

# Annie Brandes-Aitken

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NSF Graduate Research Fellow

Developmental Psychology · New York University

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## Education

<i>Ph.D. in Developmental Psychology</i> New York University New York, NY	2022 (anticipated)
<i>B.S. in Psychology with Honors, Minor in Statistics</i> California Polytechnic State University San Luis Obispo, CA	2014

## Research Experience

<i>NSF Graduate Research Fellow</i> Neuroscience and Education Laboratory New York University Advisors: Clancy Blair, PhD & Natalie Brito, PhD	2017-present
<i>Research Assistant</i> Education and Neuroscience Lab, Neuroscape Center University of California, San Francisco Advisors: Melina Uncapher, PhD & Adam Gazzaley PhD, MD	2015-2017
<i>Research Coordinator</i> Sensory Neurodevelopment and Autism Program University of California, San Francisco Advisors: Elysa Marco, MD & Joaquin A. Anguera, PhD	2014-2017
<i>Undergraduate Research Student</i> Department of Psychology California Polytechnic State University Advisors: Laura Freberg, PhD & Carrie Langner, PhD	2012-2014
<i>Summer Research Assistant</i> Language Lab & Psychoinformatics Lab University of Colorado, Boulder Advisors: Eliana Colunga, PhD & Tal Yarkoni, PhD	2013

## Peer Reviewed Publications

Marco, E.J., **Brandes-Aitken,A.N.**, Prakas Nair, V., de Gente, G., Thomas, S., Sherr, E.H (2018). Burden of de novo mutations and inherited rare single nucleotide variants in children with sensory processing dysfunction (SPD): A prospective cohort study. *BMC Medical Genomics*.

**Brandes-Aitken, A. N.**, Anguera,J.A., Rolle, C.E., Desai, S. S., Skinner, S.S., Gazzaley, A., Marco, E. (2017). Characterizing cognitive & visuomotor control in children with sensory processing dysfunction & autism. *Neuropsychology*. 32(2); 148-160.

*Anguera, J.A., Brandes-Aitken, A. N. (co-first authored), Antovich, A. D. Rolle, C.E., Desai, S. S., Marco, E. J. (2017). A pilot study to determine the feasibility of enhancing cognitive abilities in children with sensory processing dysfunction. PLoS One. 12(4); 1-19.*

Demopoulos, C., Yu, N., Tripp, J., **Brandes-Aitken, A. N.**, Desai, S. S., Hill, S. S., Antovich, A. D., Harris, J., Honma, S., Mizuiri, D., Nagarajan, S., Marco, E. J. (2017). Imaging Auditory and Somatosensory Cortical Responses in Children with Autism and Sensory Processing Dysfunction. *Frontiers in human neuroscience*. 11; 259.

Anguera, J.A., **Brandes-Aitken, A. N.**, Rolle, C.E., Skinner, S.N., Desai, S.S., Bower, J.D., Martucci, E.W., Chung, W.K., Sherr, E.H., Marco, E.J. (2016). Characterizing cognitive control abilities in children with 16p11.2 deletion using adaptive “video game” technology: a pilot study. *Translational Psychiatry*. 6(9):e893.

Chang, Y.S., Gratiot, M., Owen, J.P., **Brandes-Aitken, A. N.**, Desai, S.S., Hill, S. S., Arnett, A.B., Harris, J., Marco, E.J., Mukherjee, P. (2015). White matter microstructure is associated with auditory and tactile processing in children with and without sensory processing disorder. *Frontiers in Neuroanatomy*. 9:196.

Demopoulos, C., **Brandes-Aitken, A. N.**, Desai, S. S., Hill, S. S., Antovich, A. D., Harris, J., & Marco, E. J. (2015). Shared and Divergent Auditory and Tactile Processing in Children with Autism and Children with Sensory Processing Dysfunction Relative to Typically Developing Peers. *Journal of the International Neuropsychological Society*, 21(06), 444-454.

### **Publications in Submission or Under Review**

Tavassoli, T., **Brandes-Aitken, A.N.**, Chu, R., Porter, R., Schoen, S., Miller, L.J., Chang, Y.S., Owen, J., Mukherjee, P., Marco, E.J. Sensory Over-Responsivity: Parent Report, Direct Assessment, and Neural Architecture.

**Brandes-Aitken, A.N.**, Anguera, J.A., Chang, Y.S., Demopoulos, C., Desai, S.S., Antovich, A.A. , Owen, J.P., Mukherjee, P., Marco, E.J. White Matter Microstructure Associations of Cognitive and Visuomotor Control.

**Brandes-Aitken, A.N.**, Braren, S., Swingler, M., Voegtline, K., Blair, C. Attention in Infancy: A Foundation for the Development of Self-Regulation in Children from Low-SES Backgrounds.

### **Publications in Preparation**

**Brandes-Aitken, A.N.**, Braren, S., Perry, R., Gandhi, J., Camerota, M., Swingler, M., Voegtline, K., Blair, C. Longitudinal Associations between Caregiver Behaviors, Dyadic Joint Attention, and Executive Functions in Low-SES Contexts.

**Brandes-Aitken, A.N.**, Brito, N. The Use of EEG to Study Relations Between Social Interaction and Infant Neural Activity.

### **Published Abstracts and Conference Presentations:**

**Brandes-Aitken, A.**, Braren, S., Perry, R., DeJoseph, M., Blair, C. (2018). Detection of Novelty in Infants from Low-SES Backgrounds: A Functional Near-Infrared Spectroscopy Study. FLUX Congress. Berlin, Germany.

**Brandes-Aitken, A.**, Braren, S., Blair, C. (2018). Joint Attention between Infants and Parents Predicts Executive Functioning and Academic Readiness in Low-Income Communities. International Congress of Infant Studies. Philadelphia, PA.

**Brandes-Aitken, A.**, Braren, S., Blair, C. (2018). Joint Attention Mediates the Effects of Poverty and Parenting on Executive Functioning, Inattention and Academic Readiness. American Psychological Science Annual Convention. San Francisco, CA.

**Brandes-Aitken, A.**, Braren, S., Blair, C. (2018). Physiological and Neurocognitive Predictors of Childhood Executive Functioning Development in Low-Income Communities. FLUX Society Satellite Conference. Chapel Hill, NC.

Braren, S., **Brandes-Aitken, A.**, Blair, C. (2018). Relations Between Hypothalamic-Pituitary-Adrenal Axis and Autonomic Nervous System Activity and Children's Executive Functions in Environments of Early-life Stress. Cognitive Neuroscience Society (CNS), Boston, MA.

**Brandes-Aitken, A.**, Anguera, J., Owen, J., Mukherjee, P., Marco, E. (2017). Assessing White Matter Correlates of Cognitive and Visuomotor Control in Children with SPD. American Academy of Child and Adolescent Psychiatry (AACAP), Washington D.C.

**Brandes-Aitken, A.**, Anguera, J., Owen, J., Mukherjee, P., Marco, E. (2017). Assessing Visuomotor Deficits in Children with SPD. International Meeting for Autism Research (IMFAR), San Francisco, CA.

Marco, E., **Brandes-Aitken, A.**, Tavassoli, T., Miller, L. J., Schoen, S. A., Owen, J., Mukherjee, P. (2017). Can Parent Report and Direct Assessment Measures Enhance Sensory Over-Responsivity Phenotyping and Inform the Neural Underpinnings of Sensory Processing Symptoms? International Meeting for Autism Research (IMFAR), San Francisco, CA.

Demopoulos, C., Yu, N., Tripp, J., **Brandes-Aitken, A.**, Desai, S., Hill, S. S., Antovich, A. D., Harris, J., Honma, S., Mizuiri, D., Mota Miranda, N. G., Nagarajan, S., Marco, E. (2017). Evidence for Domain Specificity of Cortical Auditory and Somatosensory Response Delays in ASD. International Meeting for Autism Research (IMFAR), San Francisco, CA.

**Brandes-Aitken, A.**, Anguera, J., Rolle, C., Antovich, A., Desai, S., Marco, E. (2016). Differentially Identifying and Remediating Attention Deficits in Children Affected by Sensory Processing Dysfunction. Society for Neuroscience. San Diego, CA.

Anguera, J., **Brandes-Aitken, A.**, Rolle, C., Wu, B., Marco, E., Gazzaley, A. (2016). Attention training in children with SPD. International Meeting for Autism Research (IMFAR), Baltimore, MD.

**Brandes-Aitken, A.**, Skinner, S., Martucci, E., Bowers, J., Anguera, J., Gazzaley, A., Marco, E. (2016). Engaging and adaptive assessment for attention in 16p11.2 deletion carriers. International Meeting for Autism Research (IMFAR), Baltimore, MD.

Marco, E.J., de Gente, G., Thomas, S., **Brandes-Aitken, A.**, Sherr, E.H. (2016). Using Whole Exome Sequencing to investigate the genetics of Sensory Processing Disorders. International Meeting for Autism Research (IMFAR), Baltimore, MD.

Anguera, J., **Brandes-Aitken, A.**, Rolle, C., Wu, B., Marco, E., Gazzaley, A. (2015). Attention training in children with SPD. Bay Area Autism Consortium Symposium, Redwood City, CA.

**Brandes-Aitken, A.**, Demopoulos, C., Desai, S., Marco, E. (2015). Shared and Divergent Sensory Processing in children with ASD and SPD. Bay Area Autism Consortium Symposium, Redwood City, CA.

**Brandes-Aitken, A.**, Skinner, S., Martucci, E., Bowers, J., Anguera, J., Gazzaley, A., Marco, E. (2015). Engaging and adaptive assessment for attention in 16p11.2 deletion carriers. Bay Area Autism Consortium Symposium, Redwood City, CA.

Rolle, C., Anguera, J., **Brandes-Aitken, A.**, Wu, B., Marco, E., Multi-tasking training in children with Sensory Processing Disorder, (2015), Entertainment Software & Cognitive Neurotherapeutics Society (ESCoNS) Conference, San Francisco, CA.

**Brandes-Aitken, A.**, Freberg, L. Early to bed and early to rise, does it really make a man healthy, wealthy and wise? (2014). The Annual Meeting of the Western Psychological Science. Portland, Oregon.

**Brandes-Aitken, A.**, Freberg, L. Loneliness and Health Promoting Behaviors – the Role of Motivation and Discipline. (2014). The annual meeting of the American Psychological Science. San Francisco, CA.

Williams, J., Hernandez, A., **Brandes-Aitken, A.**. Evidence for an Innate Desire for Concealment when Sleeping (2014). The annual meeting of the American Psychological Science. San Francisco, CA.

Anguera, J.A., Rolle, C., Desai, S., **Brandes-Aitken, A.**, Gibbons, J., Harris, J., Gazzaley, A., & Marco, E. The influence of distraction on discrimination and visuomotor tracking in sensory processing deficient & autistic children. (2013) Entertainment Software & Cognitive Neurotherapeutics Society (ESCoNS) Conference, Los Angeles, CA.

## Honors, Awards & Fellowships

Graduate Research Fellowship National Science Foundation	2017-2020
Best Research Presentation Award Bay Area Autism Symposium	2015
Research Travel Award Cal Poly	2014
Graduated Magna Cum Laude Cal Poly	2014
Psy Chi Honor Society Cal Poly	2011-2014

## Ad Hoc Reviewing

Psychiatry Research Developmental Science	2018
	2018

## Trainings and Certifications

Society for Neuroscience Grassroots Advocacy Training New York University Medical Center	2018
Functional Near-Infrared Spectroscopy (fNIRS) Training Martinos Institute for Biomedical Engineering at Harvard University	2017

Autism Diagnostic Observation Session Research Certified  
University of Washington 2015

MRI Training and Research Certified  
University of California, San Francisco 2014

### **Volunteer Outreach Experience**

Brain Awareness Week Panel on Neuroscience and Policy  
Organizer and Co-Moderator 2018

Scientist Action and Advocacy Network  
Member 2018-Present

Girls Advancing in STEM  
Mentor/Speaker 2016-2017

Cal Poly NCAA Athletic & Academics Department  
Statistics Tutor 2013-2014

Intensive Autism Therapy  
Assistant Autism Therapist 2009-2011

### **References**

Clancy Blair, PhD  
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