

# Naomi P. Friedman

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Department of Psychology & Neuroscience  
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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
- 2013 – present      Faculty Fellow  
Institute for Behavioral Genetics, University of Colorado Boulder
- 2016 – present      Faculty Fellow  
Institute for Cognitive Science, 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

## Honors, Awards, and Fellowships

- 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 Dosier 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                        | \$255,352 (total costs 2023) |
| Role: MPI                       |                              |

Research Training: Mental Health Behavior Genetics

|                                |                                |
|--------------------------------|--------------------------------|
| U01 DA051018 (Banich/Friedman) | 4/15/20 – 03/31/27             |
| NIH/NIDA                       | \$1,626,727 (total costs 2023) |
| Role: MPI                      |                                |

14/21 ABCD-USA Consortium: Research Project Site at CU Boulder

|                       |                         |
|-----------------------|-------------------------|
| OT2HL 161847 (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 MH117131 (Kaiser) | 7/03/20 – 4/30/24            |
| NIH/NIMH              | \$602,262 (total costs 2023) |
| Role: Co-I            |                              |

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

|                              |                              |
|------------------------------|------------------------------|
| R01 MH124846 (Kaiser/Snyder) | 6/10/22 – 4/30/27            |
| NIH/NIMH                     | \$733,736 (total costs 2023) |
| 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) | \$2,248,844 (total costs 2023) |
| NIH/NIA  |                                |
| Role: Co-I   |                                |

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

R21 ES035826 (Smolker) 2/07/24 – 1/31/26  
 NIH/NIEHS \$195,625 (total costs 2024)  
 Role: Co-I

Long-term Effects of Developmental Air Pollution Exposure on Adult Mental Health: Sensitive Periods, Neural Correlates, and Genetic Risk Factors

## **Completed**

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) 2/15/14 – 1/31/20  
 NIH/NIMH \$3,476,331 (total costs)  
 Role: PI

Neural Substrates of Executive Function: An fMRI Twin Study

R01 AA023974 (Vrieze) 9/01/14 – 8/30/18  
 NIH/NIAAA \$1,638,910 (total costs)  
 Role: Co-I

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

R21 MH102210 (Hankin) 7/01/14 – 6/30/17  
 Subcontract to Institute for Behavioral Genetics (Friedman) \$417,880 (total costs)  
 NIH/NIMH

Role: Co-I, subcontract PI

Links Among Adolescent Executive Function, Effortful Control and Psychopathology

R01 HD068728 (Willcutt/Petrill)

4/15/11 – 1/31/17

NIH/NICHHD

\$2,968,730 (total costs)

Role: Co-I

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

R01 MH063207 (Hewitt)

9/01/08 – 5/31/13

NIH/NIMH

\$1,873,084 (total costs)

Role: Co-I

Executive Functions and Self-Regulation: A Twin Study

P50 MH079485 (Banich)

4/22/08 – 1/31/13

NIH/NIMH

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

Role: Co-I of Project 4

\$968,982 (total costs proj. 4)

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

BCS-0847872 (Ito)

7/15/09 – 6/30/12

NSF

\$789,339 (total costs)

Role: Co-PI

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

R01 HD050346 (Rhee)

9/01/07 – 6/30/12

NIH/NICHHD

\$1,562,272 (total costs)

Role: Co-I

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: PI

Individual Differences in Sleep Problems

R03 MH075814 (Friedman)

6/01/06 – 5/31/08

NIH/NIMH

\$146,849 (total costs)

Role: PI

Longitudinal Effects of Sleep Problems on Cognition

R56 MH063207 (Hewitt)

6/01/06 – 5/31/08

NIH/NIMH

\$146,849 (total costs)

Role: Co-I

Executive Functions and Self-Regulation: A Twin Study

### **Consultant/advisory board**

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. Brasher, M. S., Grotzinger, A. D., **Friedman, N. P.**, Smolker, H. R., & Evans, L. M. (in press). Disentangling differing relationships between internalizing disorders and alcohol use. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*. <https://doi.org/10.1002/ajmg.b.32975>. PMID: In Process.
2. Gustavson, D. E., Stern, E. F., Reynolds, C. A., Grotzinger, A. D., Corley, R. P., Wadsworth, S. J., Rhee, S. H., & **Friedman, N. P.** (in press). 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*. PMID: In Process.
3. ‡Rader, L., Reineberg, A. E., Petre, B., Wager, T. D., & **Friedman, N. P.** (in press). Familial effects account for association between current pain episode and past month smoking. *European Journal of Pain*. <https://doi.org/10.1002/ejp.2247>. PMID: NIHMS1965740.
4. ‡Morrison, C. L., Winiger, E. A., Wright, K. P., Jr., & **Friedman, N. P.** (in press). Multivariate genome-wide association study of sleep health demonstrates unity and diversity. *Sleep*, *zsad320*. <https://doi.org/10.1093/sleep/zsad320>. PMID: PMC10851865.
5. 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. (in press). 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*. <https://doi.org/10.1177/21677026231207845>. PMID: NIHMS1934866.
6. ‡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>. PMID: In Process.
7. 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. (in press). Trans-ancestry meta-analysis of genome wide association studies of inhibitory control. *Molecular Psychiatry*. <https://doi.org/10.1038/s41380-023-02187-9>. PMID: PMC10827666.

8. Gosling, C. J., Caparos, S., Pinabius, 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). PMID: In Process.
9. <sup>‡</sup>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>. PMID: PMC10524966.
10. 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/fpsyt.2023.1149079>. PMID: PMC10213319.
11. 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>. PMID: PMC10154273.
12. <sup>‡</sup>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.
13. <sup>‡</sup>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.
14. 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.
15. <sup>‡</sup>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.
16. <sup>‡</sup>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.
17. 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.
18. 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.
  19. <sup>‡</sup>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
  20. <sup>‡</sup>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.
  21. 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.
  22. **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.
  23. 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.
  24. <sup>‡</sup>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.
  25. 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.
  26. <sup>‡</sup>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.
27. 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.
  28. **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.
  29. <sup>‡</sup>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.
  30. 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.
  31. 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 adolescence predicts verbal ability four years later: A twin and adoption study. *Developmental Psychology*, 57, 1943-1957. <https://doi.org/10.1037/dev0001245>. PMID: PMC8842509.
  32. **Friedman, N. P.**, Banich, M. T., & Keller, M. C. (2021). Twin studies to GWAS: There and back again. *Trends in Cognitive Sciences*, 21, 855-869. <https://doi.org/10.1016/j.tics.2021.06.007>. PMID: PMC8446317.
  33. Colbert, S. M. C., Funkhouser, S. A., Johnson, E. C., Morrison, C. L., Hoeffler, C., **Friedman, N. P.**, Ehringer, M. A., & Evans, L. M. (2021). Novel characterization of the multivariate genetic architecture of internalizing psychopathology and alcohol use. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, 186B, 353-366. <https://doi.org/10.1002/ajmg.b.32874> PMID: PMC8556277.
  34. Lisdahl, K. M., Tapert, S., Sher, K. J., [109 others, including **Friedman, N. P.**], & Heitzeg, M. M. (2021). Substance use patterns in 9-10 year olds: Baseline findings from the adolescent brain cognitive development (ABCD) study. *Drug and Alcohol Dependence*, 227, 108946. <https://doi.org/10.1016/j.drugalcdep.2021.108946>. (ABCD Consortium paper). PMID: PMC8833837.
  35. Risner, V. A., Benca-Bachman, C. E., Bertin, L., Smith, A. K., Kaprio, J., McGeary, J. E., Chesler, E., Knopik, V., **Friedman, N. P.**, & Palmer, R. H. C. (2021). Multi-polygenic analysis of nicotine dependence in individuals of European ancestry. *Nicotine & Tobacco Research*, 23, 2102-2109. <https://doi.org/10.1093/ntr/ntab105>. PMID: PMC8570665.
  36. Menardi, A., Reineberg, A. E., Vallesi, A., **Friedman, N. P.**, Banich, M. T., & Santarnecchi, E. (2021). Heritability of brain resilience to perturbation in humans. *NeuroImage*, 235, 118013. <https://doi.org/10.1016/j.neuroimage.2021.118013>. PMID: PMC8192441.



37. Chaarani, B., Allgaier, N., [192 others, including **Friedman, N. P.**], Garavan, H. P., & the ABCD Consortium (2021). Baseline brain function in the preadolescents of the ABCD Study. *Nature Neuroscience*, 24, 1176-1186. (ABCD Consortium paper). <https://doi.org/10.1038/s41593-021-00867-9>. PMID: PMC8947197.
38. †**Morrison, C. L.**, Rhee, S. H., **Smolker, H. R.**, Corley, R. P., Hewitt, J. K., & **Friedman, N. P.** (2021). Genetic and environmental influences on stressful life events and their associations with executive functions in young adulthood: A longitudinal twin analysis. *Behavior Genetics*, 51, 30-44. <https://doi.org/10.1007/s10519-020-10017-9>. PMID: PMC7855628.
39. Snyder, H. S., **Friedman, N. P.**, & Hankin, B. L. (2021). Associations between task performance and self-report measures of cognitive control: Shared vs. distinct abilities. *Assessment*, 28, 1080-1096. <https://doi.org/10.1177/1073191120965694>. PMID: PMC8058111.
40. Ellingson, J. M., Ross, J. M., Winiger, E., Stallings, M. C., Corley, R. P., **Friedman, N. P.**, Hewitt, J. K., Tapert, S. F., Brown, S. A., Wall, T. L., & Hopfer, C. J. (2021). Familial factors may not explain the link between heavy adolescent cannabis use and cognitive functioning in adolescents: A sibling-comparison study. *Addiction*, 116, 833-844. <https://doi.org/10.1111/add.15207>. PMID: PMC7925696.
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## Non-Peer-Reviewed Journal Articles

1. **Friedman, N. P.** & Banich, M. T. (2019). Questionnaires and task-based measures assess different aspects of self-regulation: Both are needed. *Proceedings of the National Academy of Sciences of the United States of America*, 116, 24396-24397. (Letter to the editor). <https://doi.org/10.1073/pnas.1915315116>. PMID: PMC6900513.
2. Wager, T. D., Zorina-Lichtenwalter, K., & **Friedman, N. P.** (2024). A new look at gray matter decreases in chronic pain. *Biological Psychiatry*, 95, 387-388. (Commentary). <https://doi.org/10.1016/j.biopsych.2023.12.009>. PMID: NIHMS1965988.

## Book Chapters

1. Duncan, J., & **Friedman, N. P.** (in revision). How the brain creates unity and diversity of executive functions. In M. T. Banich, S. N. Haber, & T. W. Robbins (Eds.), *Organization of Frontal Lobe Networks and Function: Localization and Interaction*. Strüngmann Forum Reports, vol. 35, J.R. Lupp, series editor. Cambridge, MA: MIT Press.
2. **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.
3. 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. Smolker, H. R., Reid, C. E., **Friedman, N. P.**, & Banich, M. T. (2023). 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. *Manuscript submitted for publication*.
2. Rader, L., Wager, T. D., & **Friedman, N. P.** (2023). Working memory is genetically associated with young adult chronic pain: Results from a longitudinal twin study. *Manuscript submitted for publication*.

## Invited Talks

1. **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.

2. **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.
3. **Friedman, N. P.** (November, 2017). *Development and structure of executive function abilities*. Invited keynote lecture at the 21<sup>st</sup> Annual meeting of the Norwegian Neuropsychological Society, Stavanger, Norway.
4. **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.
5. **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 19<sup>th</sup> European Society for Cognitive Psychology (ESCoP) conference, Paphos, Cyprus.
6. **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.
7. **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.
8. **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.
9. **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.
10. **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.
11. **Friedman, N. P.** (January 2010). *Genetic influences on the unity and diversity of executive functions*. Invited talk presented at the 2<sup>nd</sup> annual Conference on Executive Function, Boulder, CO.
12. **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 39<sup>th</sup> annual meeting of the Behavior Genetics Association, Minneapolis, MN.
13. 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.**, 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 53<sup>rd</sup> annual meeting of the Behavior Genetics Association, Murcia, Spain.
2. **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 48<sup>th</sup> annual meeting of the Behavior Genetics Association, Boston, MA.
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 48<sup>th</sup> annual meeting of the Behavior Genetics Association, Boston, MA.
4. **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 45<sup>th</sup> annual meeting of the Behavior Genetics Association, San Diego, CA.
5. **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 44<sup>th</sup> annual meeting of the Behavior Genetics Association, Charlottesville, VA.
6. **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 43<sup>rd</sup> annual meeting of the Behavior Genetics Association, Marseille, France.
7. **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 42<sup>nd</sup> annual meeting of the Behavior Genetics Association, Edinburgh, Scotland.
8. **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 23<sup>rd</sup> annual meeting of the Associated Professional Sleep Societies, Seattle, WA.
9. **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 1<sup>st</sup> annual Conference on Executive Function, Boulder, CO.
10. **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 22<sup>nd</sup> annual meeting of the Associated Professional Sleep Societies, Baltimore, MA.
11. **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 22<sup>nd</sup> annual meeting of the Associated Professional Sleep Societies, Baltimore, MA.
12. **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 42<sup>nd</sup> annual meeting of the Psychonomic Society, Vancouver, Canada.

13. **Friedman, N. P.**, & Miyake, A. (November 2002). *The relations among inhibition and interference control processes: A latent variable analysis*. Poster presented at the 41<sup>st</sup> annual meeting of the Psychonomic Society, Kansas City, MO.
14. 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 11<sup>th</sup> annual meeting of the American Psychological Society, Denver, CO.
15. **Friedman, N. P.**, & Miyake, A. (November 1998). *Differential roles for visuospatial and verbal working memory in situation model construction*. Poster presented at the 37<sup>th</sup> annual meeting of the Psychonomic Society, Dallas, TX.

## Contributed

1. Rader, L., Zorina-Lichtenwalter, K., Grotzinger, A., & **Friedman, N. P.** (October, 2023). Genetic overlap between chronic pain, substance use disorders, and nucleus accumbens volume. *European Neuropsychopharmacology*, 75 (S1), S274. Poster presented by Lydia Rader at the 2023 World Congress of Psychiatric Genetics, Montreal, Canada.
2. Rader, L., & **Friedman, N. P.** (June, 2023). Working memory is genetically associated with young adult chronic pain: results from a longitudinal twin study. *Behavior Genetics*, 53, 488. Talk presented by Lydia Rader at the 53<sup>rd</sup> annual meeting of the Behavior Genetics Association, Murcia, Spain.
3. Rader, L., Freis, S. M., & **Friedman, N. P.** (June, 2023). Associations between adolescent pain and psychopathology in the Adolescent Brain Cognitive Development (ABCD) study. *Behavior Genetics*, 53, 488. Poster presented by Lydia Rader at the 53<sup>rd</sup> annual meeting of the Behavior Genetics Association, Murcia, Spain.

\*Won 2023 Rowe award for outstanding research presented by an Associate Member at the annual scientific meeting as a poster

4. Freis, S. M., Alexander, J. D., Duffy, K., Cho, Y. W., Li, Y., Anderson, J., Corley, R. P., Chow, S-M., Vrieze, S. I., & **Friedman, N. P.** (June, 2023). Assessing environmental similarity with GPS data: Tests of the equal environment assumption in adolescence across diverse psychological domains. *Behavior Genetics*, 53, 448. Talk presented by Sam Freis at the 53<sup>rd</sup> annual meeting of the Behavior Genetics Association, Murcia, Spain.
5. Gustavson, D. E., Stern, E. F., Reynolds, C. A., Wadsworth, S. J., Rhee, S. H., & **Friedman, N. P.** (June, 2023). Evidence for strong genetic correlations among internalizing psychopathology and related dimensional measures using both genomic and twin/adoptive approaches. *Behavior Genetics*, 53, 453. Talk presented by Dan Gustavson at the 53<sup>rd</sup> annual meeting of the Behavior Genetics Association, Murcia, Spain.
6. Heilbronner, M., Wendel, B., Papiol, S. Kristina, A., Budde, M., Kalman, J. L., Kohshour, M. O., Schaupp, S. K., Schulte, E. C., Senner, F., Vogl, T. Falkai, P., Clark, S. R., Hatoum, A. S., Ciobanu, L. G., **Friedman, N. P.**, Schultze, T. G., & Heilbronner, U. (June, 2023). Contribution of polygenic scores for a common executive function factor and the p factor to cognitive performance in the PsyCourse Study. *Behavior Genetics*, 53, 454-455. Talk presented by Urs Heilbronner at the 53<sup>rd</sup> annual meeting of the Behavior Genetics Association, Murcia, Spain.
7. Alexander, J. D., Duffy, K. A., Freis, S. M., **Friedman, N. P.**, & Vrieze, S. I. (June, 2023). Changes in youth affect and mobility following the COVID-19 pandemic in an intensive longitudinal study of adolescent twins. *Behavior Genetics*, 53, 425-426. Poster presented by Jordan Alexander at the 53<sup>rd</sup> annual meeting of the Behavior Genetics Association, Murcia, Spain.
8. Spychala, K. M., **Friedman, N. P.**, & Gizer, I. R. (June, 2023). Executive function as an underlying mechanisms of alcohol use, aggression, and ADHD. *Behavior Genetics*, 53, 496. Virtual poster presented by Kellyn Spychala at the 53<sup>rd</sup> annual meeting of the Behavior Genetics Association, Murcia,

Spain.

9. Botvinik-Nezer, R., Petre, B., Lindquist, M. A., Keller, M., **Friedman, N.**, & Wager, T. D. (May, 2023). *Placebo analgesia is primarily related to brain systems involved in motivation and value, not nociceptive pain*. Poster presented by Rotem Botvinik-Nezer at the 4<sup>th</sup> International Conference of the Society for Interdisciplinary Placebo Studies (SIPS). Duisburg, Germany.
10. Bango, C., Zorina-Lichtenwalter, K., Ceko, M., Rader, L., **Friedman, N.**, & Wager, T. D. (November, 2022). *Structural equation modeling of shared genetic variance for resting-state connectivity and pain conditions from the UK Biobank*. Poster presented by Carmen Bango at the 51<sup>st</sup> annual meeting of the Society for Neuroscience. San Diego, CA.
11. Zheng, A., Wadsworth, S., **Friedman, N.**, & Reynolds, C. (November, 2022). Phenome-wide search of cognitive reserve proxies across age cohorts. *Innovation in Aging*, 6 (S1), 820-821. Poster presented by Anqing Zheng at the Gerontological Society of America's Annual Scientific Meeting. Indianapolis, IN.
12. Morrison, C. L., & **Friedman, N. P.** (June, 2022). Multivariate genome-wide association study of sleep health. *Behavior Genetics*, 52, 379-380. Talk presented by Claire Morrison at the 52<sup>nd</sup> annual meeting of the Behavior Genetics Association, Los Angeles, CA.
13. Rader, L., Reineberg, A. E., Petre, B., Wager, T. D., & **Friedman, N. P.** (June, 2022). Familial effects account for relationship between past month tobacco frequency and presence of a current pain episode. *Behavior Genetics*, 52, 386. Poster presented by Lydia Rader at the 52<sup>nd</sup> annual meeting of the Behavior Genetics Association, Los Angeles, CA.
14. Zorina-Lichtenwalter, K., Bango, C., Čeko, M., Keller, M. C., Van Oudenhove, L., Wager, T. D., & **Friedman, N. P.** (June, 2022). Genomic structural equation modeling links chronic pain, psychopathology, and neuroticism. *Behavior Genetics*, 52, 405. Poster presented by Katerina Zorina-Lichtenwalter at the 52<sup>nd</sup> annual meeting of the Behavior Genetics Association, Los Angeles, CA.
15. Gustavson, D. E., Morrison, C. L., Mallard, T., Fontanillas, P., Elson, S. L., the 23andMe Research Team, **Friedman, N. P.**, Palmer, A. A., & Sanchez-Roige, S. (June, 2022). Executive function and impulsivity predict distinct genetic variance in externalizing, internalizing, thought disorders, and cognition: A genomic structure equation modeling investigation. *Behavior Genetics*, 52, 362-363. Talk presented by Daniel Gustavson at the 52<sup>nd</sup> annual meeting of the Behavior Genetics Association, Los Angeles, CA.
16. Reynolds, C. A., Corley, R. P., DeFries, J. C., **Friedman, N. P.**, Muñoz, E., Plomin, R., & Wadsworth, S. J. (June, 2022). Cognitive functioning and intraindividual variability at midlife: Is there signal amongst the noise? *Behavior Genetics*, 52, 387. Talk presented by Chandra Reynolds at the 52<sup>nd</sup> annual meeting of the Behavior Genetics Association, Los Angeles, CA.
17. Alexander, J. D., Freis, S. M., **Friedman, N. P.**, & Vrieze, S. I. (June, 2022). Parental monitoring and adolescent substance use development in a smartphone-based intensive longitudinal twin sample. Individual differences in daily mobility patterns in a genetically informed youth sample. *Behavior Genetics*, 52, 344. Talk presented by Jordan Alexander at the 52<sup>nd</sup> annual meeting of the Behavior Genetics Association, Los Angeles, CA.
18. Loeffel, L. B., Benca-Bachman, C. E., **Friedman, N. P.**, & Palmer, R. H. C. (June, 2022). Disentangling genetic and environmental influences of drinking trajectories from early adolescence through early adulthood. *Behavior Genetics*, 52, 348. Talk presented by Lauren Bertin Loeffel at the 52<sup>nd</sup> annual meeting of the Behavior Genetics Association, Los Angeles, CA.
19. Freis, S. M., Corley, R., Vrieze, S. I., & **Friedman, N. P.** (May, 2022). Associations between executive functions assessed in different context in a genetically informative sample. Talk presented by Sam Freis at the Control Processes 2022 meeting, Online.
20. Kaiser, R., Peterson, E., Moser, A., Neilson, C., Hough, C., Rosenberg, B., Sandman, C., Schneck, C.,

- Miklowitz, D. & **Friedman, N.** (December, 2021). Abnormal developmental patterns of neurocognition in adolescents with elevated mood symptoms. *Neuropsychopharmacology*, 46 (supplement 1), 257. Poster presented by Roselinde Kaiser at the American College of Neuropsychopharmacology (ACNP) 60th Annual Meeting, San Juan, Puerto Rico, USA.
21. Zorina-Lichtenwalter, K., Bango, C., Keller, M. C., Van Oudenhove, L., Čeko, M., Lindquist, M. A., **Friedman, N. P.**, & Wager, T. D. (November, 2021). *Shared genetic susceptibility across multiple types of chronic pain implicates brain and neuroendocrine systems*. Poster presented by Katerina Zorina-Lichtenwalter at the 50<sup>th</sup> annual meeting of the Society for Neuroscience, Online.
  22. Petre, B., Čeko, M., **Friedman, N. P.**, Keller, M. C., Lindquist, M. A. & Wager, T. D. (November, 2021). *Resting state fMRI hyperalignment reveals a generalizable fine scale structure of evoked cortical response to noxious stimuli*. Poster presented by Bogdan Petre at the 50<sup>th</sup> annual meeting of the Society for Neuroscience, Online.
  23. Gustavson, D. E., Reynolds, C. A., Corley, R. P., Wadsworth, S. J., Hewitt, J. K., & **Friedman, N. P.** (November, 2021). *Genetic associations between executive functions and intelligence: A combined twin and adoption study*. Poster presented by Dan Gustavson at the 62nd annual meeting of the Psychonomic Society, online.
  24. Arnatkeviciute, A., Lemire, M., Morrison, C., Mooney, M., Nigg, J., **Friedman, N.**, Crosbie, N., Burton, C., Schachar, R., & Bellgrove, M. (October, 2021). TH38. Trans-ancestry genome wide association study of executive functions in up to 14,877 subjects. *European Neuropsychopharmacology*, 51, e215. Poster presented by Aurina Arnatkeviciute at the World Congress of Psychiatric Genetics (WCPG), Online.
  25. Alexander, J. D., Zhou, Y., Freis, S. M., **Friedman, N. P.**, & Vrieze, S. I. (June, 2021). Individual differences in daily mobility patterns in a genetically informed youth sample. *Behavior Genetics*, 51, 689. Poster presented by Jordan Alexander at the 51st annual meeting of the Behavior Genetics Association, Online.
  26. Freis, S. M., Alexander, J. D., Corley, R., Vrieze, S. I., & **Friedman, N. P.** (June, 2021). A behavioral genetic analysis of relationships between executive functions, intelligence, impulsivity, and multiple reports of adolescent behavioral problems. *Behavior Genetics*, 51, 705. Poster presented by Sam Freis at the 51<sup>st</sup> annual meeting of the Behavior Genetics Association, Online.
  27. Morrison, C. L., Keller, M. C., Reynolds, C. A., Wadsworth, S. J., Corley, R. P., & **Friedman, N. P.** (June, 2021). Polygenic prediction of cognitive abilities between and within family members. *Behavior Genetics*, 51, 725-726. Poster presented by Claire Morrison at the 51<sup>st</sup> annual meeting of the Behavior Genetics Association, Online.
  28. Zorina-Lichtenwalter, K., Bango, C., Čeko, M., **Friedman, N. P.**, Keller, M. C., Van Oudenhove, L., Paul, S., & Wager, T. D. (June, 2021). Shared genetic and phenotypic risk factors in pain and psychological conditions. *Behavior Genetics*, 51, 761-762. Poster presented by Katerina Zorina-Lichtenwalter at the 51<sup>st</sup> annual meeting of the Behavior Genetics Association, Online.
  29. Freis, S. M., Morrison, C. L., Lessem, J. M. Hewitt, J. K., & **Friedman, N. P.** (June, 2020). Genetic correlations between executive functions and intelligence in the Adolescent Brain Cognitive Development (ABCD) Study. *Behavior Genetics*, 50, 454. Poster presented by Sam Freis at the 50<sup>th</sup> annual meeting of the Behavior Genetics Association, Online.
  30. Morrison, C. L., Winiger, E. A., Vetter, C., & **Friedman, N. P.** (June, 2020). Latent genetic structure of sleep health and psychopathology. *Behavior Genetics*, 50, 470. Poster presented by Claire Morrison at the 50<sup>th</sup> annual meeting of the Behavior Genetics Association, Online.
- \*Won 2020 Rowe award for outstanding research presented by an Associate Member at the annual scientific meeting as a poster.
31. Zorina-Lichtenwalter, K., Čeko, M., Paul, S., **Friedman, N. P.**, Keller, M. C., & Wager, T. D. (June, 2020). Identification and characterization of the common genetic risk factors for chronic pain and

- psychopathology. *Behavior Genetics*, 50, 490. Poster presented by Katerina Zorina-Lichtenwalter at the 50<sup>th</sup> annual meeting of the Behavior Genetics Association, Online.
32. Reineberg, A. E., Hatoum, A. S., Hewitt, J. K., Keller, M. C., Evans, L. M., & **Friedman, N. P.** (June, 2019). Genetic architecture of functional brain connectivity. *Behavior Genetics*, 49, 550. Talk presented by Andrew Reineberg at the 49<sup>th</sup> annual meeting of the Behavior Genetics Association, Stockholm, Sweden.
  33. Hatoum, A. S., Morrison, C. L., Mitchell, E. C., Evans, L. M., Keller, M., C. & **Friedman, N. P.** (June, 2019). Discovery of GWAS variants underlying common executive function shows separability of cognitive ability dimensions and implications for health and wellness. *Behavior Genetics*, 49, 515. Talk presented by Alexander Hatoum at the 49<sup>th</sup> annual meeting of the Behavior Genetics Association, Stockholm, Sweden.
  34. Smolker, H. R., Banich, M. T., Hewitt, J. K., & **Friedman, N. P.** (June, 2019). The Heritability of behavioral dimensions associated with anxiety and depression. *Behavior Genetics*, 49, 539. Poster presented by Harry Smolker at the 49<sup>th</sup> annual meeting of the Behavior Genetics Association, Stockholm, Sweden.
  35. Winiger, E. Hewitt, J. K., **Friedman, N. P.**, Huggett, S. B., Hatoum, A. S., Drake, C. L., & Wright, K. P., Jr. (June, 2019). Onset of regular cannabis use and young adult insomnia: An analysis of genetic variation and a predictive relationship using a twin study. *Behavior Genetics*, 49, 493-494. Poster presented by Evan Winiger at the 49<sup>th</sup> annual meeting of the Behavior Genetics Association, Stockholm, Sweden.
  36. Reineberg, A. E., & **Friedman, N. P.** (June, 2019). *Shared genetic influences on cognition and functional brain connectivity*. Poster presented by Andrew Reineberg at the 25<sup>th</sup> annual meeting of the Organization for Human Brain Mapping (OHBM), Rome, Italy.
  37. du Pont, A., Rhee, S. H., & **Friedman, N. P.** (March, 2019). *Executive functions and psychopathology: Shared genetic risk and relations with rumination*. Talk presented by Alta du Pont at the 39<sup>th</sup> annual conference of the Anxiety and Depression Association of America, Chicago, IL.
  38. Zhuang, W., **Friedman, N. P.**, & Munakata, Y. (March, 2019). *Context monitoring and inhibitory control in 5-6 year old children*. Poster presented by Winnie Zhuang at the 2019 Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.
  39. Evans, L.M., Border, R., du Pont, A., **Friedman, N.P.**, Johnson, E., Yang, J., Visscher, P., Keller, M.C. (October, 2018). Exploring the genetic architecture of psychiatric disorders using partitioned heritability approaches. *European Neuropsychopharmacology*, S4, S1080. Talk presented by Luke Evans at the World Congress of Psychiatric Genetics (WCPG), Glasgow, Scotland.
  40. du Pont, A., Rhee, S. H., Corley, R. P., Hewitt, J. K., & **Friedman, N. P.** (June, 2018). Are neuroticism, depressive rumination, and anger rumination genetically distinct? *Behavior Genetics*, 48, 468. Talk presented by Alta du Pont at the 48<sup>th</sup> annual meeting of the Behavior Genetics Association, Boston, MA.
  41. Reineberg, A. E., Hatoum, A. S., Evans, L. M., Banich, M. T., Hewitt, J. K., & **Friedman, N. P.** (June, 2018). Genetic and environmental influence on the human functional connectome: Evidence from studies of twins and unrelated individuals. *Behavior Genetics*, 48, 508-509. Talk presented by Andrew Reineberg at the 48<sup>th</sup> annual meeting of the Behavior Genetics Association, Boston, MA.
  42. Hatoum, A. S., Reineberg, A. E., Evans, L. M., Hewitt, J. K., & **Friedman, N. P.** (June, 2018). Inferring psychological traits using function MRI connectivity in genetic studies. *Behavior Genetics*, 48, 478-479. Talk presented by Alexander Hatoum at the 48<sup>th</sup> annual meeting of the Behavior Genetics Association, Boston, MA.
  43. Ross, J. M., Ellingson, J. M., Rhee, S. H., Hewitt, J. K., Corley, R. P., & **Friedman, N. P.** (June, 2018). The impact of cannabis use on intelligence and executive functioning. *Behavior Genetics*, 48, 511. Talk

- presented by J. Megan Ross at the 48<sup>th</sup> annual meeting of the Behavior Genetics Association, Boston, MA.
44. Benca-Bachman, C. E., Wright, K. P., Corley, R. P., Hewitt, J. K., & **Friedman, N. P.** (June, 2018). Heritability of sleep duration from early adolescence to young adulthood. *Behavior Genetics*, 48, 457. Talk presented by Chelsie Benca Bachman at the 48<sup>th</sup> annual meeting of the Behavior Genetics Association, Boston, MA.
  45. Snyder, H. R., **Friedman, N. P.**, & Hankin, B. L. (May, 2018). *Links between transdiagnostic psychopathology and executive dysfunction in adolescence and emerging adulthood*. Talk presented by Hannah Snyder at the 30<sup>th</sup> annual meeting of the Association for Psychological Science, San Francisco, CA.
  46. Karbin, Z. R., du Pont, A., & **Friedman, N. P.** (May, 2018). *Differential associations between ruminative subtypes and intelligence*. Poster presented by Zoe Karbin at the 30<sup>th</sup> annual meeting of the Association for Psychological Science, San Francisco, CA.
  47. Smith, L. L., Banich, M. T., & **Friedman, N. P.** (November, 2017). *Contributions of executive function to individual differences in response characteristics and attention problems*. Poster presented by Louisa Smith at the 58<sup>th</sup> annual meeting of the Psychonomic Society, Vancouver, Canada.
  48. Smolker, H. R., **Friedman, N. P.**, & Banich, M. T. (September, 2017). *Distinct and overlapping neuroanatomical correlates of dimensions of anxiety and depression*. Poster presented by Harry Smolker at the at the annual meeting of the Society for Research in Psychopathology, Denver, CO.
  49. Hatoum, A. S., Reineberg, A. R., Smolker, H. R., Hewitt, J. K., Banich, M. T., & **Friedman, N. P.** (September, 2017). *Integrating genetic and surface-based modeling to reveal pathways to common psychiatric variance*. Poster presented by Alex Hatoum at the at the annual meeting of the Society for Research in Psychopathology, Denver, CO.
  50. du Pont, A., Rhee, S. H., Corley, R. P., Hewitt, J. K., & **Friedman, N. P.** (September, 2017). *Rumination and executive functions: Understanding cognitive vulnerability for psychopathology*. Poster presented by Alta du Pont at the at the annual meeting of the Society for Research in Psychopathology, Denver, CO.
  51. Hatoum, A. S., Reineberg, A. E., Smolker, H. R., Hewitt, J. K., & **Friedman, N. P.** (June, 2017). A whole-brain atlas of genetic effects on psychiatric symptomology. *Behavior Genetics*, 47, 694. Talk presented by Alexander Hatoum at the 47<sup>th</sup> annual meeting of the Behavior Genetics Association, Oslo, Norway.
  52. Gustavson, D. E., Panizzon, M. S., Franz, C. E., **Friedman, N. P.**, Reynolds, C. A., Jacobson, K. C., Xian, H., Lyons, M. J., & Kremen, W. S. (June, 2017). Genetic/ environmental architecture and stability of executive functions in midlife. *Behavior Genetics*, 47, 643-644. Talk presented by Daniel Gustavson at the 47<sup>th</sup> annual meeting of the Behavior Genetics Association, Oslo, Norway.
  53. Reynolds, C. A., Corley, R. P., DeFries, J. C., **Friedman, N. P.**, Hewitt, J. K., Plomin, R., Rhee, S. H., Smolen, A., Stallings, M. C., & Wadsworth, S. J. (June, 2017). The Colorado adoption/twin study of lifespan behavioral development and cognitive aging (CATSLife): An introduction. *Behavior Genetics*, 47, 656. Talk presented by Chandra Reynolds at the 47<sup>th</sup> annual meeting of the Behavior Genetics Association, Oslo, Norway.
  54. Reineberg, A. E., Banich, M. T., & **Friedman, N. P.** (June, 2017). *Functional connectivity while recovering from a recent mental task set*. Poster presented by Andrew Reineberg at the 23rd annual meeting of the Organization for Human Brain Mapping, Vancouver, Canada.
  55. Woodward, K. E., Corley, R. P., du Pont, A., **Friedman, N. P.**, Hewitt, J. K., Hink, L., Robinson, J. L., Zahn-Waxler, C., & Rhee, S. H. (April, 2017). *Early concern and disregard for others during toddlerhood: Links to antisocial personality and psychopathy in adulthood*. Talk presented by Kerri Woodward at the 2017 Biennial Meeting of the Society for Research in Child Development, Austin, TX.

56. Smith, L. L., Banich, M. T., & **Friedman, N. P.** (March, 2017). *Individual differences in mixing costs relate to general executive function*. Poster presented by Louisa Smith at the 24<sup>th</sup> annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
57. Woodward, K. E., Fritz, M., Corley, R. P., **Friedman, N. P.**, Hewitt, J. K., & Rhee, S. H. (June, 2016). The association between marijuana use and depression. *Behavior Genetics*, 46, 814. Talk presented by Kerri Woodward at the 46<sup>th</sup> annual meeting of the Behavior Genetics Association, Brisbane, Australia.
58. Gustavson, D. E., du Pont, A., Rhee, S. H., Corley, R. P., Hewitt, J. K., & **Friedman, N. P.** (June, 2016). Genetic and environmental associations between procrastination and internalizing/externalizing problems. *Behavior Genetics*, 46, 785. Talk presented by Daniel Gustavson at the 46<sup>th</sup> annual meeting of the Behavior Genetics Association, Brisbane, Australia.
59. Hatoum, A. S., Gustavson, D. E., Rhee, S. H., Corley, R., Hewitt, J. K., & **Friedman, N. P.** (June, 2016). Do executive functioning and impulsivity predict overlapping variation in problem behaviors? *Behavior Genetics*, 46, 787. Poster presented by Alexander Hatoum at the 46<sup>th</sup> annual meeting of the Behavior Genetics Association, Brisbane, Australia.
60. du Pont, A., Rhee, S. H., Corley, R. P., Hewitt, J. K., & **Friedman, N. P.** (May, 2016). *Anger and depressive rumination: Factor structure and gender differences*. Poster presented by Alta du Pont at the 28<sup>th</sup> annual meeting of the Association for Psychological Science, Chicago, IL.
61. Hatoum, A. S., Rhee, S. H., Corley, R. P., Hewitt, J. K., & **Friedman, N. P.** (October, 2015). *Genetic and environmental etiologies of internalizing and externalizing behavior problem trajectories*. Poster presented by Alexander Hatoum at the 6<sup>th</sup> annual Integrating Genetics and the Social Sciences conference, Boulder, CO.
62. Hatoum, A. S., Rhee, S. H., Hewitt, J. K., Corley, R. P., & **Friedman, N. P.** (October, 2015). *Testing the hypothesis of internalizing and externalizing causality with longitudinal behavioral genetic data*. Poster presented by Alexander Hatoum at the annual meeting of the Society for Research in Psychopathology, New Orleans, LA.
63. Gustavson, D. E., Miyake, A., Hewitt, J. K., & **Friedman, N. P.** (June, 2015). Understanding the cognitive and genetic underpinnings of procrastination: Evidence for shared genetic influences with goal management and executive function abilities. *Behavior Genetics*, 45, 659-660. Talk presented by Daniel Gustavson at the 45<sup>th</sup> annual meeting of the Behavior Genetics Association, San Diego, CA.
64. Woodward, K. E., Corley, R. P., **Friedman, N. P.**, Hatoum, A. S., Hewitt, J. K., Huijbregtse, B., Rhee, S. H., & Stallings, M. C. (June, 2015). Child language development and later alcohol use behaviors. *Behavior Genetics*, 45, 693-694. Talk presented by Kerri Woodward at the 45<sup>th</sup> annual meeting of the Behavior Genetics Association, San Diego, CA.
65. Hatoum, A. S., Rhee, S. H., Corley, R. P., Hewitt, J. K., & **Friedman, N. P.** (June, 2015). Genetic variance in executive functioning accounts for some of the comorbidity in internalizing and externalizing behavior. *Behavior Genetics*, 45, 661. Talk presented by Alexander Hatoum at the 45<sup>th</sup> annual meeting of the Behavior Genetics Association, San Diego, CA.
66. Benca, C. E., Derringer, J., Corley, R. P., Hewitt, J. K., & **Friedman, N. P.** (June, 2015). Predicting neural correlates of executive functioning with genetic risk scores for psychiatric disorders. *Behavior Genetics*, 45, 643-644. Talk presented by Chelsie Benca at the 45<sup>th</sup> annual meeting of the Behavior Genetics Association, San Diego, CA.
67. Gustavson, D. E., Miyake, A., Hewitt, J. K., & **Friedman, N. P.** (June, 2014). Genetic relations among procrastination, impulsivity, and goal-management ability. *Behavior Genetics*, 44, 661. Talk presented by Daniel Gustavson at the 44<sup>th</sup> annual meeting of the Behavior Genetics Association, Charlottesville, VA.
68. Benca, C. E., Derringer, J., Corley, R. P., Hewitt, J. K., & **Friedman, N. P.** (June, 2014). Predicting executive functioning with genetic risk scores for psychiatric disorders. *Behavior Genetics*, 44, 647-648.



- Talk presented by Chelsie Benca at the 44<sup>th</sup> annual meeting of the Behavior Genetics Association, Charlottesville, VA.
69. Woodward, K. E., Boeldt, D. L., Corley, R. P., DiLalla, L. F., **Friedman, N. P.**, Hewitt, J. K., Mullineaux, P., Robinson, J. L., & Rhee, S. H. (June, 2014). Gene-environment correlation as predictive of positive parenting behaviors. *Behavior Genetics*, *44*, 688-689. Talk presented by Kerri Woodward at the 44<sup>th</sup> annual meeting of the Behavior Genetics Association, Charlottesville, VA.
  70. Gustavson, D. E., Miyake, A., Hewitt, J. K., & **Friedman, N. P.** (March, 2014). *Genetic relations among procrastination, impulsivity, and goal-management ability: Implication for the evolutionary origin of procrastination*. Poster presented by Daniel Gustavson at the 2014 International Workshop on Statistical Genetic Methods for Human Complex Traits, Boulder, CO.
  71. Kerr, G. T., Altamirano, L. J., **Friedman, N. P.**, Miyake, A., Correll, J., Bartholow, B. D., & Ito, T. A. (February, 2014). *Understanding conflict monitoring during an implicit racial bias task: The relationship between error-related negativities, executive functioning, and control*. Poster presented by Geoffrey Kerr at the 15<sup>th</sup> annual meeting of the Society for Personality and Social Psychology, Austin, TX.
  72. Smith, A. K., Rhee, S. H., **Friedman, N. P.**, Corley, R. P., Hewitt, J. K., & Robinson, J. L. (June, 2013). The longitudinal association between temperament in toddlerhood and executive functions in late adolescence. *Behavior Genetics*, *43*, 541-542. Talk presented by Ashley Smith at the 43<sup>rd</sup> annual meeting of the Behavior Genetics Association, Marseille, France.
  73. Altamirano, L. J., Hewitt, J. K., & **Friedman, N. P.** (June, 2013). Phenotypic and genetic relationships among short-term memory, working memory, and intelligence. *Behavior Genetics*, *43*, 506. Poster presented by Lee Altamirano at the 43<sup>rd</sup> annual meeting of the Behavior Genetics Association, Marseille, France.
  74. Benca, C. E., **Friedman, N. P.**, Derringer, J., Corley, R. P., Young, S. E., & Hewitt, J. K. (June, 2013). Predicting individual differences in executive functions with a genetic risk score for behavioral disinhibition. *Behavior Genetics*, *43*, 508-509. Poster presented by Chelsie Benca at the 43<sup>rd</sup> annual meeting of the Behavior Genetics Association, Marseille, France.
  75. Smith, A. K., Rhee, S. H., **Friedman, N. P.**, Corley, R. P., Hewitt, J. K., Hink, L., & Robinson, J. L. (April, 2013). *The Developmental association between temperament and self restraint in toddlerhood*. Poster presented by Ashley Smith at the 2013 biennial meeting of the Society for Research in Child Development, Seattle, WA.
  76. Kerr, G. T., Altamirano, L. J., **Friedman, N. P.**, Miyake, A., Correll, J., Bartholow, B. D., & Ito, T. A. (January, 2013). *Making an effort: 1/f noise in a racial bias task correlates with executive function and motivation to control prejudice*. Poster presented by Geoffrey Kerr at the 14<sup>th</sup> annual Meeting of the Society for Personality and Social Psychology, New Orleans, LA.
  77. Hink, L. K., Rhee, S. H., Smith, A. K., Corley, R. P., **Friedman, N. P.**, Hewitt, J. K., & Robinson, J. L. (June, 2012). Genetic and environmental influences on the association between temperament in toddlerhood and personality in adolescence. *Behavior Genetics*, *42*, 938. Talk presented by Laura Hink at the 42<sup>nd</sup> annual meeting of the Behavior Genetics Association, Edinburgh, Scotland.
  78. Johnson, D. P., Whisman, M. A., Miyake, A., Altamirano, L. J., Hewitt, J. K., & **Friedman, N. P.** (June, 2012). Genetic and environmental influences on rumination and depression. *Behavior Genetics*, *42*, 942. Talk presented by Daniel Johnson at the 42<sup>nd</sup> annual meeting of the Behavior Genetics Association, Edinburgh, Scotland.
  79. Rhee, S. H., Corley, R. P., **Friedman, N. P.**, Hewitt, J. K., Hink, L. K., Johnson, D. P., Lahey, B. B., Robinson, J. L., Smith, A. K., Waldman, I. D., Young, S. E., & Zahn-Waxler, C. (June, 2012). Testing a developmental propensity model of conduct problems. *Behavior Genetics*, *42*, 963-964. Talk presented by Soo Rhee at the 42<sup>nd</sup> annual meeting of the Behavior Genetics Association, Edinburgh, Scotland.

80. Smith, A. K., Rhee, S. H., **Friedman, N. P.**, Corley, R. P., Hewitt, J. K., & Robinson, J. L. (June, 2012). Genetic and environmental influences on the association between temperament and self-restraint in toddlerhood. *Behavior Genetics*, 42, 968. Talk presented by Ashley Smith at the 42<sup>nd</sup> annual meeting of the Behavior Genetics Association, Edinburgh, Scotland.
81. Vandever, J. M., **Friedman, N. P.**, Corley, R. P., Miyake, A., Young, S. E., Hewitt, J. K., & Stallings, M. C. (June, 2012). The role of executive functioning in the progression from substance use to dependence. *Behavior Genetics*, 42, 974. Poster presented by Joanna Vandever at the 42<sup>nd</sup> annual meeting of the Behavior Genetics Association, Edinburgh, Scotland.
82. Kerr, G. T., Altamirano, L. J., **Friedman, N. P.**, Miyake, A., Correll, J., Bartholow, B. D., & Ito, T. A. (January, 2012). *Executive function predicts controlled processing during implicit racial bias tasks*. Poster presented by Geoffrey Kerr at the 13<sup>th</sup> annual Meeting of the Society for Personality and Social Psychology, San Diego, CA.
83. Ito, T. A., Correll, J., Bartholow, B. D., **Friedman, N. P.**, Miyake, A., & Altamirano, L. J. (January 2012). *Implicit racial bias is more than automatic associations: The role of executive function*. Talk presented by Tiffany Ito at the 13<sup>th</sup> annual meeting of the Society of Personality and Social Psychology, San Diego, CA.
84. Vandever, J. M., **Friedman, N. P.**, Young, S. E., Miyake, A., Corley, R. P., Hewitt, J. K., & Stallings, M. C. (September 2011). *From regular substance use to substance dependence: The role of executive functioning and related genetic influences*. Poster presented by Joanna Vandever at the XIX<sup>th</sup> World Congress on Psychiatric Genetics, Washington, DC.
85. Smith, A. K., Rhee, S. H., Corley, R. P., **Friedman, N. P.**, Hewitt, J. K., Hink, L., & Robinson, J. L. (June 2011). The magnitude of genetic and environmental influences on parental and observational measures of behavioral inhibition in toddlerhood. *Behavior Genetics*, 41, 936. Talk presented by Ashley Smith at the 41<sup>st</sup> annual meeting of the Behavior Genetics Association, Newport, RI.
86. Rhee, S. H., Boeldt, D. L., Corley, R. P., DiLalla, E., **Friedman, N. P.**, Hewitt, J. K., Lahey, B. B., Mullineaux, P., Robinson, J. L., Smith, A. K., Waldman, I., & Young, S. E. (June 2011). The role of early cognitive ability and positive parenting on antisocial behavior. *Behavior Genetics*, 41, 933. Talk presented by Soo Rhee at the 41<sup>st</sup> annual meeting of the Behavior Genetics Association, Newport, RI.
87. Herd, S. A., **Friedman, N. P.**, Chatham, C. H., Hazy, T. E., Brant, A. M., & O'Reilly, R. C. (April 2011). *Towards neural network models linking genetics to individual differences in executive functions*. Poster presented by Seth Herd at the 18<sup>th</sup> annual meeting of the Cognitive Neuroscience Society, San Francisco, CA
88. Vandever, J. M., Miyake, A., Young, S. E., **Friedman, N. P.**, Corley, R. P., Hewitt, J. K., & Stallings, M. C. (October 2010). *Behavioral disinhibition and executive functions: Genetic relations are stronger for substance use than substance dependence*. Poster presented by Joanna Vandever at the XVIII<sup>th</sup> World Congress on Psychiatric Genetics, Athens, Greece.
89. Altamirano, L. J., **Friedman, N. P.**, & Miyake, A. (September 2010). *Stability of the structure of executive functions from late adolescence to young adulthood*. Poster presented by Lee Altamirano at the 5<sup>th</sup> European Working Memory Workshop, Civita Castellana, Italy.
90. Chatham, C. H., Brant, A. M., Herd, S. A., Hazy, T. E., Miyake, A., O'Reilly, R. C., & **Friedman, N. P.** (November 2009). *From the executive network to executive functions: A PBWM neural network model of the n-back task*. Talk and poster presented by Christopher Chatham at the 4<sup>th</sup> Computational Cognitive Neuroscience Society Conference, Boston, MA.
91. **Friedman, N. P.**, Miyake, A. (September 2009). *Developmental differences in toddlers' behavioral restraint predict general executive function ability 14 years later*. Talk presented by Akira Miyake at the 16<sup>th</sup> European Society for Cognitive Psychology (ESCoP) Conference, Krakow, Poland.

92. Altamirano, L. J., Miyake, A., & **Friedman, N. P.** (September 2009). *Goal neglect subtypes show contrasting relationships with executive abilities*. Poster presented by Lee Altamirano at the 16<sup>th</sup> European Society for Cognitive Psychology (ESCoP) Conference, Krakow, Poland.
93. Miyake, A., & **Friedman, N. P.** (September 2008). *How are working memory capacity, updating ability, and general intelligence related?: A behavioral genetic analysis*. Talk presented by Akira Miyake at the 4<sup>th</sup> European Workshop on Working Memory, Bristol, UK.
94. Rhee, S. H., Zahn-Waxler, C., Robinson, J. L., Corley, R. C., **Friedman, N. P.**, Hewitt, J. K., Young, S. E., Haberstick, B. C., & Van Hulle, C. A. (March, 2007). *The relationship between empathy/prosocial behavior and cognitive ability in a longitudinal sample of young twins*. Symposium poster presented by Soo Rhee at the 2007 biennial meeting of the Society for Research in Child Development, Boston, MA.
95. Miyake, A., **Friedman, N. P.**, & Saito, S. (November 2005). *The role of processing durations in working memory span performance: Experimental and correlational investigations*. Invited talk presented by Akira Miyake at "Bristol Workshop on Time and Short-Term Memory," Bristol, UK.
96. **Friedman, N. P.**, & Miyake, A. (March 2005). *Unity and diversity of inhibition and interference control functions: An individual differences perspective*. Invited talk presented by Akira Miyake at "The Place of Inhibitory Processes in Cognition" conference, Arlington, TX.
97. Godinez, D. A., Rhee, S. H., **Friedman, N. P.**, Young, S. E., Corley, R., DeFries, J. C., Miyake, A., & Hewitt, J. K. (June 2005). Genetic and environmental architecture and structure of the Wisconsin Card Sorting Task (WCST). *Behavior Genetics*, 35, 802-803. Poster presented by Detre Godinez at the 35<sup>th</sup> annual meeting of the Behavior Genetics Association, Hollywood, CA.
98. Miyake, A., & **Friedman, N. P.** (November 2004). *Where does the predictive power of the reading span test come from?* Talk presented by Akira Miyake at the 45<sup>th</sup> annual meeting of the Psychonomic Society, Minneapolis, MN.
99. Miyake, A., & **Friedman, N. P.** (August 2004). *Individual differences in working memory: What do working memory span tests really measure?* Talk presented by Akira Miyake at the 2<sup>nd</sup> International Conference on Working Memory, Kyoto, Japan.
100. Miyake, A., & **Friedman, N. P.** (September 2003). *Individual differences in executive functions and complex cognitive abilities*. Talk presented by Akira Miyake at the 13<sup>th</sup> conference of the European Society for Cognitive Psychology, Granada, Spain.
101. Miyake, A., **Friedman, N. P.**, Rettinger, D. A., Shah, P., & Hegarty, M. (July 2001). *How are visuospatial working memory, executive functioning, and spatial abilities related? A latent variable analysis*. Talk presented by Akira Miyake at the 3<sup>rd</sup> International Conference on Memory (Symposium on the Role of Working Memory in Complex Cognition), Valencia, Spain.

## Teaching

### **Advisory and Supervisory Responsibilities**

#### **Postdoctoral Mentoring**

|  |                   |
|--|-------------------|
| Katerina Zorina-Lichtenwalter (co-mentor with Keller, Wager)   | 03/2020 – present |
| Phillip Kragel (co-mentor for T32 DA017637 with Keller, Wager) | 5/2018 – 4/2019   |
| Andrew Reineberg   | 10/2016 – 5/2022  |

#### **Predoctoral Mentoring**

|                       |                |
|-----------------------|----------------|
| Primary or Co-mentor  |                |
| Analicia Howard, BPSG | 2022 – present |

|   |                |
|---|----------------|
| Lydia Rader, BPSG<br>*selected for the Behavior Genetics Association Rowe award in 2023   | 2021 – present |
| Samatha Freis, BPSG   | 2019 – present |
| Claire Morrison, BPSG<br>*selected for the Behavior Genetics Association Rowe award in 2020<br>*selected for Dossier/Muenzinger award for basic research 2023   | 2018 – 2023    |
| Alta du Pont, Clinical<br>--co-mentor with Soo Rhee<br>*selected for Dossier/Muenzinger award for basic research 2016<br>*P.E.O. Scholar Award from the P.E.O. Sisterhood   | 2015 – 2020    |
| Alexander Hatoum, BPSG<br>*selected for Dossier/Muenzinger award for basic research 2019  | 2014 – 2019    |
| Louisa Smith, Cognitive<br>--co-mentor with Marie Banich  | 2016 – 2018    |
| Chelsie Benca, BPSG   | 2013 – 2017    |
| Lee Altamirano, Cognitive<br>--co-mentor with Yuko Munakata   | 2013 – 2016    |
| <br><u>Mentor for Behavior Genetics Certificate</u>   |                |
| Harry Smolker, Cognitive<br>--mentor for behavioral genetics certificate; primary mentor Marie Banich   | 2014 – 2020    |
| Daniel Gustavson, Cognitive<br>--mentor for behavioral genetics certificate; primary mentor Akira Miyake<br>*selected for Dossier/Muenzinger award for basic research 2016<br>*selected for The Lindon Eaves Award for Best Student Poster at the 2014 International Workshop on Statistical Genetic Methods for Human Complex Traits | 2013 – 2016    |

### ***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

|                   |                         |
|-------------------|-------------------------|
| 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

|                                 |                         |
|---------------------------------|-------------------------|
| 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)

|                                     |  |
|-------------------------------------|--|
| Brynn Paulsen                       | Masters 3/2023, Comp. exam   |
| Francesca Trane                     | Dissertation   |
| Matthew Adkins (CU IPHY Dept)       | Comp. exam 4/2023; Dissertation  |
| Paul McIlhiney (U. of W. Australia) | Dissertation 11/2022   |
| Augustine Botwe (CU APRD Dept)      | Comp. exam 11/2022; Dissertation 5/2023  |
| Tanya Horwitz                       | IBG Development Cmte 2020-present; Comp. exam & Masters 3/2022; Dissertation     |
| Deepika Dokuru                      | IBG Development Cmte 2020-present; Comp. exam & Masters 11/2021; Dissertation    |
| Shelley Gresko                      | IBG Development Cmte 2020-present; Dissertation                                  |
| Maya Rieselbach                     | IBG Development Cmte 2019-present; Dissertation                                  |
| Lauren Bertin (Emory University)    | Dissertation 7/2023  |
| Elena Peterson                      | First year project 2021; Masters 11/2022; Dissertation                           |
| Jared Balbona                       | IBG Development Cmte 2019-2022; Comp. exam & Masters 3/2021; Dissertation 7/2022 |
| Spencer Moore                       | IBG Development Cmte 2021-2022; Comp. exam & Masters 7/2022                      |
| Chava Creque                        | Dissertation 5/2022  |
| Bailey Steele                       | Masters 11/2021; Dissertation  |
| Katie Paulich                       | Comp. exam & Masters 11/2021, Dissertation                                       |
| Lauren Finkelstein                  | Masters 8/2021   |
| Louisa Smith                        | Masters 5/2021; Comps 4/2023; Dissertation                                       |
| Harry Smolker                       | Comp. exam 5/2019; Dissertation 7/2020   |
| Richard Border                      | Comp. exam 4/2017; Dissertation 11/2019  |
| Kerri Woodward                      | IBG Development Cmte 2013-2018; Dissertation 5/2018                              |
| Hannah Ritchie (CU IPHY Dept)       | Comp. exam 4/2017; Dissertation 4/2018   |
| 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  |
| 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  |
| Joanna Vandever                     | Comp. exam 11/2011; Dissertation 4/2014  |
| Lee Altamirano                      | Comp. exam 4/2013  |
| Jeff Frazer (U. of Victoria)        | Dissertation 2/2012  |

***Undergraduate Committees***

|                                |                       |
|--------------------------------|-----------------------|
| 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 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)

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

### **Guest Lectures/Discussions**

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**

Consultant on NIH/NIAAA Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (F31 AA029948) awarded to Kellyn M. Sychala. *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 awarded to Renée Martin-Willett (F31 AA029632). *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 Clinical Training Grant (K23 DA054212) awarded 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 Clinical Training Grant (K23 AA026635) awarded 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 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***

|   |  |
|---|--|
| Graduate Education Committee: BPSG Program<br>Director    | Spring 2022 – present  |
| Post-tenure Review Committee                              | Fall 2022 – present  |
| Merit & Salary Review Committee                           | Spring 2022 – Spring 2023,<br>Fall 2020 – Spring 2021,<br>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<br>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                                  | Spring 2015, Fall 2017, Spring 2017<br>[2], Fall 2019, Spring 2020, Spring<br>2021, Spring 2022, Fall 2022, Fall<br>2023 |
| PUEC Committee (Reynolds hire with tenure)                | Spring 2023  |

### ***Institute for Behavioral Genetics***

|  |   |
|--|---|
| T32 MH016880 Posdoc liaison                      | Fall 2023 – present   |
| IBG Research Professor Hiring Committee, Chair   | Spring 2023   |
| IBG Faculty Targeted Search Committee            | Fall 2022   |
| Training Program Committee                       | Spring 2022 – present,<br>Fall 2020 – Spring 2021,<br>Fall 2013 – Spring 2017 |
| IBG Journal Club, organizer                      | Fall 2022 – Spring 2023<br>Spring 2017 – Spring 2020                          |
| Faculty organizer for annual IBG mini conference | Spring 2015 – present   |
| IBG Colloquium organizer                         | Spring 2022 – Spring 2023   |



IBG Director Search Committee  
Self-study Committee  
IBG Faculty Search Committee

Fall 2020 – Spring 2021  
Fall 2021  
Fall 2018 – Spring 2019  
Fall 2019, Fall 2017 – Spring 2018