

Naomi P. Friedman

Department of Psychology & Neuroscience
Institute for Behavioral Genetics
University of Colorado Boulder

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Education

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| May 2002 | Ph.D. in Psychology (Cognitive), University of Colorado Boulder
Advisor: Dr. Akira Miyake |
| May 1998 | M.A. in Psychology (Cognitive), University of Colorado Boulder
Advisor: Dr. Akira Miyake |
| May 1996 | B.A. in Psychology, University of Texas at Austin
<i>Summa cum laude</i> , Honor's Advisor: Dr. Philip Gough |

Academic Positions

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|---------------------------|---|
| August 2020 – present | Associate Professor with Tenure
Department of Psychology and Neuroscience and Institute for Behavioral Genetics University of Colorado Boulder |
| August 2013 – August 2020 | Assistant Professor
Department of Psychology and Neuroscience and Institute for Behavioral Genetics University of Colorado Boulder |
| 2008 – 2013 | Senior Research Associate
Institute for Behavioral Genetics, University of Colorado Boulder |
| 2002 – 2008 | Research Associate
Institute for Behavioral Genetics, University of Colorado Boulder |
| 2002 – 2005 | Postdoctoral Trainee
Institute for Behavioral Genetics, University of Colorado Boulder
T32 HD007289, Mentor: Dr. John Hewitt |

Affiliations

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| 2024 – present | Member Affiliate, Center for Healthy Mind, Mood, and Development,
Department of Psychology and Neuroscience, University of Colorado Boulder |
| 2022 – present | Faculty Member, Center for Neuroscience, College of Arts and Sciences,
University of Colorado Boulder |
| 2016 – present | Faculty Fellow, Institute for Cognitive Science, University of Colorado Boulder |
| 2013 – present | Faculty Fellow, Institute for Behavioral Genetics, University of Colorado Boulder |

Grants

Active

- R01 DA063061** (PI: Maes, Friedman, Luciana, Madden, Wilson) 7/01/25 – 3/31/29
 NIH/NIDA \$2,822,073 (total costs)
 Role: Multiple Principal Investigator \$358,071 (sub only total costs)
Vulnerability to Substance Use: Transitions and Trajectories in ABCD Youth with Validation Using Longitudinal Twin Family Samples
- U01 DA051018** (PI: Banich, Friedman) 4/15/20 – 03/31/27
 NIH/NIDA \$11,417,858 (total costs)
 Role: Multiple Principal Investigator
14/21 ABCD-USA Consortium: Research Project Site at CU Boulder
- T32 MH016880** (PI: Keller, Friedman) 7/01/25 – 6/30/30
 NIH/NIMH \$1,489,952 (total costs)
 Role: Multiple Principal Investigator
Research Training: Mental Health Behavior Genetics
- R01 DA059804** (PI: Gustavson) 8/15/24 – 5/31/29
 NIH/NIDA \$3,332,595 (total costs)
 Role: Co-Investigator
Establishing if Music Engagement is a Protective Factor in Adolescent Substance Use Using Existing Longitudinal, Genetic, and Environmental Datasets
- R21 ES035826** (PI: Smolker) 2/07/24 – 1/31/27
 NIH/NIEHS \$391,250 (total costs)
 Role: Co-Investigator
Long-term Effects of Developmental Air Pollution Exposure on Adult Mental Health: Sensitive Periods, Neural Correlates, and Genetic Risk Factors
- R01 MH124846** (PI: Kaiser, Snyder) 6/10/22 – 4/30/27
 NIH/NIMH \$3,649,846 (total costs)
 Role: Co-Investigator
Leveraging Latent Factors and Machine Learning to Forecast Internalizing Psychopathology in Emerging Adulthood
- R01 AG046938** (PI: Reynolds, Keller) 9/01/20 – 5/31/26
 NIH/NIA \$11,310,764 (total costs)
 Role: Co-Investigator
Colorado Adoption/Twin Study of Lifespan Behavioral Development & Cognitive Aging (CATSLife2)
- R01 MH117131** (PI: Kaiser) 7/03/20 – 4/30/26
 NIH/NIMH \$2,546,704 (total costs)
 Role: Co-Investigator
Biotyping Mood Health in Late Adolescence: Neurocognitive Dimensions and Stress Pathways

Completed

- T32 MH016880** (PI: Keller, Friedman) 7/01/20 – 6/30/25
 NIH/NIMH \$1,203,093 (total costs)
 Role: Multiple Principal Investigator
Research Training: Mental Health Behavior Genetics
- OT2 HL161847** (PI: Banich) 10/01/21 – 05/23/24
 NIH \$367,640 (total costs)
 Role: Co-Investigator
NIH RECOVER: A Multi-site Observational Study of Post-Acute Sequelae of SARS-CoV-2 Infection in Pediatric Populations
- R01 DA046064** (PI: Friedman, Wager) 4/15/18 – 1/31/24
 NIH/NIDA \$3,221,049 (total costs)
 Role: Multiple Principal Investigator
Brain and Genetic Predictors of Individual Differences in Pain and Placebo Analgesia
- R01 DA042742** (PI: Palmer) 4/01/18 – 1/31/24
 Subcontract to Institute for Behavioral Genetics \$194,203 (sub only total costs)
 NIH/NIDA
 Role: Co-Investigator
Integrative Prioritization of Alcohol and Drug-Addiction Related Genetic Loci
- U01 DA046413** (PI: Vrieze, Friedman) 8/15/18 – 6/30/23
 Subcontract to Institute for Behavioral Genetics \$779,393 (sub only total costs)
 NIH/NIDA
 Role: Multiple Principal Investigator
A Twin Study of Adolescent Alcohol and Drug Use Development: Leveraging Intensive Longitudinal Assessments
- R01 HD078532** (PI: Munakata) 2/01/17 – 1/31/23
 Subcontract to Institute for Behavioral Genetics \$207,062 (sub only total costs)
 NIH/NICHHD
 Role: Co-Investigator
Developing Inhibitory Control
- R01 AG046938** (PI: Reynolds, Wadsworth) 6/01/15 – 9/14/20
 Subcontract to Institute for Behavioral Genetics (Wadsworth) \$5,858,675 (sub only total costs)
 NIH/NIA
 Role: Co-Investigator
Colorado Adoption/Twin Study of Lifespan Behavioral Development & Cognitive Aging (CATSLife)
- U01 DA041120** (PI: Luciana et al.) 9/30/15 – 04/14/20
 Subcontract to Institute of Cognitive Science (Banich/Hewitt) \$4,773,040 (sub only total costs)
 NIH/NIDA
 Role: Co-Investigator
ABCD-USA Consortium: Twin Research Project
- R01 MH063207** (PI: Friedman) 2/15/14 – 1/31/20
 NIH/NIMH \$3,476,331 (total costs)
 Role: Principal Investigator
Neural Substrates of Executive Function: An fMRI Twin Study

- R01 AA023974** (PI: Vrieze) 9/01/14 – 8/30/18
 NIH/NIAAA \$1,638,910 (total costs)
 Role: Co-Investigator
Social Media, Online Measures, and Substance Use Development in Adolescent Twins
- R21 MH102210** (PI: Hankin) 7/01/14 – 6/30/17
 Subcontract to Institute for Behavioral Genetics \$33,526 (sub only total costs)
 NIH/NIMH
 Role: Co-Investigator
Links Among Adolescent Executive Function, Effortful Control and Psychopathology
- R01 HD068728** (PI: Willcutt/Petrill) 4/15/11 – 1/31/17
 NIH/NICHHD \$2,968,730 (total costs)
 Role: Co-Investigator
Etiology and Neuropsychology of Math, Reading, ADHD, and their Covariation
- R01 MH063207** (PI: Hewitt) 9/01/08 – 5/31/13
 NIH/NIMH \$1,873,084 (total costs)
 Role: Co-Investigator
Executive Functions and Self-Regulation: A Twin Study
- P50 MH079485** (PI: Banich) 4/22/08 – 1/31/13
 NIH/NIMH \$8,712,888 (total costs center)
 Role: Co-Investigator on Project 4 \$968,982 (total costs project 4)
IBSC: Determinants of Executive Function and Dysfunction: Project 4: Genetic Mechanisms of Executive Functions
- BCS-0847872** (PI: Ito) 7/15/09 – 6/30/12
 NSF \$789,339 (total costs)
 Role: Co-Principal Investigator
Collaborative Research: Individual Differences in Executive Functions and Expressions of Racial Biases
- R01 HD050346** (PI: Rhee) 9/01/07 – 6/30/12
 NIH/NICHHD \$1,562,272 (total costs)
 Role: Co-Investigator
Testing a Developmental Model of Conduct Problems
- Friedman PI** 3/01/07 – 2/29/09
 Henry Ford Hospital Sleep Center \$152,313 (total costs)
 Role: Principal Investigator
Individual Differences in Sleep Problems
- R03 MH075814** (PI: Friedman) 6/01/06 – 5/31/08
 NIH/NIMH \$146,849 (total costs)
 Role: Principal Investigator
Longitudinal Effects of Sleep Problems on Cognition
- R56 MH063207** (PI: Hewitt) 6/01/06 – 5/31/08
 NIH/NIMH \$146,849 (total costs)
 Role: Co-Investigator
Executive Functions and Self-Regulation: A Twin Study

Publications

‡indicates senior authorship

underlined names are mentored trainees (undergraduate, graduate, post-doc, or K- or F-grant mentees)

Peer-Reviewed Journal Articles

1. ‡Howard, A. K., Gustavson, D. E., & **Friedman, N. P.** (in press). Relationships between polygenic scores for psychopathology and observed psychopathology are mediated by cognitive control and reward sensitivity pathways: Insights from the ABCD study. *Biological Psychiatry Global Open Science*. <https://doi.org/10.1016/j.bpsgos.2026.100690>.
2. Gustavson, D. E., **Friedman, N. P.**, Corley, R. P., Wadsworth, S. J., Reynolds, C. A., & Maes, H. H. M. (2026). Stability of music engagement across childhood, adolescence, and established adulthood: A longitudinal twin study. *Developmental Science*, 29, e70122. <https://doi-org.colorado.idm.oclc.org/10.1111/desc.70122>.
3. van Velzen L. S., Colic, L., Ceja, Z., [117 others, including **Friedman, N. P.**, Reineberg, A. E., & Smolker, H. R.], ENIGMA Suicidal Thoughts and Behaviours Consortium, & Schmaal, L. (2025). Transdiagnostic alterations in white matter microstructure associated with suicidal thoughts and behaviours in the ENIGMA Suicidal Thoughts and Behaviours consortium. *Translational Psychiatry*, 15, 429. <https://doi.org/10.1038/s41398-025-03602-1>.
4. Peterson, E. C., Jones, J., Barnes-Horowitz, S., Moser, A. D., Stern, E., Coccaro, A., Neilson, C., Janes, A. D., **Friedman, N. P.**, & Kaiser, R. H. (in press). Executive dysfunction and depression risk in adolescence: fMRI analysis of transient network states during a working memory task. *Clinical Psychological Science*.
5. Smith, L. L., **Friedman, N. P.**, Luciana, M., & Banich, M. T. (2025). Functional connectivity patterns of the fronto-parietal and cingulo-opercular networks demonstrate distinct associations with individual differences in cognitive control during early adolescence. *NeuroImage*, 320, 121454. <https://doi.org/10.1016/j.neuroimage.2025.121454>.
6. Coccaro, A., Cheng, Z., Ruzic, L., Moser, A. D., Jones, J., Peterson, E. C., **Friedman, N. P.**, & Kaiser, R. H. (2025). Neurocognitive biotypes of risk and resilience for mood disorders in adolescents: Insights from behavioral and graph-theoretic network markers. *Biological Psychiatry Global Open Science*, 5, 100563. <https://doi.org/10.1016/j.bpsgos.2025.100563>.
7. Johnson, E. C., Lai, D., [62 others, including **Friedman, N. P.** and Morrison, C. L.], & Agrawal, A. (2025). Multi-ancestral genome-wide association study of clinically defined nicotine dependence reveals strong genetic correlations with other substance use disorders and health-related traits. *Psychological Medicine*, 55, e234. <https://doi.org/10.1017/S0033291725100883>.
8. Gustavson, D. E., Borriello, G. A., Karhadkar, M. A., Rhee, S. H., Corley, R. P., Rhea, S.-A., DiLalla, L. F., Wadsworth, S. J., **Friedman, N. P.**, & Reynolds, C. A. (2025). Stability of general cognitive ability and from infancy to adulthood: A combined twin and genomic investigation. *Proceedings of the National Academy of Sciences of the United States of America*, 122, e2426531122. <https://doi.org/10.1073/pnas.2426531122>.
9. Paulsen, B. A., **Friedman, N. P.**, & Banich, M. T. (2025). Engagement of neural systems

- varies with level of executive function during late childhood: Evidence from a structural equation modeling approach to data from the adolescent brain cognitive development (ABCD) study. *Developmental Cognitive Neuroscience*, 73, 101549. <https://doi.org/10.1016/j.dcn.2025.101549>.
10. ‡Zorina-Lichtenwalter, K., Bango, C. I., Čeko, M., Ashar, Y. K., Keller, M. C., Wager, T. D., & **Friedman, N. P.** (2025). Patterns of shared genetic risk between chronic pain, psychopathologies, and neuroticism. *Clinical Psychological Science*, 13, 933-950. <https://doi.org/10.1177/21677026251317431>.
 11. Alexander, J., Duffy, K. A., Freis, S. M., Chow, S.-M., **Friedman, N. P.**, & Vrieze, S. I. (2025). Investigating the magnitude and persistence of COVID-19 related impacts on affect and GPS-derived daily mobility patterns in adolescence and emerging adulthood: Insights from a smartphone-based intensive longitudinal study of Colorado-based youth from June 2016–April 2022. *Journal of Medical Internet Research*, 27, e64965. <https://doi.org/10.2196/64965>.
 12. ‡Rader, L., Wager, T. D., & **Friedman, N. P.** (2025). Chronic pain is specifically associated with updating working memory: a longitudinal twin study. *Pain*, 166, 212-221. <http://dx.doi.org/10.1097/j.pain.0000000000003347>.
 13. Vo, T. T., Pahlen, S., Zheng, A., Yu, S., Lor, E., Bowman, N. D., Corley, R. P., **Friedman, N. P.**, Wadsworth, S. J., & Reynolds, C. A. (2024). From controllers to cognition: The importance of selection factors on video game and gameplay mechanic-derived cognitive differences. *Behavioral and Brain Functions*. 20, 35. <https://doi.org/10.1186/s12993-024-00258-7>.
 14. Rieves, E. S., Freis, S. M., **Friedman, N. P.**, & Reid, C. E. (2024). Is greenspace in the eye of the beholder? Exploring perceived and objective greenspace exposure effects on mental health. *Journal of Environmental Psychology*, 100, 102468. <https://doi.org/10.1016/j.jenvp.2024.102468>.
 15. DeRosa, J., **Friedman, N. P.**, Calhoun, V., & Banich, M. T. (2024). Neurodevelopmental subtypes of functional brain organization in the ABCD study using a rigorous analytic framework. *NeuroImage*, 299, 120827. <https://doi.org/10.1016/j.neuroimage.2024.120827>.
 16. Zheng, A., Pahlen, S., Vo, T. T., Lawrence, F., Dungore, F., Lor, E., Bowman, N. D., Corley, R. P., **Friedman, N. P.**, Wadsworth S. J., & Reynolds, C. A. (2024). A genetically informed study of digital screen time, video game play, and impulsivity in established adulthood. *Computers in Human Behavior*, 161, 108401. <https://doi.org/10.1016/j.chb.2024.108401>.
 17. Smolker, H. R., Reid, C. E., **Friedman, N. P.**, & Banich, M. T. (2024). The association between exposure to fine particulate air pollution and the trajectory of symptoms of psychopathology during late childhood and early adolescence: Evidence from the Adolescent Brain Cognitive Development (ABCD) study. *Environmental Health Perspectives*, 132, 087001. <https://doi.org/10.1289/EHP13427>.
 18. Botvinik-Nezer, R., Petre, B., Ceko, M., Lindquist, M. A., **Friedman, N. P.**, & Wager, T. D. (2024). Placebo treatment affects brain systems related to affective and cognitive processes, but not nociceptive pain. *Nature Communications*, 15, 6017. <https://doi.org/10.1038/s41467-024-50103-8>.
 19. Zheng, A., **Friedman, N. P.**, Gustavson D. E., Corley, R. P., Wadsworth S. J., & Reynolds, C. A. (2024). Lifestyle and psychosocial associations with cognition at the cusp of midlife using

twins and siblings. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, 16, e12609. <https://doi.org/10.1002/dad2.12609>.

20. †Rader, L., Reineberg, A. E., Petre, B., Wager, T. D., & **Friedman, N. P.** (2024). Familial effects account for association between current pain episode and past month smoking. *European Journal of Pain*, 28, 1144-1155. <https://doi.org/10.1002/ejp.2247>.
 21. Gustavson, D. E., Morrison, C. L., Mallard, T. T., Jennings, M. V., Fontanillas, P., Elson, S. L., Palmer, A. A., **Friedman, N. P.**, & Sanchez-Roige, S. (2024). Executive function and impulsivity predict distinct genetic variance in internalizing problems, externalizing problems, thought disorders, and compulsive disorders: A genomic structural equation modeling study. *Clinical Psychological Science*, 12, 865-881. <https://doi.org/10.1177/21677026231207845>.
 22. *†Gustavson, D. E., Stern, E. F., Reynolds, C. A., Grotzinger, A. D., Corley, R. P., Wadsworth, S. J., Rhee, S. H., & **Friedman, N. P.** (2024). Evidence for strong genetic correlations among internalizing psychopathology and related self-reported measures using both genomic and twin/adoptive approaches. *Journal of Psychopathology and Clinical Science*, 133, 347-357. <https://doi.org/10.1037/abn0000905>.
- *Editor's Choice selection
23. Brasher, M. S., Grotzinger, A. D., **Friedman, N. P.**, Smolker, H. R., & Evans, L. M. (2024). Disentangling differing relationships between internalizing disorders and alcohol use. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, 195B, e32975. <https://doi.org/10.1002/ajmg.b.32975>.
 24. †Morrison, C. L., Winiger, E. A., Wright, K. P., Jr., & **Friedman, N. P.** (2024). Multivariate genome-wide association study of sleep health demonstrates unity and diversity. *Sleep*, 47, zsad320. <https://doi.org/10.1093/sleep/zsad320>.
 25. Gross, R. S., Thaweethai, T., [153 others, including **Friedman, N. P.**], RECOVER-Pediatric Consortium (2024). Researching COVID to enhance recovery (RECOVER) pediatric study protocol: Rationale, objectives and design. *PloS one*, 19, e0285635. <https://doi.org/10.1371/journal.pone.0285635>.
 26. †Freis, S. M., Alexander, J. D., Anderson, J. E., Corley, R. P., De La Vega, A., Gustavson, D. E., Vrieze, S. I., & **Friedman, N. P.** (2024). Associations between executive functions assessed in different contexts in a genetically informative sample. *Journal of Experimental Psychology: General*, 153, 70-85. <https://dx.doi.org/10.1037/xge0001471>.
 27. Arnatkeviciute, A., Lemire, M., Morrison, C. L., Mooney, M., Ryabinin, P., Roslin, N.M., Nikolas, M., Coxon, J., Tiego, J., Hawi, Z., Fornito, A., Henrik, W., Martinot, J.-L., Martinot, M.-L. P., Artiges, E., Garavan, H., Nigg, J., **Friedman, N. P.**, Burton, C., Schachar, R., Crosbie, J., & Bellgrove, M. A. (2023). Trans-ancestry meta-analysis of genome wide association studies of inhibitory control. *Molecular Psychiatry*, 28, 4175-4184. <https://doi.org/10.1038/s41380-023-02187-9>.
 28. Gosling, C. J., Caparos, S., Pinabias, C., [156 others, including **Friedman, N. P.**, and Morrison, C. L.], & Cortese, S. (2023). Association between relative age at school and persistence of ADHD in prospective studies: An individual participant data meta-analysis. *The Lancet Psychiatry*, 10, 922-933. [https://doi.org/10.1016/S2215-0366\(23\)00272-9](https://doi.org/10.1016/S2215-0366(23)00272-9).
 29. †Smolker, H. R., Banich, M. T., & **Friedman, N. P.** (2023). Combining dimensional models of internalizing symptoms and repetitive negative thought: Systematic replication, model

- comparison, and external validation. *Journal of Psychopathology and Clinical Science*, 132, 657-668. <https://doi.org/10.1037/abn0000845>.
30. Alexander, J. D., Freis, S. M., Zellers, S. M., Corley, R., Ledbetter, A., Schneider, R., Phelan, C., Subramonyam, H., Freiser, M., Rea-Sandin, G., Stocker, M. E., Vernier, H., Jiang, M., Luo, Y., Zhao, Q., Rhea, S. A., Hewitt, J., Luciana, M., McGue, M., Wilson, S., Resnick, P., **Friedman, N. P.**, & Vrieze, S. (2023). Evaluating longitudinal relationships between parental monitoring and substance use in a multi-year, intensive longitudinal study of 670 adolescent twins. *Frontiers in Psychiatry*, 14, 1149079. <https://doi.org/10.3389/fpsy.2023.1149079>.
 31. Smith, D. M., Loughnan, R., **Friedman, N. P.**, Parekh, P., Frei, O., Thompson, W. K., Andreassen, O. A., Neale, M. C., Jernigan, T. L., & Dale, A. M. (2023). Heritability estimation of cognitive phenotypes in the ABCD Study® using mixed models. *Behavior Genetics*, 53, 169-188. <https://doi.org/10.1007/s10519-023-10141-2>.
 32. [‡]Zorina-Lichtenwalter, K., Bango, C. I., Van Oudenhove, L., Čeko, M., Lindquist, M. A., Grotzinger, A. D., Keller, M. C., **Friedman, N. P.** & Wager, T. D. (2023). Genetic risk shared across 24 chronic pain conditions: Identification and characterization with genomic structural equation modeling. *Pain*, 164, 2239-2252. <https://doi.org/10.1097/j.pain.0000000000002922>.
 33. [‡]Rader, L., Freis, S. M., & **Friedman, N. P.** (2023). Associations between adolescent pain and psychopathology in the Adolescent Brain Cognitive Development (ABCD) study. *Behavior Genetics*, 53, 232-248. <https://doi.org/10.1007/s10519-023-10138-x>.
 34. Finkelstein, L. B., **Friedman, N. P.**, & Arch, J. J. (2023). Anxiety trajectories among cancer survivors during the COVID-19 pandemic. *Journal of Psychosocial Oncology*, 41, 558-583. <https://doi-org.colorado.idm.oclc.org/10.1080/07347332.2022.2154187>.
 35. [‡]Morrison, C. L., Winiger, E. A., Rieselbach, M. M., Vetter, C., Wright, K. P., Jr., LeBourgeois, M. K., & **Friedman, N.P.** (2023). Sleep health at the genomic level: Six distinct factors and their relationships with psychopathology. *Biological Psychiatry Global Open Science*, 3, 530-540. <https://doi.org/10.1016/j.bpsgos.2022.07.002>.
 36. [‡]Hatoum, A. S., Morrison, C. L., Mitchell, E. C., Lam, M., Benca-Bachman, C. E., Reineberg, A. E., Palmer, R. H., Evans, L. M., Keller, M. C., & **Friedman, N. P.** (2023). Genome-wide association study shows that executive functioning is influenced by GABAergic processes and is a neurocognitive genetic correlate of psychopathology. *Biological Psychiatry*, 93, 59-70. <https://doi.org/10.1016/j.biopsych.2022.06.034>.
 37. Chow, S-M, Nahum-Shani, I, Baker, J. T, Spruijt-Metz, D, Allen, N. B, Auerbach, R. P., Dunton, G. F., **Friedman, N. P.**, Intille, S., Klasnja, P., Marlin, B., Nock, M. K., Rauch, S. L., Pavel, M., Vrieze, S., Wetter, D.W., Kleiman, E.M., Brick, T.R., Perry, H., Wolff-Hughes, D.L. & Intensive Longitudinal Health Behavior Network (ILHBN) (2023). The Intensive Longitudinal Health Behavior Network (ILHBN): Challenges, opportunities, and solutions from harmonizing data under heterogeneous study designs, target populations, and measurement protocols. *Translational Behavioral Medicine*, 13, 7-16. <https://doi.org/10.1093/tbm/ibac069>.
 38. Kaiser, R. H., Peterson, E. C., Moser, A., Nielson, C., Hough, C. M., Rosenberg, B. M., Sandman, C. F., Schneck, C., & **Friedman, N. P.** (2023). Mood symptom dimensions and developmental differences in neurocognition in adolescence. *Clinical Psychological Science*, 11, 308-325. <https://doi.org/10.1177/21677026221111389>.

39. [†]Hatoum, A. S., Reineberg, A. E., Kragel, P. A., Wager, T. D., & **Friedman, N. P.** (2022). Inferring the genetic influences on psychological traits using MRI connectivity predictive models: Demonstration with cognition. *Complex Psychiatry*, 8, 63-79. <https://doi.org/10.1159/000527224>.
40. [‡]Gustavson, D. E., Reynolds, C. A., Corley, R. A., Wadsworth, S. J., Hewitt, J. K., & **Friedman, N. P.** (2022). Genetic associations between executive functions and intelligence: A combined twin and adoption study. *Journal of Experimental Psychology: General*, 151, 1745-1761. <http://dx.doi.org/10.1037/xge0001168>.
41. Alexander, J. D., Zhou, Y., Freis, S. M., **Friedman, N. P.**, & Vrieze, S. I. (2022). Individual differences in adolescent and young adult daily mobility patterns and their relationships to big five personality traits: A behavioral genetic analysis. *Journal of Research in Personality*, 100, 104277. <https://doi.org/10.1016/j.jrp.2022.104277>.
42. **Friedman, N. P.**, & Gustavson, D. E. (2022). Do rating and task measures of control abilities assess the same thing? *Current Directions in Psychological Science*, 31, 262-271. <https://doi.org/10.1177/09637214221091824>.
43. Peterson, E. C., Snyder, H. R., Nielson, C., Rosenberg, B. M., Hough, C. M., Sandman, C. F., Ohanian, L., Garcia, S., Kotz, J., Finegan, J., Ryan, C. A., Gyimah, A., Sileo, S., Miklowitz, D. J., **Friedman, N. P.**, & Kaiser, R. H. (2022). General and specific dimensions of mood symptoms are associated with impairments in common executive function. *Frontiers in Human Neuroscience*, 16, 838645. (Special research topic: Transdiagnostic correlates of executive functions in psychiatric disorders). <https://doi.org/10.3389/fnhum.2022.838645>.
44. [‡]Freis, S. M., Morrison, C. L., Smolker, H. R., Banich, M. T., Kaiser, R. H., Hewitt, J. K., & **Friedman, N. P.** (2022). Executive functions and impulsivity as transdiagnostic correlates of psychopathology in childhood: A behavioral genetic analysis. *Frontiers in Human Neuroscience*, 16, 863235. (Special research topic: Transdiagnostic correlates of executive functions in psychiatric disorders). <https://doi.org/10.3389/fnhum.2022.863235>.
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123. **Friedman, N. P.**, Miyake, A., Corley, R. P., Young, S. E., DeFries, J. C., & Hewitt, J. K. (2006). Not all executive functions are related to intelligence. *Psychological Science*, 17, 172-179. <https://doi.org/10.1111/j.1467-9280.2006.01681.x>.
124. **Friedman, N. P.**, & Miyake, A. (2005). Comparison of four scoring methods for the reading span test. *Behavior Research Methods*, 37, 581-590. <https://dx.doi.org/10.3758/BF03192728>.
125. **Friedman, N. P.**, & Miyake, A. (2004). The reading span test and its predictive power for reading comprehension ability. *Journal of Memory and Language*, 51, 136-158.
<https://doi.org/10.1016/j.jml.2004.03.008>.
126. **Friedman, N. P.**, & Miyake, A. (2004). The relations among inhibition and interference control processes: A latent variable analysis. *Journal of Experimental Psychology: General*, 133, 101-135. <https://dx.doi.org/10.1037/0096-3445.133.1.101>.
127. Miyake, A., **Friedman, N. P.**, Rettinger, D. A., Shah, P., & Hegarty, M. (2001). How are visuospatial working memory, executive functioning, and spatial abilities related? A latent variable analysis. *Journal of Experimental Psychology: General*, 130, 621-640.
<https://dx.doi.org/10.1037/0096-3445.130.4.621>.

128. Miyake, A., **Friedman, N. P.**, Emerson, M. J., Witzki, A. H., However, A., & Wager, T. D. (2000). The unity and diversity of executive functions and their contributions to complex “frontal lobe” tasks: A latent variable analysis. *Cognitive Psychology*, 41, 49-100. <https://doi.org/10.1006/cogp.1999.0734>.
129. Miyake, A., Emerson, M. J., & **Friedman, N. P.** (2000). Assessment of executive functions in clinical settings: Problems and recommendations. *Seminars in Speech and Language*, 21, 169-183. <https://dx.doi.org/10.1055/s-2000-7563>.
130. **Friedman, N. P.**, & Miyake, A. (2000). Differential roles for visuospatial and verbal working memory in situation model construction. *Journal of Experimental Psychology: General*, 129, 61-83. <https://dx.doi.org/10.1037/0096-3445.129.1.61>.
131. Miyake, A., Emerson, M. J., & **Friedman, N. P.** (1999). Good interactions are hard to find. *Behavioral and Brain Sciences*, 22, 108-109. Invited commentary on D. Caplan & G. S. Waters, Verbal working memory and sentence comprehension. *Behavioral and Brain Sciences*, 22, 77-126. <https://dx.doi.org/10.1017/S0140525X99371788>.

Non-Peer-Reviewed Journal Articles

1. Wager, T. D., Zorina-Lichtenwalter, K., & **Friedman, N. P.** (2024). A new look at gray matter decreases in chronic pain. (Commentary). *Biological Psychiatry*, 95, 387-388. <https://doi.org/10.1016/j.biopsych.2023.12.009>. PMCID: PMC10882984.
2. **Friedman, N. P.** & Banich, M. T. (2019). Questionnaires and task-based measures assess different aspects of self-regulation: Both are needed. (Letter to the editor). *Proceedings of the National Academy of Sciences of the United States of America*, 116, 24396-24397. <https://doi.org/10.1073/pnas.1915315116>. PMCID: PMC6900513.

Book Chapters

1. Duncan, J., & **Friedman, N. P.** (2024). How the brain creates unity and diversity of executive functions. In M. T. Banich, S. N. Haber, & T. W. Robbins (Eds.), *The frontal cortex: Organization, networks, and function* (pp. 161-178). Strüngmann Forum Reports, vol. 35, J.R. Lupp, series editor. Cambridge, MA: MIT Press. <https://doi.org/10.7551/mitpress/15679.003.0012>.
2. Shenav, A., Banich, M. T., Beste, C., Buschman, T. J., **Friedman, N. P.**, Gratton, C., Koechlin, E., Schuck, N., Wang, X.-J., & O'Doherty, J. (2024). Integrative psychological, computational, and mechanistic approaches to frontal lobe function. In M. T. Banich, S. N. Haber, & T. W. Robbins (Eds.), *The frontal cortex: Organization, networks, and function* (pp. 225-262). Strüngmann Forum Reports, vol. 35, J.R. Lupp, series editor. Cambridge, MA: MIT Press. <https://doi.org/10.7551/mitpress/15679.003.0015>.
3. **Friedman, N. P.** (2019). Research on individual differences in executive functions: Implications for the bilingual advantage hypothesis. In I. A. Sekerina, L. Spradlin, & V. Valian (Eds.), *Bilingualism, executive function, and beyond: Questions and insights* (pp. 207-220). Mahwah, NJ: Philadelphia, PA: John Benjamins Publishing Company. <https://doi.org/10.1075/sibil.57.13fri>

Note: this is a reprinting of the peer-reviewed journal article with the same title listed above.

4. Miyake, A., & **Friedman, N. P.** (1998). Individual differences in second language proficiency: Working memory as “language aptitude.” In A. F. Healy & L. E. Bourne, Jr. (Eds.), *Foreign language learning: Psycholinguistic studies on training and retention* (pp. 339-364). Mahwah, NJ: Erlbaum.

Manuscripts Submitted for Publication

1. Zorina-Lichtenwalter, K., Bango, C., I., Bogdan, P., Rader, L., Čeko, M., Lindquist, M. A., **Friedman, N. P.**, & Wager, T. (under review). Brain gray matter changes across chronic pain trajectories: Structural MRI evidence from 35,000 individuals in the UK Biobank.
2. [‡]Rader, L., Zorina-Lichtenwalter, K., Gustavson, D. E., Wager, T. D., & **Friedman, N. P.** (under review). Genetic associations link adolescent pain complaints to adult chronic pain risk.
3. [‡]Howard, A. K., Kaiser, R. H., & **Friedman, N. P.** (under review). Reward sensitivity and cognitive control: An exploratory structural equation modeling approach to predicting psychopathology. *PsyArXiv*. https://doi.org/10.31234/osf.io/qhcfj_v1.
4. Spychala, K. M., **Friedman, N. P.** & Gizer, I. R. (under review). Executive functions as an underlying mechanism of alcohol use, aggression, and ADHD. *medRxiv*. <https://doi.org/10.1101/2024.06.10.24308620>.

Presentations

Invited Talks

1. **Friedman, N. P.** (November, 2025). *Individual differences in cognitive control: Constructs and contexts*. Invited talk to the Cognitive and Comparative Psychology Colloquium at the City University of New York, online.
2. **Friedman, N. P.** (March, 2024). *Lumping and Splitting: Insights into executive functions from individual differences analyses*. Invited talk to the Department of Psychology at Brandeis University. Waltham, MA.
3. **Friedman, N. P.** (May, 2021). *Insights into executive functions from individual differences analyses*. Invited talk to the Department of Psychology at the University of Bonn, Germany, online.
4. **Friedman, N. P.** (May, 2021). *Neural and genetic individual differences in executive functions*. Invited talk to the Neuroscience Research Group at the University of Denver, online.
5. **Friedman, N. P.** (November, 2017). *Development and structure of executive function abilities*. Invited keynote lecture at the 21st Annual meeting of the Norwegian Neuropsychological Society, Stavanger, Norway.
6. **Friedman, N. P.** (December, 2015). *Development of individual differences in executive functions*. Invited talk presented at the "NIH Workshop on Behavioral and Psychological Phenotyping to Understand Differences in Physical Activity and Sedentary Behavior Affecting Weight Management," Bethesda, MD.

7. **Friedman, N. P.** (September, 2015). *Genetic influences on attentional control and working memory*. Invited talk presented at the "Attention and working memory: Commonalities and differences" symposium at the 19th European Society for Cognitive Psychology (ESCoP) conference, Paphos, Cyprus.
8. **Friedman, N. P.** (May, 2015). *What is (are) executive function(s)? Insights from individual differences research*. Invited talk presented at the "Workshop on Bilingualism and Executive Function: An Interdisciplinary Approach," New York, NY.
9. **Friedman, N. P.**, & Wright, K. P. Jr. (June, 2014). *Sleep and cognitive development*. Invited talk presented at the "Colorado Sleep and Circadian Research Symposia," Boulder, CO.
10. **Friedman, N. P.**, Miyake, A., Ito, T. A., Altamirano, L. J., Bartholow, B. D., & Correll, J. (June, 2011). *Individual differences in executive functions and expressions of racial biases*. Invited talk presented at the "Symposium on Implicit Racial Bias," Columbia, MO.
11. **Friedman, N. P.** (April, 2011). *The unity and diversity of executive functions: Genetic influences and correlates*. Invited talk to the Neuroscience Research Group at the University of Denver, Denver, CO.
12. **Friedman, N. P.** (March 2010). *Genetic influences on the unity and diversity of executive functions*. Invited talk presented at the UCLA seminar on phenomics and neurogenetics, Los Angeles, CA.
13. **Friedman, N. P.** (January 2010). *Genetic influences on the unity and diversity of executive functions*. Invited talk presented at the 2nd annual Conference on Executive Function, Boulder, CO.
14. **Friedman, N. P.**, Miyake, A., Young, S. E., Corley, R. P., Haberstick, B. C., Willcutt, E. G., DeFries, J. C., & Hewitt, J. K. (June 2009). Unity and diversity of executive functions in the longitudinal twin study. *Behavior Genetics*, 39, 652. Invited talk for the "Cognition and modularity" symposium at the 39th annual meeting of the Behavior Genetics Association, Minneapolis, MN.
15. Miyake, A., **Friedman, N. P.**, & Saito, S. (July 2003). *Individual differences in working memory span tasks: The role of attention in encoding and retrieval*. Invited talk presented at the "Variation in Working Memory" conference, Chicago, IL.

Conference Presentations

1. **Friedman, N. P.**, Reineberg, A. E., Gustavson, D. E., Wadsworth, S. J., & Reynolds, C. A. (June, 2024). Genetic and environmental influences on brain age measures at age 29 and their associations with early life cognition. *Behavior Genetics*, 54, 541. Talk presented at the 54th annual meeting of the Behavior Genetics Association, London, England.
2. **Friedman, N. P.**, Freis, S. M., & Vrieze, S. I. (June, 2023). Evaluating the dual systems model for alcohol use in an intensive longitudinal twin study. *Behavior Genetics*, 53, 448. Talk presented at the 53rd annual meeting of the Behavior Genetics Association, Murcia, Spain.
3. **Friedman, N. P.**, Rhee, S. H., Ross, J. M., Corley, R. P., & Hewitt, J. K. (June, 2018). Genetic and environmental relations of executive functions to antisocial personality symptoms and psychopathology. *Behavior Genetics*, 48, 470-471. Talk presented at the 48th annual meeting of the Behavior Genetics Association, Boston, MA.

4. **Friedman, N. P.**, Rhee, S. H., Ross, J. M., Corley, R. P., & Hewitt, J. K. (June, 2018). Genetic and environmental relations of executive functions to antisocial personality symptoms and psychopathology. *Behavior Genetics*, 48, 470-471. Talk presented at the 48th annual meeting of the Behavior Genetics Association, Boston, MA.
5. **Friedman, N. P.**, Gustavson, D. E., Corley, R. P., Stallings, M. C., & Hewitt, J. K. (June, 2015). Stability and change in the relations among executive functions and substance use and dependence from late adolescence to early adulthood. *Behavior Genetics*, 45, 656. Talk presented at the 45th annual meeting of the Behavior Genetics Association, San Diego, CA.
6. **Friedman, N. P.**, Rhee, S. H., Corley, R. P., Lessem, J. M., Stallings, M. C., Young, S. E., Wadsworth, S. J., & Hewitt, J. K. (June, 2014). Marijuana use and impaired cognitive ability. *Behavior Genetics*, 44, 659. Talk presented at the 44th annual meeting of the Behavior Genetics Association, Charlottesville, VA.
7. **Friedman, N. P.**, & Hewitt, J. K. (June, 2013). Do working memory span and updating tasks measure the same thing? A twin study. *Behavior Genetics*, 43, 518. Talk presented at the 43rd annual meeting of the Behavior Genetics Association, Marseille, France.
8. **Friedman, N. P.**, Altamirano, L. J., Miyake, A., Young, S. E., Corley, R. P., & Hewitt, J. K. (June, 2012). Etiology of stability and change in executive functions from late adolescence to adulthood. *Behavior Genetics*, 42, 934. Talk presented at the 42nd annual meeting of the Behavior Genetics Association, Edinburgh, Scotland.
9. **Friedman, N. P.**, Roth, T., Wright, K. P., & Drake, C. L. (June 2009). Genetic and environmental relations between insomnia and intrusive thinking: The contribution of sleep reactivity to stress. *Sleep*, 32, A255, Suppl. S. Talk presented at the 23rd annual meeting of the Associated Professional Sleep Societies, Seattle, WA.
10. **Friedman, N. P.**, Miyake, A., Young, S. E., Haberstick, B. C., Willcutt, E. G., & Hewitt, J. K. (January 2009). *Executive functions in the longitudinal twin study*. Poster presented at the 1st annual Conference on Executive Function, Boulder, CO.
11. **Friedman, N. P.**, Roth, T., Wright, K. P., & Drake, C. L. (June 2008). Sleep reactivity to stress and insomnia: Genetic and environmental contributions. *Sleep*, 31, A231. Talk presented at the 22nd annual meeting of the Associated Professional Sleep Societies, Baltimore, MA.
12. **Friedman, N. P.**, & Wright, K. P. (June 2008). Individual differences in childhood sleep problems predict cognitive executive functioning in late adolescence. *Sleep*, 31, A371. Talk presented at the 22nd annual meeting of the Associated Professional Sleep Societies, Baltimore, MA.
13. **Friedman, N. P.**, Miyake, A., Hewitt, J. K., Young, S. E., DeFries, J. C., & Corley, R. (November 2003). *The relations between specific and general executive function abilities, IQ, and working memory: A latent variable analysis*. Poster presented at the 42nd annual meeting of the Psychonomic Society, Vancouver, Canada.
14. **Friedman, N. P.**, & Miyake, A. (November 2002). *The relations among inhibition and interference control processes: A latent variable analysis*. Poster presented at the 41st annual meeting of the Psychonomic Society, Kansas City, MO.
15. Miyake, A., **Friedman, N. P.**, Emerson, M. J., Witzki, A. H., Howerter, A., & Wager, T. (June 1999). *The unity and diversity of executive functions: A latent variable approach*. Poster presented at the 11th annual meeting of the American Psychological Society, Denver, CO.
16. **Friedman, N. P.**, & Miyake, A. (November 1998). *Differential roles for visuospatial and verbal working memory in situation model construction*. Poster presented at the 37th annual meeting of the Psychonomic Society, Dallas, TX.

Co-authored presentations (recent)

1. Gustavson, D., Gordon, R., Lense, M., **Friedman, N.**, Reynolds, C., Maes, H. (October, 2025). Music engagement in adolescence is associated with less alcohol consumption and substance use experimentation: A gene-by-environment investigation. *European Neuropsychopharmacology*, 99, Supplement 1, 250. Poster presented by Dan Gustavson at the World Congress of Psychiatric Genetics, Cancun, Mexico.
2. Coccaro, A., Cheng, Z., Ruzic, L., Moser, A. D., Jones, J., Peterson, E. C., Stern, E., **Friedman N. P.**, & Kaiser, R. H. (September, 2025). Mood disorders in adolescents: Exploring biotypes of risk. In Z. Millman (Chair), Transdiagnostic investigations of anhedonia in early illness and risk for serious mental disorder: Neural, behavioral, and clinical findings. Symposium, annual meeting of the Society for Research in Psychopathology, Los Angeles, CA.
3. Howard, A. K., & **Friedman, N. P.** (June, 2025). Genetic links between separable measures of cognitive control and externalizing psychopathology: Insights from the ABCD study. *Behavior Genetics*, 55, 541. Poster presented by Ana Howard at the 55th annual meeting of the Behavior Genetics Association, Atlanta, GA.
4. McGhee, C. A., Gustavson, D. E., & **Friedman, N. P.** (June, 2025). Genetic and environmental contributions to attention problems across development and relations to adult impulsivity. *Behavior Genetics*, 55, 515. Poster presented by Chloe McGhee at the 55th annual meeting of the Behavior Genetics Association, Atlanta, GA.
5. Reynolds, C. A., Gustavson, D. E., **Friedman, N. P.**, Pahlen, S., Corley, R. P., & Wadsworth, S. J. (June, 2025). Visual-spatial performance and change at the cusp of midlife: Education and polygenic contributions. *Behavior Genetics*, 55, 511. Talk presented by Chandra Reynolds at the 55th annual meeting of the Behavior Genetics Association, Atlanta, GA.
6. Karhadkar, M., **Friedman, N.**, Corley, R., Reynolds, C., & Gustavson, D. E. (June, 2025). Genetic and environmental associations between processing speed and executive functions across adolescence and established adulthood. *Behavior Genetics*, 55, 511. Presentation by Mohini Karhadkar at the 55th annual meeting of the Behavior Genetics Association, Atlanta, GA.
7. Patterson, M. W., **Friedman, N. P.**, Keller, M. C., & Grotzinger, A. D. (June, 2025). Heterogeneous genetic associations between psychiatric traits, puberty-related traits, and sex-steroids. *Behavior Genetics*, 55, 519. Talk presented by Megan Patterson at the 55th annual meeting of the Behavior Genetics Association, Atlanta, GA.
8. Gustavson, D. E., Gordon, R. L., Lense, M. L., **Friedman, N. P.**, Wadsworth, S. J., Reynolds, C. A., & Maes, H. H. M. (June, 2025). Music engagement in adolescence is associated with less alcohol consumption: A gene-by-environment investigation. *Behavior Genetics*, 55, 496. Talk presented by Dan Gustavson at the 55th annual meeting of the Behavior Genetics Association, Atlanta, GA.
9. Maes, H. H. M., **Friedman, N.**, Corley, R., Wadsworth, S. Reynolds, C., & Gustavson, D. E. (June, 2025). Genetic and Environment Influences on Music Engagement Across Childhood and Adolescence. *Behavior Genetics*, 55, 553. Talk presented by Dan Gustavson at the 55th annual meeting of the Behavior Genetics Association, Atlanta, GA.
10. Gustavson, D. E., Gordon, R. L., Lense, M. L., **Friedman, N. P.**, Wadsworth, S. J., Reynolds, C. A., & Maes, H. H. M. (May, 2025). Music engagement in adolescence is associated with less alcohol consumption: A gene-by-environment investigation. Talk presented by Dan Gustavson at the 4th annual European Social Science Genetics Network Conference IV, Bristol, UK.
11. Karhadkar, M., **Friedman, N.**, Corley, R., Reynolds, C., & Gustavson, D. E. (May, 2025). Genetic and environmental associations between processing speed and executive functions across adolescence and established adulthood. *Behavior Genetics*, 55, 511. Presentation by Mohini Karhadkar at the 4th annual European Social Science Genetics Network Conference IV, Bristol, UK.

Teaching

Courses

Undergraduate:

PSYC 3102 Introduction to Behavioral Genetics

Fall 2024, Fall 2023, Fall 2018, Fall 2017, Fall 2016, Spring 2016, Fall 2014, Spring 2014

Graduate:

PSYC 5761 Structural Equation Modeling

Spring 2024, Spring 2022, Spring 2021, Spring 2020, Spring 2018, Spring 2017, Spring 2015

PSYC 6761 Topics in Advanced Structural Equation Modeling

Spring 2023, Spring 2019, Fall 2015

PSYC 5741 & 5751 General Statistics

Fall 2025-Spring 2026 (co-taught with Youngki Hong), Fall 2023-Spring 2024 (co-taught with Josh Correll), Fall 2022-Spring 2023 (co-taught with Eric Pedersen), Fall 2020-Spring 2021 (co-taught with Josh Correll), Fall 2019-Spring 2020 (co-taught with Eric Pedersen)

PSYC 7102/IPHY 6010/ EBIO 5800 Methods Proseminar in Behavioral Genetics (co-taught by 7 faculty)

Led course in Fall 2022

2 weeks in Fall 2024, 2 weeks in Fall 2020, 2 weeks in Fall 2019

Guest Lectures/Discussions

GRAD 5000 Responsible Conduct of Research discussion (10/1/2025)

NRSC 5110 Introduction to Neuroscience II (3/21/2025)

PSYC 5112 Scientific Integrity discussion (2/5/2025 & 4/30/2025)

Cognitive Lunch (Guest lecture on introduction to SEM) (10/14/2024)

GRAD 5000 Responsible Conduct of Research discussion (9/25/2024)

NRSC 5110 Introduction to Neuroscience II (3/22/2024)

GRAD 5000 Responsible Conduct of Research discussion (10/11/2023)

NRSC 5110 Introduction to Neuroscience II (3/24/2023)

University of Colorado Sleep and Circadian Summer School 2022 (7/14/2022)

International Statistical Genetics Workshop 2022 tutor (6/9/2022)

NRSC 5110 Introduction to Neuroscience II (3/18/2022)

NRSC 5110 Introduction to Neuroscience II (2/05/2021)

PSYC 5112 Concepts in Behavioral Genetics: Scientific Integrity/Ethics (4/29/2020)

NRSC 5110 Introduction to Neuroscience II (4/10/2020)

PSYC 5112 Concepts in Behavioral Genetics: Scientific Integrity/Ethics (5/2/2018)

PSYC 3102 Introduction to Behavior Genetics (Soo Rhee's section; 4/22/2014)

GRAD 5000 Responsible Conduct of Research discussion (9/23/2013)

Mentoring

Postdoctoral Primary or Co-Mentor

Lydia Rader (co-mentor with Maes, Gustavson)

9/2025 – present

Katerina Zorina-Lichtenwalter (co-mentor with Keller, Wager)

3/2020 – 6/2025

Phillip Kragel (co-mentor for T32 DA017637 with Keller, Wager)	5/2018 – 4/2019
Andrew Reineberg	10/2016 – 5/2022

Predoctoral Primary or Co-Mentor

Amy Texter, BPSG	2025 – present
Chloe McGhee, BPSG	2024 – present
Analicia Howard, BPSG	2022 – present
Lydia Rader, BPSG	2021 – 2025
Samantha Freis, BPSG	2019 – 2024
Claire Morrison, BPSG	2018 – 2023
Alta du Pont, Clinical (co-mentor with Soo Rhee)	2015 – 2020
Alexander Hatoum, BPSG	2014 – 2019
Louisa Smith, Cognitive (co-mentor with Marie Banich)	2016 – 2018
Chelsie Benca, BPSG	2013 – 2017
Lee Altamirano, Cognitive (co-mentor with Yuko Munakata)	2013 – 2016

Predoctoral Mentor for Behavior Genetics Certificate

Harry Smolker, Cognitive (primary mentor Marie Banich)	2014 – 2020
Daniel Gustavson, Cognitive (primary mentor Akira Miyake)	2013 – 2016

Undergraduate Honor's Thesis

Elijah Doran, Neuroscience	Expected 4/2026
G Kumar, Neuroscience	Defense 4/2023
Anushka Thummalapenta, Neuroscience	Defense 4/2022
Jack Lovell, Psychology (co-advisor with Keller)	Defense 11/2021
Hayley Tomkiewicz, Psychology	Defense 4/2019
Evann Mitchell, Neuroscience	Defense 10/2018
Zoe Karbin, Psychology	Defense 4/2018

Undergraduate Independent Study (PSYC 4841)

Elijah Doran	Fall 2025
Isabel Long	Spring 2022
Alia Alsaif	Spring 2020
Emma Osterberg	Fall 2018
Jenny Call	Spring 2018
Rebecca Naous	Fall 2017
Zoe Karbin	Spring 2017

Undergraduate Research Assistants

Elijah Doran	Summer 2024
Alia Alsaif	Summer 2019-Spring 2020
Marie Jung (post-baccalaureate)	Summer 2019-Spring 2020
Rebecca Naous	Spring 2018
Hayley Tomkiewicz	Spring 2017-Spring 2019
Evann Mitchell	Fall 2017-Fall 2018
Emma Osterberg	Spring 2017-Summer 2018
Miles Bowman	Fall 2017-Spring 2018
Kylia Ahuna	Spring 2017

Student Committees**Predoctoral Committees** (CU Boulder Psychology Department unless indicated)

Xuanyu Lyu	Comps & Masters, TBD
Margy Chen	Dissertation TBD
José María de Pablo Badilla (U. Desarrollo, Chile)	Dissertation TBD
Alaina Di Dio	IBG Development 2025-present
Mohini Karhadkar	IBG Development 2025-present
Coralie Phanord	Masters 3/2025
Jacob DeRosa	Masters 12/2024; Comps TBD
Francesca Trane	Dissertation 5/2025
Elisa Stern	IBG Development 2023-present; Masters 2/2024; Dissertation TBD
Matthew Adkins (CU IPHY Dept)	Comps 4/2023; Dissertation 4/2024
Brynn Paulsen	Masters 3/2023; Comps 4/2024; Dissertation TBD
Lauren Bertin (Emory University)	Dissertation 7/2023
Augustine Botwe (CU APRD Dept)	Comps 11/2022; Dissertation 5/2023
Paul McIlhiney (U. of W. Australia)	Dissertation 11/2022
Chava Creque	Dissertation 5/2022
Elena Peterson	First year project 2021; Masters 11/2022; Dissertation 7/2024
Spencer Moore	IBG Development 2021-2022; Comps & Masters 7/2022
Bailey Steele	Masters 11/2021; Dissertation 4/2025
Katie Paulich	Comps & Masters 11/2021, Dissertation 4/2024
Lauren Finkelstein	Masters 8/2021
Louisa Smith	Masters 5/2021; Comps 4/2023; Dissertation 11/2024
Deepika Dokuru	IBG Development 2020-2024; Comps & Masters 11/2021; Dissertation 4/2024
Shelley Gresko	IBG Development 2020-2024; Dissertation 5/2024
Tanya Horwitz	IBG Development 2020-2024; Comps & Masters 3/2022; Dissertation 3/2024
Harry Smolker	Comps 5/2019; Dissertation 7/2020
Maya Rieselbach	IBG Development 2019-2024; Dissertation 5/2024
Jared Balbona	IBG Development 2019-2022; Comps & Masters 3/2021; Dissertation 7/2022
Jade Yonehiro	First year project 2019
Winnie Zhuang	First year project 2018
Laura Hink	Dissertation 5/2018
Sarah Grover	Dissertation 11/2017
Laura Michaelson	Dissertation 11/2017
Jane Barker	Dissertation 11/2017
Jessica Keating	Dissertation 7/2017
Richard Border	Comps 4/2017; Dissertation 11/2019
Hannah Ritchie (CU IPHY Dept)	Comps 4/2017; Dissertation 4/2018
Andrew Reineberg	Dissertation 8/2016
Daniel Gustavson	Dissertation 4/2016
Geoffrey Kerr	Dissertation 8/2015
Helena Yardley	Comps 3/2015
Daniel Johnson	Dissertation 5/2014
Ashley Smith	Dissertation 5/2014
Kerri Woodward	IBG Development 2013-2018; Dissertation 5/2018
Lee Altamirano	Comp. exam 4/2013
Jeff Frazer (U. of Victoria)	Dissertation 2/2012
Joanna Vandever	Comps 11/2011; Dissertation 4/2014

Postdoctoral Committees

Gabriel Nah	Sleep and Circadian T32 mentor committee, 8/2025-present
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Undergraduate Committees

Gavin Sparling (CU PSYC Dept)	Honor's thesis 4/2024
Cammie Mitchell (CU IPHY Dept)	Honor's thesis 4/2021
Amelia Weller (CU EBIO Dept)	Honor's thesis 4/2015

Other Mentoring Activities**Sponsor/Mentor/Consultant for funded research awards to post-docs or predoctoral students**

Co-mentor on NIH/NIMH Mentored Clinical Science Research Career Development Award (K08 MH132903) to Megan W. Patterson. *Defining the multivariate genomic signature of pubertal markers and impact on lifespan psychopathology*. 9/01/2023 – 8/31/2027.

Consultant on NIH/NIAAA Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (F31 AA029948) to Kellyn M. Spsychala. *Relations between alcohol use, aggression, executive function, and ADHD: A genetic analysis*. 7/15/2022 – 7/14/2024.

Co-mentor on NIH/NIAAA Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (F31 AA029632) to Renée Martin-Willett. *Shared Mechanisms of alcohol use disorder and anxiety and effects of the endocannabinoid system*. 8/1/2021 – 7/31/2024.

Co-mentor on NIH/NIDA K23 Mentored Patient-Oriented Research Career Development Award (K23 DA054212) to J. Megan Ross, Ph.D. *Changes in cognition and psychiatric disorder symptoms during cannabis abstinence using a novel discordant twin design*. 9/1/2021 – 8/31/2026.

Co-mentor on NIH/NIAAA K23 Mentored Patient-Oriented Research Career Development Award (K23 AA026635) to Jarrod M. Ellingson, Ph.D. *Common mechanisms of the microbiota-gut-brain axis in alcohol use disorder and depression: A genetically informed investigation*. 9/27/2018 – 8/31/2023.

Mentoring International Scholars at the International Statistical Genetics Workshop

The International Scholars Cultural Exchange Program is a scholarship for junior researchers to attend the workshop and to work on a project at IBG with IBG faculty mentors for the two weeks following.

Michael Ehinmowo (MSc student at University of Ibadan, Nigeria)	3/2024
Maria Tavares (PhD student at Universidade Federal do Rio Grande do Sul, Brazil)	3/2025

Service**Editorial Service****Journal Editorial Boards**

Developmental Science (2014–present)

Guest Action Editor

Journal of Experimental Psychology: General

Ad Hoc Journal Reviews

Annals of Behavioral Medicine; Applied and Preventive Psychology; Behavior Genetics; Biological Psychiatry; Brain and Cognition; British Journal of Clinical Psychology; Clinical Psychological Science; Cognition and Emotion; Cognitive, Affective, and Behavioral Neuroscience; Cognitive and Behavioral Neurology; Cognitive Psychology; Cortex; Development and Psychopathology; Developmental

Review; Developmental Science; Emotion; Frontiers in Genetics; Genes; Genes, Brain, and Behavior; Intelligence; Journal of Abnormal Psychology; Journal of Adolescence; Journal of Child Psychology and Psychiatry; Journal of Experimental Child Psychology; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Learning, Memory, and Cognition; Journal of Memory and Language; Journal of Personality and Social Psychology; Memory; Memory and Cognition; Mind, Brain, and Education; Nature Communications; Nature Human Behaviour; NeuroImage; Neuropsychologia; Neuropsychology; Neuropsychopharmacology Reviews; Proceedings of the National Academy of Sciences; Psychological Assessment; Psychological Bulletin; Psychological Review; Psychological Science; Psychonomic Bulletin & Review; Quarterly Journal of Experimental Psychology; Science; Sleep

Ad Hoc Conference Abstract Reviews

Society for Research on Adolescence (Biological and Neurological Mechanisms Panel)

Grant Reviews

Grant Review Panels

National Institute of Mental Health Special Emphasis Panel: Jointly Sponsored Institutional Predoctoral Training Programs in the Neurosciences (T32)
 National Science Foundation Developmental Sciences Advisory Panel
 National Institute of Diabetes and Digestive and Kidney Diseases Special Emphasis Panels: NIDDK Ancillary Studies and Neurocognitive Complications of Type 1 Diabetes

Ad Hoc Grant Reviews

Caring for Colorado Youth Health grant: Internal reviews for CU Boulder's 2025 nomination
 Academy of Medical Sciences (in UK) Springboard scheme
 National Science Foundation (Cognitive Neuroscience Program)
 CNRS/Inserm ATIP Avenir grant (France)
 National Science Foundation (Perception, Action, & Cognition Program)
 National Science Foundation (Developmental Sciences Program)
 National Science Foundation (Social Psychology Program)
 Louisiana Experimental Program to Stimulate Competitive Research (EPSCoR)

Other Service Activities

Professional Consultant

R01 AA030914 (PI: Bartholow, McCarthy). <u><i>A Rigorous Test of Dual Process Model Predictions for Problematic Alcohol Involvement.</i></u> NIH/NIAAA.	9/20/23 – 8/31/28
R01 AA023974 (PI: Vrieze). <u><i>Social Media, Online Measures, and Substance Use Development in Adolescent Twins.</i></u> NIH/NIAAA	9/25/14 – 8/30/17

Committees and Advisory Boards

Member, Scientific Advisory Committee for the Centre for Lifelong Learning and Individualised Cognition	6/2025 – present
Member, Neurocognitive Workgroup of the ABCD study	12/2023 – present
Member, Steering Committee of the ABCD study	11/2023 – 11/2026
Member, Genetics Workgroup of the ABCD study	3/2022 – present
Member, Advisory Board for NSF HRD-1251590 (PI: Ito). <i>Broadening Women's Participation in STEM: The Critical Role of Belonging</i>	9/01/13 – 8/31/18

Conference Service

Session chair, Behavior Genetics Association Annual Meeting

2018, 2022, 2023

Departmental Service**Department of Psychology and Neuroscience**

Assistant Professor Search Committee (ad-hoc member)	Fall 2025 – Spring 2026
PUEC Committee (Knight reappointment)	Fall 2025
Co-chair, Merit & Salary Review Committee	Spring 2025 – present
Data Analysis & Social Faculty Search Committee	Fall 2024
PUEC Committee (Grotzinger reappointment)	Fall 2024
BPSG Program Director; Graduate Education Committee	Spring 2022 – present
Post-tenure Review Committee	Fall 2022 – Spring 2024
PUEC Committee (Reynolds hire with tenure)	Spring 2023
Merit & Salary Review Committee	Spring 2021 – Spring 2023, Spring 2019
Co-chair, Committee on Undergraduate Education	Fall 2019 – Spring 2020
Social Faculty Search Committee	Fall 2019 – Spring 2020
Unit Review Committee	Fall 2018 – Spring 2019
Human Research Committee	Fall 2013 – Spring 2018
PUEC Committee (Instructors)	Fall 2017
Undergraduate Research Day	Fall 2014 – Spring 2017
Volunteer Committee to Revise PSYC 1001 Learning Goals	Spring 2017
Peer reviews of teaching	Fall 2023, Fall 2022, Spring 2022, Spring 2021, Spring 2020, Fall 2019, Spring 2017 [2], Fall 2017, Spring 2015

Institute for Behavioral Genetics

IBG Salary Committee	Spring 2026
IBG Interim Director	Fall 2025
IBG Awards Committee	Fall 2025 – present
T32 MH016880 Postdoc liaison	Fall 2023 – present
IBG Research Professor Hiring Committee, Chair	Spring 2023
IBG Faculty Targeted Search Committee	Fall 2022
IBG Journal Club, organizer	Fall 2022 – Spring 2023
	Spring 2017 – Spring 2020
Training Program Committee	Spring 2022 – present, Fall 2020 – Spring 2021, Fall 2013 – Spring 2017
	Spring 2022 – Spring 2023
	Fall 2020 – Spring 2021
IBG Colloquium organizer	Spring 2015 – present
Faculty organizer for annual IBG mini conference	Fall 2021
IBG Director Search Committee	Fall 2019, Fall 2017 – Spring 2018
IBG Faculty Search Committee	Fall 2018 – Spring 2019
Self-study Committee	

Honors, Awards, and Fellowships

Friedman Honors

Outstanding Mentor Award, University of Colorado Boulder Graduate School	2024
Fellow of the Association for Psychological Science	2023
Psych & Neuro Dept. Faculty Research Award	2020
Psychology Department Dossier Award	2000
National Science Foundation Graduate Research Fellowship	1998-2001
Phi Beta Kappa Honor Society	1996
National Merit Scholarship	1992-1996

Mentee Honors

Lydia Rader	
Psych & Neuro Dept. Sean Hudson Leadership award	2024
Behavior Genetics Association Rowe award	2023
Samantha Freis	
Psych & Neuro Dept. Dossier/Muenzinger award for basic research	2024
Claire Morrison	
Psych & Neuro Dept. Dossier/Muenzinger award for basic research	2023
Behavior Genetics Association Rowe award	2020
Alta du Pont	
Psych & Neuro Dept. Dossier/Muenzinger award for basic research	2019
P.E.O. Scholar Award from the P.E.O. Sisterhood	2019
Alexander Hatoum	
Psych & Neuro Dept. Dossier/Muenzinger award for basic research	2019
Daniel Gustavson	
Psych & Neuro Dept. Dossier/Muenzinger award for basic research	2016
Lindon Eaves Poster Award, International Statistical Genetics Workshop	2014