



# The ADHD Research Study



## Time is running out for the MRI Pilot Study

The purpose of the brain scan (IRB # 4614) is to measure size and activity of certain brain structures related to your child's age group. Children would attend a "pretend" visit to see how the MRI works, then the real MRI visit. Each visit lasts about 1-hour. Parent and child will be compensated for their time.

**Pilot ends June 1, 2010.**

We hope to start a real imaging study at that time.

## Other opportunities at the study...

### Age increase:

The age range has increased to 7-10 years old.  
Sign up a sibling!

### Optional Blood Draw Biomarker Study: (IRB # 5261)

The purpose of the study is to find out more about:  
(a) The genetics of ADHD; (b) The role of diet and nutrition in ADHD; (c) The role of environmental toxins and trace contaminants. Children will be asked to come in for a blood draw. Our staff will escort you and your child to the lab (which is one floor above our Suite 1505). The draw will take approximately 10-minutes. Children will be compensated for completing the draw.

### ADHD Circadian Study: (IRB #6084)

The purpose of the study is to further understand sleep patterns. Children must not be taking medications or melatonin. Participation entails a 7 day sleep diary, wearing an actiwatch for 7 consecutive days, and saliva sample on 7<sup>th</sup> day. Compensation provided to parent and child.

Call the office for more details: (503) 418-5508

## Clinical Feedback

If you're interested in receiving clinical feedback based on your child's visits with us, please contact our office.

## How's the study doing?

### **A note from the investigator: Joel Nigg, Ph.D.**

Since January of last year (2009) we have screened nearly 400 families and over 275 teachers have completed ratings. We currently have over 150 children enrolled for the three year study. The goal of this study is to identify new subtypes of ADHD and to identify predictors of outcome. We are using biological and psychological measures and are funded by the National Institute of Mental Health.

Although we have only been here one year (not very long in the world of major research studies—many take years to yield fruit), we already have several findings that were important enough to report to the field. These papers are being written for publication and presentation now.

(1) Our heart rate recordings showed that children with ADHD had a different physiological response than control children when faced with emotional stimuli (in this case, a video clip from a movie). The children with ADHD did not suppress heart rate when seeing positive emotion (excitement) but had a normal response to negative emotion (worry). This provides new physical validation of theories that ADHD may be associated with abnormal regulation of "approach" emotions.

(2) Our computer based measure of how children discount rewards over time shows that children with ADHD have a steeper reward discounting curve than typically developing children. This implies that behavioral treatments for children with ADHD can be made more effective by measuring the discounting rate the child uses (preferring small immediate rewards to large later rewards).

(3) Our brain imaging studies have already yielded several novel findings that are accepted for presentation at international meetings. We find that ADHD is associated with alterations in connections or 'circuits' between brain regions. This is a "first" in this age range.

## Thank you for contributing to our research!

A full list of Nigg publications found at:  
<http://www.ohsu.edu/psychiatry/faculty/nigg>

## Moved ★ Change of phone/address ★ Questions ★ Comments

Phone: (503) 418-5508 or (877) 678-ADHD Email: [ohsuADHD@ohsu.edu](mailto:ohsuADHD@ohsu.edu)  
Newsletter IRB approved: 3/23/2010 ★ Funded by the National Institute of Mental Health (NIMH) ★ Primary Investigator Joel T. Nigg, Ph.D.

## Kids Corner!

### Spring Word Scrambles

Unscramble the letters to  
discover the hidden word

ROWLESF \_\_\_\_\_

RULMALBE \_\_\_\_\_

SMSSLOBO \_\_\_\_\_

WGTRHO \_\_\_\_\_

GDIULCKN \_\_\_\_\_

ARDGNE \_\_\_\_\_

CKHCI \_\_\_\_\_

UISHNENS \_\_\_\_\_

