

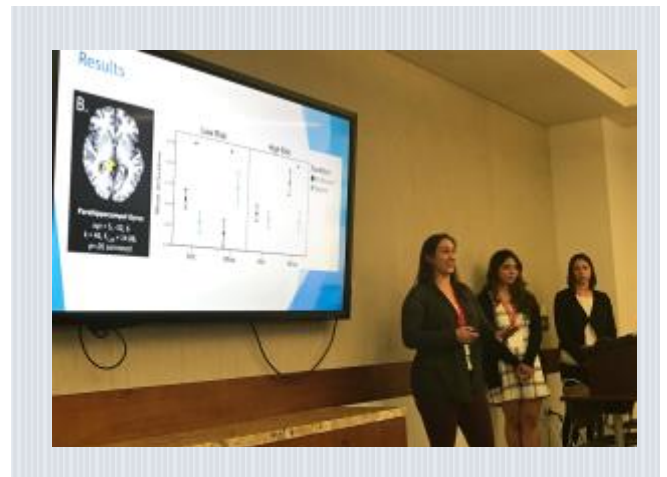
TEND Lab at the Student Research Symposium

Summary of SRS

TEND Lab members gave presentations on our hot-off-the-press research findings at the Student Research Symposium, a two-day event put on by SDSU students ranging from undergraduate to master's and doctoral students to acknowledge research accomplishments and findings.



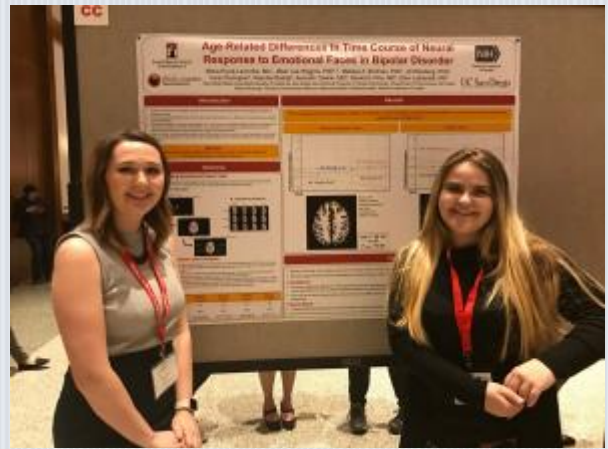
TEND Lab members Karen Schwartz, Ysabella Panggat, and Sophie Bills gave a talk to share our research on reward processing in children at high and low risk for depression, and Cindy Kiefer, Maria Kryza-Lacombre, Katrina Cole, Carly Farrington and Raechel Rodda presented posters about our findings in bipolar disorder and autism spectrum disorder.



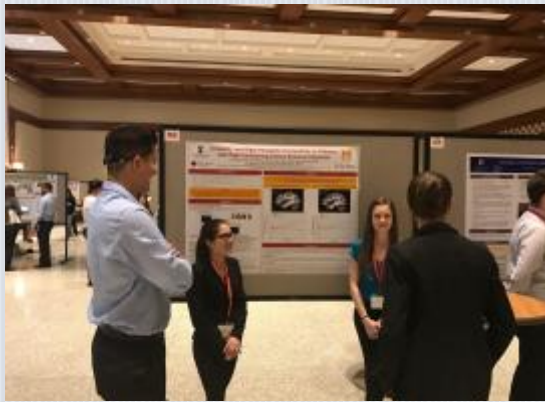
Karen, Ysabella, and Sophie's talk presented findings from our research study that aimed to identify neural correlates of reward processing in children at high and low risk for depression, as defined by whether or not their mothers had ever experienced depression. Children completed a task in the MRI scanner in which they could win "rewards" by hitting a virtual piñata. This study revealed that high-risk children either failed to modulate brain activity or did so inappropriately in response to differing reward scenarios, compared to the low risk group. These findings have clinical implications for the assessment and prevention of depression in youth.

As for Cindy, Maria, Katrina, Carly and Raechel, their first poster presented novel findings on the age-related differences in

time course of neural response to emotional faces in bipolar disorder. In this study, participants labeled emotions on faces during an fMRI scan. This study revealed that youths with bipolar disorder reacted differently to the faces over time – instead of decreasing their activation in brain areas related to emotion over time, they increased their activation. This suggests that bipolar disorder in youths is different than in adults.



During an fMRI scan, participants were presented with different emotional faces and were asked to identify the gender of each face (to make sure that they were paying attention to the faces). This study demonstrated that right amygdala connectivity to two cortical areas, the left dorsolateral prefrontal cortex and the right inferior temporal gyrus, increases with greater levels of irritability in children who do not have autism spectrum disorder, but not in children with autism spectrum disorder. The final results suggest the neural basis of irritability may differ between healthy children and those with high functioning autism spectrum disorder.



The second poster, presented by Cindy, Maria, Katrina, and Raechel, focused on irritability and examined right amygdala connectivity in children with high functioning autism spectrum disorder.