

Curriculum vitae

Devin H. Taylor

Personal Information

Utah Valley University
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Education

2015	PhD	Neuroscience, Arizona State University, Tempe AZ
2011	MS	Psychology, Brigham Young University, Provo UT
2006	BS	Behavioral Science, Utah Valley University, Orem UT

Professional Experience

2019-present	Assistant Professor, Department of Biology, Utah Valley University, Orem UT
2016-2019	Lecturer, Department of Biology, Utah Valley University, Orem UT
2015-2016	Postdoctoral Fellow, Department of Neurosciences, University of New Mexico, Albuquerque NM
2011-2015	Research Technician, Department of Neurobiology, Barrow Neurological Institute, Phoenix AZ
2008-2011	Research Assistant, Neuroscience Center, Brigham Young University, Provo UT
2008-2009	Graduate Teaching Assistant, Psychology Department, Brigham Young University, Provo UT
2007-2008	Title 1 Teacher, Alpine School District, Suncrest Elementary School, Orem UT
2005-2007	Case Manager, Cirque Lodge Drug and Alcohol Rehabilitation Center, Sundance UT

Publications

Peer reviewed journal articles

Huang, Y.B., Zheng, C., Gao, F.F., **Taylor, D.H.**, Gao, M., Lukas, R.J., and Wu, J. (2021) *Levo-tetrahydropalmitine* inhibits $\alpha 4\beta 2$ nicotinic receptor response to nicotine in cultured SH-EP1 cells. *Acta Pharmacol Sin.* Accepted.

Xin, Q., Xu, F., **Taylor D.H.**, Jingfu, Z., and Wu, J. (2020) The impact of cannabinoid type 2 receptors (CB2Rs) in neuroprotection against neurological disorders. *Acta Pharmacol Sin.* doi: [10.1038/s41401-020-00530-2](https://doi.org/10.1038/s41401-020-00530-2).

Bird C.W., **Taylor D.H.**, Pinkowski N.J., Chavez, G.J., and Valenzuela C.F. (2018) Long-term reductions in the population of GABAergic interneurons in the mouse hippocampus following developmental ethanol exposure. *Neuroscience*. 383: 60-73. doi: [10.1016/j.neuroscience.2018.05.003](https://doi.org/10.1016/j.neuroscience.2018.05.003)

Steffensen S.C., Shin S.I., Nelson A.C., Pistorius S.S., Williams S.B., Woodward T.J., Park H. J., Friend L., Gao M., Gao F., **Taylor D.H.**, Olive M.F., Edwards J.G., Sudweeks S.N., Buhlman L.M., McIntosh J.M., and Wu, J. (2017) $\alpha 6$ subunit-containing nicotinic receptors mediate low-dose ethanol effects on ventral tegmental area neurons and ethanol reward. *Addiction Biology*. doi: <https://doi.org/10.1111/adb.12559>

Nirgudkar P., **Taylor D.H.**, Yanagawa Y., and Valenzuela C.F. (2016) Ethanol exposure during development reduces GABAergic/glycinergic neuron numbers and lobule volumes in the mouse cerebellar vermis. *Neuroscience Letters*. 632: 86-91. doi: [10.1016/j.neulet.2016.08.039](https://doi.org/10.1016/j.neulet.2016.08.039)

Liu Y., Zen X., Hui Y., Zhu C., Wu J., **Taylor D.H.**, Ji J., Fan W., Huang Z., and Hu J. (2014) Activation of $\alpha 7$ nicotinic acetylcholine receptors protects astrocytes against oxidative stress-induced apoptosis: Implications for Parkinson's disease. *Neuropharmacology*. doi:[10.1016/j.neuropharm.2014.11.028](https://doi.org/10.1016/j.neuropharm.2014.11.028)

Wu J., Gao M., and **Taylor D.H.** (2014) Neuronal nicotinic acetylcholine receptors are important targets for alcohol reward and dependence. *Acta Pharmacol Sin*. 35, 311-315. doi: [10.1038/aps.2013.181](https://doi.org/10.1038/aps.2013.181)

Taylor D.H., Steffensen S.C., and Wu J. (2013) Nicotinic acetylcholine receptors in the ventral tegmental area are important targets for nicotine and ethanol co-dependence. *Biochem & Pharmacol*. S1:002. doi: [10.4172/2167-0501.S1-002](https://doi.org/10.4172/2167-0501.S1-002)

Taylor D.H., Burman P.N., Hansen D.M., Wilcox R.S., Larsen B.R., Blanchard J.K., Merrill C.B., Edwards J.G., Sudweeks S.N., Wu J., Arias H.R., and Steffensen S.C. (2013) Nicotine enhances the excitability of gaba neurons in the ventral tegmental area via activation of alpha 7 nicotinic receptors on glutamate terminals. *Biochem & Pharmacol*. S1:007. doi:[10.4172/2167-0501.S1-007](https://doi.org/10.4172/2167-0501.S1-007)

Taylor D.H., Gao M., Taylor D.T., Liu Q., Shao X.M., Olive M.F., and Wu J. *Levo-tetrahydropalmatine attenuates nicotine reward and nicotine-induced ventral tegmental area dopamine neuron activity*. In preparation.

Book chapter

Yang K., **Taylor D.H.**, and Wu J. ATP-Sensitive K⁺ Channel in Nigra Dopamine Neurons is a Novel Target for Tetrahydroprotoberberines` Neuroprotection. In, *Frontiers in Clinical Drug Research-CNS and Neurological Disorders*, Atta-ur-Rahman, Ed. Oak Park, IL: Bentham Science; 2015, p.3-18.

Doctoral dissertation

Taylor, D.H. The Roles of Nicotinic Acetylcholine Receptors in the Ventral Tegmental Area: Implications in Nicotine and Ethanol Addiction and Drug Intervention. A dissertation presented to the faculty of the Arizona State University Interdisciplinary Graduate Program in Neuroscience. Tempe, Arizona 2015.

Master's thesis

Taylor, D.H. The Effects of Acute and Chronic Nicotine on GABA and Dopamine Neurons in the Midbrain Ventral Tegmental Area. A thesis submitted to the faculty of the Brigham Young University Department of Psychology. Provo, Utah 2011.

Published abstracts/conference presentations

Horrocks, T.B., Miller, P., Taylor, D.T., and **Taylor, D.H.** Effect of omega-3 fatty acids on learning and memory in drosophila with Alzheimer's disease. UVU SCULPT Showcase. (2021) *poster presentation winner

Steffensen, S.C., Gao, F., Chen, D., Ma, X., Gao, M., **Taylor, D.H.**, Eaton, B., Sudweeks, S.N., Whiteaker, P., and Wu, J. Alpha 6-containing nicotinic acetylcholine receptor is a sensitive target for low-dose alcohol. *Soc. Neurosci. Absts* (2017) 77.10/NN23

Taylor, D.H., Baculis, B.C., and Valenzuela, C.F. Third trimester-equivalent ethanol exposure reduces GABA neuron numbers in the dentate gyrus. *Alcoholism: Clin. Exp. Res.* (2016)

Taylor, D.H., Baculis, B.C., and Valenzuela, C.F. Alcohol exposure during pregnancy reduces inhibitory neurons in a brain region involved in learning and memory. *UNM Health Sciences Center Neuroscience Day* (2016) 45.

Woodward, T.J., Shin, S.I., Mabey, J.K., Nielson, N.D., Schilaty, N.D., **Taylor, D.H.**, Wu, J., McIntosh, M., and Steffensen, S.C. Ethanol inhibits GABA neurons in the ventral tegmental area and dopamine release in the nucleus accumbens via presynaptic $\alpha 6$ nicotinic receptors on GABA terminals. *Soc. Neurosci. Absts* (2014) 53.01/V5

Wu, J., Gao, M., **Taylor, D.H.**, and Steffensen, S.C. $\alpha 6^*$ -nAChRs in the VTA are a critical target for alcohol reward and dependence. *Advanced Courses and Scientific Conferences.* (2014)

Shin, S.I., Mabey, J.K., Nelson, A.C., Woodward, T.J., Schilaty, N.D., **Taylor, D.H.**, Wu, J., McIntosh, M., and Steffensen, S.C. Ethanol inhibits GABA neurons in the ventral tegmental area and dopamine release in the nucleus accumbens via presynaptic $\alpha 6$ nicotinic receptors on GABA terminals. *Alcoholism: Clin. Exp. Res.* (2014)

Taylor, D.H., Gao, M., Huang, Z., Lukas, R., and Wu, J. Levo-tetrahydropalmatine, a novel drug for smoking cessation. *Soc. Neurosci. Absts* (2013) 815.21

Shin, S., Mabey, J.K., White, D.N., Sandoval, S.S., Nielson C.A., Schilaty, N.D., **Taylor, D.H.**, S. N. Sudweeks, S.N., Edwards, J. G., McIntosh, J.M., WU, J., and Steffensen, S.C. Ethanol inhibits GABA neurons in the ventral tegmental area and dopamine release in the nucleus accumbens via presynaptic $\alpha 6$ nicotinic receptors on GABA terminals. *Soc. Neurosci. Absts* (2013) 60.08

Shin, S.I., Mabey, J.K., White, D.N., Nielson, C.A., Schilaty, N.D., **Taylor, D.H.**, Wu, J., McIntosh, M., and Steffensen, S.C. Ethanol inhibits GABA neurons in the VTA and dopamine release in the nucleus accumbens via α -6 nicotinic receptors on GABA terminals. *Alcoholism: Clin. Exp. Res.* (2013) 37(2) 238A (909)

Taylor, D.H., Burman, P.N., Wilcox, R.S., Merrill, C.B., Ringer, K. Sudweeks, S.N., Edwards, J.G., Arias, H.R., Wu, J., and Steffensen, S.C. Acute and chronic effects of nicotine on GABA neurons in the ventral tegmental area. *Soc. Neurosci. Absts* 37 (2011) 686.13

Taylor, D.H., Burman, P.N., Wilcox, R.S., Ringer, K., Merrill, C.B., Sudweeks, S.N., Edwards, J.G., Arias, H.R., and Steffensen, S.C. Acute and chronic effects of nicotine on GABA neurons in the ventral tegmental area. *Soc. Neurosci. Absts* 36 (2010) 476.7

Burman, P., **Taylor, D.H.**, Wilcox, R., Wilcox, J.D., Hansen, D.M., and Steffensen, S.C. Effect of nicotine on GABA neurons nAChR subtypes in the VTA. *Stanford Undergraduate Psychology Conference Absts.* 60 (2010)

Teaching Experience

Utah Valley University, Orem UT

Face to face

General Biology (BIOL 1010): 3 credits; Fall (F)16

Introduction to Human Anatomy & Physiology (ZOOL 1090): 3 credits; F18, Spring (S)19, F19, S20

Human Physiology (ZOOL 2420): 3 credits; S17, F17, S18, F18, S19, F19

Human Physiology Honors (ZOOL 242H): 3 credits; S17

Human Physiology Lab (ZOOL 2425): 1 credit; F16, S17, F17, S18, F18, S19

Special Topics in Biology, Teaching Biology (BIOL 490R):1 credit; S18, F18, S19
Neuroscience (ZOOL 4780): 4 credits; F16, F18

Online

Human Physiology (ZOOL 2420): 3 credits; F20, S21
Introduction to Human Anatomy & Physiology (ZOOL 1090): 3 credits; F20, S21

Hybrid

Human Physiology (ZOOL 2420): 3 credits; F21, S22
Introduction to Human Anatomy & Physiology (ZOOL 1090): 3 credits; F21, S22

Awards

2013 Interdisciplinary Graduate Program in Neuroscience Research Associateship, Arizona State University
2012 Barrow Neurological Institute Interinstitutional Collaborative Fellowship
2011 Interdisciplinary Graduate Program in Neuroscience Fellowship, Arizona State University
2005 Exemplary Merit R Scholarship, College of Humanities and Social Sciences, Utah Valley University
2004 Exemplary Merit R Scholarship, College of Humanities and Social Sciences, Utah Valley University

Funding

2021 Utah Valley University College of Science Scholarly Activities Committee (SAC) Award- \$3500
2020 Utah Valley University Undergraduate Research Scholarly and Creative Activities (URSCA) Grant with Baylan Horrocks (undergraduate student)- \$2000

Invited Talks

2020 Utah Valley University Biology Department Colloquium, Orem UT (Jan 17)
2017 Rothenfluh Laboratory, University of Utah Department of Psychiatry, Salt Lake City UT (May 17)
2015 University of New Mexico Department of Neurosciences Seminar Series, Albuquerque NM (Feb 13)
2015 Arizona State University Neuroscience Research Seminar Series, Tempe AZ (Jan 29)
2013 Arizona State University Neuroscience Research Seminar Series, Tempe AZ (Oct 9)

Student Mentoring

2019 Utah Valley University Center for the Advancement of Leadership LEAD mentor
2012-2013 Arizona State University School of Life Sciences new graduate student mentor

Thesis committee advisor

2018- 2019 Brittain Stokes
2018- 2019 Wyatt Knechtel
2017-2018 Candler Christensen

Professional Development

2021 The American Society for Cell Biology (ASCB) webinar: How to be a Good Mentor
2021 ASCB webinar: Evidence-based Teaching Guide on Inclusive Teaching
2021 Utah Valley University Office of Teaching and Learning (OTL) EdTech Summit

- 2020 Utah Valley University Scholarly and Creative Undergraduate Partnership Team (SCULPT) Mentoring Academy
- 2020 Utah Valley University OTL Small Teaching Online Learning Circle
- 2020 Utah Valley University OTL Flexstudio Workshop
- 2019 Utah Valley University OTL Higher Education Academy (HEA) Fellowship Writing Workshop
- 2018 Utah Valley University OTL Teaching Across Flexible Modes Workshop Series

Membership in Professional Societies

- 2020-present The American Society for Cell Biology
- 2008-present Society for Neuroscience
- 2013-present Association for Women in Science
- 2015-2017 Research Society on Alcoholism
- 2016-2017 The Research Society on Marijuana
- 2012-2015 Arizona State University Graduate Association of Interdisciplinary Neuroscience Students
- 2008-2011 Brigham Young University Neuroscience Association

Volunteer Service and Outreach

- 2011-present Arizona State University School of Life Sciences, "Ask a Biologist" question responder
- 2013-2015 Barrow Neurological Institute Neuroscience Seminar Series speaker acquisition committee, graduate student representative
- 2012-2014 Student Volunteer Program Mentor, St. Joseph's Hospital and Medical Center
- 2012-2013 Arizona State University Graduate Association of Interdisciplinary Neuroscience Students, founding officer
- 2008-2010 Brigham Young University Neuroscience Association, Brain Awareness Week organizer

Service in the Department of Biology, Utah Valley University, Orem, UT

- 2021-present Strategic Planning Committee
- 2020- present Hiring Committee
- 2018-present Curriculum Committee and subcommittees
- 2018-present Physiology Focus Group
- 2017-present Physiology Laboratory, adjunct instructor training and lab consultation
- 2020 STEM Like a Girl, booth attendant
- 2017-2019 Deans Day

Service in the College of Science, Utah Valley University, Orem, UT

- 2019-present College of Science Flexible Learning Council

Service at Utah Valley University, Orem, UT

- 2019 Title III Grant Review Committee, HIELG and GREEN grant reviewer
- 2019 & 21 SCULPT Showcase judge