



Current Position and Contact Information

Assistant Professor
Psychology Department
University of Colorado Denver
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Denver, CO 80271

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erik.oleson@ucdenver.edu

Education

2005	BA, Presbyterian College, Clinton, SC (Psychology)
2005	BS, Presbyterian College, Clinton, SC (Biology)
2010	PhD, Wake Forest University School of Medicine, Winston-Salem, NC (Neuroscience)

Dissertation Information

Title: Parsing distinct aspects of the addiction process using cocaine self-administration, behavioral economics, neuropharmacology and neurochemistry

Online Access: <http://gradworks.umi.com/34/11/3411495.html>

Academic Advisor: David CS Roberts

Citizenship

United States of America

Professional Experience

2003-2004	Undergraduate Researcher Medical University of South Carolina Primary Mentor: Dr. Karen Szumlinski (Kalivas Lab)
2004	Adjunct Professor (fall semester) Converse College (Spartanburg, SC) Duties: Instructed Cell Biology and Human Biology Supervisor: Dr. Douglas Jensen
2005-2010	Graduate Student Wake Forest University School of Medicine Primary Mentor: Dr. David CS Roberts
2007-2009	Instructor at Winston-Salem State University Duties: Instructed Physiology and Pharmacology Classes to Physical Therapy Students Supervisor: Dr. Allyn Howlett

- 2010-2013 Post-Doctoral Fellow
University of Maryland School of Medicine
Primary Mentor: Dr. Joseph F Cheer
- 2013-present Assistant Professor
University of Colorado Denver

Funded Extramural Grant Awards (role PI)

- 2007-2010 Ruth L. Kirschstein National Research Service Award
National Institute of Health (F31DA024525)
Neurobiological study of the reinforcing effects of cocaine in unique models. — \$40,972/yr direct
- 2011-2013 Ruth L. Kirschstein National Research Service Award
National Institute of Health (F32DA032266)
Neurobiological study on the effects of marijuana in a unique model. — \$48,398/yr direct
- 2014-2016 NARSAD Young Investigator Award
Brain and Behavior Research Foundation
The role of endocannabinoids and mesolimbic dopamine in antipsychotic efficacy. — \$30,000/yr direct
- 2015-2016 B/START R03DA038734-01 (score=18)
Council accepted; pending OLAW and IACUC approval
National Institute of Health; NIDA
Potential role of phasic dopamine and endocannabinoids in conditioned withdrawal
\$75,000 direct
- 2015-2018 Boettcher Webb-Wearing Young Investigator Award
Trustee accepted; pending July 1 activation
Boettcher Foundation
Heightened phasic dopamine release produces pro-psychotic and proaddictive effects
\$75,000/yr direct; \$225,000 total direct costs

Funded Intramural Grant Awards (role PI)

- 2007-2010 Young Upwardly Mobile Professor award — \$1,000

Honors and Awards

- 2002-2005 Beta Beta Beta (Biology Honors Fraternity)
- 2003-2005 Omicron Delta Kappa (Leadership Honors Fraternity)
- 2003-2005 Psi Chi (Psychology Honors Fraternity)
- 2004-2005 Order of Omega (Greek Leadership Honors Fraternity)

- 2005 Degree Honors: B.A. in Psychology with Honors & B.S. in Biology;
(cum laude)
- 2005-2006 NINDS Neuroscience Training Grant (T32NS007422) recipient;
Wake Forest University School of Medicine
Director: Ronald Oppenheim
- 2006 Travel Award to Attend South East Nerve Net Conference in
Atlanta, Georgia
- 2009 Travel Award to Attend Gordon Research Seminar on
Catecholamines in Biddeford, Maine
- 2010-2011 NINDS Training Grant (T32NS007375) in Cellular and Integrative
Neuroscience recipient; University of Maryland School of Medicine
Director: Bradley Alger
- 2011 Young Investigator Award
Gordon Research Conference on Catecholamines
- 2011 Travel Award to Attend the Annual Symposium of the International
Cannabinoid Research Society in Chicago, Illinois
- 2011 Travel Award to Attend Gordon Research Seminar on
Cannabinoids in Les Diablerets, Switzerland
- 2012 Travel Award to Attend International Behavioral Neuroscience
Society Annual Meeting in Kona, Hawaii
- 2013 Director's Travel Award to Attend the College on the Problems of Drug
Dependence Annual Meeting
- 2013 NARSAD Young Investigator Award
Brain and Behavior Research Foundation
- 2014 Travel Award to Attend the Society of Biological Psychiatry 69th Annual
Scientific Meeting
- 2014-15 William Riser Charitable Trust Investigator
- 2015-2018 Boettcher Investigator

Professional Society Memberships

- 2006-2010 Student Member of the Western North Carolina Chapter of the Society
for Neuroscience
- 2006-present Society for Neuroscience
- 2010-present International Cannabinoid Research Society
- 2012-present International Society for Monitoring Molecules in Neuroscience

Publications (*Google Scholar Citation Report: 755 citations, h-index=14*); *blue underlined-italics indicated undergraduate mentee*

Peer-Reviewed Research Articles and Reviews:

- Szumliniński KK, Lominac KD, Kleschen MJ, **Oleson EB**, Worley PF, Kalivas PW. Behavioral and neurochemical phenotyping of Homer1 mutant mice: possible relevance to schizophrenia. *Genes, Brain and Behavior*. 2005 Jul; 4(5):273-88.
- Szumliniński KK, Lominac KD, **Oleson EB**, Walker JK, Mason A, Dehoff MH, Klugmann M, Cagle S, Welt K, During M, Worley PF, Middaugh LD, Kalivas PW. Homer2 is necessary for EtOH-induced neuroplasticity. *Journal of Neuroscience*. 2005 Jul 27; 25(30):7054-61.
- Lominac KD, **Oleson EB**, Pava M, Klugmann M, Schwarz MK, Seeburg PH, During MJ, Worley PF, Kalivas PW, Szumliniński KK. Distinct roles for different Homer1 isoforms in behaviors and associated prefrontal cortex function. *Journal of Neuroscience*. 2005 Dec 14; 25(50):11586-94.
- Szumliniński KK, Abernathy K, **Oleson EB**, Klugmann M, Buckmann S, Lominac KD, During M, Kalivas PW. Homer isoforms differentially regulate cocaine-induced neuroplasticity. *Neuropsychopharmacology*. 2006 Apr; 31(4):768-77.
- Budygin EA, **Oleson EB**, Mathews TA, Lack AK, Diaz MR, McCool BA, Jones SR. Effects of chronic alcohol exposure on dopamine uptake in rat nucleus accumbens and caudate putamen. *Psychopharmacology*. 2007 Sep;193(4):495-501.
- Oleson EB**, Roberts DC. Parsing the Addiction Phenomenon: A Comparison of Behavioral Training Procedures Designed to Model Specific Addiction Symptoms. *Drug Discovery Today: Disease Models*. 2008 Winter;5(4):217-226.
- Morgan D, Liu Y, **Oleson EB**, Roberts DC. Cocaine self-administration on a hold-down schedule of reinforcement in rats. *Psychopharmacology*. 2009 Jan;201(4):601-9.
- Oleson EB**, Talluri S, Childers SR, Smith JE, Roberts DC, Bonin KD, Budygin EA. Dopamine Uptake Changes Associated with Cocaine Self-Administration. *Neuropsychopharmacology*. 2009 Apr;34(5):1174-84.
- Oleson EB**, Roberts DC. Behavioral Economic Assessment of Price and Cocaine Consumption Following Self-Administration Histories that Produce Escalation of Either Final Ratios or Intake. *Neuropsychopharmacology*. 2009 Feb;34(3):796-804.
- Oleson EB**, Jones SR, Bonin KD, Budygin EA. Real-Time Voltammetric Detection of Cocaine-Induced Dopamine Changes in the Striatum of Freely Moving Mice. *Neuroscience Letters*. 2009 Dec 25;467(2):144-6.
- España RA, **Oleson EB**, Locke JL, Brookshire BR, Roberts DC, Jones SR. Hypocretin/Orexin neurotransmission is necessary for cocaine self-administration and dopamine signaling in the nucleus accumbens. *European Journal of Neuroscience*. 2010 Jan;31(2):336-48.
- Oleson EB**, [Richardson JM](#), Roberts DC. A novel IV cocaine self-administration procedure in rats: differential effects of dopamine, serotonin, and GABA drug pre-treatments on cocaine consumption and maximal price paid. *Psychopharmacology*. 2011 Mar;214(2):567-77.

- Oleson EB**, Beckert MV, Morra JT, Lansink CS, Cachope R, Abdullah RA, Loriaux AL, Schettters D, Pattij T, Roitman MF, Lichtman AH, Cheer JF. Endocannabinoids shape accumbal encoding of cue-motivated behavior via CB1 receptor activation in the ventral tegmentum. *Neuron*. 2012 Jan;73(2):360-73.
- Oleson EB**, Ferris MJ, España RA, Harp JJ, Jones SR. Effects of the H1-histamine antagonist and benzotropine analog diphenylpyraline on dopamine uptake, locomotion and reward. *European Journal of Pharmacology*. 2012 May 15;683(1-3):161-5.
- Zimmer BA*, **Oleson EB***, Roberts DC. The motivation to self-administer is increased after a history of spiking brain levels of cocaine. *Neuropsychopharmacology*. 2012 Jul;37(8):1901-10
***authors contributed equally**
- Oleson EB**, Cheer JF. Paradoxical effects of the endocannabinoid uptake inhibitor VDM11 on accumbal neural encoding of reward predictive cues. *Synapse*. 2012. Nov. 66:984-8.
- Oleson EB**, Gentry RN, [Chioma VC](#) and Cheer JF. Subsecond dopamine release in the nucleus accumbens predicts conditioned punishment and its successful avoidance. *Journal of Neuroscience*. 2012 Sep 1. 2:131-8.
- Lee AM*, **Oleson EB***, Diergaarde L, Cheer JF, Pattij T. Cannabinoids and value-based decision making: Implications for neurodegenerative disorders. *Bassal Ganglia*. 2012 Sep 1;2:131-8.
***authors contributed equally**
- Loewinger GC*, **Oleson EB***, and Cheer JF. Using dopamine research to generate rational cannabinoid drug policy. *Drug Test Anal*. 2012 Sep 19.
***authors contributed equally**
- Oleson EB**, Cheer JF. On the role of subsecond dopamine release in conditioned avoidance. *Front Neurosci*. 2013 7:96.
- Wang B, You ZB, **Oleson EB**, Cheer JF, Myal S, Wise RA. Conditioned contribution of peripheral cocaine actions to cocaine reward and cocaine-seeking. *Neuropsychopharmacology*. 2013 Aug. 38(9):1763-9.
- Hernandez G, **Oleson EB**, Gentry RN, Abbas Z, Bernstein DL, Arvanitogiannis A, Cheer JF. Endocannabinoids Promote Cocaine-Induced Impulsivity and Its Rapid Dopaminergic Correlates. *Biological Psychiatry*. 2013 Oct 17.
- Oleson EB**, Cachope R, Tsutsui K, Wu S, [Gallegos JA](#), Cheer JF. Cannabinoid receptor activation shifts temporally engendered patterns of dopamine release. *Neuropsychopharmacology*. 2014 May;39(6):1441-52.
- Oleson EB**, Cachope R, Fitoussi A, Cheer JF. Tales from the dark side: Do neuromodulators of drug withdrawal require changes in endocannabinoid tone? *Prog Neuropsychopharmacol Biol Psychiatry*. 2014 Jul 3;52:17-23
- Wenzel JM, [Rauscher NA](#), Cheer JF, **Oleson EB**. A role for phasic dopamine release within the nucleus accumbens in encoding aversion: A review of the neurochemical literature. *ACS chemical neuroscience*. 2015. Jan 21;6(1):16-26.

Book Chapters:

- Oleson EB**, Roberts DC. Cocaine Self-Administration in Rats: Threshold Procedures. In Psychiatric Disorders: Methods and Protocols 1st Edition, 2011 Humana Press* (Ed. Firas Kobeissy). [Amazon link](#)
***also published as a review in *Methods in Molecular Biology* 2012;829:30-19, indexed on medline**
- Oleson EB**, Cheer JF. Cannabinoids: Dopamine Release. In Addiction. 2012 Cold Spring Harbor Press* (Eds. Christopher Pierce and Paul Kenny). [Amazon link](#)
***also published as a review in *Cold Spring Harbor Perspectives in Medicine* 2(8), indexed on medline**
- Oleson EB** and Cheer JF. Sweet leaf: Neurochemical advances reveal how cannabinoids affect brain dopamine concentrations. Compendium of In Vivo Monitoring in Real-Time Molecular Neuroscience: Volume 1 - Fundamentals and Applications. 2014 World Scientific Publishing Co., Singapore. (Eds. George S. Wilson and Adrian C. Michael). [Amazon link](#)
- Oleson EB** and Cheer JF. Endocannabinoid-Dopamine Interactions Shape Ethologically Relevant Behavior through Computation of Conditioned Stimuli. In Cannabinoids and Modulation of Emotion, Memory and Motivation. 2015. (Eds. Fattore and Campolongo). [Amazon link](#)

Select Published Abstracts and Press Releases:

- Abernathy KE, **Oleson EB**, Klugmann M, Lominac KD, Buckman S, During MT, Kalivas PW, Szumlinski KK (2004) Coiled-coil Homer protein down-regulation is necessary for the expression of cocaine-induced neural plasticity. Soc Neurosci Abstr (CD-ROM format).
- Szumlinski KK, Lominac KD, Kleschen MJ, Dash T, **Oleson EB**, Worley PF, Kalivas PW (2004) Face, predictive and construct validation of the *Homer1* KO mouse as an animal model of idiopathic psychosis. Soc Neurosci Abstr (CD-ROM format).
- Szumlinski KK, Abernathy KE, **Oleson EB**, Lominac KD, Buckman S, Klugman M, During MT, Kalivas PW (2004) Delineation of a role for long Homer isoforms in the expression of cocaine-induced neural plasticity. Neuropsychopharmacology 29: S188-S189 Suppl. 1.
- Oleson EB**, Welt K, Lominac KD, Kalivas PW, Szumlinski KK (2005). Nucleus accumbens Homer2 over-expression reverses the ethanol phenotype of *Homer2* mutant mice. Alcohol Clin Exp Res 29 (5): 10A-10A Suppl. S.
- Oleson EB**, Harp J, Budygin EA, Jones SR (2006) The Antihistamine Dyphenylpyraline exhibits psychostimulant but not rewarding effects. Society for Neuroscience Press Book Part 2: 55-56.
- Budygin EA, **Oleson EB**, Mathews TA, Lack AK, Diaz M, McCool BA, Jones SR (2007) Terminal effects of chronic alcohol exposure on dopamine dynamics in rat striatum Alcohol Clin Exp Res 31 (6) 83A-83A Suppl. S.

- Oleson EB**, Jones SR, Bonin KD, Budygin EA (2008) Voltammetric detection of dopamine in the striatum of freely-moving mice. *Monitoring Molecules in Neuroscience*, 12th International Conference on In Vivo Methods.
- Oleson EB**, España RA, Jones SR, Roberts DC (2009) Pharmacological manipulation of cocaine self-administration: Separating the behavioral economic variables of consumption and price. *Society for Neuroscience "Hot Topics" book*.
- Oleson EB**, Beckert MV, Lebesgue D, Cheer JF (2010) Lack of potentiated accumbal encoding of reward following acute endocannabinoid uptake blockade. *Monitoring Molecules in Neuroscience*, 13th International Conference on In Vivo Methods.
- Oleson EB**, Gentry RA, Chioma VC, Cheer JF (2012) Endocannabinoid control of subsecond dopamine release in punishment and its avoidance. *Monitoring Molecules in Neuroscience*, 14th International Conference on In Vivo Methods.

Conference Presentations

Select Oral Seminars:

- When drug abuse becomes compulsive: Unraveling the role of ventral and dorsal striatal circuits in addiction. Winter Conference on Brain Research at Breckenridge, Colorado, USA, January 25, 2010.
- Lack of potentiated accumbal encoding of reward following acute endocannabinoid uptake blockade. 13th International Conference on In Vivo Methods at Brussels Belgium, September 16, 2010.
- Endocannabinoids shape cue-evoked dopamine signaling during reward seeking. Gordon Research Seminar on Cannabinoids at Les Diablerets, Switzerland, May 21, 2011.
- Endocannabinoids shape cue-evoked dopamine signaling during reward seeking. 14th Annual Neuroscience Retreat at College of Notre Dame, Baltimore, Maryland, June 9, 2011.
- 2-Arachydonoylglycerol modulates cue-evoked dopamine release during reward seeking. International Cannabinoid Research Society Symposium at St. Charles, Illinois, USA, July 7, 2011.
- Endocannabinoids shape cue-evoked dopamine signaling during reward seeking. Gordon Research Conference on Catecholamines at Lewiston, Maine, USA, August, 8, 2011.
- Subsecond mesolimbic dopamine release predicts the avoidance of punishment. The International Behavioral Neuroscience Annual Meeting at Kailua-Kona Hawaii, USA, June 7, 2012.
- Endocannabinoids shape accumbal encoding of cue-motivated behavior via CB1 receptor activation in the ventral tegmentum. Target Meeting 1st World Neuroscience Online Conference, Online, June 15, 2012.

- Endocannabinoid control of subsecond dopamine release in punishment and its avoidance. The Second Dopamine Summit at Baltimore Maryland, USA, July 2, 2012.
- Subsecond dopamine release in cannabinoid tolerance. College on the Problems of Drug Abuse and Dependence, San Diego, CA. July 17, 2013.
- Endocannabinoid-dopamine interactions in negative reinforcement: Implications for conditioned withdrawal. Behavior, Biology and Chemistry: Translational Research in Addiction. San Antonio, TX. March 16, 2014.
- The role of subsecond dopamine release in periodically reinforced behavior. Winter Conference on Animal Learning and Behavior. Winter Park, CO. February 5, 2014.
- Subsecond dopamine release in cannabinoid tolerance. Los Angeles, CA. August 7, 2014.
- Transient accumbal dopamine release events shape advantageous behavior through computation of conditioned stimuli. Front Range Neuroscience Group Annual Meeting, Fort Collins, CO. December 10, 2014. *Note: this was just a 5-min data blitz.*
- The role of subsecond dopamine release in periodically reinforced behavior. Winter Conference on Brain Research. Big Sky MT. January 26, 2015.
- The role of transient accumbal dopamine release events in conditioned avoidance: Implications for schizophrenia and its dual diagnosis with drug addiction. Winter Conference on Brain Research. Big Sky MT. January 28, 2015.

Selected Posters:

- Oleson, EB** (2003) The role of homer proteins in the rewarding and psychomotor activating effects of cocaine. Student Undergraduate Research Program (SURP) presentation day, Charleston, SC.
- Oleson, EB** (2004) The effects of restoring Homer 2 on extracellular basal glutamate levels following repeated ethanol exposure. Student Undergraduate Research Program (SURP) presentation day, Charleston, SC.
- Szumliński KK, Lominac KD, Kleschen MJ, Dash T, **Oleson EB**, Worley PF, Kalivas PW (2004) Face, predictive and construct validation of the *Homer1* KO mouse as an animal model of idiopathic psychosis. Annual Meeting of the Society for Neuroscience, San Diego, CA.
- Abernathy KE, **Oleson EB**, Klugmann M, Lominac KD, Buckman S, During MT, Kalivas PW, Szumliński KK (2004) Coiled-coil Homer protein down-regulation is necessary for the expression of cocaine-induced neural plasticity. Annual Meeting of the Society for Neuroscience, San Diego, CA.
- Szumliński KK, Abernathy KE, **Oleson EB**, Lominac KD, Buckman S, Klugman M, During MT, Kalivas PW (2004) Delineation of a role for long Homer isoforms in the expression of cocaine-induced neural plasticity. Annual Meeting of the American College of Neuropsychopharmacology, San Juan, Puerto Rico.

- Oleson EB**, Welt K, Lominac KD, Kalivas PW, Szumlinski KK (2005) Over-expression reverses the ethanol phenotype of *Homer2* mutant mice. Annual Meeting of the Research Society on Alcoholism, Santa Barbara, CA.
- Oleson EB**, Harp J, Budygin EA, Jones SR (2006) Diphenylpyraline, an antihistamine drug, exhibits psychostimulant but not rewarding effects. Annual Meeting of the Society for Neuroscience, Atlanta, GA.
- Lack MC, **Oleson EB**, Roberts DCS (2006) Constant Subcutaneous Amphetamine Decreases the Motivation to Self-administer Cocaine. Annual Meeting of the Society for Neuroscience, Atlanta, GA.
- Oleson EB**, Harp J, Budygin EA, Jones SR (2006) Diphenylpyraline, an antihistamine drug, exhibits psychostimulant effects. South East Nerve Net, Atlanta, GA.
- Oleson EB**, Roberts DC (2007) Unique behavioral histories of escalation change the lowest threshold dose that maintains cocaine self-administration. Annual Meeting of the Society for Neuroscience, San Diego, CA.
- Oleson EB**, Jones SR, Bonin KD, Budygin EA (2008) Voltammetric detection of dopamine in the striatum of freely-moving mice. 12th International Conference on In Vivo Methods, Vancouver BC.
- Oleson EB**, Roberts DC (2008) Using threshold self-administration procedures and behavioral economics to investigate the reinforcing strength of cocaine. Annual Meeting of the Society for Neuroscience, Washington DC.
- Richardson JM, **Oleson EB**, Roberts DC (2008) Dissociating the Behavioral Economic Concepts of Cocaine Consumption and Price Paid Using Self-Administration and Pharmacology. 8th Annual Biomedical Research Conference for Minority Students (ABRCMS), Phoenix AZ.
- Oleson EB**, España RA, Jones SR, Roberts DC (2009) Pharmacological manipulation of cocaine self-administration: Separating the behavioral economic variables of consumption and price. Annual Meeting of the Society for Neuroscience, Chicago IL.
- Oleson EB**, Richardson JM, Budygin EA, Jones SR, Roberts DC (2009) Rapid changes in dopamine uptake inhibition are associated with patterns of cocaine self-administration. Gordon Research Conference (and Seminar) on Catecholamines, Biddeford ME.
- Bass CE, **Oleson EB**, Blume LC, Roberts DC, Howlett AC, Budygin EA. (2010) Knockdown of presynaptic D2 receptors in dorsal striatum inhibits the behavioral and neurochemical effects of haloperidol. College on the Problems of Drug Abuse and Dependence, Scottsdale, Arizona.
- Oleson EB**, Beckert MV, Lebesgue D, Cheer JF (2010) Lack of potentiated accumbal encoding of reward following acute endocannabinoid uptake blockade. Annual Meeting of the Society for Neuroscience, San Diego, California.
- Roberts DC, Zimmer BA, **Oleson EB** (2011) Spiking brain levels of cocaine are more important to the addiction process than maintained levels. Gordon Research Conference on Catecholamines. Lewiston, Maine.

- Gentry RN, **Oleson EB**, Cheer JF (2011) Low dose treatment of AM251, a CB1 receptor antagonist, rescues apomorphine induced deficits in PPI. Annual Meeting of the Society for Neuroscience, Washington DC.
- Oleson EB**, Cheer JF (2011) Endocannabinoids shape cue-evoked dopamine signaling during reward seeking. Annual Meeting of the Society for Neuroscience, Washington DC.
- Oleson EB**, Cheer JF (2011) Endocannabinoids shape cue-evoked dopamine signaling during reward seeking. Gordon Research Conference on Cannabinoids. Les Diablerets, Switzerland.
- Oleson EB**, Chioma VC, Lopatina N, Cheer JF. (2012) What a shock: Endocannabinoids modulate nucleus accumbens neural encoding during negative reinforcement. Annual Meeting of the Society for Neuroscience, New Orleans, Louisiana.
- Gentry RN, **Oleson EB**, Cheer JF. (2012) What a shock: Subsecond dopamine release encodes conditioned cues during negative reinforcement. Annual Meeting of the Society for Neuroscience, New Orleans, Louisiana.
- Hernandez GA, **Oleson EB**, Gentry RC, Bernstein DB, Cheer JF. (2012) Cocaine-Induced impulsivity is curtailed by CB1 receptor blockade: Rapid dopaminergic correlates. Annual Meeting of the Society for Neuroscience, New Orleans, Louisiana.
- Chioma VC, **Oleson EB**, Cheer JF. (2012) Fear Be Gone: Endocannabinoids modulate subsecond dopamine release during the extinction of fear memories. Annual Meeting of the Society for Neuroscience, New Orleans, Louisiana.
- Oleson EB**, Ranganath A, Chioma VC, Cheer JF. (2013) Endocannabinoids modulate subsecond dopamine release during negative reinforcement and conditioned fear. Gordon Research Conference on Cannabinoids. Watterville Valley, New Hampshire.
- Note: I began working at UC Denver at the end of July 2013.**
- Lenz JD, **Oleson EB**, Ranganath A, Chioma VC, Lobo M, Cheer JF. (2013) Cannabinoid receptor modulation of epigenetic alterations the nucleus accumbens following fear conditioning. Annual Meeting of the Society for Neuroscience, San Diego, CA.
- Fitoussi A, Cachope R, Gildish N, Lopatina N, **Oleson EB**, Cheer JF. (2013) Longitudinal characterization of behaviorally evoked dopamine release in a transgenic rat model of Huntington's disease. Annual Meeting of the Society for Neuroscience, San Diego, CA.
- Wu SL, **Oleson EB**, Cachope R, Tsutsui K, Cheer JF. (2013) Cannabinoid-induced disruptions in timing ability are accompanied by an increase in patterned dopamine release in fixed-interval tasks. Annual Meeting of the Society for Neuroscience, San Diego, CA.
- Oleson EB**, Cheer JF (2014) Disrupting Endocannabinoid Modulation of Dopamine Release Produces an Antipsychotic Response as Assessed by Conditioned Avoidance. Society of Biological Psychiatry Annual Meeting, New York, NY

Wenzel JM, **Oleson EB**, Chioma VC, Gove WN, Ranganath A, Smith LN, J. F. Cheer JF (2014) Optogenetic stimulation of ventral tegmental area dopamine cells facilitates operant shock avoidance behavior. Annual Meeting of the Society for Neuroscience, Washington DC

Professional Service

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| 2002-2004 | Honor Council juror and student representative
Presbyterian College |
| 2006-2010 | Brain Awareness Week Volunteer
Wake Forest University School of Medicine |
| 2006-2010 | Brain Awareness School Visit Volunteer, Forsyth County, NC |
| 2009-2010 | Contributing Author to the Neurotransmitter (Newsletter of the Western North Carolina Chapter of the Society for Neuroscience)
Wake Forest University School of Medicine
Editor: Stephanie Willard |
| 2011 | Graduate Program in Life Sciences Awards Committee
University of Maryland School of Medicine |
| 2012 | Co-Organizer of the Second Dopamine Summit, Baltimore, MD |
| 2013-present | Psychology Awards Committee |
| 2013-present | Neuroscience Curriculum Committee |
| 2014 | Poster judge at the 2014 Behavior, Biology and Chemistry Conference |
| 2014 | Co-Chair of symposium at the International Society on Monitoring Molecules in Neuroscience Annual Meeting |
| 2014 | Poster judge at the Front Range Neuroscience Group Annual Meeting |
| 2014 | Presented seminar to the Anschutz summer undergraduate research group: 'how to give a talk talk' |
| 2014 | Professor are people too meeting with Psychology Dept. |

Journal Reviewer (*ad hoc*)

Biological Psychiatry, Drug and Alcohol Dependence, Frontiers in Pharmacology, International Journal of Neuropsychopharmacology, Pharmacology Biochemistry and Behavior, Psychopharmacology

Teaching Advancement and Training

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| 2000 | Teacher Cadet Program/Biology Teacher, Clinton High School |
| 2000 | Introduction to Education, Presbyterian College |

2007	Advanced Topics: University Teaching, Wake Forest University School of Medicine
2008-2009	Skills in Biomedical Teaching, Wake Forest University School of Medicine
2008-2009	Teacher Advancement Program Participant/Graduate, Wake Forest University School of Medicine
2013	Canvas Boot Camp
2013-present	Teaching Brown Bag Seminar Participant

Teaching Experience

2004	Adjunct Professor at Converse College Duties: Instructed Cell and General (Human) Biology to Undergraduate Students Supervisor: Dr. Doug Jensen
2006	Course Coordinator of Professional Development Class at Wake Forest University School of Medicine Duties: Coordinated Class for PhD Students Contrasting Traditional vs. Non-traditional Post-Doctoral Fellowships Supervisor: Dr. Dwayne Godwin
2007-2009	Instructor at Winston-Salem State University Duties: Instructed Physiology and Pharmacology Classes to Physical Therapy Students Supervisor: Dr. Allyn Howlett
2013-present	Psychology Teacher at University of Colorado Denver Duties: Instructed Drugs, Brain and Behavior (3265), Behavioral Neuroscience (4054)

Instructor FCQ scores at UC Denver (max score=6, campus avg=5.1)

Fall 2013	Drugs, Brain and Behavior—4.9
Spring 2014	Behavioral Neuroscience—5.5
Fall 2014	Drugs Brain and Behavior—5.5

Select Mentoring Experience

2009-2010	Research Mentor to Winston-Salem State University Student: Jasmine Richardson Duties: Supervised a research project on the effects of GABA, dopamine and serotonin manipulations on cocaine self-administration Results under my mentorship: Won best poster presentation in Neuroscience discipline at 2009 Annual Biomedical Research Conference for Minority Students in Phoenix, AZ. Published a peer-reviewed manuscript, indexed on pubmed.
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- Accepted in MARC U*STAR program
Accepted into PharmD program
- 2010 Research Mentor to St. Mary's College Undergraduate Student (summer)
Student: Patrick Cody
Duties: Supervised a research project on the role of dopamine signaling during negative reinforcement processing
Results under my mentorship: Accepted into NIH post-baccalaureate program to study under Dr. David Lovinger
- 2011-2013 Research Mentor to University of Maryland Baltimore County Student
Student: Vivian Chioma
Duties: Supervised a research project on the interaction between endocannabinoids and dopamine signaling during the extinction of fear memories
Results under my mentorship: Won a travel award to present oral seminar at 2011 Annual Biomedical Research Conference for Minority Students in St. Louis MO.
Co-author on numerous abstracts and a peer-reviewed manuscript in J. Neuroscience
Presenting Author on Society for Neuroscience Poster, New Orleans LA
Accepted into MARC U*STAR program
Currently interviewing for MD/PhD programs
- 2012 Mentor to Watson Fellow; Pitzer College Student
Student: Gabriel Loewinger
Duties: Supervised and edited his writing of a manuscript on drug policy concerning the scheduling of synthetic cannabinoid drugs
Results under my mentorship: Published a co-first author manuscript
- 2012-2013 Research Mentor to University of Maryland Baltimore County Student
Student: Madhu Karamsetty
Duties: Supervised a research project on the role of dopamine signaling during conditioned cannabinoid tolerance
Results under my mentorship: accepted into Pre-MARC U*STAR (Minority Access to Research Careers - Undergraduate Student Training for Academic Research) program, presented a poster at 2012 Annual Biomedical Research Conference for Minority Students, presented poster at local conference
- 2013-present Research Mentor to University of Colorado Denver Student
Student: Jacqueline Gallegos
Duties: Supervised mathematical modeling of experimental data. Supervised a research project on the role of dopamine in the co-morbid expression of schizophrenia and addiction.
Results under my mentorship: Published a co-author manuscript. Presented seminar at Monitoring Molecules in Neuroscience Annual Meeting—possibly the first undergraduate student to do so in the history of the conference. Presented posters at RACAS and the Front

- Range Neuroscience Group Annual Meeting. Selected into summer research program in the Gould lab at Princeton University.
- 2014 Research Mentor to University of Colorado Denver Student
Student: Melissa Fencel
Duties: Supervised a project on the behavioral/physiological effects of a novel MAGL inhibitor, MJN110.
Results under my mentorship: Successfully earned departmental honors in Psychology.
- 2014--present Research Mentor to University of Colorado Denver Student
Student: Scott Schelp
Duties: Supervised a project on the causal role of dopamine in a novel behavioral economics based food seeking task.
Results under my mentorship: Developed a functioning optogenetics system from scratch. Presented posters at RACAS and Front Range Neuroscience Group Annual Meeting. Won award for best undergraduate poster at the latter meeting. Won a UROP (shared with Jeremy Gage and Caleb Carr). Presented oral seminar at 2015 Rocky Mountain Regional Neuroscience conference.
- 2014--present Research Mentor to University of Colorado Denver Student
Student: Jeremy Gage
Duties: Supervised a project on the causal role of dopamine in a novel behavioral economics based food seeking task.
Results under my mentorship: Developed a functioning optogenetics system from scratch. Presented posters at RACAS and Front Range Neuroscience Group Annual Meeting. Won a UROP (shared with Scott Schelp and Caleb Carr). Accepted into the MD/PhD program at Duke University.
- 2014--present Research Mentor to University of Colorado Denver Student
Student: Noah Rauscher
Duties: Supervised a project on the causal role of heightened dopamine release on negative reinforcement.
Results under my mentorship: Presented a poster at the Front Range Neuroscience Group Annual Meeting. Published a peer-reviewed manuscript.
- 2014--present Research Mentor to University of Colorado Denver AMC Student
Student: Kyle Jasper, Medical Student
Duties: Supervised a project on cannabinoids on physiology and behavior
Results under my mentorship: Earning credit for his mentored research activity, as part of his MD

Independent Studies Supervised

Spring 2014: Stephanie Rutan, Nemanja Vukovic, Noah Rauscher, Scott Schelp, Melissa Fencel

Summer 2014: Noah Rauscher

Fall 2014: Taylor Coomer, Melissa FencI, Jeremy Gage, Jacqueline Gallegos, Karl Sanders

Spring 2015: Matthew Harrington, Greg Krzystyniak, Karl Sanders, Noah Rauscher

Honors Thesis Committee Chair

2014	Melissa FencI—The novel endocannabinoid drug MJN110 produces analgesia devoid from other typical cannabimimetic effects
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Honors Thesis Committee Member

2013	Jessica Adams—Sondra Bland
2014-15	Raleigh Jonscher—Sondra Bland
2014-15	Sydney Vita—Jim Grigsby
2014-15	Jennifer Burns—Ben Greenwood