

Gaylen Fronk

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EDUCATION

In progress Ph.D., Clinical Psychology, University of Wisconsin-Madison

2019 M.S., Clinical Psychology, University of Wisconsin-Madison

2016 B.S., Psychology with Honors, Davidson College, *Magna Cum Laude*

SCHOLARLY PUBLICATIONS

First-Authored Publications

Fronk GE, Sant'Ana SJ, Kaye JT, & Curtin JJ (2020). Stress allostasis in substance use disorder: Promise, progress, and emerging priorities in clinical research. *Annual Review of Clinical Psychology*, 16, 401-430. <https://doi.org/10.1146/annurev-clinpsy-102419-125016>

Co-Authored Publications

Kaye JT, **Fronk GE**, Zgierska AE, Cruz MR, Rabago D, & Curtin JJ (2019). Acute prazosin administration does not reduce stressor reactivity in healthy adults. *Psychopharmacology*, 236(11), 3371-3382. <https://doi.org/10.1007/s00213-019-05297-x>

Bradford DE, **Fronk GE**, Sant'Ana SJ, Magruder KP, Kaye JT, & Curtin JJ (2018). The need for precise answers for the goals of precision medicine in alcohol dependence to succeed. *Neuropsychopharmacology*, 43, 1799-1800. <https://doi.org/10.1038/s41386-018-0112-y>

Smith MA, **Fronk GE**, Abel JM, Lacy RT, Bills SE, & Lynch WJ (2018). Resistance exercise decreases heroin self-administration and alters gene expression in the nucleus accumbens of heroin-exposed rats. *Psychopharmacology*, 235(4), 1245-1255. <https://doi.org/10.1007/s00213-018-4840-9>

Robinson AM, **Fronk GE**, Zhang H, Tonidandel S, & Smith MA (2017). The effects of social contact on cocaine intake in female rats. *Drug and Alcohol Dependence*, 177, 48-53. <https://doi.org/10.1016/j.drugalcdep.2017.03.027>

Smith MA, **Fronk GE**, Zhang H, Magee CP, & Robinson AM (2016). Acute bouts of wheel running decrease cocaine self-administration: Influence of exercise output. *Pharmacology, Biochemistry and Behavior*, 150-151, 94-99. <https://doi.org/10.1016/j.pbb.2016.10.001>

MANUSCRIPTS (preprints, preregistrations, under review, and in preparation)

Moshontz H, **Fronk GE**, Sant'Ana SJ, & Curtin JJ (Registered Report under review at *Advances in Methods & Practices in Psychological Science*). Quantifying optimization bias in model evaluation when using cross-validation in psychological science: A Monte Carlo simulation study. [[Preprint](#)]

Schultz ME*, **Fronk GE***, Jaume N, Magruder K, & Curtin JJ (under review at *Journal of Abnormal Psychology*). Stressor-elicited craving and smoking during a smoking cessation attempt. [[Preprint](#)] [[Preregistration](#)]

Bradford DE, Shireman JM, Sant'Ana SJ, **Fronk GE**, Schneck SE, & Curtin JJ (in prep). Drinking with the devil you don't know and the one you can't control: Alcohol's effects during uncertain and uncontrollable stressors in the laboratory.

Hefner K, Gloria R, **Fronk G**, & Curtin JJ (in prep). Central stress allostasis among heavy marijuana users.

*These authors contributed equally as co-first authors

POSTERS & PRESENTATIONS

Fronk GE & Curtin JJ (2019). Patient-level prediction in smoking cessation. Presented at the 34th annual First Year Project Symposium, Madison, WI.

Fronk GE & Curtin JJ (2019). Machine learning-assisted precision medicine for smoking cessation. Presented at the 2nd annual eLUCID8 Conference, Madison, WI.

Kaye JT, **Fronk GE**, Zgierska AE, Cruz MR, Rabago D, & Curtin JJ (2019). Acute prazosin administration does not reduce stressor reactivity in healthy adults. Poster presented at the 74th annual meeting of the Society of Biological Psychiatry, Chicago, IL.

Fronk GE, Gloria R, Hefner K, & Curtin JJ (2019). Stress neuroadaptations following heavy marijuana use: Phenomenology and individual differences risk. Poster presented at the 32nd annual meeting of the Association for Psychological Science, Washington, DC.

Fronk GE & Curtin JJ (2019). Machine learning-assisted precision medicine for smoking cessation. Presented at the UW-Madison Clinical Research Symposium, Madison, WI.

Fronk GE, Gloria R, Hefner K, & Curtin JJ (2018). Stress neuroadaptations following heavy marijuana use: Phenomenology and individual differences risk. Poster presented at the 58th annual meeting of the Society for Psychological Research, Quebec City, Quebec.

Kaye JT, **Fronk GE**, Williams HM, Zgierska AE, Cruz MR, Rabago DP, & Curtin JJ (2018). Effects of acute prazosin administration on startle potentiation during unpredictable versus predictable stressors in humans. Poster presented at the 58th annual meeting of the Society for Psychological Research, Quebec City, Quebec.

Smith MA, Robinson AM, **Fronk GE**, Zhang H, & Tonidandel S (2017). The effects of social influence on cocaine self-administration in female rats. Poster presented at the 79th annual meeting of the College on Problems of Drug Dependence, Montreal, Quebec.

Goodwin MG, Shireman JM, **Fronk GE**, Schneck SE, Kayser AD, Bradford DE, & Curtin JJ (2017). Alcohol stress response dampening occurs during unpredictable but not uncontrollable shock stressors. Poster presented at the 40th annual meeting of the Research Society on Alcoholism, Denver, CO.

Fronk GE, & Smith MA (2016). The effects of exercise interventions on drug self-administration in rats. Poster presented at the Davidson College Undergraduate Research Symposium, Davidson, NC.

Fronk GE, Smith MA, Bills SE, & Lacy RT (2015). The effects of resistance exercise on heroin administration in female rats. Poster presented at the 123rd annual meeting of the American Psychological Association, Toronto, Canada.

FELLOWSHIPS, HONORS, & AWARDS

2020 – 2021 UW Center for Human Genomics & Precision Medicine Seed Grant (\$50,000)

2019 Student Research Travel Grant, UW-Madison (\$600)

2019 – Learning Understanding Cognition Intelligence Data Science (LUCID) Fellowship, UW-Madison

- 2018 Hertz Foundation Travel Award, UW-Madison (\$1,000)
- 2016 William Gatewood Workman Psychology Award, Davidson College (\$100)
- 2015 – Phi Beta Kappa National Honor Society
- 2015 National Institute on Drug Abuse Young Investigator’s Travel Grant (\$750)
- 2015 Davidson Research Initiative, Davidson College (\$4,800)
- 2014 – Psi Chi Psychology Honor Society
- 2014, 2015 Dr. Lou Ortmeyer Award, Davidson College

RESEARCH EXPERIENCE

- 2018 – Graduate Research Assistant
Addiction Research Center, UW-Madison
Supervisor: Dr. John Curtin
- 2016 – 2018 Research Specialist
Addiction Research Center, UW-Madison
Supervisor: Dr. John Curtin
- 2014 – 2016 Undergraduate Research Assistant
Behavioral Pharmacology Lab, Davidson College
Supervisor: Dr. Mark Smith

TEACHING & MENTORING

- 2020 Teaching Assistant (Spring), Graduate course: “Introduction to Applied Machine Learning”
Assisting Dr. John Curtin, UW-Madison
- 2019 Mentor, Psychology Research Experience Program (PREP)
Kendra Paquette, “Facebook for diagnosing alcohol use disorder in undergraduates”
- 2018 – 2019 Professional Tutor
Athletic Department, UW-Madison
- 2016 Teaching Assistant (Spring), Undergraduate course: “Research Methods: Design & Analysis”
Assisting Drs. Scott Tonidandel & Maurya Boyd, Davidson College
- 2013 – 2016 Professional Tutor
Writing Center, Center for Teaching and Learning, Davidson College
- 2014 Professional Tutor
Spanish Language, Center for Teaching and Learning, Davidson College

CLINICAL EXPERIENCE

- 2019 – Practicum Student, Psychology Research and Training Clinic
Treating: adult anxiety, depression, substance use disorders

Performing: Intakes, individual therapy (CBT, MI, CBASP), child and adult assessments (WISC-V, BAI, GAD-7)

Supervisors: Dr. Chris Gioia, Dr. Linnea Burk

2017 – Graduate Research Clinician, Psychology Research and Training Clinic
Treating: adult alcohol use disorders
Performing: SCID-RV-5 and Motivational Enhancement Therapy for study protocol “Targeting noradrenergic stress mechanisms in alcoholism with doxazosin”
Supervisors: Dr. Chris Gioia, Dr. Linnea Burk, Kate Magruder, Sarah Sant’Ana

2018 Graduate Research Clinician, Psychology Research and Training Clinic
Treating: adult alcohol use disorders
Performing: Motivational Enhancement Therapy for study protocol “Dynamic, real-time prediction of alcohol use lapse using mHealth technologies”
Supervisor: Dr. Chris Gioia

PROFESSIONAL DEVELOPMENT & TRAINING

2020 Machine Learning: Uncovering Hidden Structure in Data
ICPSR Summer Program in Quantitative Methods of Social Research

2019 ABCD Workshop on Brain Development and Mental Health
Sponsored by NIMH

PROFESSIONAL SERVICE

2020 – Member
Clinical Area Antiracism & Academic Training Committee, UW-Madison Department of Psychology

2020 – Member
Colloquium Committee, UW-Madison Department of Psychology

2020 – Member
Clinical Area Diversity & Inclusion Committee, UW-Madison Department of Psychology

2019 – Student Representative & Social Media Co-Chair
American Psychological Association, Division 28 (psychopharmacology and substance use)

REFERENCES

Contact information for all research mentors and clinical supervisors is available upon request.