

Arkansas Children's Hospital Research Institute RESEARCH UPDATE



New Grant Will Bring Neurocognitive Testing for Sports Concussions at 70 High Schools Across the State

Through a \$112,000 grant from the Blue & You Foundation for a Healthier Arkansas, student athletes in 70 high schools across Arkansas will receive neurocognitive testing (described as a physical for the brain) for sports concussions.

More than 1,000 student athletes in Arkansas sustain concussions each year. Once thought to be a simple injury, a concussion is now recognized as a serious injury that could result in long-term brain damage. Neurocognitive testing is the newest method used to evaluate and treat athletes who sustain concussions. A baseline test is done at the beginning of each athletic season, and in the event that a student receives a concussion, the post-test scores can be compared with the baseline results.



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"In professional and college athletics, neurocognitive testing is considered standard of care in the treatment of concussions," says Dr. J. Darrell Nesmith, principal investigator, a physician in the Sports Medicine Plus program at the Adolescent Center at Arkansas Children's Hospital. Nesmith also is an associate professor of Pediatrics at the University of Arkansas for Medical Sciences College of Medicine. "Thanks to this grant from the Blue & You Foundation, we can bring this testing to 70 high schools across Arkansas."

The grant will fund a training of certified sports trainers, coaches, physical therapists and students working with high schools sports teams across the state. These individuals will bring the neurocognitive testing program back to their schools, implementing the program to help students. Researchers hope having access to this new technology will increase the confidence of athletic trainers' in their ability to take care of concussed athletes, and be valued enough by school districts that they continue the programs themselves in subsequent years.

"Eventually, we want to grow this project to all schools in the state," says Dr. Nesmith. "We hope that stakeholders, including school personnel and administration, coaches, parent teacher associations, will value the programs such that they will continue the testing programs. Moreover, this project will provide preliminary data and experience that might lead to future funding."

National Children's Study in Benton County Recruits Its First Participant

ROGERS, AR. (Jan. 26, 2011) – Arkansas Children's Hospital Research Institute (ACHRI) recently

launched a campaign to recruit area families for the National Children's Study (NCS), the largest long-term study of children's health ever conducted in the United States, and has announced that it has recruited its first eligible participant. Benton County was one of 105 counties chosen in the U.S. to participate in this observational study that will follow 100,000 children from before birth to age 21 to examine how genetics and the environment influence children's health, development and quality of life.

This announcement comes at the conclusion of National Birth Defects Prevention Month where this year's focus is on educating the public on the significant increase of birth defects in the United States and the causes, with a specific emphasis on medication use before, during and after pregnancy.

"Many people are not aware that birth defects occur in approximately one in 33 newborns and are a leading cause of infant mortality in the U.S.," said Charlotte Hobbs, MD, PhD, section chief of Birth Defects Research at ACHRI and principal investigator of the study. She also is the Pamela D. Stephens Professor and section chief of Birth Defects Research in the Department of Pediatrics at the University of Arkansas for Medical Sciences (UAMS) College of Medicine. "The NCS is the most ambitious and innovative study of children's health ever done and the information that we collect may one day be used to develop new medicines and new ways to protect children's health."

The NCS will examine physical and social environments. Research gathered will provide insight on how children's health is affected by family health history as well as the places where children live, learn and play.

"Although we have some information on the environment's impact on adults, there is a limited amount of information on the environment's impact on children. There are major differences between children and adults," said Jim Robbins, PhD, lead local investigator for the study and a professor of Pediatrics in the UAMS College of Medicine. "Children's bodies are still growing and changing, and compared to adults, they take in more air, food and water for their weight. As a result, they may be more likely to be affected by their environments."

ACHRI has enlisted area physicians and other health care providers to identify and recruit women 18 or older who are pregnant or who may become pregnant in the next few years, to participate in the study. Certain neighborhoods in Benton County were selected by the National Institutes of Health to be part of the national sample of communities across the country that will include mothers and children of different racial and socioeconomic backgrounds.

The Study was announced to the Benton County community back in September; however, it has taken a few months to hire staff and establish partnerships with area providers.

"The study center is up and running and we are thrilled about recruiting our first participant," said Pearl McElfish, NCS Benton County administrator. "We have doubled our staff in the last few months and each member has been extensively trained under the National Children's Study Consortium and National Institutes of Health research protocol and guidelines. We are excited about the launch and feel honored to be part of a world-renowned Study." Families who live in Benton County who meet the criteria and are interested in joining the study do not need to wait to hear from their health care providers, but can contact the ACHRI study location at (479) 286-2620 or visit NationalChildrensStudy.gov.

President's Choice Publications of the Month

Stop by the bulletin board located in the first-floor lobby of the ACHRI building to see this month's

President's Choice publications. The following articles were selected as this month's feature publications.

- Chowdhury S, Cleves MA, Macleod SL, James SJ, Zhao W, Hobbs CA. Maternal DNA hypomethylation and congenital heart defects. *Birth Defects Res A Clin Mol Teratol*. 2011 Jan 19. doi: 10.1002/bdra.20761. [Epub ahead of print]
- Cleves MA, Hobbs CA, Zhao W, Krakowiak PA, Macleod SL; the National Birth Defects Prevention Study. Association between selected folate pathway polymorphisms and nonsyndromic limb reduction defects: a case-parental analysis. *Paediatr Perinat Epidemiol*. 2011 Mar;25(2):124-134. doi: 10.1111/j.1365-3016.2010.01160.x. Epub 2011 Jan 4.

ACHRI would like to know about your published findings, as your articles are published, please email or mail a copy to [Phaedra Yount](#) (mail slot 842). The number of publications by our researchers is reported to the hospital and ACHRI boards, so it is important that we receive an accurate count of the publications your research produces.

Recent Clinical Trial Activity

PI	Agency	Project Period	Total Cost
Mick Deutz	UAMS/CTSA	1/11 - 12/11	\$4,921.00
Ronald Sanders	CDC/ABT Assoc	9/10 - 8/11	\$79,000.00

Recent Grant Awards and Submissions

Awards				
PI	Agency	Project Title	Project Period	Total Funding
Darrell Nesmith	Blue & You Foundation	Baseline Neurocognitive Testing for Arkansas High School Athletes	1/1/2011-12/31/2011	\$112,109.00
Kimo Stine	American Thombosis & Hemostasis Network	ATHN Data Quality Counts Funding Continuation Rounds 2.2	1/15/2011-1/14/2012	\$25,000.00
Judith Weber	USDA/University of Arkansas subcontract	Interventions for Obesity Prevention Targeting Young Children in At-risk Environments: An Integrated Approach	6/1/2011-5/31/2016	\$1,350,626.00
Xiawei Ou	Thrasher Research Fund Early Career Award	Effects of permissive hypercapnia on cerebral white matter in extremely low birth weight premature infants	6/1/2011 - 5/31/2013	\$26,750.00
Submissions				
PI	Agency	Project Title	Project Period	Total Funding
Mary Aitken	Arkansas Department of Health	Formation of Infant and Child Death Review Program, Phase I	3/1/2011-6/30/2012	\$237,203.00

Xiawei Ou	International Society for Magnetic Resonance in Medicine	Diffusion Tensor Imaging Tractography and Resting State Functional Magnetic Resonance Imaging Connectivity Evaluation of Visual and Motor Pathways in Extremely Low Birth Weight Infants at Term-equivalent Age	5/1/2011-4/30/2012	\$25,000.00
Amy Scurlock	NIH	Center for Microbial Pathogenesis and Host Inflammatory Responses: Project 2: Regulation of the T-cell Memory Response in Chlamydia Genital Tract Infection	2/1/2012-1/31/17	\$1,629,149.00

Grant Writing Tip: Page limits

For your application, page limits in the NIH Application Guide and the funding opportunity announcement must be followed. The main interest of applicants is the Research Strategy. This document is either 12 pages or 6 pages depending on the activity code. For activity codes R01, R10, R15, R18, R21/R33, R24, R33, R34, DP3, G08, G11, G13, SC1, and X01, the limit is 12 pages. For activity codes R03, R13, R21, R36, SC2, and SC3, the limit is 6 pages. For other activity codes, see the funding opportunity announcement.

Keep in mind that the Specific Aims file (and any other application attachment) does not count towards the limit of the Research Strategy; Specific Aims is limited to one page. Biographical Sketches are limited to 4 pages each for most activity codes. The Introduction to Resubmission Application is limited to one page. Page limits for other application text files are discussed in the Format Specification section of the NIH Application Guide and in the individual sections that have page limits. In a funding opportunity announcement, page limits and page limit exceptions are addressed under Other Submission Requirements.

Need assistance but don't know who to call at ACHRI?

If you have questions while considering or conducting research at ACHRI or ACH but aren't sure who to contact, call our office at 364-7373. Our staff will be glad to help you or to connect you with the person that can help.



Please check out our revised administrative staff directory on the web (<http://achri.archchildrens.org/staff.htm>). The directory now includes descriptions of services offered by ACHRI staff.

Funding Opportunities

Key words: Autism

[MCH Autism Intervention Research \(HRSA\)](#)

Deadline: Application: March 28, 2011

Eligibility: Non-profit organizations

Key words: Health and Safety

[Child and Adolescent Injury and Violence Prevention Resource Centers Cooperative Agreement](#)

[\(HRSA\)](#)

Deadline: Application: March 25, 2011

Eligibility: Non-profit organizations

Note: One award is available.

Private

Key words: Nutrition Education

[Dannon Company](#)

Deadline: Application: March 29, 2011

Eligibility: Non-profit organizations located in Auglaize, Darke, Mercer or Shelby Counties, OH; Salt Lake County, UT; Tarrant County, TX; or Westchester County, NY

Pediatric Research

Key words: AIDS Research

[Centers for AIDS Research and Developmental Centers for AIDS Research \(P30\) \(NIH\)](#)

Deadline: Letter of Intent (not required): May 13, 2011, May 14, 2012 and May 14, 2013; Application: June 14, 2011, June 14, 2012 and June 14, 2013

Eligibility: Non-profit organizations

Key words: Antibacterial Technologies

[Targeting Resistance in Select Gram-Negative Pathogens \(R21/R33\) \(NIH\)](#)

Deadline: Opening: March 25, 2011; Letter of Intent (not required): April 26, 2011; Application: May 26, 2011

Eligibility: Non-profit organizations

Key words: Diabetes

[Feasibility Studies for Clinical Trials in Type 1 Diabetes \(R03\) \(NIH\)](#)

Deadline: Opening: March 4, 2011; Letter of Intent (not required): March 8, 2011; Application: April 4, 2011

Eligibility: Non-profit organizations

Key words: Diabetes and Digestive and Kidney Diseases

[Ancillary Studies to the NIDDK Intestinal Stem Cell Consortium \(R01\) \(NIH\)](#)

Deadline: Opening: May 5, 2011; Application: February 5, June 5, and October 5; AIDS Application: May 7, September 7, and January 7 until January 8, 2013

Eligibility: Non-profit organizations

Key words: Health Disparities

[NIMHD Comprehensive Centers of Excellence \(P60\) \(NIH\)](#)

Deadline: Letter of Intent (not required): March 14, 2011; Application: April 14, 2011

Eligibility: Institutions of Higher Education

Also see: [NIMHD Exploratory Centers of Excellence \(P20\)](#)

Key words: HIV Infection Status

[Disclosure of HIV-Status to Children in Low- and Middle-Income Country Settings \(R21\) \(NIH\)](#)

Deadline: Opening: October 29, 2011; Letter of Intent (not required): October 29, 2011; Application: November 29, 2011

Eligibility: Non-profit organizations

Key words: Medication Development

[Grand Opportunity in Medications Development for Substance-Related Disorders \(U01\) \(NIH\)](#)

Deadline: Opening: April 26, 2011; Letter of Intent (not required): April 26, 2011, July 26, 2011, February 27, 2012, June 27, 2012, February 27, 2013, and June 26, 2013; Application: May 26, 2011, August 26, 2011, March 27, 2012, July 27, 2012, March 27, 2013, and July 26, 2013

Eligibility: Non-profit organizations

Key words: Training

[Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral MD/PhD and Other Dual Doctoral Degree Fellows \(Parent F30\) \(NIH\)](#)

Deadline: Opening: March 13, 2011; Application: April 8, August 8, and December 8; AIDS

Application: May 7, September 7, and January 7 until May 8, 2014

Eligibility: Non-profit organizations

Also see: [Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows \(Parent F31\)](#) and [Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellowships to Promote Diversity in Health-Related Research \(Parent F31 - Diversity\)](#) and [Ruth L. Kirschstein National Research Service Awards \(NRSA\) for Individual Postdoctoral Fellows \(Parent F32\)](#) and [Ruth L. Kirschstein National Research Service Awards \(NRSA\) for Individual Senior Fellows \(Parent F33\)](#)

Key words: Training - Nurses

[NINR Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows In Nursing Research \(F31\) \(NIH\)](#)

Deadline: Opening: March 8, 2011; Application: April 13, August 13, and December 13; AIDS

Application: May 7, September 7, and January 7 until January 8, 2014

Eligibility: Non-profit organizations

[2011 NIH Regional Seminar on Program Funding and Grants Administration in Scottsdale, Arizona: Registration Open \(NIH\)](#). Questions: Please contact [Kathy Broadus](#) at (703) 797-6022.