh Lipson (2020; co-advised with Prof. Cheryl Dickter)
Bendu Jackson (2020; co-advised with Prof. Cheryl Dickter)
Eden Maness (PhD in 2022)
Mark Li (2025)

Current and Previous William & Mary Undergraduate Honors Students (graduation year in parentheses)

Joseph McQuail (2004)
Lori Newman (2004)
Robyn Kondrad (2005)
Kathleen Altemose (2007)
David Mangini (2009)
Paige Roseman (2010)
Katy Easterling (2011)
Liz Wolfe (2014)
Cassidy Reich (2014)
Emma Albert-Stone (2015)
Cassandra Leong (2016)
Panya Vij (2017)
Austin Tapp (2017)
Ellen Yates (2017)
Jake Feldmann (2018)
Jessica Seidenberg (2019)
Stacy Pitcairn (2020)
Saurav Pattanayak (2020)
Paige Little (2021)
Grace Smith (2021)
Faye Reid (2021)
Zixu Guo (2022)
Annika Allen (2022; co-advised with Cheryl Dickter)
Kenzi Fergus (2023; co-advised with Cheryl Dickter)
Sreya Mallipeddi (2023; co-advised with Cheryl Dickter)

Sandra Eceizabarrena Sainz (2023)
 Allison Dolan (2025; co-advised with Cheryl Dickter)
 Brian Des Roches (2025; co-advised with Cheryl Dickter)
 Abner Joseph (2025)
 Sanjoli Jain (2025)
 Emma Griffiths (expected Winter 2025; co-advised with Cheryl Dickter)

Qualifying Exam Committees

2010 Member, Xueying Wang, Department of Applied Science
 2012 Member, Krishanthi Wergalaarachchi, Department of Applied Science
 2013 Member, Andrew Kottick, Department of Applied Science

Dissertation Committees

Nov 2016, Wiktor Phillips (advisor: Prof. Christopher Del Negro)
 Oct 2017, Nikolas Vann (advisor: Prof. Christopher Del Negro)
 Dec 2022, Yawei Xiong (advisor: Prof. Myriam Cotten)

Professional Associations

Division 6, American Psychological Association
 Society for Neuroscience
 Faculty for Undergraduate Neuroscience

College Committees (all at W&M)

2022-current	Chair or co-chair, Plumeri Award Review Committee
2024-25	Member, Artificial Intelligence Policy Initiative
2023-24	Member, Faculty Affairs Committee
2023-24	Member, Faculty Assembly
2023-24	Chair, Interdisciplinary Research Innovation Fund Review Committee
2022-2025	Chair, Institutional Animal Care and Use Committee
2019-2022	Member, Faculty Assembly
2019-2022	Member, Faculty Affairs Committee (co-chair in 2020-21 and in 2021-22)
2017-2022	Member, Institutional Animal Care and Use Committee
2011-2022	Member, Committee of Chairs and Program Directors (formerly Dean's Advisory Council); on leave Fall 2015
2017-2022	Member, Committee for Honors and Interdisciplinary Studies
2020-2021	Member, Planning Ahead Team – Resilient Curriculum Delivery Squad
2019-2020	Member, Studio for Teaching and Learning Innovation Advisory Council
2017- 2019	Member, Cohen Career Center Committee for Faculty
2011-2016	Member, Integrated Science Center III Building Committee; on leave Fall 2015
2013-2014	Member, Interdisciplinary Studies Working Group
2012-2013	Member, Merit Review Steering Committee

2012-2013	Member, Academic Calendar Advisory Committee
2009-2012	Member, Committee on Graduate Studies
2003-2006	Member, Research on Animal Subjects Committee (IACUC)

Departmental Committees (all at W&M)

2024-2025	co-chair, Search Committee for tenure-eligible positions in Sensation & Perception and Affective Neuroscience
2024-2025	Member, Search Committee for Teaching Faculty position in Behavioral/Cognitive Neuroscience
2024-2025	Chair, Diversity Committee
2023-2024	Member, Search Committee for Teaching Faculty position in Behavioral/Cognitive Neuroscience
2023	Member, Search Committee for department fiscal staff position
2022-	Member, Public Relations Committee (chair in fall 2022)
2022-	Member, Diversity, Equity and Inclusion Committee
2022-23	Co-chair, Search Committee for TE position in Clinical Psychology
2019	Member, Search Committee for TE positions in Clinical Psychology
2017	Co-Chair, Search Committee for TE position in Personality Psychology
2011-current	Planning Committee, Department of Psychology (on leave fall 2015)
2015-2019	Member, Search Committee for NTE faculty in Natural Sciences and Personality
2012-2015	Member, Psychology Department Public Relations Committee
2009-2012	Chair, Graduate Studies Committee, Department of Psychology, College of William & Mary (Director of Graduate Studies)
2009	Member, Graduate Studies Committee, Department of Psychology, College of William & Mary
2006-2008	Chair, Research Committee, Department of Psychology, College of William & Mary
2005-2006	Chair, Search Committee for Tenure-Eligible Faculty Position in Perception
2004-2006	Member, Research Committee, Department of Psychology, College of William & Mary
2003-2004	Member, Search Committee for Tenure-Eligible Faculty Position in Cognitive Neuroscience
2002-2003	Member, Colloquium Committee, Department of Psychology, College of William & Mary

Additional Service or Teaching-related Activities

2021-current	Chair, W&M Neurodiversity Working Group
2020-current	Member, Virginia Coordinated Clinical Research Network
2022	Internal Member, Review Team of W&M Department of Kinesiology and Health Sciences

2024-2025	Member, Animal Care and Use Program Statewide Consortium
2019	Internal member, Review Team of W&M Program in Environmental Science and Policy
2015-2021	Co-chair, W&M Neurodiversity Working Group
2015	Internal member, Review Team of W&M Department of Sociology
2012, 2013, 2017	University Teaching Project
2012-2015	Member, W&M Neurodiversity Working Group
2012-2014	Reviewer, Charles Center Summer Research Fellowships
2009-2013	Member, Aging and Health Services Research Advisory Council to the College of William & Mary Center for Excellence in Aging
2006-2008	Secretary, Board of Directors, Williamsburg Child Care Center
2005	Participated in a May seminar at the College of William & Mary to evaluate the undergraduate neuroscience curriculum
2003-2006	Member, Virginia Youth Tobacco Project Research Coalition
2003-2009	Research Partner, The Center for Excellence in Aging and Geriatric Health
2003-2005	Member, Steering Committee, Society for Young Neuroscientists and Professors in the SouthEast (SYNAPSE)
1998	Student member of Preparing Future Faculty Committee Visiting Howard University
1995-1996	Student member of Colloquium Committee at the University of New Hampshire
1995	Student member of Faculty Search Committee at the University of New Hampshire