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UCSB Graduate Student Receives Fellowship From Autism Research Foundation

Avery Voos, a graduate student at UC Santa Barbara's Koegel Autism Center, has received a Dennis Weatherstone Pre-Doctoral Fellowship from Autism Speaks, the nation's largest organization dedicated to funding and facilitating autism research.

Voos' two-year fellowship will support her continued research on the use of functional magnetic resonance imaging (fMRI) in understanding the neural mechanisms of Pivotal Response Treatment (PRT). PRT is a motivational treatment for children with autism spectrum disorder that was pioneered at UCSB by Robert and Lynn Koegel, directors of the Koegel Autism Center. Voos's project examines how PRT can improve social engagement among children with autism spectrum disorders (ASD).

"I am extremely excited about the grant," said Voos. "I have proposed to use fMRI as an outcome measure of Pivotal Response Treatment for kids with autism. We are really interested to see whether positive behavioral changes in these kids are associated with increased activation in key nodes of the social brain in processing socially salient stimuli."

fMRI allows researchers to see what areas of the brain are active when processing certain stimuli. In Voos' work, the stimulus is human motion. Comparing pre- and

post-therapy data from the fMRI scans of their 5-year-old subjects, she and her colleagues have seen significant changes in how the children were processing the stimuli. Their findings may result in improved social interaction for children with ASD.

Before coming to UCSB, Voos conducted research at Yale University's Child Study Center, where she used fMRI to measure the impact of PRT on lower- and higher-functioning children with autism receiving PRT for the first time. Voos is one of the lead authors of the Yale study, "Neural Mechanisms of Improvements in Social Motivation After Pivotal Response Treatment," which appeared recently in the *Journal of Autism and Developmental Disorders*.

"Receiving this award will allow me to continue the research that I started as a fellow back at the Yale Child Study Center," said Voos. "The award will allow me to collect both behavioral and fMRI data on up to 16 kids ages 4 to 6. I imagine it is going to be an extremely rich learning experience for me."

The Dennis Weatherstone Pre-Doctoral Fellowship Program was established in 2009 with a \$3,750,000 grant from the Stavros Niarchos Foundation, a major international philanthropic organization. Since its founding in 1996, the Stavros Niarchos Foundation has provided more than \$350 million in grants in 86 nations. The fellowship funds up to eight fellows annually and works to attract young, talented scientists into the field of autism research. Autism Speaks is dedicated to increasing awareness of autism spectrum disorders, funding research into the causes, prevention and treatment for autism, and advocating for the needs of individuals with autism and their families. It was founded in 2005 by Suzanne and Bob Wright and has brought together the nation's leading autism advocacy organizations, including the Autism Coalition for Research and Education (ACRE), the National Alliance for Autism Research (NAAR), and Cure Autism Now (CAN).

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