BIOGRAPHICAL SKETCH

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NAME: Hendershot, Christian S.

eRA COMMONS USER NAME (credential, e.g., agency login): hendershot

POSITION TITLE: Research Associate Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
University of Wisconsin, Madison, WI	B.A.	05/2000	Psychology
University of Washington, Seattle, WA	Ph.D.	07/2009	Clinical Psychology
Department of Psychiatry, University of Washington, Seattle, WA	Clinical Residency	07/2009	Clinical Psychology
The Mind Research Network and Center on Alcohol, Substance Use, and Addictions (CASAA), University of New Mexico, Albuquerque, NM	Post-doc	03/2011	Clinical and Neuroscience Research in Addictions

A. Personal Statement

I am a clinical psychologist (NC license #6019) with over 15 years of experience studying the etiology and treatment of alcohol use disorder (AUD). My current position is Research Associate Professor (tenure track) in the Department of Psychiatry and the Bowles Center for Alcohol Studies (BCAS) at UNC-Chapel Hill. In addition to carrying out clinical and human experimental research on AUD, my roles at UNC will include developing the Clinical and Translational Addiction Research Program within the Department of Psychiatry, and conducting clinical work in the outpatient Addiction Medicine services in the UNC School of Medicine. A long-term objective is to expand scientific and training initiatives that serve to bridge basic (preclinical) and human research activities in the School of Medicine. Several approaches utilized in our laboratory are well suited to facilitating translational research objectives; for instance, our current projects at BCAS include Phase II randomized trials investigating candidate treatments for alcohol use disorder and tobacco use disorder using human laboratory procedures. Our lab is one of relatively few worldwide to use human intravenous alcohol administration procedures, and was among the first to utilize intravenous alcohol self-administration methods. Our recent studies have also combined intravenous alcohol administration and neuroimaging methods to examine behavioral and brain markers of AUD liability in youth. In addition to experimental and laboratory-based projects, I am actively involved in intervention studies with clinical populations, having served as PI or Co-I on several randomized trials of behavioral and pharmacological interventions in clinical and community settings. Collectively, these research aims align with the objective of enhancing clinical and translational research and training initiatives at BCAS.

My roles on the current proposal will include participating on the Administrative Core Steering Committee and the Information Dissemination Core. As part of the Administrative Core Steering Committee, I will aim to bring a perspective on human/clinical research and to assist with long-term strategic planning related to enhancing capacity for translational research at BCAS. As a member of the Information Dissemination Core, my objective will be to co-lead (along with Dr. Joyce Besheer) didactic activities that seek to further develop exchanges between School of Medicine trainees (e.g., residents, Addiction Medicine Fellows) and addiction research faculty at BCAS. I am excited to participate in this application and to assist with the long-term aim of facilitating translational addiction research and training initiatives at CAS and the UNC School of Medicine.

Projects and publications that highlight my experience relevant to this proposal are listed below.

R21AA026931-02 Hendershot (PI)
National Institute on Alcohol Abuse and Alcoholism
4/10/2019 –3/31/2022
Human Laboratory Screening of Semaglutide for Alcohol Use Disorder

R21DA047663-02 Hendershot (PI)
National Institute on Drug Abuse
5/15/2019 –4/30/2022
Effects of Semaglutide on Nicotine Intake and Smoking Lapse

R21AA026035-01 Hendershot/Le Foll (MPIs)
National Institute on Alcohol Abuse and Alcoholism
9/20/2018 – 8/31/2021
Investigating the Role of Histamine H3 Receptors in Alcohol Responses

1. **Hendershot, C.S.**, Wardell, J.D., Samokhvalov, A.V., & Rehm, J. (2017). Effects of naltrexone on alcohol self-administration and craving: Meta-analysis of human laboratory studies. *Addiction Biology*, *22*, 1515-1527.
2. Schlagintweit, H.E., Tyndale, R.F., & **Hendershot, C.S.** (2020). Acute effects of a very low nicotine content cigarette on laboratory smoking lapse: Impacts of nicotine metabolism and nicotine dependence. *Addiction Biology* (ePub ahead of print).
3. **Hendershot, C.S.**, Wardell, J.D., Vandervoort, J., McPhee, M.D., Keough, M.T., & Quilty, L.C. (2018). Randomized trial of working memory training as an adjunct to inpatient substance use disorder treatment. *Psychology of Addictive Behaviors*, *32*, 861-872.
4. Lindgren, K.P., **Hendershot, C.S.**, Ramirez, J.J., Bernat, E., Rangel-Gomez, M., Peterson, K.P., & Murphy, J.G. (2019). A dual process perspective on advances in cognitive science and alcohol use disorder. *Clinical Psychology Review, 69, 83-96.*

B. Positions, Scientific Appointments, Honors and Service

Positions and Scientific Appointments

2005-2009	NIAAA Predoctoral Research Fellow, University of Washington
2008-2009	Psychology Resident, Department of Psychiatry, University of Washington
2009-2010	NIAAA Postdoctoral Research Fellow, The Mind Research Network and Center on Alcohol, Substance Use and Addictions (CASAA), University of New Mexico
2010-2011	Research Scientist, The Mind Research Network, Albuquerque, NM
2011-2019	Affiliate Scientist, The Mind Research Network, Albuquerque, NM
2011-2016	Independent Scientist, Centre for Addiction and Mental Health (CAMH)
2011-2017	Assistant Professor, Department of Psychiatry, University of Toronto
2015-2017	Assistant Professor, Department of Psychology, University of Toronto
2016-2021	Senior Scientist, Centre for Addiction and Mental Health (CAMH)
2017-2021	Associate Professor, Departments of Psychiatry, Psychology, and Pharmacology & Toxicology, University of Toronto
2019-2021	Associate Professor of Translational Neuroscience, The Mind Research Network
2021-	Associate Professor, Bowles Center for Alcohol Studies and Department of Psychiatry, University of North Carolina at Chapel Hill

Honors

Canada Research Chair, University of Toronto (2016 - 2021)
John Cleghorn Newly Established Researcher Award, Department of Psychiatry, University of Toronto (2016)
New Investigator Fellowship Award, Ontario Mental Health Research Foundation (2014)
The Peter Lougheed/Canadian Institutes of Health Research New Investigator Salary Award (2013)
Enoch Gordis Research Award, Research Society on Alcoholism Annual Scientific Meeting (2009)

University of Washington Undergraduate Research Mentor Award (2008)
American Psychological Association Dissertation Research Award (2006)

Selected Professional Service

2016	Ad Hoc Committee Member, National Institutes of Alcohol Abuse and Alcoholism (AA-2)
2017 -	Member, College of Reviewers, Canadian Institutes for Health Research.
2018 -	Vice President and Treasurer, Jellinek Memorial Fund
2019 -	Education Committee, International Society for Biomedical Research on Alcoholism
2019 -	Associate Editor, *Psychology of Addictive Behaviors*
2020 -	Standing Member, Addiction Risks and Mechanisms Study Section (CSR/NIH)
2020, 2021	Scientific Program Co-Chair, RSA/ISBRA Joint Congress

Ad Hoc Reviewer for: *Addiction; Addiction Biology; AIDS and Behavior; AIDS Care; Alcohol; Alcohol and Alcoholism; Alcohol Research and Health; Alcoholism: Clinical & Experimental Research; Annals of Behavioral Medicine; Assessment; Behavior Genetics; BMC Public Health; Current Addiction Reports; Drug and Alcohol Review; Experimental and Clinical Psychopharmacology; Frontiers in Psychiatry; Health Psychology; International Journal of STD & AIDS; JAMA Psychiatry; Journal of Adolescent Health; Journal of Studies on Alcohol and Drugs; Journal of Counseling Psychology; Journal of Substance Abuse Treatment; Neuropsychopharmacology; PLoS ONE; Psychiatry Research; Psychological Assessment; Psychology of Addictive Behaviors; Psychopharmacology; The American Journal on Addictions*

C. Contribution to Science

1. My research contributions include studies to clarify the joint role of genetic and cognitive factors in the etiology of alcohol use disorders. Some of these projects have sought to clarify the joint influences of alcohol genetic and cognitive risk factors on alcohol consumption in young adults, using alcohol dehydrogenase and aldehyde dehydrogenase genetic variation as a model. Following from this work, I conducted research to translate basic findings on aldehyde dehydrogenase deficiency in an intervention context, which resulted in the first published randomized trial to incorporate personalized genetic feedback for alcohol-related risks. Efforts are now underway to test a similar intervention to prevent heavy drinking in undergraduate populations.

a. **Hendershot, C.S.**, Otto, J.M., Collins, S.E., Liang, T., & Wall, T.L. (2010). Evaluation of a brief web-based genetic feedback intervention for reducing alcohol-related health risks associated with *ALDH2*. *Annals of Behavioral Medicine*, *40*(1), 77-88. PMCID: 20652463
b. **Hendershot, C.S.**, Neighbors, C., George, W.H., McCarthy, D.M., Wall, T.L., Liang, T., & Larimer, M.E. (2009). *ALDH2*, *ADH1B* and alcohol expectancies: Integrating genetic and learning perspectives. *Psychology of Addictive Behaviors, 23*(3), 452-463. PMCID: 19769429
c. **Hendershot, C.S.**, Witkiewitz, K., George, W.H., Wall, T.L., Otto, J.M., Liang, T., & Larimer, M.E. (2011). Evaluating a cognitive model of *ALDH2* and drinking behavior. *Alcoholism: Clinical & Experimental Research, 35*(1), 91-98. PMCID: 21039630
d. Best, L.M., Wardell, J.D., Tyndale, R.F., McPhee, M.D., Le Foll, B., Kish, S.J., Boileau, I., & **Hendershot, C.S.** (2021). Association of the fatty acid amide hydrolase polymorphism with alcohol use severity and coping motives in heavy-drinking youth. *Alcoholism: Clinical and Experimental Research, 45,* 507-517.

2. My recent work has included human laboratory studies to characterize risk factors for AUD in young populations. Our laboratory is one of few to have implemented intravenous alcohol administration and self-administration methods, and among the first to implement these methods with youth. We have also adapted intravenous alcohol challenge methods to neuroimaging settings to study brain-based markers of alcohol sensitivity in youth. Our work in this area has also included reviews that seek to consolidate preclinical and clinical perspectives to promote translational research related to AUD etiology.

a. **Hendershot, C.S.**, Wardell, J.D., Strang, N.M., Markovich, M.S.D., Claus, E.D., & Ramchandani, V.A. (2015). Application of an alcohol clamp paradigm to examine inhibitory control, subjective responses and acute tolerance in late adolescence. *Experimental and Clinical Psychopharmacology*, *23*, 147-158.

b. Strang, N.M., Claus, E.D., Ramchandani, V.A., Graff-Guerrero, A., Boileau, I., & **Hendershot, C.S.** (2015). Dose-dependent effects of intravenous alcohol administration on cerebral blood flow in young adults. *Psychopharmacology*, *232*(4): 733-744.
c. **Hendershot, C.S.**, Wardell, J.D., McPhee, M.D., & Ramchandani, V.A. (2017). A prospective study of genetic factors, human laboratory phenotypes, and heavy drinking in late adolescence. *Addiction Biology* (ePub ahead of print).
d. Nona, C.N., **Hendershot, C.S.**, & Lê, A.D. (2018). Behavioral sensitization to alcohol: Bridging the gap between preclinical research and human models. *Pharmacology, Biochemistry and Behavior*, *173*, 15-26.

3. My clinical research has focused on both behavioral and pharmacological interventions for addiction. This work has spanned human laboratory, clinic, and community/population settings. Recent examples of this work include the first published meta-analysis to characterize alcohol pharmacotherapy effects on human laboratory outcomes. Our recent randomized trials have included interventions that target behavioral (e.g., treatment adherence, motivation) and cognitive (e.g., executive function) factors in the context of outpatient addiction treatment. Finally, we have published systematic reviews on behavioral and pharmacological interventions for addiction.

a. **Hendershot, C.S.**, Witkiewitz, K., George, W.H., & Marlatt, G.A. (2011). Relapse prevention for addictive behaviors. *Substance Abuse Treatment, Prevention, and Policy*, 6:17.
b. Stoner, S.A., Arenella, P.B., & **Hendershot, C.S.** (2015). Randomized controlled trial of a mobile phone intervention for improving adherence to naltrexone for alcohol use disorders. *PLoS ONE,* 10(4):e0124613.
c. **Hendershot, C.S.**, Wardell, J.D., Samokhvalov, A.V., & Rehm, J. (2017). Effects of naltrexone on alcohol self-administration and craving: Meta-analysis of human laboratory studies. *Addiction Biology*, *22*, 1515-1527.
d. **Hendershot, C.S.**, Wardell, J.D., Vandervoort, J., McPhee, M.D., Keough, M.T., & Quilty, L.C. (2018). Randomized trial of working memory training as an adjunct to inpatient substance use disorder treatment. *Psychology of Addictive Behaviors*, *32*, 861-872.

Complete List of Published Work in MyBibliography:
https://www.ncbi.nlm.nih.gov/myncbi/14KWgwoyyhe/bibliography/public/

D. Research Support

Ongoing Research Support

R21AA026931-02 Hendershot (PI) 4/10/2019 –3/31/2022
National Institute on Alcohol Abuse and Alcoholism
Human Laboratory Screening of Semaglutide for Alcohol Use Disorder

R21DA047663-02 Hendershot (PI) 5/15/2019 –4/30/2022
National Institute on Drug Abuse
Effects of Semaglutide on Nicotine Intake and Smoking Lapse

R21AA026035-01 Hendershot/Le Foll (MPIs) 9/20/2018 - 8/31/2021
National Institute on Alcohol Abuse and Alcoholism
Investigating the Role of Histamine H3 Receptors on Alcohol Responses

COVID-19 Mental Health Grant Sloan (PI) 9/1/2020 - 8/31/2021
Remote Treatment of Alcohol Withdrawal: A Pilot Study
Canadian Institutes of Health Research
Role: Co-I

Discovery Fund Grant Sloan (PI) 12/1/2020 - 11/30/2022
Evaluating Cannabidiol as a Novel Medication for Alcohol Use Disorder: A Human Laboratory Study

Role: Co-I

Project Grant — Wardell/Hendershot (PIs) — 10/01/2018 - 9/30/2022
Canadian Institutes of Health Research
Role: Co-PI

Project Grant — Boileau (PI) — 7/01/2017 - 6/30/2022
Canadian Institutes of Health Research
Investigating endocannabinoid signaling in relapse to alcohol drinking: Neuroimaging studies of fatty acid amide hydrolase in alcohol use disorder
Role: Co-I

Research Projects of Neuroscience Team Grant — Hellman/Hendershot/Conrod/Forsberger (PIs)
Network of European Funding on Neurological Research/ — 2/01/2018 – 1/31/2022
Canadian Institutes of Health Research
European Research Project on Ethical, Legal and Social Aspects of Neuroscience

Selected Completed Research Support

Canada Research Chair Award — Hendershot (PI) — 4/01/2016 - 3/31/2021
Canada Research Chair in Etiology and Treatment of Alcohol Use Disorders

R21DA04766-01 — Hendershot (PI) — 5/15/2019 – 3/15/2021
National Institute on Drug Abuse
Behavioral Mechanisms of Lorcaserin Treatment for Smoking Cessation

R21AA023967 — Le Foll (PI) — 2/15/2016 - 1/31/2018
National Institute on Alcohol Abuse and Alcoholism
Exploring Regulation and Function of Dopamine D3 Receptors in Alcohol Use Disorders: A [11C]-(+)-PHNO PET Study
Role: Co-I

New Investigator Fellowship Award — Hendershot (PI) — 7/01/2014 - 6/30/2018
Ontario Mental Health Foundation
Evaluating Dispositional Correlates of Alcohol Sensitivity with Human Laboratory and Neuroimaging Paradigms

The Ontario Mental Health Foundation — Boileau (PI) — 04/2015 - 03/2018
The endocannabinoid system and risk for alcohol use disorder: A PET study with the novel Fatty Acid Amide Hydrolase radioligand [11C]CURB
Role: Co-I

Operating Grant — Cunningham (PI) — 4/01/2013 - 3/31/2018
Canadian Institutes of Health Research
Randomized Controlled Trial of a Minimal Versus Extended Internet-Based Intervention for Problem Drinkers
Role: Co-I