



***Children's Hospital Boston  
Laboratories of Cognitive Neuroscience***

***Spring 2009 Newsletter***

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***Hello from Dr. Nelson***

*Director of Research, Division of Developmental Medicine,  
Richard David Scott Chair in Pediatric Developmental Medicine Research,  
Children's Hospital Boston  
Professor of Pediatrics, Harvard Medical School*

Hello and happy spring from the Labs of Cognitive Neuroscience! I hope that everyone is enjoying all of the new flowers in spite of the recent rainy weather! Whether you have already taken part in our studies or have recently joined our growing participant registry, I greatly appreciate your interest in our research. Your support of our work and participation in our studies is invaluable to us in answering many important questions related to infant and child cognitive development.

The labs are busier than ever, with over 20 studies investigating various aspects of typical development, autism spectrum disorders, dyslexia, and ADHD. Please feel free to explore our website or contact our research team directly to learn more about our studies and how you and your child might participate. Thank you again for your interest in the Labs of Cognitive Neuroscience. I look forward to meeting you at a study session in the near future!

Warm wishes,

A handwritten signature in cursive that reads "Charles A. Nelson".

Charles A. Nelson, Ph.D.

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## **Inside the Lab:**

### **New Studies Underway**

We have several new projects going on in the lab, including two new infant studies and a study looking at the relationship between ADHD and dyslexia. Take a look at the [Ongoing Research](#) section of our website for details!

### **Current Opportunities for Study Participation**

As a registered member of our participant registry, you are eligible to receive notifications by mail or e-mail when opportunities for research participation are available that fit your or your child's age range. Wondering what study opportunities might be available to you, your family members, or your friends in the near future? Browse the [Ongoing Research](#) section of our website, and take a look at the research studies in our laboratories enrolling infants, children, and adults for participation. And if you spot a study opportunity that might be of interest to someone you know, feel free to forward this newsletter or tell them about our [Participant Registry!](#)

### **Featured Study:**

**A study for pre-readers: Neural correlates of rapid auditory and phonological processing in pre-reading children with and without a family risk of developmental dyslexia**

Is your child at risk for developmental dyslexia? We are investigating the early detection of reading difficulties in pre-reading children. The main goal of this study is to use brain imaging methods to identify children at risk for developmental dyslexia at a very early age, before reading skills are even present. Because reading problems tend to run in families, we will compare the brain networks of children with at least one family member diagnosed with developmental dyslexia with those of typical pre-reading children.

Understanding brain processes in children with a risk for developmental dyslexia may help us to improve and implement early remediation programs. It may also lead to the development and support of social networks for parents and children. We hope that our work will help educators, scientists and parents to better understand how children with developmental dyslexia can best be supported to improve their reading development and experiences. Participation in this study will involve 1-2 sessions of behavioral testing and one session using functional magnetic resonance imaging (fMRI), which is a non-invasive tool to examine brain differences in children with and without a family history of developmental dyslexia. We have some pictures of our brain camera (MRI machine) in the [Kids Area](#) of our website. During the imaging session, children will play our Spaceship Adventure game. For more information on this study, click [here](#).

***If you are interested in participating with your child***, please e-mail Nora Raschle (nora.raschle@childrens.harvard.edu) or call the lab at 617-355-0400.

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## **In the News:**

### **"Toxic Stress and the Child's Brain" from *Your Voice*.**

Dr. Nelson contributes to a panel discussion of how stress affects a child's cognitive development. To view the video clip, click [here](#).

### **"Looking for Answers on Autism," from the *TODAY Show***

Dr. Nelson and some of the families from our [Infant Sibling Project](#), which aims to find reliable markers for earlier diagnosis of autism spectrum disorders, are featured in this piece from World Autism Awareness Day. To view the video clip, click [here](#).

### **"Autism and Genetics" on *NOVA Science NOW***

Watch for Dr. Nelson and many of the families participating in our Autism Research Program on this episode of *NOVA Science NOW*, to be aired on July 7th!

Please visit the ["In the News"](#) section of our website for more press coverage about the laboratories' research!

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## **Refer a Friend!**

One of the biggest challenges for a lab as busy as ours is finding families in the area who might be interested in participating in studies. Some have simply never considered it, and others aren't sure what participation entails. We make every effort to connect with families in the community and make them aware of our research efforts, but no one can do a better job of explaining what it's like to participate than those of you who have already been into the lab! If you have a friend who you think might be interested or who might be eligible for one of our studies, please feel free to forward this newsletter along to them or tell them about your experience. If they have questions or would like to sign up for our [Participant Registry](#), they can contact Rebecca Hansen at 857-218-3011 or [rebecca.hansen@childrens.harvard.edu](mailto:rebecca.hansen@childrens.harvard.edu).

Thank you as always for your interest in our work! Your support and participation is essential to our progress in answering many important questions about infant and child development.