Dale Zhou

Curriculum Vitae

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Education

2017– **PhD Student**, *Neuroscience*, University of Pennsylvania.

2015 Honors B.S. in Psychology, Minor in Neuroscience.
Honors B.A. in Philosophy,
University of Maryland, College Park.

Publications

Accepted/Published

Journal articles

Zhou, D., Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L, & Thomas, A.G. (2018) 7 Tesla MRI reveals regional hippocampus abnormalities underlying false memory in childhood-onset schizophrenia. Schizophrenia Research. DOI: 10.1016/j.schres.2018.07.023

Zhou, D., Gochman, P., Broadnax, D.D., Rapoport, J.L., & 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 & D. Driver (Eds.), Complex Disorders in Pediatric Psychiatry: A Clinician's Guide. Clinics Review Articles, Elsevier Inc. ISBN: 9780323511476

Rapoport, J.L., **Zhou, D.**, & Ahn, K. (Accepted). *Aetiology of intellectual disability: general issues and prevention*. In N. Andreasen, J. Geddes, & 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.**], & Ghosh, S. (2016). *Nipype:* a flexible, lightweight and extensible neuroimaging data processing framework in *Python. 0.13.0.* DOI: 10.5281/zenodo.581704

In Preparation

Journal articles

Metabolic running costs of brain network communication in developing youth
Exploring curiously: generative model of naturalistic information-seeking
7 Tesla MRI reveals no effect of ketamine on hippocampal subfield structure in treatment resistant depression patients

Conference Presentations

Julius Axelrod Symposium (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. Affiliated with Society for Neuroscience. NIMH, Intramural Research Program, Bethesda, Maryland.

Conference Abstracts

- **Zhou, D.**, Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L, & 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, & 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, & Thomas, A.G. (2016). 7-Tesla MRI Reveals Regional Hippocampal Deficits in Childhood-Onset Schizophrenia. American College of Neuropsychopharmacology, Hollywood, Florida. In Neuropsychopharmacology 2016 Dec 1 (Vol. 41, pp. S591-S591).
- **Zhou, D.**, Liu, S., Berman, R.A., Broadnax, D.D., Rapoport, J.L, & Thomas, A.G. (2016). 7-Tesla MRI reveals regional hippocampal volume deficits of dentate gyrus in childhoodonset schizophrenia. Society for Neuroscience, San Diego, California.
- **Zhou, D.**, Gochman, P., Broadnax, D.D., Rapoport, J.L., & 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.

Honors & Awards

- 2015-2017 NIH Intramural Research Training Award, \$60,000
 - 2015 Departmental Honors in Psychology
 - 2015 Departmental Honors in Philosophy
 - 2013 College Park Scholars Co-Curricular Scholarship Award, \$250
 - 2012 College Park Scholar in Global Public Health
 - 2011 Ling Ho Anita K'ung Tong Scholarship, \$500
- 2010-2014 University of Maryland President's Scholarship, \$20,000

Research Experience

- 2017 **Special Volunteer**, Experimental Therapeutics & Pathophysiology Branch, NIMH, Bethesda, MD.
 - 7-Tesla structural MRI study of how ketamine treatment affects longitudinal hippocampus volume 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.
 - o 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 & Robert Slevc

- Thesis used structural equation modeling, factor analysis, and Bayesian regression to investigate behavioral and brain correlates of working memory.
- 2014–2015 **Philosophy Honors Candidate**, University of Maryland, College Park.

Committee: Drs. Peter Carruthers (Chair), Dan Moller & 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*, Bethesda, MD, Laboratory/Branch of Genitourinary Cancer Pathogenesis.
 - 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.
 - o 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 limitations 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

Service & Outreach

Teaching

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

Ad hoc reviewer

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

<u>Presentations</u>

Panelist on *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.