The Adolescent Brain Cognitive Development (ABCD) Study is the largest longitudinal study of its kind measuring how the brain develops from childhood to early adulthood. The Oregon Health & Science University (OHSU) is one of the 19 institutions across the U.S. that will recruit and follow participants for the ABCD study. Here at OHSU, the Developmental Brain Imaging Lab (DBIL) will lead the effort! Meet Site Coordinator Darya Veach, & Research Assistants Ellie Sceeles, Rebecca Sandoval, and Jessye Lavine. With their dedication and hard work, DBIL will help reach the ABCD Study’s ultimate goal of learning what affects brain development in children.

To learn more about the ABCD team here at OHSU visit: http://abcdstudy.org/sites/ohsu.html
Interested in participating in this study? Call (503) 418-2222 or email us at abcd@ohsu.edu
Adolescence is a time of both increased risk taking and increased vulnerability to the neurotoxic effects of alcohol. However, it is unclear whether brain functioning abnormalities in adolescent binge drinkers are a result of alcohol use itself or whether they represent premorbid risk characteristics. To address this question, we conducted a longitudinal study which examined brain activity during decision making tasks. We found that the group that emerged into regular binge drinkers showed a significant reduction in brain activation in the dorsal striatum, a brain area involved in action selection and initiation. Additionally, whole brain analysis revealed a reduction in fronto-parietal brain activation prior to initiation of alcohol use, in adolescents who went on to binge drink. The fronto-parietal network is involved in cognitive control. These results demonstrate how abnormalities in decision making related circuitry might both lead to and perpetuate alcohol drinking behavior and may help guide future binge drinking prevention and intervention strategies.


Compared to binge-drinkers, control subjects had greater brain activation in areas such as parts of the frontal gyrus and the temporal gyrus.