ARNETT LAB

Newsletter

ARNETT LAB
BOSTON CHILDREN'S HOSPITAL

Boston Children's Hospital
Laboratories of Cognitive Neuroscience

RESEARCH FINDINGS

ADHD is one of the most common childhood disorders. However, there are few objective criteria, otherwise known as diagnostic markers, to reliably indicate the presence of ADHD in a child. Importantly, children identified as having ADHD or risk for ADHD at a young age are more likely to get the care they need and show more symptom reduction than individuals diagnosed later in life. By contrast, ADHD that is left undiagnosed or untreated can contribute to adverse long-term effects. The Arnett Lab performed a systematic review of empirical investigations of behavioral, neurobiological, and genetic markers of pediatric ADHD. Results from an analysis of 111 different studies revealed three domains for promising potential diagnostic markers: measures of physical activity, epigenetic signatures, and neurobiological features associated with cognitive control. The review was published in the *Journal of Developmental and Behavioral Pediatrics* this year.

Although none of these markers was sensitive or specific enough to be used as a stand-alone diagnostic test for ADHD, these results indicate significant progress in identification and development of an objective, individualized approach to diagnosing the disorder in children.

MEET THE TEAM

Ana Rodriguez joined the Doan Lab in June 2025 as a Clinical Research Assistant, and works in collaboration with the Arnett Lab. She graduated in 2025 from Providence College with a B.S. in biology. During her undergrad, she studied neurodegenerative diseases, which sparked her interest in studying the brain, and she conducted research at the University of Copenhagen in Denmark as well. She is currently working on the Genetics of ADHD Study, and in the future hopes to contribute to clinical research by studying treatments for brain cancers, particularly those involving cognition.

CONTACT INFORMATION

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CURRENTLY RECRUITING

The Innosphere Study is currently seeking:

- 7-12 year olds with ADHD to participate in a clinical trial investigating a non-pharmacological treatment for ADHD.

The PUMAA Study is currently seeking:

- 11-13 and 15-17 year olds with ADHD to participate in a remote therapeutic intervention to prevent substance use behaviors in adolescents with ADHD

The RACCOON Study is currently seeking:

- 7-11 year old typically developing children for a single research visit involving EEG and neuropsychological testing

The Genetics of ADHD Study is currently seeking:

- 6-17 year-olds with ADHD and their families to contribute saliva samples

Scan the QR code to learn more about the INNOSPHERE clinical trial:

Scan the QR code for more information on our current studies:

Boston Children's Hospital
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