



**...where miracles begin**

## RESEARCH UPDATE - AUGUST 2007



**Wired for research: Aspen is ready for the brain function and development testing component of the Beginnings studies at the Arkansas Children's Nutrition Center**

### A LEGACY OF GIVING, A LEGACY OF KNOWLEDGE

Parents strive to teach their children about giving to others. For children participating in research, this lesson can come very early in life. "I want her to be a generous, giving person," Lee says of his daughter Aspen, "One day I can tell her how she's helped others from the time she was born." The study his family is participating in is the Beginnings Study at the Arkansas Children's Nutrition Center housed at ACHRI. The ACNC's Beginnings Study is a 7-year longitudinal study of breast-fed, dairy formula-fed and soy-fed infants that began recruiting study subjects in 2001. The Beginnings Study seeks to determine the effects of diet and nutrition on brain development and function and on body growth and composition of infants, toddlers, and school-aged children.

Aspen began her visits to the ACNC 4 weeks after her birth. She then went to the center monthly for the next 5 months and then once every 3 months until her first birthday. Now, Aspen goes to the ACNC for testing annually. She is one of

what will be 600 children in the study. "It is the largest study of this type being conducted," says Dr. Thomas Badger, Director of the ACNC since its establishment by the Agricultural Research Service of the US Department of Agriculture in 1995. The ACNC is the largest federally funded research center in the University of Arkansas system. It is one of only six centers in the USDA's National Human Nutrition Research Centers Program and only the second to focus on pediatric nutrition. "We initiated this study because it is important to determine the long-term health consequences of infant diets," says Dr. Badger. "We have a team of experts—faculty and technicians—here in Arkansas," he explains, "and they're working on a highly sophisticated study to learn how diet and nutritional status influence child development and health later in life."

Dr. Terry Pivik oversees the Beginnings studies on brain function and development, an important component of which is the assessment of the brain electrical activity and related behavior of the children in the study. "The dynamics of change in the first year are significant," says Dr. Pivik whose contributions will aid in assessing dietary and nutritional impacts on learning and behavior. Another skillful faculty researcher is Dr. Janet Gilchrist. During the children's visits to the ACNC, she evaluates the effects of diet on body growth and composition on children in the study. "If we see milestones are not met, we discuss it with pediatricians," she says. The researchers share test results with parents at each visit. Over time, Dr. Pivik, Dr. Gilchrist, and their colleagues will learn more about the dietary impact on learning and behavior, leading to recommendations on diet and nutrition for children. Together with parallel studies in pediatric animal models, the Beginnings Study is providing essential

information that can be used to help formulate policy decisions on the potential health benefits and risks of milk-based and soy-based formula.

“This study doesn’t impact Aspen today, but the decisions and recommendations that come out of this study will benefit her children, my grandchildren,” says Lee. “It’s a legacy the children in the Beginnings Study will leave for happier and healthier kids in the future,” he points out. The ACNC also is establishing a legacy of knowledge built by dedicated researchers achieving their mission to conduct critical research on diet and dietary factors to optimize the nutrition and health of infants and young children through adolescence. This knowledge will also help formulate plans to maximize their health as adults. The Beginnings Study still has openings for infants fed soy-formula, and parents should call (501) 364-3309 or (866) 423-1311 for information regarding criteria and benefits of participation.

## **UAMS NAMES RICHARD F. JACOBS, M.D. AS CHAIRMAN OF DEPARTMENT OF PEDIATRICS**

Dr. Richard Jacobs has been named chairman of the UAMS Department of Pediatrics effective August 1, 2007. Dr. Jacobs has served as interim chairman of the department since September 1, 2006 and is also the president of the Arkansas Children’s Hospital Research Institute. Dr. Jacobs will continue serving as president of ACHRI.

Dr. Jacobs joined the faculty at UAMS in 1982 and subsequently served as the section chief of Pediatric Infectious Diseases for 16 years. His clinical research program on neonatal-infant anti-viral treatment of congenital and perinatal viral infections has been continuously funded by NIAID through the Collaborative Anti-viral Study Group (CASG). He also participates as an investigator on the Pediatric Pharmacology Research Unit (PPRU), funded by NICHD. The PPRU trials focus on the pharmacokinetic and pharmacodynamic evaluation of anti-infectives in babies, infants and children to provide dosing, dosing interval, safety and toxicity data for compounds currently approved and available for adults.

He is the recipient of the Founder’s Award from the Southern Society for Pediatric Research for his research and work in mentoring medical students and pediatric residents in medical research. He received the Distinguished Service Award from the Pediatric Infectious Diseases Society for his work as president and on the Fellowship Training Grant Program. He received his M.D. degree and pediatric residency training from UAMS and his Infectious Diseases fellowship at the University of Washington.

Please join us in congratulating Dr. Jacobs on his new position as chairman of the UAMS Department of Pediatrics.

## **PRESIDENT’S CHOICE**

Stop by the bulletin board outside the research administration offices to see the poster featuring this month’s President’s Choice publications. The following articles were selected as this month’s feature publications:

Baumgardner JN, Shankar K, Korourian S, Badger TM, Ronis MJ. Undernutrition enhances alcohol-induced hepatocyte proliferation in the liver of rats fed via total enteral nutrition. *Am J Physiol Gastrointest Liver Physiol*. 2007 Jul;293(1):G355-64. Epub 2007 May 17.

Shankar K, Ronis MJ, and Badger TM. Effects of Pregnancy and Nutritional Status on Alcohol Metabolism. *Alcohol Research & Health* Vol. 30, No. 1, 2007.

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 hospital and ACHRI boards, so it is important that we receive an accurate count of the publications your research produces.

### **PI REPORTING SYSTEM:** <http://ereq.archildrens.org/ACHRIAccounting/login.asp>

We have had many reports of problems accessing information through the PI Reporting System (aka ACHRI Accounting) especially obtaining detailed information for eRequests. The problems occurred due to heavy usage of the server that provides the information. This server has been replaced and you should be able to access information without receiving error messages. However, if you continue to experience difficulties with this system, please contact Leslie Montgomery (364-6546) or Inna Selivra (364-6554).

### **IRB TRAINING: CHANGES ARE COMING**

Are you required to take human subject protection training every two years? The required human subject online training program will soon be changing. We will let you know more about this exciting process as it develops through announcements such as this one and instructional meetings on campus. We believe that this new program will be a great addition to our human subject education initiative. If you have any questions, or would like to suggest any classes in human subject research please contact Margie Brackeen [brackeenmargiei@uams.edu](mailto:brackeenmargiei@uams.edu) or x43586.

### **ACHRI WEBSITE UPDATE: EHS CONTACT INFORMATION**

A new web page listing the contact information for ACH's Environmental Health and Safety (EHS) department staff has been added to ACHRI's website. The new page can be found at <http://achri.archildrens.org/resources/safety.htm>. If you ever have concerns regarding environmental health and safety issues on our campus, do not hesitate in contacting a member of the EHS department.

### **HUMAN SUBJECT RESEARCH COMPLIANCE QUIZ**

In applying research ethics principles to protocol design, what issues should be considered by the investigator?

- A. Is the research designed so that it will result in valid information?
- B. What are the risks and how can they be minimized?
- C. What are the benefits and how can they be maximized?
- D. All of the above

The first person who responds to Margie Brackeen at [brackeenmargiei@uams.edu](mailto:brackeenmargiei@uams.edu) with the correct answer will win a prize! The correct answer will be revealed in the September Research Update.

The answer for the July question was: A. Respect for persons, beneficence, and justice

### **NEW INDUSTRY-SPONSORED PROJECTS**

PI	Agency	Project Period	Total Cost
Richard Jacobs	Johnson & Johnson	7/07 - 7/08	\$35,056
Nicolaas Deutz	Unilever	6/07 - 6/08	\$102,585

## RECENT GRANT AWARDS AND SUBMISSIONS

### New Awards

PI	Agency	Project Title	Project Period	Total Funding (All Years)
Charlotte Hobbs	State of AR	Arkansas Reproductive Health Monitoring System (ARHMS)	7/1/07-6/30/08	\$600,000
Thomas Badger	USDA	Long Term Health Consequences of Diet in Infants and Children	8/1/07-7/31/12	\$5,285,000

### Extramural Submissions

PI	Agency	Project Title	Project Period	Total Funding (All Years)
Judith Weber	American Hear Association	School-Based Interventions to Prevent Obesity and Reduce CVD Risk in Children	1/1/08-12/31/13	\$495,000
Wendy Ward-Begnoche	Blue & You Foundation	Interactive, Healthy Lifestyle Website Designed for Children. Youth and Families in Arkansas and Beyond	1/1/08-12/31/08	\$149,713
Mary Aitken	Allstate Foundation	Graduate Drivers License for Teen Drivers	8/1/07-7/30/08	\$43,475
Karen Young	UALR Sub	Expanding Champions Club of Arkansas Collaborating University Teaching Institutions and Arkansas Children's Hospital to Combat Obesity in Arkansas	1/1/08-12/31/08	\$20,836
Jill James	Cure Autism Now	Autism Treatment Network Proposal	1/1/08-12/31/10	\$140,000
Charlotte Hobbs	NSF Subcontract	Automated Analysis of Body Fluid Chemistry Using MHD-Based Microfluidics	1/1/08-12/31/09	\$19,520

### Intramural Grant Submissions

PI	Grant Program	Project Title	Project Period	Total Funding
Andrea Hart	ACHRI/ABI	Predicting Long-Term Outcomes for Arkansas Children with Spina Bifida:	10/1/07-9/30/08	\$49,880
Karen Young	ACHRI/ABI	Examining Parent Evaluations Champions Club of Arkansas: Evaluation of a new community-based intensive treatment program for overweight and obese youth and their families.	7/1/08-6/30/09	\$50,000
Mohy Morris	ACHRI/ABI	Dynamic and Static Lung: Volumes at raised lung volume	10/1/07-9/30/09	\$50,000

Reza Hakkak	ACHRI/ABI	in Healthy and Wheezy Infants Effects of dehydroepiandrosterone (DHEA) as an anti-obesity dietary supplement on breast cancer development in pre and postmenopausal women using the obese Zucker rat model	7/1/08-12/1/09	\$50,000
Rosie Simmen	ACHRI/ABI	Kruppel-Like Factor 9 and Development of Uterine Endocarcinoma	7/1/08-6/30/10	\$50,000
Adnan Bhutta	ACHRI/ABI	Effects of adverse perinatal events on the developing brain: Changes in the inflammatory response	1/1/08- 12/31/09	\$125,000
John Fowlkes	ACHRI/ABI	Focus Group Initiatives in Diabetes and Endocrinology	7/1/07-6/30/08	\$125,000
Judy Weber	ACHRI/ABI	Arkansas Childhood Obesity Research and Policy Program	10/1/07- 9/30/08	\$125,000
Kathleen Gilbert	ACHRI/ABI	Developing an Immunotoxicology Center in AR	7/1/08-6/30/09	\$138,516
Laura James	ACHRI/ABI	Mechanism-Based Methods for Determination of Acetaminophen Toxicity	7/1/08-6/30/09	\$109,730
Patti Martin	ACHRI/ABI	Audiology/Speech Pathology Research Space Proposal Request for acquiring an X-ray irradiator to increase the capacity of the Animal Core Facility at Arkansas Children's Hospital Research Institute	9/1/07-8/31/09	\$125,000
Shanmugam Nagarajan	ACHRI/ABI	Amino acid intake to counteract muscle wasting in children with chronic and acute disease	10/1/07- 9/30/08	\$110,925
Nicolaas Deutz	ACHRI/ABI	Translational Research in Asthma Lung Disease	7/1/08-6/30/10	\$124,984
Stacie Jones	ACHRI/ABI		7/1/08-6/30/09	\$125,000

## UPCOMING EDUCATION OPPORTUNITY

Topic: Submitting Electronic Applications to NIH for the First Time?

When: September 17 from 2 pm to 3 pm

Where: EC 59 (2nd floor, ACH East Campus Building)

ACHRI will repeat the workshop, presented by John Gregan and Lee Smith, on NIH electronic submissions. The workshop will include an overview of downloading PureEdge Viewer and grant applications. There will be a demonstration of completing and viewing application forms, using the SF424 Cover Component as an example, with PureEdge. There will be a discussion of transferring completed applications to ACHRI for submission to NIH as well as an explanation of what happens during the submission process. For this repeat session, a discussion of submission errors and warnings received will be included. The workshop is for ACHRI researchers and staff responsible for assembling electronic grant applications. The information will be more useful for persons who have not

yet begun to submit electronically. There is space for 18 participants, so please email [John Gregan](#) if you would like to attend. If you have any questions about the workshop, contact John at 364-6296.

## **REQUIRED UAMS INSTITUTIONAL REVIEW BOARD (IRB) LANGUAGE IN THE CONSENT CONCERNING PARTICIPANT INJURY**

IRB Policy 15.1 was revised effective April 5, 2007. In this revised policy which can be found on the IRB web site are three options for injury to the participant statements. Options 1 and 2 are for non-VA studies and Option 3 applies only to VA studies. The IRB requires that one of these options be used in the consent form that will be used as part of a study. Link to the IRB web site Policy 15 is as follows:

<http://www.uams.edu/irb/15%201%20June%207%202007.pdf>

## **KEEP INFORMATION SAFE, PORTABLE ELECTRONIC DEVICES SECURE: ACH IT OFFERS SOLUTIONS**

Laptop/portable electronic device (flash drives, PDAs, Blackberries, smart phones, etc.) theft is a growing problem around the world and sometimes it hits home here at Arkansas Children's Hospital. Often these devices contain highly sensitive information such as research data, patient or personal financial information. There have been a couple of recent incidents at both UAMS and ACHRI involving laptop thefts from offices, cars, homes and airports.

How can you protect your information and portable electronic devices? It takes more than just keeping a sharp eye on the property and a username password to deter would-be thieves. ACH IT offers these solutions to help prevent theft of portable electronic devices and sensitive information:

Have the IT Department load encryption software on your unit, setting up a "My Documents" folder with all encrypted information. You'll appreciate knowing your sensitive documents and information are secure;

Purchase a lock to physically protect the unit from unauthorized access;

Avoid using flash drives. Sure they're easy to access and portable: that's why they're such easy targets for thieves;

If you use a flash drive, PDA or other electronic devices be sure to enable the password option; and

See ACH IT for other possible customized solutions.

Remember, you are responsible for making sure the data on your portable electronic device is secure. Even if a stolen portable electronic device is recovered and returned in perfect working order, the security of the data on it may still have been compromised. Always report immediately the loss or theft of a device containing sensitive information – even if it was only out of your control for a short time – to the ACH or UAMS IT Department. If your device contained patient data please contact [Debby Keene](#) at x46668; if it contained research information please contact [Tanda Grisham](#) at x43571; and if it involved human research you are also required to notify the IRB.

Should you have any questions or if you would like a presentation made to your department about portable electronic device and document security, please contact [Darrell Leonhardt](#) at x47270.

## **REVIEWING PEER REVIEW: NIH NEEDS YOUR HELP!**

NIH has formed a Working Group of the Advisory Committee to the NIH Director to gather information from the external community and explore possible enhancements to all aspects of the system used by NIH to support biomedical and behavioral science, including the two-tiered review process.

The efforts of this Working Group will complement ongoing Center for Scientific Review activities designed to streamline and improve the efficiency of the current peer review system, including shortening the review cycle and the length of applications, as well as enhancing the use of electronic reviews. The Working Group would particularly like your opinion, as a reviewer, applicant, or member of the public, on how to enhance the system employed by NIH to support biomedical and behavioral research, including the peer review process. The NIH is especially interested in creative, concrete suggestions to the following questions, for strengthening over the long term any and all aspects of our system for identifying the most meritorious and innovative research for support.

Responses will be accepted until September 7, 2007, through the following Web site: [http://grants.nih.gov/grants/guide/rfi\\_files/rfi\\_peer\\_review\\_add.htm](http://grants.nih.gov/grants/guide/rfi_files/rfi_peer_review_add.htm) and e-mail address [PeerReviewRFI@mail.nih.gov](mailto:PeerReviewRFI@mail.nih.gov). The form will limit the length of each response to the number of characters identified. The collected information will be analyzed and may appear in reports. For more information, review the complete RFI ( NOT-OD-07-074) at <http://grants1.nih.gov/grants/guide/notice-files/NOT-OD-07-074.html>.