

Dale Zhou

Curriculum Vitae

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Education

- 2017– **PhD Student in Neuroscience**,
Advisors: Danielle Bassett and Theodore Satterthwaite,
University of Pennsylvania.
- 2015 **Honors B.Sc. in Psychology**, Minor in **Neuroscience**.
Honors B.A. in Philosophy,
University of Maryland, College Park.

Awards and Achievements

- 2019 Sackler Colloquium "Brain Produces Mind by Modeling" Travel Award
- 2018 Language and Communication Sciences Research Fund Stipend
- 2015 NIH Intramural Research Training Award
- 2015 Departmental Honors in Psychology
- 2015 Departmental Honors in Philosophy
- 2013 College Park Scholars Co-Curricular Scholarship Award
- 2012 College Park Scholar in Global Public Health
- 2011 Ling Ho Anita K'ung Tong Scholarship
- 2010 University of Maryland President's Scholarship

Publications

Accepted/Published

Journal articles

- Zhou, D.**, Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L., and Thomas, A.G. (2018) *7 Tesla MRI reveals hippocampal structural abnormalities associated with memory intrusions in childhood-onset schizophrenia*. *Schizophrenia Research*. DOI: 10.1016/j.schres.2018.07.023
- Zhou, D.**, Gochman, P., Broadnax, D.D., Rapoport, J.L., and Ahn, K. (2016). *15q13.3 duplication in two patients with childhood-onset schizophrenia*. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*. DOI: 10.1002/ajmg.b.32439

Book chapters

- Zhou, D.**, Sequeira, S., Driver, D., Thomas, S. (2018). *Disruptive Mood Dysregulation Disorder*. In S. Thomas and D. Driver (Eds.), *Complex Disorders in Pediatric Psychiatry: A Clinician's Guide*. Clinics Review Articles, Elsevier Inc. ISBN: 9780323511476
- Rapoport, J.L., **Zhou, D.**, and Ahn, K. (Accepted). *Aetiology of intellectual disability*:

general issues and prevention. In N. Andreasen, J. Geddes, and G. Goodwin (Eds.), *New Oxford Textbook of Psychiatry, Third Edition*. Oxford University Press.

Open-source software

Gorgolewski, K.J., Esteban, O., [110 others, including **Zhou, D.**], and Ghosh, S. (2016). *Nipype: a flexible, lightweight and extensible neuroimaging data processing framework in Python. 0.13.0*. DOI: 10.5281/zenodo.581704

Conference Presentations

Sackler Colloquium: The Brain Produces the Mind By Modeling (2019). Flash Talk: *Network Mechanisms of Curiosity and Information Seeking During Wikipedia Exploration*. Affiliated with National Academy of Sciences, Irvine, California.

Julius Axelrod Symposium (2017). Flash Talk: *Ultra-high field 7-Tesla MRI reveals hippocampal subfield volume and shape abnormalities in childhood-onset schizophrenia patients compared to healthy siblings and controls*. Affiliated with Society for Neuroscience. NIMH, Intramural Research Program, Bethesda, Maryland.

Conference Abstracts

Zhou, D., Lydon-Staley, D., Zurn, P., Bassett, D.S. (2019). *Network Mechanisms of Curiosity and Information Seeking During Wikipedia Exploration*. Sackler Colloquium: The Brain Produces the Mind By Modeling, Beckman Center of the National Academy of Sciences Engineering, Irvine, California.

Zhou, D., Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L., and Thomas, A.G. (2017). *Ultra-high field 7-Tesla MRI reveals hippocampal subfield volume and shape abnormalities in childhood-onset schizophrenia patients compared to healthy siblings and controls*. Julius Axelrod Symposium, Bethesda, Maryland.

Zhou, D., Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L., and Thomas, A.G. (2017). *Ultra-High Field 7-Tesla MRI Shape Analysis of Hippocampal Subfields in Childhood-Onset Schizophrenia and Healthy Siblings*. Society for Biological Psychiatry, San Diego, California.

Zhou, D., Liu, S., Berman, R.A., Broadnax, D.D., Rapoport, J.L., and Thomas, A.G. (2016). *7-Tesla MRI Reveals Regional Hippocampal Deficits in Childhood-Onset Schizophrenia*. American College of Neuropsychopharmacology, Hollywood, Florida. In *Neuropsychopharmacology*, Vol. 41, pp. S591-S591.

Zhou, D., Liu, S., Berman, R.A., Broadnax, D.D., Rapoport, J.L., and Thomas, A.G. (2016). *7-Tesla MRI reveals regional hippocampal volume deficits of dentate gyrus in childhood-onset schizophrenia*. Society for Neuroscience, San Diego, California.

Zhou, D., Gochman, P., Broadnax, D.D., Rapoport, J.L., and Ahn, K. (2016). *15q13.3 duplication in two patients with childhood-onset schizophrenia*. Society of Biological Psychiatry, Atlanta, Georgia.

Zhou, D. (2012). *The psychology of social movements in the U.S.* 16th Annual College Park Scholars Academic Showcase, College Park, MD.

Zhou, D. (2009). *BIRC5 survivin protein cloning vector shows promise for anti-cancer drug discovery*. Roswell Park Cancer Institute Research Symposium, Buffalo, NY.

Research Experience

- 2018– **Graduate Student**, *Language and Communication Sciences Certificate Program*, University of Pennsylvania, Philadelphia, PA.
- Research, seminars, and classes in psycholinguistics spanning the departments of Computer and Information Sciences, Linguistics, Neuroscience, and Psychology.
- 2017–2019 **Special Volunteer**, *Experimental Therapeutics and Pathophysiology Branch*, NIMH, Bethesda, MD.
- Using 7-Tesla structural MRI to study how ketamine treatment affects longitudinal hippocampus morphometry in treatment-resistant depression patients.
- 2017–2018 **Rotating Student**, *University of Pennsylvania*, Philadelphia, PA.
- Kable Lab (Joseph Kable, PI), Psychiatric and Developmental Imaging Lab (Theodore Satterthwaite, PI), Complex Systems Group (Danielle Bassett, PI)
- 2015–2017 **NIH Intramural Research Trainee**, *Child Psychiatry Branch*, NIMH.
- Investigated genetic and neural bases of childhood-onset schizophrenia.
- 2014–2015 **Psychology Honors Candidate**, *Decision, Attention, and Memory Lab*, University of Maryland, College Park.
- Committee: Drs. Michael Dougherty (Chair), Donald Bolger and Robert Slevc
- Thesis used structural equation modeling, factor analysis, and Bayesian regression to investigate behavioral and neural correlates of working memory.
- 2014–2015 **Philosophy Honors Candidate**, University of Maryland, College Park.
- Committee: Drs. Peter Carruthers (Chair), Dan Moller and Erin Eakers
- Thesis investigated conceptual commitments of beliefs as rational and truth-tracking. Compared theories defining belief, their limitations, and implications for psychiatric understanding of delusional belief and psychosis.
- 2013–2014 **Special Volunteer**, *NIH, Laboratory/Branch of Genitourinary Cancer Pathogenesis*, Bethesda, MD.
- Investigated efficacy of immunotoxins targeting the Fn-14 receptor for abating metastatic prostate cancer growth in vitro
- 2014 **Research Assistant**, *Maryland Psychotherapy Clinic and Research Lab*, University of Maryland, College Park.
- Implemented qualitative model of grief based on attachment theory
- 2012–2013 **College Park Scholars Capstone**, *U.S. Library of Congress*, Washington, D.C.
- Researched social movements in the U.S., marking completion of a selective 2-year interdisciplinary Living-Learning program in Global Public Health
- 2011–2013 **Research Assistant**, *Decision, Attention, and Memory Lab*, University of Maryland, College Park.
- Studied the limits of improving working memory capacity and fluid intelligence
- 2009–2010 **Summer Student**, *Roswell Park Cancer Institute*, Buffalo, NY, Department of Pharmacology and Therapeutics.
- Engineered novel nucleic acid cloning vector for tumor suppressor BIRC5 protein associated with tumorigenesis and successfully transfected the protein into human lung cancer cells

Outreach and Service

Teaching

Tutorial: How to construct semantic networks, (2018) *EAS244/CLST344/INTG344 Curiosity: Ancient and Modern Thinking About Thinking*.

github.com/dalejn/semanticNetworks

Ad hoc reviewer

Biological Psychiatry, Cerebral Cortex, IEEE: Transactions on Network Science and Engineering

Invited Talks

Panelist, *Post-Baccalaureate Research Experiences in Behavioral Sciences* (2017).
University of Maryland, College Park.

Organizations

2017– **Section Chief**, *Brains in Brief*, Section on Computational and Sensory Neuroscience, Graduate-Led Initiatives and Activities (GLIA), University of Pennsylvania.
<https://www.upennglia.com/brainsinbriefs/>

2017– **Founder**, *Psychology Honors Alumni Mentors*, University of Maryland, College Park.

2014–2015 **Vice President**, *Philosophy Club*, University of Maryland, College Park.