

Julie Lallana Freschl

Department of Psychology, University of Massachusetts Boston, 100 Morrissey Blvd., Boston, MA 02125

Julie.Freschl001@umb.edu

Education

University of Massachusetts Boston, Boston, MA 2016-present

PhD. Developmental and Brain Sciences; Advisor: Dr. Erik Blaser

University of California, Irvine, Irvine, CA 2011-2015

B.A., Psychology

Presentations

Freschl, J.L., Maniar A., Shah A., Patterson, J.V. Acoustic startle response in patients with schizophrenia and bipolar disorder. *Program No. 227.05. 2015 Neuroscience Meeting. Chicago, IL: Society for Neuroscience, 2015. Online*

Freschl, J.L., Maniar A., Shah A., Patterson, J.V., Bunney, W.E. (2015). Acoustic startle response in patients with schizophrenia and bipolar disorder. *Poster Presentation: Undergraduate Research Opportunities Program 22nd Annual Symposium '15, Irvine, CA*

Freschl, J.L., Chow, M., Tran, T., Patterson, J.V., Bunney, W.E. (2014). The effect of continuous background noise on P50, P200, and N100 evoked brain potentials in schizophrenia and bipolar disorder. *Poster Presentation: Undergraduate Research Opportunities Program 21st Annual Symposium '14, Irvine, CA*

Conference Publications

Freschl, J.L., Maniar A., Shah A., Patterson, J.V. Acoustic startle response in patients with schizophrenia and bipolar disorder. *Program No. 227.05. 2015 Neuroscience Meeting. Chicago, IL: Society for Neuroscience, 2015. Online*

Research Experience

University of California, Irvine Department of Cognitive Sciences May 2015- June 2016

Visual Perception and Neuroimaging Lab

Research Assistant

Advisor: Dr. Emily D. Grossman

- Extensive training in neuroimaging techniques, specifically fMRI
- Attended weekly lab discussions to examine research articles targeting the visual cortical processes devoted to blind vs. sighted individuals
- Designed an experiment to measure the working memory capacity in blind individuals
- Programmed memory experiment (n back task and digit span) using MATLAB

University of California, Irvine Department of Cognitive Sciences January 2015- May 2016

Research Assistant

Advisor: Dr. Bruce G. Berg

- Focused on the psychophysics of complex sounds, utilizing computational models of complex sounds
- Weekly lab discussions on the various characteristics of sounds, including level, frequency, and roughness
- Analyzed perceptual dichotic, diotic, and binaural data using MATLAB, R, SPSS
- Evaluated and summarized relevant research articles targeting sound perception, speech recognition, and computational models of hearing

University of California, Irvine Department of Psychiatry and Human Behavior

June 2015- Present

UC Irvine Neuropsychiatric Center

Junior Specialist

Advisor: Dr. Julie V. Patterson

- Trained undergraduate research assistants in EEG set up, analysis, data input, and running MATLAB visual experiment
- Analyzed electromyography (EMG) data
- Measured the prepulse inhibition and startle habituation levels in patients with schizophrenia and bipolar disorder using EMSE data editor

University of California, Irvine Department of Psychiatry and Human Behavior

June 2013- June 2015

UC Irvine Neuropsychiatric Center

Research Assistant

Advisor: Dr. Julie V. Patterson

- Worked directly with patients with bipolar I disorder, schizophrenia, and patients diagnosed with major depressive disorder
- Experienced in performing and setting up EEG tests
- Filtered and analyzed EEG data of patients with schizophrenia, bipolar disorder, healthy controls, and first-degree relatives using EMSE suite software by Source Imaging Incorporated
- Inputted new EEG data into a master database, consisting of all subject information
- Administered SCID
- Administered CMINDS (Computerized Multiphasic Interactive Neurocognitive Dual Display): computer-interfaced program that measures cognitive processes such as memory
- Analyzed data using NCSS Statistical Software

UC Irvine Undergraduate Research Opportunities Program (UROP) 2014-2015

September 2014- May 2015

Department of Psychiatry and Human Behavior

Advisor: Dr. Julie V. Patterson

- Conducted a student driven research project
- Project Title: Acoustic Startle Response in Patients with Schizophrenia and Bipolar Disorder
- Analyzed EOG data of patients with schizophrenia, bipolar disorder, healthy controls, and first-degree relatives
- Investigated the acoustic startle response as a potential biomarker, measuring peak amplitudes of patients and controls
- Presented the completed project at UC Irvine's 22nd Annual Poster Presentation (May 2015)

UC Irvine Undergraduate Research Opportunities Program (UROP) 2013-2014

September 2013- May 2014

Department of Psychiatry and Human Behavior

Advisor: Dr. Julie V. Patterson

- Student driven research project
- Proposal: "The Effect of Continuous Background Noise on P50 and P200 Evoked Brain Potentials in Schizophrenia and Bipolar Disorder"
- Responsible for setting up and performing EEG tests, as well as analyzing the data using EMSE suite software.
- Composed grand averages out of the tone alone (TA) and tone in noise (TIN) responses in schizophrenia, bipolar I disorder, and controls. Making comparisons based on the patients' responses.
- Presented the completed project at UC Irvine's 21st Annual Poster Presentation (May 2014)

Research Assistant

Advisor: Dr. Michael Rose

- Drosophila Melanogaster lab
- Performing analysis of the species' heart performance through a shocking mechanism
- Member of the Data Analysis Team
- Collecting data involving the fecundity of female fruit flies

Clinical Experience

Novata Behavioral Health

March 2014- June 2015

Behavioral Tutor

- Provided in home, Applied Behavioral Analysis (ABA), to children with autism spectrum disorder (ASD) (ages 3-6)
- Completed extensive training in behavioral therapy techniques: Discrete Trial Training (DTT), functional behavior analysis, and Pivotal Response Treatment (PRT)
- Worked closely with case supervisor in creating behavior goal sheets
- Implemented goals specific to each child
- Assisted in parent training
- Assessing connection between specific behavior and the child's environment

MendAbility- Sensory Enrichment Therapy

October 2013- June 2015

Volunteer

- Clinically validated home-based autism therapy
- Based on a previous study done by Dr. Michael Leon, Associate Dean of Biological Sciences at UC Irvine
- Meeting twice a week, performing activities that involve all the senses
- Utilizing auditory, visual, aromatic, and touch stimuli

CampCare Nevada Counselor

July 9-16 (2013)

Volunteer

- Counselor for a camp involving individuals with cognitive and genetic disorders
- Assisted individuals with Down Syndrome, autism, and epilepsy
- Assisted camp members during physical activities

Awards/Honors

- Fall 2013 Grant Recipient (UC Irvine Undergraduate Research Opportunities Program)
- Fall 2014 Grant Recipient (UC Irvine Undergraduate Research Opportunities Program)
- Deans Honor List (Spring 2013, Winter 2014, Spring 2014, Fall 2014, Winter 2015, Spring 2015)

Skills

- MATLAB
- R (Statistical Analysis)
- SPSS
- EMSE Suite Software (EEG Analysis)

Active Memberships

Society for Neuroscience (April 2015- Present)