Curriculum Vitae

Aiden Leigh Ford

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Citizenship: United States of America, Republic of Ireland

EDUCATION

2013-2017 **B.S. in Physiology and Neurobiology with Honors; Neurodevelopment and Health, *Summa Cum Laude*; Minors: Anthropology, Neuroscience**
University of Connecticut, Storrs, Connecticut

2019- **Neuroscience Graduate Program, PhD**
Emory University, Atlanta, Georgia

RESEARCH APPOINTMENTS

2014-2016 **Undergraduate Researcher,** *Fitch Lab, Department of Psychology, University of Connecticut*

- Evaluated the behavioral phenotype associated with impaired *CACNA1C* calcium signaling using the TS2-neo mouse model of Timothy Syndrome mediated Autism Spectrum Disorder – funded by PURG and SURF grants to Aiden Ford

2016-2017 **University Scholar,** *Department of Physiology and Neurobiology, University of Connecticut*
Advisor: R. Holly Fitch, PhD

- Prestigious designation awarded to students driven to pursue independent scholarship, 1 of 23 in the Class of 2017
- Scholar Project: Determined the impact of the *CACNA1C* mutation on white matter tract volume and the development of cortical lamina using post-mortem histological and immunohistochemical approaches – funded by IDEA grant to Aiden Ford

2017-2019 **Donald J. Cohen Fellow in Developmental Social Neuroscience,** *Marcus Autism Center, Atlanta, Georgia*
Mentors: Ami Klin, PhD; Sarah Shultz, PhD; Longchuan Li, PhD; Warren Jones, PhD

- Quantified dynamic allocation of visual attention to assess patterns of social cognition in toddlers across the spectrum of social ability: typical development, Williams Syndrome, Autism Spectrum Disorder
- Testing time-varying developmental associations between trajectories of social visual engagement and early brain maturation in typically developing infant

2019- **National Science Foundation Graduate Research Fellow**, *Emory University, Atlanta, Georgia*
Advisor: Sarah Shultz, PhD

- Assess how early social experience – social visual engagement, dyadic interaction with caregivers – influences the structural and functional architecture of the infant brain
- Apply and develop novel computational methods – nonparametric longitudinal regression models, deep learning paradigms – to the above research topics

HONORS AND AWARDS

Fellowships

2019- Graduate Research Fellowship Program, National Science Foundation
2019- George W. Woodruff Fellowship, Emory University

Honors/Awards

2015 Psychology Undergraduate Research Grant (PURG), University of Connecticut
2015 Summer Undergraduate Research Fund Award (SURF), University of Connecticut
2016 IDEA Grant, University of Connecticut
2017 Outstanding Woman Scholar, University of Connecticut, College of Liberal Arts & Sciences
2019 First Place Poster, Southeastern Pediatrics Research Conference
2019 International Society for Autism Research 2019 Annual Meeting Student Travel Award
2021 Second Place Poster, Southeastern Pediatrics Research Conference

RESEARCH INTERESTS

The mechanisms by which modifiable factors, including early social experience, result in individual neurobehavioral variability. Committed to translational research with applications for public health policy.

PUBLICATIONS

Refereed

A. Rendall, **A. Ford**, P. Perrino, RH. Fitch (2017). Auditory Processing Enhancements in the TS2-Neo Mouse Model of Timothy Syndrome, a Rare Genetic Disorder Associated with Autism Spectrum Disorders. *Advances in Neurodevelopmental Disorders, 1*(3), 176-189.

In Preparation

A. Ford, A. Wang, J. Steele, C. Payne, S. Bounar, T. Jonesteller, J. Wesson, E. Feczko, E. Earl, L. Li, M. Styner, D. Fair, W. Jones, J. Bachevalier, M. Sanchez, Z. A. Kovacs-Balint. *Attention to the eyes is related to maturation of the visual object pathway in infant rhesus macaques.* (to be submitted to Developmental Cognitive Neuroscience)

A. Ford, S. Shultz, L. Li, Z. Ammar X. Dai. *Mapping nonlinear development: the utility of functional principal components analysis.* (to be submitted to Developmental Cognitive Neuroscience).

S. Koirala, **A. Ford**, S. Kunnikuru, S. Shultz. Engagement Review.

Other Publications:

A. Ford (2017). Neurostructural Organization and Neocortical Projecting Neuron Distribution in a Mouse Model of Timothy Syndrome-Mediated Autism Spectrum Disorder. Honors Scholar Theses. 543. https://opencommons.uconn.edu/srhonors_theses/543

A. Ford, (2017, Aug 19). "*Do Children Have the Right to Contribute to Medical Decisions about their own Care? An Analysis of Policy and Practice in the United Kingdom and the United States."* Retrieved from Health and Human Rights: Perspectives, https://www.hhrjournal.org/

Abstracts:

2018 **A. Ford**, S. Markert, J. Olmstead, A. Klin, S. Shultz, M. Lense, W. Jones, *Divergent patterns of time-varying visual attention to social stimuli in toddlers with autism spectrum disorder and Williams Syndrome.* INSAR Annual Meeting, May 2018, Rotterdam, Netherlands

2018 **A. Ford**, S. Markert, J. Olmstead, A. Klin, S. Shultz, M. Lense, W. Jones, *Divergent patterns of time-varying visual attention to social stimuli in toddlers with autism spectrum disorder and Williams Syndrome.* Southeastern Pediatrics Research Conference, June 2018, Atlanta GA.

2018 S. Markert, J. Olmstead, **A. Ford**, A. Klin, C. Klaiman, M. Lense, S. Shultz, W. Jones, *The Adaptive Value of Attending to Social Stimuli Differs for Toddlers with Autism Spectrum Disorder and Williams Syndrome.* INSAR Annual Meeting, May 2018, Rotterdam, Netherlands

2018 J. Olmstead, **A. Ford**, S. Markert, A. Klin, W. Jones, M. Lense, S. Shultz, *Specificity of Social Visual Engagement Patterns in Toddlers with Autism Spectrum Disorder and Williams Syndrome.* INSAR Annual Meeting, May 2018, Rotterdam, Netherlands

2019 **A. Ford**, L. Li, W. Jones, A. Klin, S. Shultz. *Associations between changes in social visual engagement and white matter microstructure during the first 6 months of life.* INSAR Annual Meeting, May 2019, Montreal, Canada

2019 **A. Ford**, L. Li, W. Jones, A. Klin, S. Shultz. *Associations between changes in social visual engagement and white matter microstructure during the first 6 months of life.* Southeastern Pediatrics Research Conference, June 2019, Atlanta GA. First Place Poster Winner.

2019 *Z. Ammar, ***A. Ford**, L. Li, S. Shultz. *Neural mechanisms associated with neonatal reflexes.* Flux Congress, September 2019, New York City NY.

2020 Z. Ammar, N. Brane, **A. Ford**, L. Li, A. Klin, W. Jones, S. Shultz. *The development of infant visual attention from birth to 6 months of age.* International Congress of Infant Studies, July 2020. Virtual Meeting.

2020 **A. Ford**, W. Jones, L. Li, S. Shultz. *Neurobehavioral precursors of selective attention to the mouth: social visual engagement scaffolds mechanisms of language learning in typical infancy.* International Congress of Infant Studies, July 2020. Virtual Meeting.

2020 ***A. Ford**, *Z. Ammar, S. Shultz, L. Li. *Time-varying lateralization of major white matter tracts in the developing infant brain.* Flux Congress, September 2020. Virtual Meeting. Featured by the Fetal, Infant, Toddler Neuroimaging Group Pre-Conference Workshop.

2021 **A. Ford**, A. Wang, J. Steele, C. Payne, S. Bounar, T. Jonesteller, J. Wesson, E. Feczko, E. Earl, L. Li, M. Styner, D. Fair, W. Jones, J. Bachevalier, M. Sanchez, Z. A. Kovacs-Balint. *Attention to the eyes is related to maturation of the visual object pathway in infant rhesus macaques.* INSAR Annual Meeting, May 2021. Virtual Meeting.

2021 **A. Ford**, A. Wang, J. Steele, C. Payne, S. Bounar, T. Jonesteller, J. Wesson, E. Feczko, E. Earl, L. Li, M. Styner, D. Fair, W. Jones, J. Bachevalier, M. Sanchez, Z. A. Kovacs-Balint. *Attention to the eyes is related to maturation of the visual object pathway in infant rhesus macaques.* Southeastern Pediatrics Research Conference, June 2021. Virtual Meeting. Second Place Poster.

* Co-first authors

PRESENTATIONS

2019 **A. Ford**, L. Li, W. Jones, A. Klin, S. Shultz, *The iterative development of social brain and behavior in typical infancy with insights for the emergence of autism.* Marcus Autism Center Grand Rounds, May 24, 2019.

2021 **A. Ford**. *Development of face visual processing using combined eye-tracking and MRI: in search of nonhuman primate models of social deficits of relevance to Autism.* Autism Center of Excellence Investigator 2021 Virtual Meeting, in partnership with the NIH, June 21-22, 2021

PROFESSIONAL ACTIVITIES

2016-2017 **Conference Director**, TEDxUConn, University of Connecticut, http://tedxuconn.com/

2016-2017 **Program Coordinator**, Women in STEM Mentoring Program, UConn Women's Center, University of Connecticut

2017 – Present **Member**, International Society for Autism Research

2019 – Present **Student Member,** Flux Society for Developmental Cognitive Neuroscience

2020 – Present **Student Member**, International Congress of Infant Studies

PEER REVIEW ACTIVITIES

2020 **Ad-hoc Reviewer**, *Biological Psychiatry*

2021 **Ad-hoc Reviewer,** *Scientific Reports*

2020 – Present **Reviewer**, *Journal of Autism and Developmental Disorders*

2021 – Present **Reviewer**, *Cerebral Cortex*

SERVICE

2018 – Present **Volunteer,** Atlanta Science Festival

2019 – Present **Mentor**, Association for Women in Science Mentorship Program, Emory Chapter

2020 – Present **Organizer**, Computational Neuroscience Journal Club, Emory University

2020 **Mentor**, 2020 Flux Congress Mentoring Program

2021 **Volunteer,** Atlanta Brain Bee

2021 **Student Representative**, Emory Neuroscience Program Curriculum Committee

Fetal, Infant, Toddler Neuroimaging Group

2020 – Present **Volunteer**, Community Exchange and Collaboration Team

2021 **Scientific Program Committee**, 2021 Satellite Meeting