

Naomi P. Friedman

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Education

- 1996 – 2002 Ph.D. (2002) and M.A. (1998) in Cognitive Psychology
University of Colorado Boulder
Advisor: Dr. Akira Miyake
- 1992 – 1996 B.A. in Psychology,
University of Texas at Austin
Summa cum laude, Honor's Advisor: Dr. Philip Gough

Professional Positions

- August 2020 – present Associate Professor
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
Mentor: Dr. John Hewitt, T32 HD007289

Affiliations

- 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

Honors, Awards, and Fellowships

2024	Outstanding Mentor Award, University of Colorado Boulder Graduate School
2023	Fellow of the Association for Psychological Science
2020	Faculty Research Award, University of Colorado Boulder Department of Psychology & Neuroscience
1998 – 2001	National Science Foundation Graduate Research Fellowship
2000	University of Colorado Boulder Department of Psychology Dossier Award
1998	University of Colorado Boulder Beverly Sears Dean's Small Grant
1996	Phi Beta Kappa Honor Society
1992 – 1996	National Merit Scholarship

Research Interests

My research focuses on individual differences in executive functions — high-level cognitive abilities that enable individuals to regulate their thoughts and actions during goal-directed behavior. I study the neural and genetic mechanisms of executive functions, their structure, and their relations to self-regulation, psychopathology, and other cognitive abilities.

Grants

Active

T32 MH016880 (Keller, Friedman)	7/01/20 – 6/30/25
NIH/NIMH	\$243,392 (total costs 2024)
Role: MPI	
<u>Research Training: Mental Health Behavior Genetics</u>	
U01 DA051018 (Banich, Friedman)	4/15/20 – 03/31/27
NIH/NIDA	\$1,634,651 (total costs 2024)
Role: MPI	
<u>14/21 ABCD-USA Consortium: Research Project Site at CU Boulder</u>	
R01 DA059804 (Gustavson)	8/15/24 – 5/31/29
NIH/NIDA	\$666,519 (total costs 2024)
Role: Co-I	
<u>Establishing if Music Engagement is a Protective Factor in Adolescent Substance Use Using Existing Longitudinal, Genetic, and Environmental Datasets</u>	
R21 ES035826 (Smolker)	2/07/24 – 1/31/26
NIH/NIEHS	\$195,625 (total costs 2024)
Role: Co-I	
<u>Long-term Effects of Developmental Air Pollution Exposure on Adult Mental Health: Sensitive Periods, Neural Correlates, and Genetic Risk Factors</u>	

R01 MH124846 (Kaiser, Snyder) 6/10/22 – 4/30/27
 NIH/NIMH \$733,736 (total costs 2024)
 Role: Co-I

Leveraging Latent Factors and Machine Learning to Forecast Internalizing Psychopathology in Emerging Adulthood

R01 AG046938 (Reynolds, Wadsworth) 6/01/15 – 5/31/25
 Subcontract to Institute for Behavioral Genetics (Wadsworth) \$2,050,896 (total costs 2024)
 NIH/NIA
 Role: Co-I

Colorado Adoption/Twin Study of Lifespan Behavioral Development & Cognitive Aging (CATSLife)

R01 MH117131 (Kaiser) 7/03/20 – 4/30/25
 NIH/NIMH \$3,069,845 (total costs)
 Role: Co-I

Biotyping Mood Health in Late Adolescence: Neurocognitive Dimensions and Stress Pathways

Completed

OT2 HL161847 (Banich) 10/01/21 – 05/23/24
 NIH \$367,640 (total costs)
 Role: Co-I

"NIH RECOVER: A Multi-site Observational Study of Post-Acute Sequelae of SARS-CoV-2 Infection in Pediatric Populations

R01 DA046064 (Friedman, Wager) 4/15/18 – 1/31/24
 NIH/NIDA \$3,161,048 (total costs)
 Role: MPI

Brain and Genetic Predictors of Individual Differences in Pain and Placebo Analgesia

R01 DA042742 (Palmer) 4/01/18 – 1/31/24
 Subcontract to Institute for Behavioral Genetics (Friedman) \$1,671,066 (total costs)
 NIH/NIDA
 Role: Co-I, subcontract PI

Integrative Prioritization of Alcohol and Drug-Addiction Related Genetic Loci

U01 DA046413 (Vrieze, Friedman) 8/15/18 – 6/30/23
 NIH/NIDA \$2,629,746 (total costs)
 Role: MPI

A Twin Study of Adolescent Alcohol and Drug Use Development: Leveraging Intensive Longitudinal Assessments

R01 HD078532 (Munakata) 2/01/17 – 1/31/23
 NIH/NICHD \$1,506,445 (total costs)
 Role: Co-I

Developing Inhibitory Control

U01 DA041120 (Luciana et al.) 9/30/15 – 04/14/20
 Subcontract to Institute for Behavioral Genetics (Banich/Hewitt) \$24,573,975 (total costs)
 NIH/NIDA

Role: Co-I

ABCD-USA Consortium: Twin Research Project

R01 MH063207 (Friedman)

NIH/NIMH

Role: PI

2/15/14 – 1/31/20

\$3,476,331 (total costs)

Neural Substrates of Executive Function: An fMRI Twin Study

R01 AA023974 (Vrieze)

NIH/NIAAA

Role: Co-I

9/01/14 – 8/30/18

\$1,638,910 (total costs)

Social Media, Online Measures, and Substance Use Development in Adolescent Twins

R21 MH102210 (Hankin)

Subcontract to Institute for Behavioral Genetics (Friedman)

NIH/NIMH

Role: Co-I, subcontract PI

7/01/14 – 6/30/17

\$417,880 (total costs)

Links Among Adolescent Executive Function, Effortful Control and Psychopathology

R01 HD068728 (Willcutt/Petrill)

NIH/NICHD

Role: Co-I

4/15/11 – 1/31/17

\$2,968,730 (total costs)

Etiology and Neuropsychology of Math, Reading, ADHD, and their Covariation

R01 MH063207 (Hewitt)

NIH/NIMH

Role: Co-I

9/01/08 – 5/31/13

\$1,873,084 (total costs)

Executive Functions and Self-Regulation: A Twin Study

P50 MH079485 (Banich)

NIH/NIMH

Role: Co-I of Project 4

4/22/08 – 1/31/13

\$8,712,888 (total costs center)

\$968,982 (total costs project 4)

IBSC: Determinants of Executive Function and Dysfunction: Project 4: Genetic Mechanisms of Executive Functions

BCS-0847872 (Ito)

NSF

Role: Co-PI

7/15/09 – 6/30/12

\$789,339 (total costs)

Collaborative Research: Individual Differences in Executive Functions and Expressions of Racial Biases

R01 HD050346 (Rhee)

NIH/NICHD

Role: Co-I

9/01/07 – 6/30/12

\$1,562,272 (total costs)

Testing a Developmental Model of Conduct Problems

Friedman PI

Henry Ford Hospital Sleep Center

Role: PI

3/01/07 – 2/29/09

\$152,313 (total costs)

Individual Differences in Sleep Problems

R03 MH075814 (Friedman)
NIH/NIMH
Role: PI

6/01/06 – 5/31/08
\$146,849 (total costs)

Longitudinal Effects of Sleep Problems on Cognition

R56 MH063207 (Hewitt)
NIH/NIMH
Role: Co-I

6/01/06 – 5/31/08
\$146,849 (total costs)

Executive Functions and Self-Regulation: A Twin Study

Consultant/advisory board

Consultant on R01 AA030914 (Bartholow, McCarthy). A Rigorous Test of Dual Process Model Predictions for Problematic Alcohol Involvement. NIH/NIAAA. 9/20/23 – 8/31/28. \$662,533 (total costs 2024).

Consultant on R01 AA023974 (Vrieze). Social Media, Online Measures, and Substance Use Development in Adolescent Twins. NIH/NIAAA. 9/25/14 – 8/30/17. \$1,703,861 (total costs).

Advisory Board Member (0.1 AY) on HRD-1251590 (Ito). Broadening Women's Participation in STEM: The Critical Role of Belonging. NSF. 9/01/13 – 8/31/18 (estimated). \$1,030,439 (total costs).

Publications

‡indicates senior authorship

underlined names are mentored students (post-doc, graduate, or undergraduate)

Peer-Reviewed Journal Articles

1. ‡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>. PMCID: NIHMS2047144.
2. Swank, Z., Borberg, E., Chen, Y., [1322 others, including **Friedman, N. P.**], & Zissis, M. (2024). Measurement of circulating viral antigens post-SARS-CoV-2 infection in a multicohort study. *Clinical Microbiology and Infection*, 30, 1599-1605. <https://doi.org/10.1016/j.cmi.2024.09.001>. PMCID: PMC11578795.
3. 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>. PMCID: PMC11662776.
4. 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>. PMCID: NIHMS2046548.

5. 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>. PMCID: NIHMS 2047187.
6. Gross, R. S., Thaweethai, T., Kleinman, [37 others, including **Friedman, N. P.**], & RECOVER-Pediatrics Group Authors. (2024). Characterizing long COVID in children and adolescents. *JAMA*, 332, 1174-1188. <https://doi.org/10.1001/jama.2024.12747>. PMCID: PMC11339705.
7. 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>. PMCID: In Process.
8. 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>. PMCID: PMC11302585.
9. 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>. PMCID: PMC11255344.
10. 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>. PMCID: In Process.
11. [‡]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>. PMCID: PMC11269048.
12. 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>. PMCID: PMC11423426.
13. [‡]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>. PMCID: PMC11232111.

^{*}Editor's Choice selection

14. 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>. PMCID: PMC11147714.
15. [‡]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>. PMCID: PMC10851865.
16. 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>. PMCID: PMC11075869.
17. [‡]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>. PMCID: PMC10843656.
18. 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>. PMCID: PMC10827666.
19. 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).
20. [‡]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>. PMCID: PMC10524966.
21. 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>. PMCID: PMC10213319.
22. 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/10.1101/2022.10.28.512918>. PMCID: PMC10154273.
23. [‡]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>. PMID: PMC10524350.
24. †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>. PMID: PMC10246734.
 25. 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>. PMID: PMC10354221.
 26. †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>. PMID: PMC10382696.
 27. †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 GABA and is a neurocognitive genetic correlate of psychopathology. *Biological Psychiatry*, 93, 59-70. <https://doi.org/10.1016/j.biopsych.2022.06.034>. PMID: PMC9722603.
 28. 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>. PMID: PMC9853092.
 29. 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>. PMID: PMC10259862.
 30. †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>. PMID: PMC10080187.
 31. †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>. PMID: PMC9256856.
 32. 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>. PMID: PMC9384572.

33. **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>. PMID: PMC9347699.
34. 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>. PMID: PMC9048678.
35. [‡]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>. PMID: PMC9012075.
36. Li, Y., Oravecz, Z., Zhou, S., Bodovski, Y., Barnett, I. J., Chi, G., Zhou, Y., **Friedman, N. P.**, Vrieze, S., & Chow, S-M. (2022). Bayesian forecasting with a regime-switching zero-inflated multilevel Poisson regression model: An application to adolescent alcohol use with spatial covariates. *Psychometrika*, 87, 376-402. <https://doi.org/10.1007/s11336-021-09831-9>. PMID: PMC9177551.
37. [‡]Reineberg, A. E., Banich, M. T., Wager, T. D., & **Friedman, N. P.** (2022). Context-specific activations are a hallmark of the neural basis of individual differences in general executive function. *NeuroImage*, 249, 118845. <https://doi.org/10.1016/j.neuroimage.2021.118845>. PMID: PMC8844140.
38. Smolker, H. R., Wang, K., Luciana, M., Bjork, J. M., Gonzalez, R., Barch, D. M., McGlade, E. C., Kaiser, R. H., **Friedman, N. P.**, Hewitt, J. K., & Banich, M. T. (2022). The Emotional Word-Emotional Face Stroop task in the ABCD study: Psychometric validation and associations with measures of cognition and psychopathology. *Developmental Cognitive Neuroscience*, 53, 101054. <https://doi.org/10.1016/j.dcn.2021.101054>. PMID: PMC8717459.
39. **Friedman, N. P.**, & Robbins, T. W. (2022). The role of prefrontal cortex in cognitive control and executive function. *Neuropsychopharmacology*, 47, 72-89. (Special Issue: Volume XV of Neuropsychopharmacology Reviews: The Prefrontal Cortex.) <https://doi.org/10.1038/s41386-021-01132-0>. PMID: PMC8617292.
40. [‡]Freis, S. M., Morrison, C. L., Lessem, J. M., Hewitt, J. K., & **Friedman, N. P.** (2022). Genetic and environmental influences on executive functions and intelligence in middle childhood. *Developmental Science*, 25, e13150. <https://doi.org/10.1111/desc.13150>. PMID: PMC8639807.
41. Zhou, S., Li, Y., Chi, G., Yin, J., Oravecz, Z., Bodovski, Y., **Friedman, N. P.**, Vrieze, S. I., & Chow, S-M. (2021). GPS2space: An open-source Python library for spatial measure extraction from GPS data. *Journal of Behavioral Data Science*, 1, 127-155. <https://doi.org/10.35566/jbds/v1n2/p5>. PMID: PMC8915920.
42. Gustavson, D. E., **Friedman, N. P.**, Stallings, M. C., Reynolds, C. A., Coon, H., Corley, R. P., Hewitt, J. K., Wadsworth, S., & Gordon, R. L. (2021). Musical instrument engagement in

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114. **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>.
115. **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>.
116. **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>.
117. **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>.
118. 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>.
119. 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>.
120. 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>.
121. **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>.
122. 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. Howard, A. K., & **Friedman, N. P.** (under review). Reward sensitivity and cognitive control: An exploratory structural equation modeling approach to predicting psychopathology. *Manuscript submitted for publication.*

Invited Talks

1. **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.
2. **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.
3. **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.
4. **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.
5. **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.
6. **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.
7. **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.

8. **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.
9. **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.
10. **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.
11. **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.
12. **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.
13. **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.
14. 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

Presented

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.

Contributed (recent)

1. Rieves, E. S., Freis, S. M., **Friedman, N. P.,** & Reid, C. E. (August, 2024). Is greenspace in the eye of the beholder? Exploring perceived and objective greenspace exposure effects on mental health. *ISEE*

Conference Abstracts, 2024(1). Presented by Emma Rieves at the 36th Annual Conference of the International Society of Environmental Epidemiology. Santiago, Chile.

2. Zorina-Lichtenwalter, K., Bango, C., Petre, B., Ceko, M., Rader, L., Lindquist, M. A., **Friedman, N. P.**, & Wager, T. D. (August, 2024). Structural brain changes with chronic pain progression and resolution in the UK Biobank study. Poster presented by Katerina Zorina-Lichtenwalter at the International Association for the Study of Pain Word Congress on Pain, Amsterdam, Netherlands.
3. Chiesa, S. T., Rader, L., Garfield, V., Foote, I. F., **Friedman, N. P.**, Suri, S., Smith, G. D., Hughes, A. D., & Richardson, T. D. (July, 2024). Childhood body size underlies numerous differences in adult brain volumes commonly attributed to midlife obesity: A lifecourse Mendelian randomization study. Virtual poster presented by Scott Chiesa at the Alzheimer's Association International Conference. Philadelphia, PA.
4. Zorina-Lichtenwalter, K., Bango, C., Petre, B., Ceko, M., Rader, L., Lindquist, M. A., **Friedman, N. P.**, & Wager, T. D. (June, 2024). Brain markers of chronic pain progression and resolution from a large-scale longitudinal study? Poster presented in absentia by Katerina Zorina-Lichtenwalter at the annual meeting of the Organization for Human Brain Mapping, Seoul, South Korea.
5. Rader, L., Zorina-Lichtenwalter, K., Gustavson, D. E., & **Friedman, N. P.** (June, 2024). Do chronic pain polygenic scores derived in older adults in the U.K. Biobank (UKB) predict adolescent pain reports in the Adolescent Brain Cognitive Development (ABCD) study? Talk presented by Lydia Rader at the 54th annual meeting of the Behavior Genetics Association, London, England.
6. Howard, A. K., Gustavson, D. E., & **Friedman, N. P.** (June, 2024). Adolescent reward and cognitive control constructs independently relate to polygenic scores for adult psychopathology. Talk presented by Ana Howard at the 54th annual meeting of the Behavior Genetics Association, London, England.
7. Gustavson, D. E., Borriello, G. A., Corley, R. P., Rhea, S. A., Wadsworth, S. J., **Friedman, N. P.**, & Reynolds, C. A. (June, 2024). Strong stability of cognitive ability from infancy through adulthood. Talk presented by Dan Gustavson at the 54th annual meeting of the Behavior Genetics Association, London, England.
8. Maes, H. H. M., Gustavson, D. E., **Friedman, N. P.**, Corley, R. P., Wadsworth, S. J., & Reynolds, C. A. (June, 2024). Genetic epidemiology of music engagement from early to late adolescence using twin-parent modeling. Talk presented by Hermine Maes at the 54th annual meeting of the Behavior Genetics Association, London, England.
9. Borriello, G. A., Gustavson, D. E., Corley, R. P., Rhea, S. A., Wadsworth, S. J., **Friedman, N. P.**, & Reynolds, C. A. (June, 2024). Polygenic scores for intelligence and educational attainment predict cognitive measures between infancy and adulthood. Talk presented by Giulia Borriello at the 54th annual meeting of the Behavior Genetics Association, London, England.
10. Patterson, M. W., **Friedman, N. P.**, Keller, M. C., & Grotzinger, A. D. (June, 2024). Genetic architecture of pubertal traits and sex-steroids: Cross-sex factor associations. Poster presented by Megan Patterson at the 54th annual meeting of the Behavior Genetics Association, London, England.
11. Ehinmowo, M. I., Gustavson, D. E., **Friedman, N. P.**, & Grotzinger, A. D. (June, 2024). Executive function mediates the genetic associations between ADHD and comorbid psychiatric conditions. Poster presented by Michael Ehinmowo at the 54th annual meeting of the Behavior Genetics Association, London, England.
12. Zorina-Lichtenwalter, K., Bango, C., Ceko, M., Rader, L., Lindquist, M. A., **Friedman, N. P.**, & Wager, T. D. (April, 2024). Brain correlates of chronic pain onset, progression, and resolution. *The Journal of Pain*, 25 (4) supplement, 46. Poster presented by Katerina Zorina-Lichtenwalter at the Annual Scientific Meeting for the United States Association for the Study of Pain. Seattle, WA.

Teaching

Advisory and Supervisory Responsibilities

Postdoctoral Mentoring

Katerina Zorina-Lichtenwalter	3/2020 – present
--co-mentor with Keller, Wager	
Phillip Kragel	5/2018 – 4/2019
--co-mentor for T32 DA017637 with Keller, Wager	
Andrew Reineberg	10/2016 – 5/2022

Predoctoral Mentoring

Primary or Co-mentor

Chloe McGhee	2024 – present
Analicia Howard, BPSG	2022 – present
Lydia Rader, BPSG	2021 – present
*selected for the Behavior Genetics Association Rowe award in 2023	
*selected for departmental Sean Hudson Leadership award 2024	
Samantha Freis, BPSG	2019 – 2024
*selected for departmental Dossier/Muenzinger award for basic research 2024	
Claire Morrison, BPSG	2018 – 2023
*selected for the Behavior Genetics Association Rowe award in 2020	
*selected for departmental Dossier/Muenzinger award for basic research 2023	
Alta du Pont, Clinical	2015 – 2020
--co-mentor with Soo Rhee	
*selected for departmental Dossier/Muenzinger award for basic research 2016	
*P.E.O. Scholar Award from the P.E.O. Sisterhood	
Alexander Hatoum, BPSG	2014 – 2019
*selected for departmental Dossier/Muenzinger award for basic research 2019	
Louisa Smith, Cognitive	2016 – 2018
--co-mentor with Marie Banich	
Chelsie Benca, BPSG	2013 – 2017
Lee Altamirano, Cognitive	2013 – 2016
--co-mentor with Yuko Munakata	

Mentor for Behavior Genetics Certificate

Harry Smolker, Cognitive	2014 – 2020
--mentor for behavioral genetics certificate; primary mentor Marie Banich	
Daniel Gustavson, Cognitive	2013 – 2016
--mentor for behavioral genetics certificate; primary mentor Akira Miyake	
*selected for departmental Dossier/Muenzinger award for basic research 2016	
*selected for The Lindon Eaves Award for Best Student Poster at the 2014 International Workshop on Statistical Genetic Methods for Human Complex Traits	

Undergraduate Research Mentoring

Undergraduate Honor's Thesis

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

Independent Study (PSYC 4841)

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

Volunteer Research Assistants

Elijah Doran	Fall 2024-present
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

Paid Research Assistants

Elijah Doran	Summer 2024
Brandon Kohrt	Spring 2021-Fall 2021
Alia Alsaif	Summer 2019-Spring 2020
Marie Jung (post-baccalaureate)	Summer 2019-Spring 2020

Predoctoral Committees (CU Boulder Psychology Department unless indicated)

Jacob DeRosa	Masters 12/2024
Francesca Trane	Dissertation
Matthew Adkins (CU IPHY Dept)	Comp. exam 4/2023; Dissertation 4/2024
Brynn Paulsen	Masters 3/2023, Comp. exam 4/2024
Lauren Bertin (Emory University)	Dissertation 7/2023
Augustine Botwe (CU APRD Dept)	Comp. exam 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 Cmte 2021-2022; Comp. exam & Masters 7/2022
Bailey Steele	Masters 11/2021; Dissertation
Katie Paulich	Comp. exam & 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 Cmte 2020-2024; Comp. exam & Masters 11/2021; Dissertation 4/2024
Shelley Gresko	IBG Development Cmte 2020-2024; Dissertation 5/2024
Tanya Horwitz	IBG Development Cmte 2020-2024; Comp. exam & Masters 3/2022; Dissertation 3/2024
Harry Smolker	Comp. exam 5/2019; Dissertation 7/2020
Maya Rieselbach	IBG Development Cmte 2019-2024; Dissertation 5/2024
Jared Balbona	IBG Development Cmte 2019-2022; Comp. exam & 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	Comp. exam 4/2017; Dissertation 11/2019
Hannah Ritchie (CU IPHY Dept)	Comp. exam 4/2017; Dissertation 4/2018
Andrew Reineberg	Dissertation 8/2016
Daniel Gustavson	Dissertation 4/2016
Geoffrey Kerr	Dissertation 8/2015
Helena Yardley	Comp. exam 3/2015
Daniel Johnson	Dissertation 5/2014
Ashley Smith	Dissertation 5/2014
Kerri Woodward	IBG Development Cmte 2013-2018; Dissertation 5/2018
Lee Altamirano	Comp. exam 4/2013
Jeff Frazer (U. of Victoria)	Dissertation 2/2012
Joanna Vandever	Comp. exam 11/2011; Dissertation 4/2014

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

Courses

Primary Teaching

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 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 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)

2 weeks in Fall 2024, led course in Fall 2022, 2 weeks in Fall 2020, 2 weeks in Fall 2019

Guest Lectures/Discussions

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)

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. Spychala. *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 – 7/31/2026.

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.

Professional Activities

Professional Memberships

Behavior Genetics Association
 Association for Psychological Science
 American Psychological Association

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, 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

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

Session chair at Behavior Genetics Association Annual Meeting: 2018, 2022, 2023

Member, Neurocognitive Workgroup of the Adolescent Brain Cognitive Development (ABCD) study, December 2023-present

Member, Genetics Workgroup of the Adolescent Brain Cognitive Development (ABCD) study, March 2022-present

Departmental Service

Department of Psychology and Neuroscience

Data Analysis & Social Faculty Search Committee	Fall 2024
PUEC Committee (Grotzinger reappointment)	Fall 2024
Graduate Education Committee: BPSG Program Director	Spring 2022 – present
Post-tenure Review Committee	Fall 2022 – Spring 2024
PUEC Committee (Reynolds hire with tenure)	Spring 2023

Merit & Salary Review Committee

Spring 2025
Spring 2022 – Spring 2023,
Fall 2020 – Spring 2021,
Spring 2019

Committee on Undergraduate Education (co-chair)

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

Assisted with senior Cognitive Faculty Search

Fall 2019

Assisted with junior Cognitive Faculty Search

Fall 2019 – Spring 2020

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

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

IBG Colloquium organizer

Spring 2022 – Spring 2023

Fall 2020 – Spring 2021

Faculty organizer for annual IBG mini conference

Spring 2015 – present

IBG Director Search Committee

Fall 2021

IBG Faculty Search Committee

Fall 2019, Fall 2017 – Spring 2018

Self-study Committee

Fall 2018 – Spring 2019