SARAH COLBERT
PhD Student
Icahn School of Medicine at Mount Sinai

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EDUCATION

2022-present	**Icahn School of Medicine at Mount Sinai** (New York, New York) PhD Student in Biomedical Sciences Training area: Genetics and Genomic Sciences
2016-2020	**University of Colorado Boulder** (Boulder, CO) B.A., Ecology and Evolutionary Biology B.A., Environmental Studies

GRANTS & FELLOWSHIPS

2022-2027	**The National Science Foundation Graduate Research Fellowship**

AWARDS & HONORS

2020	**WCPG Early-Career Investigator Travel Award**
2016-2020	**University of Colorado's Presidential Scholarship** - awarded to nonresident freshman in the top 1-3% of the admitted freshman class.
2016	**Shredwell Scholarship** – awarded by the OISA

PUBLICATIONS

Colbert, S.M.C., Keller, M.C., Agrawal, A. & Johnson, E.C. (2022). Exploring the relationships between autozygosity, educational attainment, and cognitive ability in a contemporary, trans-ancestral American sample. *Behavior Genetics*. doi:10.1007/s10519-022-10113-y

Colbert, S.M.C. & Johnson, E.C. (2022). Commentary on Lannoy et al.: The continued value of within-family designs in addiction and psychiatric research. *Addiction*. doi:10.1111/add.16040

Baranger, D.A.A., Paul, S.E., **Colbert, S.M.C.**, Karcher, N.R., Johnson, E.C., Hatoum, A. S., & Bogdan, R. (2022). Increased mental health burden associated with prenatal cannabis exposure persists from childhood to early adolescence: Longitudinal results from the Adolescent Brain Cognitive Development (ABCD) Study. *JAMA Pediatrics*. doi:10.1001/jamapediatrics.2022.3191

Lai, D., Johnson, E. C., **Colbert, S. M. C.**, Pandey, G., Chan, G., Bauer, L., Francis, M., Hesselbrock, V., Kamarajan, C., Kramer, J., Kuang, W., Kuo, S., Kuperman, S., Liu, Y., McCutcheon, V., Pang, Z., Plawecki, M., Schuckit, M., Tischfield, J., Wetherill, L., Zang, Y., Edenberg, H., Porjesz, B., Agrawal, A. & Foroud, T. (2021). Evaluating risk for alcohol use disorder: comparing polygenic risk scores and family history. *Alcoholism: Clinical and Experimental Research*. doi:10.1111/acer.14772

Colbert, S.M.C., Hatoum, A.S., Shabalin, A., Li, Q., Coon, H., Nelson, E., Agrawal, A., Docherty, A.R. & Johnson, E.C. (2021). Exploring the genetic overlap of suicide-related behaviors and substance use disorders. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics.* doi:10.1002/ajmg.b.32880

Hatoum, A. S., Johnson, E. C., **Colbert, S. M. C.**, Polimanti, R., Zhou, H., Walters, R., Substance Use Disorders Working Group of the Psychiatric Genomics Consortium, Gelernter, J., Edenberg, H.J., Bogdan, R. & Agrawal, A. (2021). The Addiction Risk Factor: A Unitary Genetic Vulnerability Characterizes Substance Use Disorders and Their Associations with Common Correlates. *Neuropsychopharmacology.* doi:10.1038/s41386-021-01209-w

Colbert, S. M. C., Funkhouser, S. A., Johnson, E. C., Morrison, C.L., Hoeffer, C. A., Friedman, N., Ehringer, M. A., & Evans, L. M. (2021). Novel characterization of the multivariate genetic architecture of internalizing psychopathology and alcohol use. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics.* doi:10.1002/ajmg.b.32874

Hatoum, A. S., Morrison, C. L., **Colbert, S. M. C.**, Winiger, E. A., Johnson, E. C., Agrawal, A., & Bogdan, R. (2021). Genetic Liability to Cannabis Use Disorder and COVID-19 Hospitalization. *Biological Psychiatry Global Open Science*. doi:10.1016/j.bpsgos.2021.06.005

PRE-PRINTS AND IN-PREP

Colbert, S.M.C., Wendt, F.R., Pathak, G.A., Helmer, D.A., Hauser, E.R., Keller, M.C., Polimanti, R. & Johnson, E.C. (In preparation). Declining autozygosity over time: an exploration in over 1 million individuals from three large and diverse cohorts.

Colbert, S.M.C., Mullins, N., Chan, G., Meyers, J., Schulman, J., Kuperman, S., Lai, D., Nurnberger, J., Plawecki, M.H., Kamarajan, C., Anokhin, A., Bucholz, K., Hesselbrock, V., Edenberg, H.J., Kramer, J., Dick, D.M., Porjesz, B., Agrawal, A. & Johnson, E.C. (Pre-print; under review at *Complex Psychiatry*). Polygenic contributions to suicidal thoughts and behaviors in a sample ascertained for alcohol use disorders. doi:10.1101/2022.08.18.22278943

Johnson, E.C., **Colbert, S.M.C.**, Jeffries, P.W., Tillman, R., Bigdeli, T., Karcher, N.R., Chan, G., Kuperman, S., Meyers, J.L., Nurnberger, J.I., Plawecki, M.H., Degenhardt, L., Martin, N.G., Kamarajan, C., Schuckit, M., Murray, M.M., Dick, D.M., Edenberg, H.J., Cyril D'Souza, D., Di Forti, M., Porjesz, B., Nelson, E.C. & Agrawal, A. (Under revision at *Schizophrenia Bulletin*). Associations between cannabis use, polygenic liability for schizophrenia, and unusual cannabis-related experiences.

Hatoum, A.S., **Colbert, S.M.C.**, Johnson, E.C., Huggett, S.B., Deak, J., Pathak, G., Jennings, M., Paul, S.E., Karcher, N.R., Hansen, I., Edwards, A., Grotzinger, A., Substance Use Disorders Working Group of the Psychiatric Genomics Consortium, Tucker-Drob, E., Kranzler, H., Sanchez-Roige, S., Davis, L., Polimanti, R., Gelernter, J., Edenberg, H.J., Bogdan, R. & Agrawal, A. (Pre-print). Multivariate Genome-Wide Association Meta-analysis of over 1 million subjects identifies loci underlying multiple substance use disorders. doi:10.1101/2022.01.06.22268753

Paul, S.E., Elsayed, N., Bogdan, R., **Colbert, S.M.C.**, Hatoum, A.S., & Barch, D. (Pre-print). Childhood Socioeconomic Status and Polygenic Scores for Cognition Have Independent Associations with Cognitive Performance in Childhood. doi:10.1101/2021.08.26.21262684

BOOK CHAPTERS

Colbert, S. M. C. & Johnson, E. C. (In press). Genetic explanations for the association between cannabis and schizophrenia. In D'Souza D., Castle D., and Murray R. (Eds.), *Marijuana and Madness, 3rd Ed.* Cambridge, England: Cambridge University Press.

CONFERENCE PRESENTATIONS

Colbert, S.M.C., Agrawal, A. & Johnson, E.C. (2022, June). Cross-disorder genome wide analyses of problematic alcohol use, suicide attempt and depression reveal shared risk loci. Symposium talk presented at the Research Society on Alcoholism Scientific Meeting.

Colbert, S.M.C., Hatoum, A.S., Shabalin, A., Coon, H., Nelson, E., Agrawal, A., Docherty, A.R. & Johnson, E.C. (2021, June). Exploring the genetic overlap of suicide-related behaviors and substance use disorders. Poster presentation presented at the Annual Behavioral Genetics Association Meeting.

Colbert, S. M. C., Funkhouser, S. A., Johnson, E. C., Hoeffer, C. A., Ehringer, M. A., & Evans, L. M. (2020, October). Differential shared genetic influences on anxiety with problematic alcohol use compared to alcohol consumption. Poster presentation presented at the Annual World Congress of Psychiatric Genetics.

Colbert, S. M. C., Funkhouser, S. A., Johnson, E. C., Hoeffer, C. A., Ehringer, M. A., & Evans, L. M. (2020, June). Differential shared genetic influences on anxiety with problematic alcohol use compared to alcohol consumption. Oral presentation presented at the 50th Annual Behavioral Genetics Association Meeting.

RESEARCH POSITIONS

Fall 2022 **Icahn School of Medicine at Mount Sinai**, Department of Psychiatry
Rotating PhD student
Supervisor: Niamh Mullins, Ph.D.

2021-2022 **Washington University School of Medicine**, Department of Psychiatry
Statistical Data Analyst
Supervisors: Arpana Agrawal, Ph.D., Emma Johnson, Ph.D

2020-2021 **Institute for Behavioral Genetics**, University of Colorado Boulder
Professional Research Associate
Supervisor: Luke Evans, Ph.D.

2020 **Department of Ecology and Evolutionary Biology**, University of Colorado Boulder
Undergraduate Research Project, "*Differential shared genetic influences on anxiety with problematic alcohol use compared to alcohol consumption*"
Supervisor: Luke Evans, Ph.D.

2019- 2020 **Rocky Mountain Wild**, Colorado Pika Project
100 Women for the Wild Research Intern

TEACHING POSITIONS

2019 **EBIO 2070: Genetics: Molecules to Populations**, University of Colorado Boulder
Learning Assistant | Instructor: Cheryl Pinzone

AD-HOC REVIEW ACTIVITIES

Addiction, European Psychiatry

SKILLS

Relevant coursework: molecular & population genetics, computational biology, biological statistics, quantitative genetics, genomics, developmental biology, biomedical science

Computational skills:

- R/Rstudio
- UNIX Shell, bash, awk
- Python
- Human genetics analysis tools/methods: PLINK, SAIGE, BOLT, LDSC, PRS-CS, genomic SEM, LAVA, GNOVA, LCV, CAUSE, 2SMR, RICOPILI
- Cluster computing/Supercomputing
- Github
- Data Management