

**CURRICULUM VITAE**  
**Christopher Roy Bishop, Ph.D.**  
Updated 8.22.2024

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**Current Address**

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Behavioral Neuroscience Program  
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<https://sites.google.com/binghamton.edu/bishoplab>  
<https://scholar.google.com/citations?user=Cgnm6uoAAAAJ&hl=en>

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**Educational Background**

5/94 B.A., Psychology, Cum Laude, Hope College, Holland, MI  
4/99 M.A., Behavioral Neuroscience, Wayne State University, Detroit, MI  
12/01 Ph.D., Behavioral Neuroscience, Wayne State University, Detroit, MI  
7/05 Post-doctoral Research Associate, Department of Anatomy and Cell Biology,  
Wayne State University School of Medicine, Detroit, MI

**Professional History**

9/18-present Director, Integrative Neuroscience Program, Binghamton University, Binghamton, NY  
9/14-present Professor, Department of Psychology, Binghamton University, Binghamton, NY  
1/11-present Chair, Institutional Animal Care and Use Committee, Binghamton University,  
Binghamton, NY  
9/15-9/16 Interim Chair, Department of Psychology, Binghamton University, Binghamton, NY  
1/13-12/19 Co-Director, Howard Hughes Medical Institute grant for Undergraduate Research at  
Binghamton University, Binghamton, NY  
1/10-8/14 Associate Professor, Department of Psychology, Binghamton University, Binghamton,  
NY  
8/09-1/10 Interim Behavioral Neuroscience Graduate Director, Binghamton University,  
Binghamton, NY  
8/05-12/09 Assistant Professor, Department of Psychology, Binghamton University,  
Binghamton, NY  
11/01-7/05 Post-doctoral Research Associate, Department of Anatomy and Cell Biology,  
Wayne State University School of Medicine, Detroit, MI  
9/96- 11/01 Grad. Researcher, Department of Psychology, Wayne State University, Detroit, MI  
6/94-9/96 Sleep Research Asst., Henry Ford Hospital, Detroit, MI

**Memberships and Advisory Roles**

1996- present Society for Neuroscience Member  
2005- present Member of Integrative Neuroscience Program, Binghamton University  
2005- present Member of the Center for Developmental Psychobiology, Binghamton University  
2008- present Movement Disorders Society Member  
2008- present Phi Eta Sigma honorary Member  
2010- present International Basal Ganglia Society Member



2018 Reviewer, National Science Centre, Poland  
2019-2020 Ad hoc Reviewer, United States Veterans Affairs (NURE)  
2020-2024 Standing Member, United States Veterans Affairs (NURE)  
2024 Ad hoc Reviewer for student research grants, National Nu Rho Psi  
2024 Ad hoc Reviewer for NIH Pioneer Grants

**Manuscript Reviews**

Acta Neuropathologica	Brain
Journal of Neuroscience	Journal of Clinical Investigation
Movement Disorders	Journal of Pharmacology & Experimental Therapeutics
Biochemical Pharmacology	British Journal of Pharmacology
Experimental Neurology	Pharmacological Reviews
Synapse	Progress in Neuro-psychopharmacol & Biological Psychiatry
Brain Research	Psychopharmacology

### **Patents:**

Inventor: **Bishop, C.** WO 2020/087031 A1 “Combination serotonin specific reuptake inhibitor and serotonin 1A receptor partial agonist for reducing L-DOPA-induced dyskinesia”. (Filed 4/30/20). Application Pending

### **Extramural Funding**

#### **Current Grants:**

MPI/PD: **Bishop, C.** R01 NS122226-01A, NINDS. “Interrogating maladaptive serotonin raphe-striatal plasticity in L-DOPA-induced dyskinesia”. The overarching goal is to identify the mechanisms underlying the development of structural and functional maladaptation within the raphe-striatal circuit driving LID, which in turn could lead to novel, optimized targets for intervention. (12/01/2021-11/30/2026). Total Costs: \$3,200,000

Co-PI: **Bishop, C.** Department of Defense “Maladaptive 5-HT raphe-corticolimbic plasticity underlying the development of non-motor symptoms in Parkinson’s disease.” The overarching goal is to provide a mechanistic understanding of the influence of levodopa monotherapy on affective dysfunction in Parkinson’s disease patients. (9/01/2024-8/30/2028). Total Costs: \$673,448 to Bishop

#### **Pending Grants:**

PI: **Bishop, C.** Michael J. Fox Foundation “Investigating mechanisms of human alpha-synuclein-induced anxiety in a novel rat model of Parkinson’s Disease”. The central aim of this grant is to examine the effects of burgeoning alpha-synuclein accumulation on anxiety and its underlying neurocircuitry in a novel animal model of Parkinson’s disease.

Sub-Contract: **Bishop, C. R44**, PI: Sortwell (Michigan State University) NINDS. "The Rat Pre-Formed Alpha-Synuclein Fibril Model of Parkinson's Disease". The objective of this research is to determine how seeding synuclein in basal ganglia affects known parameters of dopamine release in a novel rodent model of Parkinson's disease. (8/1/2019-12/31/2020). \$112,274 to Bishop

Co-PI: **Bishop, C.** Howard Hughes Medical Institute. "Authentic research in STEM undergraduate education". The grant will fund a program that provides authentic STEM research experiences to freshmen undergraduate in the physical sciences, mathematics, computer science and engineering. (8/01/14-7/31/19). Total Costs: \$1,200,000 to program

PI: **Bishop, C.** American Parkinson's Disease Association "Targeting cholinergic neurons of the pedunculopontine tegmental nucleus to improve treatment of Parkinson's disease". The goal of this grant is to validate the pedunculopontine tegmental nucleus, using chemogenetic and pharmacological techniques, as a target for the improved treatment of Parkinson's disease. Project Grant (9/01/2018-8/30/19). Direct Costs: \$50,000 to Bishop

PI: **Bishop, C.** Michael J. Fox Foundation. "D-512, a novel multifunctional D2/D3 receptor agonist for the treatment of PD". The aim of this work is to determine whether the dopamine agonist D-512 is a useful monotherapy in a preclinical rat model of Parkinson's disease. MJFF Rapid Response Innovation Award Program (10/15/12-10/14/15). Total Costs: \$75,000 to Bishop

Co-PI: **Bishop, C.** Howard Hughes Medical Institute. "Jumpstarting collaboration, fueling undergraduate research". The grant will fund a program that teams undergraduate majors in the life sciences with studentsssiouecoutrgt o@3:3@ÄÄ3P@ pÄ8 q1s-ó m1932196CpP SÄÈC n2\$C2xe\$C"lo2.993C19qãc9e2c0Ü3Ä psase7

rat model of parkinson's disease. Rapid Response Innovation Award (12/01/12-11/31/13).  
Direct Costs: \$75,000 to Bishop

Collaborator: **Bishop, C.** National Science Foundation. "Mechanisms of central IL-1 responses to stress". The work outlined in this grant aims to determine the mechanisms by which stressor exposure leads to activation of inflammatory pathways in the brain. NSF 0822129 (8/01/08-7/31/12).  
Direct Costs: \$400,000 to Deak

Sub-Contract: **Bishop, C.** National Institute of Neurological Disease and Stroke. "Novel pharmacotherapies for levo-dopa-induced dyskinesia". The aim of the proposed set of experiments will be to test the hypothesis that novel CNS receptors represent a clinical target for the reduction of L-DOPA-related side effects in Parkinson's Disease. SBIR to Skybridge Pharmaceuticals(10/01/09-8/30/10). Direct Costs: \$46,000

PI: **Bishop, C.** American Parkinson Disease Association. "Dorsal raphe regulation of L-DOPA-induced dyskinesia". The proposed set of experiments investigates the influence of brain stem serotonin neurons on the development and expression of L-DOPA-induced dyskinesia. (9/01/06-8/30/07). Direct Costs: \$50,000 to Bishop

PI: **Bishop, C.** National Institute of Drug Abuse. "Effects of nicotine on NPY-induced feeding and metabolism". The proposed set of experiments investigated the role of neuropeptide Y in the effects of nicotine and its withdrawal on feeding and body weight. 5F31DA006001-02. (9/01/99-8/30/01).  
Direct Costs: \$43,000 to Bishop

Mentor: **Bishop, C.** National Institute of Neurological Disease and Stroke. "5-HT<sub>1A</sub> receptor-mediated striatonigral activity in the hemiparkinsonian rat". The proposed set of experiments in this mentored fellowship to graduate student Kristin Dupre aim to test the hypothesis that striatal 5-HT<sub>1A</sub> receptors reduce L-DOPA-induced dyskinesia in part through modulation of glutamate and GABA signaling using a validated in vivo rodent model of PD. 1F31NS066684-01 (9/01/09-8/30/11). Total  
Costs: \$80,318 for Fellow

## **Intramural Funding**

### **Previous Grants:**

PI: **Bishop, C.** XCEED Grant, Research Foundation of Binghamton University. "Effects of co-administration of Vilazodone and Amantadine for the treatment of L-DOPA-induced dyskinesia". This pilot grant sought to leverage the effects of new and known therapeutics for optimization of L-DOPA therapy in Parkinson's disease using a preclinical model. (4/1/20-10/31/20). Direct Costs: \$10,000 to Bishop

PI: **Bishop, C.** Binghamton University Bridge Program. "Examining transgenic dopamine D1 receptor-cre rats for improved treatment of Parkinson's disease" The objective of the proposed project is to establish colony of transgenic rats to investigate a causal role for the striatal D1R-D3R heteromer in L-DOPA-induced dyskinesia (LID). (1/01/17-7/31/19). Direct Costs: \$75,000 to Bishop

Co-PI: **Bishop, C.** Transdisciplinary Areas of Excellence Grant, Binghamton University. "Treatment of Parkinson's disease using intranasal delivery via electrospray atomization". Experiments in this proposal aim to optimize intranasal delivery of anti-



95. +McManus, G., +Galfano, A., +Budrow, C., Deak, M., +Lipari, N., Tseng, K.Y., Manfredsson, F.P., **Bishop, C.** Effects of genetic knockdown of the serotonin transporter on established L-DOPA-induced dyskinesia and gene expression in hemiparkinsonian rats. *Submitted.*

94.



83. +Lanza, K. and **Bishop C.** (2021). Dopamine D3 Receptor Plasticity in Parkinson's Disease and L-DOPA-Induced Dyskinesia. *Biomedicines*. Mar 19;9(3):314. (PMID:33808538).
82. +Conti Mazza, M., Ngyuen, V., Beilina, A., Karakoleva, E., \*Coyle, M., Ding, J., **Bishop, C.**, Cookson, M.R. (2021). Combined knockout of Lrrk2 and Rab29 does not resul(on')2.9tMne bsuh, orblreb2norm-3.2 (b)10.4 (

69. Sellnow, R.C., West, A.R., Steece-Collier, K., Sandoval, I.M., +Chambers, N., Benskey, M.J., **Bishop, C.** and Manfredsson, F.P. (2019). Regulation of dopamine neurotransmission from serotonergic neurons by ectopic expression of dopamine D2 autoreceptors blocks levodopa-induced dyskinesia. *Acta Neuropathologica Communications Jan 15;7(1):8. (PMID: 30646956).*
68. \*Meadows, S.M., +Conti, M.M., \*Gross, L., +Chambers, N., \*Avnor, Y., +Ostock, C.Y., +Lanza, K. and **Bishop, C.** (2018). Combined serotonin transporter inhibition and 5-HT1A receptor stimulation with Vilazodone reduces L-DOPA-induced dyskinesia in hemi-parkinsonian rats. *Movement Disorders 33(11):1740-1749. (PMID: 30485908)*
67. +Lanza, K., \*Meadows, S.M., +Chambers, N., \*Nuss, E., Deak, M.M., Ferré, S. and **Bishop, C.** (2018). Behavioral and Cellular Dopamine D1 and D3 Receptor-Mrk D3 Receptor

56. +Lindenbach, D.L., +Conti, M.M., +Ostock, C.Y., +Dupre, K.B. and **Bishop, C.** (2015). Alterations in primary motor cortex neurotransmission and gene expression in a rat model of Parkinson's disease and drug-induced dyskinesia. *Neuroscience* 310:12-26. (PMID: 26363150).
55. Bhide, N., +Lindenbach, D., +Barnum, C.J., Geroge, J.A., \*Surrena, M.A. and **Bishop, C.** (2015). Effects of the beta-adrenergic receptor antagonist Propranolol on dyskinesia and L-DOPA-induced striatal DA efflux in the hemi-parkinsonian rat.

42. +Barnum, C.J., Bhide, N., +Lindenbach, D., \*Surrena, M.A., \*Goldenberg, A.A., \*Tignor, S., \*Klioueva, A., \*Walters, H. and **Bishop, C.** (2012). Effects of noradrenergic denervation L-DOPA-induced dyskinesia and its treatment by alpha and beta- adrenergic receptor antagonists in hemiparkinsonian rats. 687. -

*Bäpne* (2012). Pa3.4 217 (a) (35074) Tc 010 0 11.52 54 7273451.1 583-T8)Tj ET EMC BT /MCID 0 >>BD5 1

28. +Dupre, K.B., +Eskow, K.L., \*Steiniger, A., \*Klioueva, A., \*Negrón, G.E., \*Lormand, L., \*Park, J.Y. and **Bishop, C.** (2008). Effects of coincident 5-HT<sub>1A</sub> receptor stimulation and NMDA receptor antagonism on L-DOPA-induced dyskinesia and rotational behaviors in the hemiparkinsonian rat. *Psychophar*

13. Parker, G.C., **Bishop, C.** and Coscina, D.V. (2002). Estrous cycle and food availability affect feeding induced by amygdala 5-HT receptor blockade. *Pharmacology, Biochemistry and Behavior* 71, 701-707.
12. Currie, P.J., Coscina, D.V., **Bishop, C.**, Coiro, C., Koob, G.F. and Vale, W. (2001). Hypothalamic paraventricular nucleus injections of urocortin alter food intake and respiratory quotient. *Brain Research* 916, 222-228.
11. Parker, G.C., McKee, M.E., **Bishop, C.** and Coscina,









144. \*Coyle, M. **Bishop, C.** (2019). Interrogating D3 receptors in a transgenic rat model of Parkinson's disease. *Research Days, Binghamton University Binghamton, NY.*
143. Sellnow, R.C., West, A.R., Steece-Collier, K., +Chambers, N.E., Sandoval, I.M., Benskey, M.J., **Bishop, C.**, Manfredsson, F.P. (2018). Virally-mediated expression of the D2 autoreceptor in the dorsal raphe nucleus blocks levodopa-induced dyskinesia development by inhibiting "false DA neurotransmission" from 5-HT neurons. *Society for Neuroscience, November 7, 2018, San Diego, CA*
142. +Chambers, N.E., \*Sergio, J., \*Coyle, M., \*Topping, B., \*Saito, C., +Lanza, K.E., Clark, S., **Bishop, C.** (2018). Cholinergic neurons in the rostral pedunculopontine nucleus contribute to dyskinesia in the hemi-parkinsonian rat. *Society for Neuroscience, November 5, 2018, San Diego, CA*
141. Salvatore, M.F., Mcinnis, T., +Lanza, K.E., **Bishop, C.** (2018). Interference with dopamine neurotransmission in substantia nigra affects movement frequency without striatal involvement. *Society for Neuroscience, November 5, 2018, San Diego, CA*
140. +Lanza, K.E., \*Meadows, S.M., \*Chemakin, K., \*Topping, B., +Chambers, N.E., \*Saito, C., **Bishop, C.** (2018). Dopamine d1r or d3r agonist exposure induces cross-receptor behavioral sensitization: Functional implications of d1r-d3r interactions. *Society for Neuroscience, November 5, 2018, San Diego, CA*
139. Manfredsson, F., Sellnow, R., Steece-Collier, K., Sandoval, I., +Chambers, N., Altwal, F., West, A. and **Bishop, C.** (2019) Gene therapy mediated inhibition of dorsal raphe serotonergic neurons blocks the formation of L-DOPA-induced dyskinesias. *International Conference on Alzheimer's and Parkinson's Disease, Lisbon, Portugal.*
138. \*Sergio, J., \*Coyle, M., \*Topping, B., \*Saito, C., +Chambers, N. and **Bishop, C.** (2018). Lesioning cholinergic neurons of the pedunculopontine nucleus decreases drug-induced dyskinesia in a rat model of Parkinson's disease. *Research Days, Binghamton University Binghamton, NY.*
137. \*Chemakin, K., \*Lefkowitz, S., \*Goldsamt, A., \*Siok, E., \*McClune, A., Villarreal, S., +Chambers, N., +Lanza, K., and **C. Bishop.** (2018). Dopamine D1 and D3 receptor cross-sensitization: evidence for a D1R-D3R complex. *Department of Psychology Research Colloquia(J)3.6.156 Tw (D)3.2(opa)-3.9 g dy3.2*



116. +Ostock, C.Y., +Conti, M.M., \*LaRose, T., \*Meadows, S. and **Bishop, C.** (2015). Cognitive and motor deficits in a rodent model of Parkinson's disease displaying concurrent dopamine and acetylcholine loss. *Society for Neuroscience, Chicago, IL.*
115. +Chambers, N.E. +Conti, M., \*Namba, C., \*Palumbo, N., Felder, C., McKinzie, D. and **Bishop, C.** (2015). Contribution of muscarinic acetylcholine receptors to L-

101. +Conti, M., \*Meadows, S., \*Melikhov-Sosin, M., \*Nuss, E., \*Hallmark, J., \*Vilceus, N. and **Bishop, C.** (2014). Selective transporter blockade reveals differential contributions of monoamine transporters to L-DOPA's motor effects in hemi-parkinsonian rats. *Society for Neuroscience, Washington D.C.*
100. \*George, J.A., +Ostock, C.Y., \*Goldenberg, A.A., +Conti, M. and **Bishop, C.** (2014). L-DOPA-induced striatal norepinephrine efflux is associated with dyskinesia in hemi-parkinsonian rats. *Society for Neuroscience, Washington D.C.*
99. **Bishop, C.**, \*Kuberka, A., \*Mohamed, M., \*Eissa, S., +Lindenbach, D. and \*Goldenberg, A. (2014). Effects of tricyclic antidepressants on L-DOPA-induced dyskinesia and motor improvement in hemi-Parkinsonian rats. *Movement Disorders, Stockholm, Sweden*
98. +Lindenbach, D., \*Palumbo, N., +Ostock, C.Y., \*Vilceus, N., +Conti, M.M. and **Bishop, C.** (2014). Side effect profile of serotonergic treatments for Parkinson's disease and L-DOPA-induced dyskinesia in hemi-Parkinsonian rats. *Movement Disorders, Stockholm, Sweden*
97. \*Hallmark, J., Bhide, N. and **Bishop, C.** (2014). Targeting serotonin receptors for the improvement of dopamine replacement therapy in Parkinson's disease. *Research Days, Binghamton University Binghamton, NY.*
96. \*Vilceus, N., \*Melikhov-Sosin, M., \*Nuss, E., +Conti, M. and **Bishop, C.** (2014). Serotonin, but not dopamine nor norepinephrine, transporter blockade reduces L-DOPA-induced dyskinesia in hemi-parkinsonian rats. *Department of Psychology Research Colloquia, Binghamton University Binghamton, NY.*
95. \*Meadows, S. \*Avnor, Y., +Ostock, C. Y. and **Bishop, C.** (2014). The effects of the unique serotonin compound Vilazodone, on L-DOPA-induced dyskinesia in the hemiparkinsonian rat. *Department of Psychology Research Colloquia, Binghamton University Binghamton, NY.*
94. \*Palumbo, N., \*Meadows, S. +Lindenbach, D.L., Dutta, A. and **Bishop, C.** (2014). Effects of a novel D3 receptor agonist rap5 0 9Td[(O)3dop, C.

87. \*Singh, P.S., +Conti, M. and **Bishop, C.** (2013) 5-HT1A receptors modulate the anti-dyskinetic effects of selective serotonin reuptake inhibitors in parkinsonian rats. *Research Days, Binghamton University Binghamton, NY.*
86. \*Goldenberg, A.A., \*Katzman, A., \*Kampton, E., +Conti, M., +Lindenbach, D.L. and **Bishop, C.** (2012). Selective serotonin reuptake inhibitors prevent expression and emergence of L-DOPA-induced dyskinesia in the hemiparkinsonian rat. *Society for Neuroscience, New Orleans, LA.*
85. +Ostock, C.Y., +Lindenbach, D.L., +Jaunaraajs, K.L., +Dupre, K.B., \*Goldenberg, A., Bhide, N.S. and **Bishop, C.** (2012). Noradrenergic denervation by DBH saporin reduces behavioral responsivity to L-DOPA in the hemi-parkinsonian rat *Society for Neuroscience, New Orleans, LA.*
84. +Lindenbach, D.L., +Dupre K.B. and **Bishop, C.** (2012). L-dopa-induced changes in motor cortex gene expression in a rat model of Parkinson's disease *Society for Neuroscience, New Orleans, LA.*
83. Deak, M.M., Hueston, C.M., +Lindenbach, D.L., Catanzaro, J.M., **Bishop, C.**, Tammariello, S.P. and Deak, T. (2012). L-DOPA treatment of the 6-OHDA lesioned Parkinsonian rat prevents habituation of corticosterone in response to chronic restraint stress. *Society for Neuroscience, New Orleans, LA.*
82. +Conti, M., +Dell'Isola, R., +Jaunaraajs, K.E., +Ostock Kiessling, C.Y., +Lindenbach, D.L., \*Estrella, J. and **Bishop, C.** (2012). Validation of a bilateral 6-hydroxydopamine lesion rat model of Parkinson's disease. *Society for Neuroscience, New Orleans, LA.*
81. Bhide, N.S., +Ostock, C.Y., \*Eissa, S., \*Kuberka, A. and **Bishop, C.** (2012). Concomitant targeting of serotonin-1(A) and -2(A) receptors in a rat model of Parkinson's disease. *Society for Neuroscience, New Orleans, LA.*



L-DOPA-induced dyskinesia in the hemiparkinsonian rat. *Bridges to Baccalaureate Presentation Day, Binghamton University, Binghamton, NY.*

56. \*Dickinson, S., \*Feinberg, E., \*Goldenberg, A., \*Lui, Y., \*Salamon, M., +Lindenbach, D. and



43. +Dupre, K.B., +Eskow, K.L., Barnum, C.J. and **Bishop, C.** (2008). Striatal 5-HT1A receptor stimulation reduces D1 receptor-induced dyskinesia and improves movement in the hemiparkinsonian rat. *Society for Neuroscience, Washington D.C.*
42. **Bishop, C.**, +Dupre, K.B., Barnum, C.J., Deak, T. and +Eskow, K.L. (2008). L-DOPA treatment reduces serotonin function in depression-related structures of the hemiparkinsonian rat. *Society for Neuroscience, Washington D.C.*
41. \*Mora, N.,\* Johnson, K. and **Bishop, C.** (2008). Effects of bilateral 6-hydroxydopamine lesions on motor and non-motor function in rats. *Annual Biomedical Research Conference for Minority Students, Orlando, FL.*
40. \*Johnson K., \*Mora, N., +Eskow K.L., +Dupre, K.B. and **Bishop, C.** (2008). Effects of bilateral 6-hydroxydopamine lesions on motor and non-motor function in rats. *Bridges to Baccalaureate Pr.1 (o)13.4 (c)-0.9 (ie)9o2c10rateon iBijEMC /P AMe (c)-3.9 (al).3 (s)3.tTo Tw (B)-3.7 (3.9 (on i)-3.2 (on i)-310.5 (*

29. \*Park, J.Y., \*Negron, G.,

13. **Bishop, C.** and Walker P.D. (2002). Co-stimulation of intrastriatal serotonin 5-HT<sub>2</sub> and dopamine D<sub>1</sub> receptors produces synergistic effects on locomotion. *Society for Neuroscience, Orlando, FL*.
12. **Bishop, C.,** Parker, G.C. and Coscina, D.V. (2001). 8-OH-DPAT feeding is modulated by nicotine administration and its withdrawal. *Society for Neuroscience Abstract 26(2)*, 1012.
11. **Bishop, C.,** Parker, G.C. and Coscina, D.V. (1999). Effects of nicotine on body weight and neuropeptide Y-induced feeding during acute, chronic and withdrawal phases. *Appetite 33*, 232-233.
10. Currie, P.J., **Bishop, C.,** Lagman, A. and Coscina, D.V. (1998). Spiperone antagonizes the effect of DOI on neuropeptide Y induced feeding and energy substrate utilization. *Society for Neuroscience Abstract 24(1)*, 448.
9. Coscina, D.V., **Bishop, C.,** Koob, G.F., Rivier, J. and Currie P.J. (1998). Paraventricular nucleus injections of urocortin suppress feeding and carbohydrate metabolism. *Society for Neuroscience Abstract 24(1)*, 704.
8. **Bishop, C.,** Currie, P.J. and Coscina, D.V. (1997). Delayed feeding prevents hypothalamic norepinephrine-induced overeating. *Society for Neuroscience Abstract 23*.
7. Rosenthal, L., Nykamp, K., Guido, P., Syron, M.L., Day, R., Fortier, J., **Bishop, C.,** Rice, M., Roehrs, T.A. and Roth, T. (1997). Compliance with CPAP during the first week of treatment. *Sleep Research 26*.
6. Rosenthal, L., Folkerts, M., **Bishop, C.,** Guido, P., Syron, M., Mickelson, S., Roehrs, T.A. and Roth T. (1996). The level of daytime sleepiness and the perception of sleep on the MSLT. *Sleep Research 25*.
5. Rosenthal, L., **Bishop, C.,** Helmus, T., Roehrs, T. and Roth, T. (1996). The frequency of sleep onset REM periods among subjects with no excessive daytime sleepiness. *Sleep Research 25*.
4. **Bishop, C.,** Rosenthal, L., Guido, P., Mickelson, C., Nasir, I.A., Roehrs, T.A. and Roth, T. (1996). The sleep- wake habits of patients with obstructive sleep apnea. *Sleep Research 25*.1. Guido, P., Rosenthal L., **Bishop, C.,** Roehrs, T.A., Michaelson, S., Syron, M. and Roth T. (1995). The measure of sleepiness in a sleep apnea population. *Sleep Research 24*.
3. Folkerts, M., Helmus, T., **Bishop C.,** Feldkamp, C., Roth, T. and Rosenthal L. (1995). Administration of dexamethasone and its effects on sleep and daytime alertness. *Biological Psychiatry 37(9)*, 611-612.
2. Roehrs, T.A., Rosenthal, L., **Bishop C.,** Farchione, T., Henderson, T. and Roth T. (1995). The alerting effects of methylphenidate under normal and deprived sleep conditions. *Sleep Research 24*.
1. Guido, P., Rosenthal L., **Bishop, C.,** Roehrs, T.A., Michaelson, S., Syron, M. and Roth T. (1995). The measure of sleepiness in a sleep apnea population. *Sleep Research 24*.

### **Invited Lectures/Symposia/Webinars**

45. “Ode to a Gap Year”, Invited Speaker, Binghamton University Career Champions, Binghamton, NY, April 12, 2024.
44. “Brain health: a use it or lose it strategy”, Invited Lecture, Binghamton University Retirees Association, Binghamton, NY, December 7, 2023.
43. “Optimizing Parkinson's Disease Treatment by Leveraging Serotonin Neuroplasticity”. Invited colloquium Speaker, Barrow Neurological Institute, Phoenix, AZ, October 17, 2023.
42. “Working with the Division of Research” Invited Speaker, Binghamton University, Binghamton, NY, September 21, 2022.
41. “Targeting Serotonin Neuroplasticity to Optimize Treatment of Parkinson's Disease”. Invited Speaker, Dopamine 2022, Montreal, Quebec, Canada, May 23, 2022.

40. "Leveraging Serotonin Neuroplasticity to Optimize Treatment of Parkinson's Disease". Invited colloquium Speaker, University of Tennessee Health Science Center, Memphis, TN, September 8, 2021.
39. "Gene therapy to optimize Parkinson's disease treatment" Invited Lecture, Student Psychological Association, Binghamton, NY, May 6, 2021.

19. “Rat models of Parkinson’s disease: searching for novel treatments”, Invited Lecture, Binghamton University Student Psychological Association, Binghamton, NY, March, 2012.
18. “Rat models of Parkinson’s disease: searching for novel treatments”, Invited Lecture, Onondaga Community College, Syracuse, NY, March, 2012.
17. “Serotonin neuroplasticity in Parkinson’s Disease: implications for movement and mood”, Invited Lecture,





Libby Gross (2014-2017)-



\*Mohammad Noor (summer 2023)- currently student @ Onandago CC

\*Ethan Valle (2023-present)- currently in lab

Justin Franks (2023-present)-currently in lab

Aizza Shah (2023-present)-currently in lab

So Demus (2023-present)-currently in lab

Jiaer Huang (2024-present)-currently in lab

\*Balqiisa J-Elmi (2024-present)-currently in lab

Jacleen Nardiello (2024-present)-currently in lab

Jacob Jodlowski (2024-present)-currently in lab

Natalia Hakimzadeh (2024-present)-currently in lab

Haley Prisinzano (2024-present)-currently in lab

### **Honor's Theses:**

Yee, J. (2006). Recognition of compounds objects parsed on edge properties in pre-school children.

Leschinsky, S. (2006). Temporal coding in the NTS in response simulated taste aversion.

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