

Alfredo Dominguez Bolaños

Education

- 2016 – 2019 MA, Psychology (*concentration: Cognition and Perception*)
New York University, New York, NY, USA
Thesis- Prioritizing Visual Information in Working Memory: Neural Response in Visual Field Maps Mirror Probability
- 2014 – 2016 NIH Post-Baccalaureate Research and Education Program (PREP)
The University of New Mexico, Albuquerque, NM, USA
- 2011 – 2012 BSc (Hons) Psychology Study Abroad (*one-year exchange program*)
London Metropolitan University, London, UK
- 2010 – 2014 BA, Psychology
San Francisco State University, San Francisco, CA, USA

Research Experience

- 08/2021 – present Researcher, Barbara Bendlin Laboratory
University of Wisconsin-Madison, School of Medicine and Public Health,
Department of Medicine, Division of Geriatrics & Gerontology, Madison, USA
- Completed data requests from Wisconsin Alzheimer's Disease Research Center
 - Data management and compiled data reports by a LINUX command line and R software
 - Extensive literature review ranging from Hallmark Features of Alzheimer's Disorder (AD) to PET imaging in AD
 - Preprocessed MRI data by SPM12 and visual quality check by SPM12 and MRIcro
 - Organized and managed imaging data, by a LINUX command line and R software, collected from Alzheimer's Disease Connectome Project for further processing and/or analyzes
- 11/2020 – 07/2021 Research Specialist (Assessment Coordinator), The BRAVE Research Center
University of Wisconsin-Madison, School of Medicine and Public Health,
Department of Psychiatry, Madison, USA
- MRI, Psychophysiology, and Biological Samples data collection
 - Administered a battery of behavioral assessments
 - Updated and maintained two study protocols and various study SOPs
 - Trained undergraduate research assistants and staff members on various SOPs
 - Compiled and submitted change of protocol and continued reviews to the IRB
- 08/2016 – 01/2019 Graduate Research Assistant, Department of Psychology
New York University, New York, USA
Supervisor: Dr. Clayton E. Curtis
- Eye tracking data collection and analysis

- fMRI data collection and analysis
 - TMS data collection
 - Analysis script creation through Python, R, UNIX, and Matlab
 - Presented results from fMRI and eye tracking data
- 08/2014 –
08/2016 Research Assistant, The Mind Research Network
University of New Mexico, Albuquerque, USA
Supervisor: Dr. Julia M. Stephen
- Participant recruitment and scheduling
 - MEG and EEG data collection
 - Administered a battery of neuropsychological tests
 - Analyzed MEG data from NIH NIAAA P20 study on FASD
 - Presented results generated from FASD data
- 11/2015 –
08/2016 NSF EPSCoR Research Assistant, The Mind Research Network
University of New Mexico, Albuquerque, USA
Supervisor: Dr. Julia M. Stephen
- Participant recruitment and scheduling
 - MEG data, MRI data, and DNA sample collection
- 06/2015 –
08/2015 UCSD STARS Research Assistant, Department of Neurosciences
University of California, San Diego, USA
Supervisor: Dr. Doris A. Trauner
- Analyzed diffusion tensor imaging data with DTI studio from patient population (perinatal stroke) and normally developing children
 - Presented results of DTI data from perinatal stroke sample
- 09/2014 –
11/2014 Research Assistant, Department of Neurosciences
University of New Mexico, Albuquerque, USA
Supervisor: Dr. Fernando Valenzuela
- Administered patch clamp recording and in vitro electrophysiological recording on rat brains
 - Retrieved mice brain and created tissue slices from the central nervous system of rats
- 08/2013 –
05/2014 Undergraduate Research Assistant, Cognitive Psychophysiology Laboratory
San Francisco State University, San Francisco, USA
Supervisor: Dr. Mark W. Geisler
- Collected, analyzed, and cleaned data with AcqKnowledge Data Acquisition and Analysis Software
 - Carried out study's methodology; applied EEG cap and monitored participants
- 08/2013 –
05/2014 Undergraduate Research Assistant, Personality and Well-Being Lab
San Francisco State University, San Francisco, USA
Supervisor: Dr. Ryan T. Howell
- Worked with dataset generated from websites to extract relevant findings
 - Compiled, maintained, and analyzed large datasets for further analysis through SPSS predictive analytics software

Other Professional Experience

- 2019 – 2021* Reviewer of Professional Development Proposals, Travel Scholarship, and abstracts for SACNAS The National Diversity in STEM Conference
- 2016* Panelist for the Panel Discussion at the STEM Cultural Colloquium: Getting at the Gap, University of New Mexico
- 2014 – 2016* Mentor position for one-on-one mentoring at the Project for New Mexico Graduates of Color (PNMGC), University of New Mexico
- 2014* Reviewer for the Student Research Grant Competition, Association for Psychological Science Student Caucus (APSSC)
- 2014* Evaluator for Student Presentations at the Biomedical Research Symposium, University of New Mexico
- 2011 – 2012* Undergraduate Tutor for Psychology 200: General Psychology, San Francisco State University

Professional Membership

- 2014 – 2020* Society for Advancement of Chicanos and Native Americans in Science
- 2014 – 2018* Society for Neuroscience
- 2015 – 2017* Fetal Alcohol Spectrum Disorders Study Group
- 2014 – 2017* Research Society on Alcoholism
- 2014 – 2016* New Mexico Chapter Society for Neuroscience
- 2013 – 2014* Association for Psychological Science
- 2012 – present* The International Honors Society (Psi Chi) San Francisco State Chapter

Awards and Honors

- 2018* Graduate Research Assistantship – NIH Research Supplement to Promote Diversity in Health-Related Research Award, National Eye Institute
- 2017* Recipient of the Hispanic Association of Colleges and Universities (HACU) and Southwest Airlines Travel Award
- 2017* Honorable Mention for the 2017 Ford Foundation Fellowship Program at the pre-doctoral level
- 2016* Recipient of the Hispanic Association of Colleges and Universities (HACU) and Southwest Airlines Travel Award
- 2016* Recipient of travel scholarship to attend the 2016 Society for Advancement of Chicanos/Hispanics and Native American in Science (SACNAS) National Conference
- 2016* Peer Mentoring Scholarship from the Project for New Mexico Graduates of Color (PNMGC), University of New Mexico, Albuquerque, NM
- 2016* Research Society on Alcoholism Student Merit Award Recipient for the 2016 RSA Scientific meeting, funded by NIAAA
- 2015* Travel Scholarship to attend the 2016 Emerging Researchers National (ERN) Conference in STEM

- 2015 Travel Scholarship to attend the 2015 Annual Biomedical Research Conference for Minority Students (ABRCMS)
- 2015 University of California, San Diego, Summer Training Academy for Research in the Sciences, funded by Frontiers for Innovation Scholars Program
- 2015 Recipient of the Hispanic Association of Colleges and Universities (HACU) and Southwest Airlines Travel Award
- 2015 Travel Scholarship to attend the 2015 Society for Advancement of Chicanos/Hispanics and Native American in Science (SACNAS) National Conference
- 2015 Research Society on Alcoholism Student Merit Award Recipient for the 2015 RSA Scientific meeting, funded by NIAAA
- 2015 Scholarship awarded for poster presentation and exhibit at the annual Shared Knowledge Conference, Albuquerque, NM.
- 2014 National Institutes of Health (NIH) funded Post-Baccalaureate Research and Education Program (PREP) at The University of New Mexico
- 2014 Travel Scholarship Recipient, Purdue University, to attend the Big Ten+ Graduate School Expo

Publications

- Yoo, A. H., **Bolaños, A.**, Hallenbeck, G. E., Rahmati, M., Sprague, T. C., & Curtis, C. E. (2022). Behavioral prioritization enhances working memory precision and neural population gain. *Journal of cognitive neuroscience*, 34(2), 365-379.
- Bolaños, A. D.**, Coffman, B. A., Candelaria-Cook, F. T., Kodituwakku, P., & Stephen, J. M. (2017). Altered Neural Oscillations During Multisensory Integration in Adolescents with Fetal Alcohol Spectrum Disorder. *Alcoholism: Clinical and Experimental Research*, 41(12), 2173-2184.

Conference Presentations

Talks:

- A.D. Bolanos**, G.E. Hallenbeck, C.E. Curtis, (2017, September) Don't procrastinate, prioritize: prioritizing working memory. Presented at the 2017 Program in Cognition & Perception 38th Annual Miniconvention, New York, NY.
- A.D. Bolanos**, B.A. Coffman, P. Kodituwakku, J.M. Stephen, (2016, August) Don't Look: Cerebellar and cortical activity during an antisaccade task in adolescents with FASD. Presented at the 2016 Summer Biomedical Research Symposium, Albuquerque, NM.
- A.D. Bolanos**, B.A. Coffman, P. Kodituwakku, J.M. Stephen, (2016, March) Don't Look: Cerebellar and cortical activity during an antisaccade task in adolescents with FASD. Presented at the 25th annual Research Day, Albuquerque, NM.
- A.D. Bolanos**, B.A. Coffman, J.F.L. Pinner, P. Kodituwakku, J.M. Stephen, (2016, February) Altered Neural Oscillations during Multisensory Integration in Adolescents with Fetal Alcohol Spectrum Disorder. Presented at the 2016 Emerging Researchers National (ERN) Conference in STEM, Washington, D.C.
- A.D. Bolanos**, B.A. Coffman, J.F.L. Pinner, P. Kodituwakku, J.M. Stephen, (2015, October) Magnetoencephalography study on multisensory integration in adolescents with fetal

alcohol spectrum disorder. Presented at the Society for Advancement of Chicanos/Hispanics and Native American in Science (SACNAS) National Conference, Washington, D.C.

A.D. Bolanos, D.A. Trauner, (2015, August) Does the integrity of the superior longitudinal fasciculus in infants with a perinatal stroke affect language development? Presented at UCSD Summer Research Conference, San Diego, CA.

Posters with published abstract:

A.D. Bolanos, B.A. Coffman, P. Kodituwakku, J.M. Stephen, (2016, November) Don't Look: Cerebellar and cortical activity during an antisaccade task in adolescents with FASD. Presented at the 46th Annual Society for Neuroscience National Meeting, San Diego, CA.

A.D. Bolanos, B.A. Coffman, P. Kodituwakku, J.M. Stephen, (2016, June) Don't Look: Cerebellar and cortical activity during an antisaccade task in adolescents with FASD. Presented at the 39th annual RSA Scientific Meeting, New Orleans, LA

A.D. Bolanos, B.A. Coffman, J.F.L. Pinner, P. Kodituwakku, J.M. Stephen, (2015, October) Magnetoencephalography study on multisensory integration in adolescents with fetal alcohol spectrum disorder. Presented at the 45th Annual Society for Neuroscience National Meeting, Chicago, IL.

A.D. Bolanos, B.A. Coffman, J.F.L. Pinner, P. Kodituwakku, J.M. Stephen, (2015, June) Multisensory Integration in Adolescents with a Fetal Alcohol Spectrum Disorder. Presented at the 38th Annual RSA Scientific Meeting, San Antonio, TX.

Posters:

A.D. Bolaños, A. Kohli, S.R. Kecskemeti, A.L. Alexander, T. J. Betthausen, ME. Pasquesi, V.A. Nair, V. Prabhakaran, SJ. Li, B.B. Bendlin, (2022, August) Assessment of myelin in Alzheimer's by a R1 and the relationship to amyloid burden. Scheduled to present at the 2022 Alzheimer's Association International Conference, San Diego, CA.

G.E. Hallenbeck, **A.D. Bolanos**, T.C. Sprague, C.E. Curtis, (2018, May) Frontal and parietal cortex make distinct contributions to the storage and allocation of resources that support WM. Presented at the 18th Annual Vision Sciences Society Meeting, St. Pete Beach, FL.

J.M. Stephen, J. Pinner, **A. Bolanos**, E. Kodituwakku, P. Kodituwakku, (2017, June) Probing Neurophysiological Changes Across The Developmental Spectrum Due To Prenatal Alcohol Exposure. Presented at the 40th Annual RSA Scientific Meeting, Denver, CO.

J.F.L. Pinner, B.A. Coffman, **A.D. Bolanos**, P. Kodituwakku, J.M. Stephen, (2017, June) Joint Independent Component Analysis of Brain Structure and Function in Adolescents with FASD. Presented at the 40th Annual RSA Scientific Meeting, Denver, CO.

A.D. Bolanos, B.A. Coffman, P. Kodituwakku, J.M. Stephen, (2016, October) Don't Look: Cerebellar and cortical activity during an antisaccade task in adolescents with FASD. Presented at the Society for Advancement of Chicanos/Hispanics and Native American in Science (SACNAS) National Conference, Long Beach, CA.

A.D. Bolanos, B.A. Coffman, P. Kodituwakku, J.M. Stephen, (2016, August) Don't Look: Cerebellar and cortical activity during an antisaccade task in adolescents with FASD. Presented at the 2016 Summer Biomedical Research Symposium, Albuquerque, NM.

A.D. Bolanos, B.A. Coffman, P. Kodituwakku, J.M. Stephen, (2016, March) Don't Look: Cerebellar and cortical activity during an antisaccade task in adolescents with FASD.

- Presented at the annual Health Sciences Center Neuroscience Day, Albuquerque, NM.
- A.D. Bolanos**, B.A. Coffman, J.F.L. Pinner, P. Kodituwakku, J.M. Stephen, (2015, November) Altered Neural Oscillations during Multisensory Integration in Adolescents with a Fetal Alcohol Spectrum Disorder. Presented at the 2015 Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA.
- A.D. Bolanos**, B.A. Coffman, J.F.L. Pinner, P. Kodituwakku, J.M. Stephen, (2015, October) Magnetoencephalography study on multisensory integration in adolescents with fetal alcohol spectrum disorder. Presented at the 45th Annual Society for Neuroscience National
- A.D. Bolanos**, B.A. Coffman, J.F.L. Pinner, P. Kodituwakku, J.M. Stephen, (2015, September) Magnetoencephalography study on multisensory integration in adolescents with fetal alcohol spectrum disorder. Presented at The Mind Research Network Annual Research Day Meeting, Albuquerque, NM.
- A.D. Bolanos**, B.A. Coffman, J.F.L. Pinner, P. Kodituwakku, J.M. Stephen, (2015, April) Magnetoencephalography study on sensory information processing in adolescents with a fetal alcohol spectrum disorder. Presented at the annual Shared Knowledge Conference, Albuquerque, NM. Awarded 2nd place in the poster exhibit.
- A.D. Bolanos**, B.A. Coffman, P. Kodituwakku, J.M. Stephen, (2015, March) Auditory–Somatosensory Integration in Adolescents with a Fetal Alcohol Spectrum Disorder. Presented at the 24th annual Research Day, Albuquerque, NM.
- A.D. Bolanos**, B.A. Coffman, J.F.L. Pinner, P. Kodituwakku, E. Kodituwakku, J.M. Stephen, (2015, March) A closer look at sound and touch processing in adolescents exposed to alcohol before birth. Presented at the annual Health Sciences Center Neuroscience Day, Albuquerque, NM.
- A.D. Bolanos**, S.P. Niblett, T. Jackson, J. Miller, A. Ben-Zeev, and M.W. Geisler, (2014, May). Event-related potential (ERP's) reveal White participants reduce attention towards counter-stereotypic out-group members. Presented at the annual College of Science and Engineering Graduate Showcase, San Francisco, CA.
- A.D. Bolanos**, R.T. Howell, (2014, May) Do Time Perspectives Predict Experiential Consumption? Presented at the annual convention for the Association for Psychological Science, San Francisco, CA.

Employment Experience

- 07/2019 – Barista Maestro, Costa, Saffron Walden, UK
08/2020
- Performed varying duties throughout the store; shift leader/line manager, managed a group of 2-3 employees, processed and placed stock orders, processed and placed currency orders, maintained employees' work schedules, coached and trained new employees, stock rotation, in addition to delivering customer service to Costa standards, prepared products to Costa standards, worked as part of a team, and maintained stock
- 11/2018 – Barista, Costa, Saffron Walden, UK
03/2019
- Performed varying duties throughout the store; delivered customer service, prepared products to Costa quality standards, worked as part of a team, and maintained stock

- 01/2016 – AVID Tutor, Albuquerque Public Schools, Albuquerque, New Mexico, US
05/2016
- Managed and facilitated tutorial session for middle and high school students on a weekly basis
- 12/2012 – Lead Mentor/Mentor, College Spring, San Francisco, California, US
06/2014
- Lead a team of mentors through lesson planning for the delivery of SAT study material to a classroom of high school students on a weekly basis
- 04/2013 – AVID Tutor, San Francisco City Unified School District, California, US
05/2014
- Managed and facilitated tutorial session for middle and high school students on a weekly basis
- 09/2012 – Team Leader, Jumpstart, San Francisco, California, US
05/2014
- Allocated roles to a team of five corps members to execute a preschool
- 09/2010 – Corps Member, Jumpstart, San Francisco, California, US
05/2011
- Executed weekly lesson plans for a group of five pre-k children to increase literacy, phonological, and reading comprehension skills

Additional Information

Proficient in office applicable software:

Microsoft Office, Excel, Publisher, Outlook, Teams, and Powerpoint

Proficient in data analysis software:

Python, R, DTI Studio, FreeSurfer, Analysis of Functional NeuroImages (AFNI), FSL, SPM, MRICro, Linux/Unix operating system, Neuromag, SPSS, Matlab, Octave, SQL

Proficient in stimuli presentation software and data collection techniques:

SR Research- Experiment Builder, MGL, Presentation, EyeTracker, MEG, EEG/EGI EEG, TMS, PET, Neuropsychological Assessments, Psychtoolbox, E-Prime

Languages:

Spanish –spoken and written fluently