

FAIR NEUROIMAGING LAB

SOMETHING INCREDIBLE!



Brain Development Study

Thank you for your support and participation in our study! Thanks to your help Dr. Fair and Dr. Nigg recently received an exciting new grant from the National Institutes of Health (NIH) to continue researching brain development. This study is a continuation of our current Brain Development study in children with and without an Autism Spectrum Disorder. This study has given us an opportunity to expand our work.

We would like to invite families who have already participated back to participate to return to OHSU to participate again. We are also welcoming new families who are just learning about our study with children who are 7-15 years old on the Autism Spectrum who speak English as their first language to call in for a short screening over the phone to determine eligibility.

Study Goals

The goal of this study is to examine typical and atypical brain development in children with Autism Spectrum Disorder (ASD) or Attention Deficit Hyperactivity Disorder (ADHD) using relatively new and advanced brain imaging techniques (e.g., resting-state functional connectivity MRI and diffusion tensor imaging), along with mathematical tools to identify brain patterns that are unique and shared across typical development, ADHD and Autism. We believe this work will also help us clarify the unique brain organization of individual participants so that future therapies can be developed that target the uniqueness of any given person. Please contact us at **503-418-1897** to learn more!

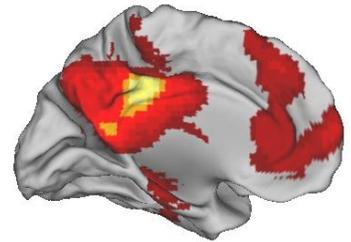
WE WOULD LIKE YOUR FEEDBACK

Please tell us about your experience at OHSU by providing feedback. We are always trying to improve the study experience for children and families. We greatly appreciate referrals to other families. We may contact participating families to ask for feedback.

WHAT'S NEW?

Recent Observations in Brain Research:

An emerging observation regarding brain imaging in ASD and ADHD is that they often have the same atypical functional brain signatures. For example, atypical regions of the “default network” have now been identified in both ASD and ADHD. The “default network” is a system of brain regions that are active when the brain is at rest or not responding to outside stimuli. A picture of the active regions in the default brain network is shown here:



SCIENCE MINUTE

How is a brain picture taken?

MRI stands for Magnetic Resonance Imaging. The tube that you go inside is actually a powerful magnet. This is why you cannot have any metal inside or on your body. Fillings and some dental work are ok because they are special metals, but you should always double check with our staff.



An MRI differs from a CAT scan or X-Ray because it does NOT use radiation. MRI utilizes the fact that most of our brain (and body) is made up of water. During the MRI, the magnet uses what is called a coil, similar to a lens on a camera, to capture the state of water molecules from different tissues in the brain. Water in different tissues has different states. This information is then reconfigured into a 3-D picture of the brain (just like your camera reconfigures light information into a digital picture). Different types of MRI images correspond to the different types of states being examined with regard to the water molecules.

Questions?

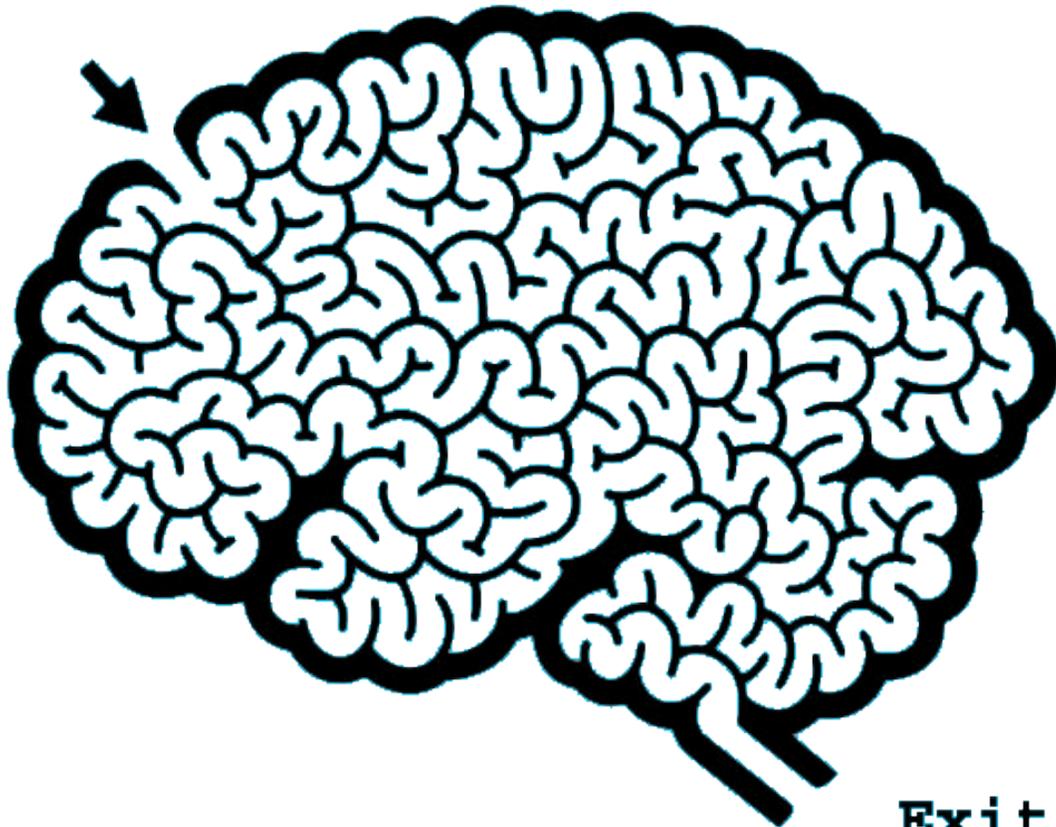
Change of phone/address?

Comments?

Phone: (503) 418-1897 ★ Email: neurolab@ohsu.edu ★ Web: www.ohsu.edu/fairlab



Brains-N-Games!



Exit