Ursula Tooley

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Education

2016-Present *Ph.D. in Neuroscience, University of Pennsylvania, Philadelphia, PA*
- Advisors: Dr. Allyson Mackey, Dr. Danielle Bassett
- 4.0 GPA

2014 *B.S. in Neuroscience, University of Arizona, Tucson, AZ*
- 3.99 GPA, minors in Math, Chinese
- Summa Cum Laude, Phi Beta Kappa Society, Nu Rho Psi
- Honors Thesis: Longitudinal Analysis of Sleep Disruption in Pediatric Subjects with Down Syndrome
- Graduate courses: Seminal Readings in Educational Psychology, Seminar on Translational Neuroscience, fMRI Methods

2011 *Certificate in Chinese Language, Beijing Institute of Education, Beijing, China*

Research Experience

2017 ***Complex Systems Group, Dr. Danielle Bassett***
Lab Rotation, University of Pennsylvania
- Investigated the impact of neighborhood SES on the development of functional network topology in youth ages 8-22 (Philadelphia Neurodevelopmental Cohort)

2017 ***The Changing Brain Lab, Dr. Allyson Mackey***
Lab Rotation, University of Pennsylvania
- Examined the influence of socioeconomic status on local connectivity in children ages 3-10 (Pediatrics, Imaging, Neurocognition, & Genetics dataset)

2016 ***The Kable Lab, Dr. Joseph Kable***
Lab Rotation, University of Pennsylvania
- Conducted a connectome-wide analysis study (CWAS) of executive function abilities in young adults aged 18-35

2014-2016 ***Stress, Neurobiology, and Prevention Science Lab, Dr. Phillip Fisher***
Frontiers of Innovation (FOI) Project Team Lead, University of Oregon
- Coordinated with colleagues at the Harvard Center for the Developing Child to provide support to project teams, ensuring high-quality implementation and evaluation of science-based intervention strategies
- Provided consultation on research design, evaluation plans, instruments, and assessments to FOI-affiliated pilot projects
- Established and maintained a library of instruments and assessments for use across FOI projects, spearheaded the effort to select a battery of measures recommended across projects
- Collaborated with wide range of researchers, developers, agencies, and community personnel, adapted and designed new instruments in response to feedback
- Developed and oversaw a data repository for aggregation of past and current data from FOI projects, collected and scored data for selected projects, conducted

analyses on aggregated data, wrote reports, and presented findings to the larger FOI community

2014-2016 ***Social and Affective Neuroscience Lab & Developmental Social Neuroscience Lab, Drs. Elliot Berkman and Jennifer Pfeifer***
Research Assistant, University of Oregon

- Supported the planning and implementation of a inhibitory control training study for adolescents, recruited and scheduled participants, oversaw school-based training sessions on alternate days, ran fMRI scans and participant assessments, preprocessed and analyzed fMRI data using MATLAB and SPM
- Initiated and led school- and community-based outreach events for children aged 5-17, including class presentations, hands-on activities, camp modules, and tabling at community events.
- Audited graduate-level classes in translational neuroscience, fMRI techniques, and neuroendocrine methods

2012-2014 ***Down Syndrome Research Group, Drs. Jamie Edgin and Lynn Nadel***
Research Assistant, University of Arizona

- Led the development and implementation of a longitudinal sleep study involving language and executive function in subjects ages 2-5, trained and managed undergraduate RAs, conducted literature reviews, administered participant assessments, oversaw data collection, and wrote reports and releases for the press
- Performed polysomnographic and actigraphic sleep studies on pediatric subjects aged 2-25 yrs., recruited and scheduled participants from the outside community for all current studies
- Coded, entered, and analyzed actigraphy and language data with Actiware software and SPSS while maintaining continuous data management and medical record collection
- Taught participants to use diagnostic computer programs and assisted in their completion, administered paper-based evaluations of neurocognitive development, helped develop protocols to test executive and memory functions

2013 ***Social Neuroscience Lab, Dr. David Amodio***
Research Assistant, New York University

- Performed electroencephalographic (EEG) studies involving college-aged subjects presented with visual stimuli and analyzed collected data using SCAN
- Prepared and analyzed functional magnetic resonance imaging (fMRI) data during economic choice tasks using MATLAB and SPM programs

2011 ***Neural Decision Science Laboratory, Dr. Alan Sanfey***
Research Assistant, University of Arizona

- Supervised subjects running protocols in computer-assisted studies
- Analyzed collected data using R programming language skills
- Prepared fMRI data for analysis
- Developed code for fMRI analysis using MATLAB

2009 ***Human Nutrition Research Center, Dr. Loretta DiPietro***
Intern, United States Department of Agriculture, MD

- Monitored and kept records on over 60 subjects in calorimeters over continuous 48 hour periods, centrifuged and analyzed samples

Awards, Fellowships, and Honors

2016 National Science Foundation Graduate Research Fellow
2014 Undergraduate Research Award, Department of Neuroscience
2013 Alumni Legacy Grant, University of Arizona Honors College
2013 Summer Internship Grant, University of Arizona Honors College
2013 First Level Honors, University of Arizona Honors College
2012 Undergraduate Biology Research Program Fellow
2012 Best Delegation, American Model United Nations, Chicago, IL
2011 Boren Award Alternate, NSEP
2011 Study Abroad Award, University of Arizona Honors College
2011 S'MORES Sophomore Honorary, University of Arizona

Organization Memberships

2017 Cognitive Neuroscience Society (CNS)
2017 Society for Neuroscience (SfN)
2014 University of Oregon Science Outreach Club

Publications

Tooley, U. A., Mackey, A. P., Ciric, R., Ruparel, K., Moore, T. M., Gur, R. C., Gur, R. E., Satterthwaite, T. D., Bassett, D. S. (2018). Influence of neighborhood SES on functional brain network development. ArXiv:1807.07687 [q-Bio], Under review.

Tooley, U., Makhoul, Z., & Fisher, P.A. (2016). Nutritional status of foster children: implications for cognitive and behavioral development. *Children and Youth Services Review.*

Edgin, J.O, **Tooley, U.,** Demara, B., Nyhuis, C., Anand, P., & Spano, G. (2015). Sleep disturbance and expressive language development in preschool-age children. *Child Development.*

Professional Presentations

Tooley, U., Mackey, A. "Local functional connectivity development in early childhood: Associations with socioeconomic status." Flux Satellite Conference: Chapel Hill, NC. **May 2018**- Poster presentation.

Tooley, U., Bassett, D. "Environmental Influences on Functional Network Topology Across Development." International Research Training Group: Spring School, Aachen, Germany. **April 2018**-Oral presentation.

Tooley, U., Mackey, A. "Local functional connectivity development in early childhood: Associations with socioeconomic status." Cognitive Neuroscience Society: Boston, MA. **March 2018**- Poster presentation.

Tooley, U., Mackey, A. "Socioeconomic status and early brain development." International Research Training Group: Spring School, Philadelphia, PA. **April 2017**-Oral presentation.

Tooley, U., Kim, J.K., Bruce, J., Fisher, P.A. "The Impact of Caregiver Behaviors on Cognitive Development in Preschool-Aged Foster Children." Society for Research on Child Development, Austin, TX. **April 2017**- Poster*

Beauchamp, K.G., Shaffer, K.A., **Tooley, U.,** & Berkman, E.T. "Context-specific inhibitory control training: Targeting a key neurocognitive skill to reduce risk-taking in adolescents." Social and Affective Neuroscience Society, New York, NY. **April 2016**-Poster

Tooley, U., Spano, G., Demara, B., Nyhuis, C., Anand, P., Stoops, C., & Edgin, J.O. "Sleep quality, language development, and autism symptoms in preschool-age children with Down syndrome." Society for Research in Child Development, Philadelphia, PA. **March 2015-** Poster

Tooley, U., & Edgin, J.O. "Longitudinal analysis of sleep disruption in pediatric subjects with Down syndrome: effects on language and executive function." International Mind, Brain, and Education Society, Fort Worth, TX. **November 2014**-Poster

Tooley, U., & Edgin, J.O. "Longitudinal analysis of sleep disruption in pediatric subjects with Down syndrome: effects on language and executive function." Neuroscience Honors Forum, University of Arizona. **May 2014**-Poster

Spano, G., Demara, B., **Tooley, U**., Anand, P., & Edgin, J.O. "Sleep fragmentation and language in toddlers with Down syndrome." Sleep 2014. Minneapolis, MN. **May 2014**-Poster

Demara, B., Spano, G., **Tooley, U**., Yamaguchi, L., & Edgin , J.O. "Sleep, slow wave fragmentation, and language in Down syndrome." Society for Neuroscience, San Diego, CA. **November 2013**-Poster

Edgin, J. O., Spanò, G., Breslin, J., Bootzin, R. R., Chen, C. C., **Tooley, U.**, Nadel, L. "Sleep and cognition in Down syndrome: a developmental perspective." Cognition in Down syndrome: Molecular, Cellular and Behavioral Features and the Promise of Pharmacotherapeutics. **April 2013**-Poster

Tooley, U. "Actigraphic analysis of sleep disruption in pediatric subjects with Down syndrome: effects on cognition." Emory STEM Research and Career Symposium, Atlanta, GA. **April 2013-** Oral Presentation

Edgin, J.O., Breslin J., Spano, G., **Tooley, U.A.**, Bootzin, R.R., Nadel L. "Sleep and learning in Down syndrome". Society for Research in Child Development, Seattle, WA, **April 2013**- Paper presentation

Tooley, U. "Circadian rhythms, glycemic control, and physiological processes in aging subjects". Eleanor Roosevelt Research Symposium, Greenbelt, MD, **2010**-Poster

**presented in absentia*

Leadership & Teaching Experience

2018 ***Mentor to Undergraduate Research Assistant,*** *Changing Brain Lab*

- Provided guidance on literature reviews and development of a parent-child interaction task
- Guided presentation of scientific literature at undergraduate journal club

2015 ***Mentor to 8th Grade Science Student,*** *UO Science Club*

- Developed curriculum for sessions focusing on human subjects research, lab protocols, females in science fields, career choices, and fMRI scanning
- Met weekly with 8th grade student for 1.5 hours, assisted in completion of her project requirements, and conducted lab tours.

2014 ***Vice-President of High School Coordination,*** *Arizona Model United Nations*

- Led the organization of a three-day bilingual, international conference for high schoolers simulating debate on global issues with over 600 attendees, and managed issues ranging from budget concerns to advisor communication
- Coordinated the activities of the executive board of the non-profit to prepare and arrange all aspects of the conference
- Planned and conducted bimonthly educational trainings for schools in both the U.S. and Mexico prior to the conference

2013 ***LifeStep Behavioral Health Paraprofessional,*** *University of Arizona Dept. of Psychology*

- Provided weekly 4 hour sessions of life-skills training to an adolescent with behavioral health issues
- Maintained contact with client's case worker, wrote weekly reports for Arizona Child Protective Services and project supervisors

2012 ***Oral English Teacher****, XinWen School, Liuyang, China*

- Developed curriculum and administered English lessons for classes ranging from 3rd to 6th grade of 40+ students each
- Tutored and engaged in outside practice with over 2,000 students

2012 ***Conversational Exchange Mentor****, Center for English as a Second Language*

- Assisted a Chinese student working towards a TOEFL in developing English language skills
- Engaged in weekly mentoring sessions focusing on English idioms, conversational speech, and social norms

2011 ***Vice-President of Fundraising****, Arizona Model United Nations*

- Raised over $12,000 through planned events and directed marketing
- Initiated new projects with national and local corporate sponsors, resulting in lasting partnerships
- Led over 120 non-profit members activity participation, kept weekly reports and accurate records on fulfillment of requirements
- Oversaw 50% increase in club growth and fundraising needs

Skills

Languages: Fluent French and English, Intermediate Mandarin Chinese

Professional skills: FSL, Language Environment Analysis (LENA) software, Qualtrics, R, LaTeX, MATLAB, Zotero reference software, Python

Training & Certification: Nipype workshop & hackweek (MIT; Boston, MA), Python bootcamp (UPenn; Philadelphia, PA), International Research Training Group Digital Signal Processing course (RWTH Aachen; Aachen, Germany), Pennsylvania Dept. of Human Services Fingerprint Clearance, Teaching English as a Foreign Language Certificate