



October 2008

THE INJURY PREVENTION CENTER AT ACH: MAKING CONTRACTS FOR LIFE

Motor vehicle crashes are the number one cause of teen deaths in the US. In 2006, motor vehicle accidents resulted



Teen driver Michael says that creating parent/teen driving contract with his mother was easy.

in the deaths of 61 Arkansas teens—double the national average. The Injury Prevention Center at Arkansas Children's Hospital has the mission to reduce child injury, death, and disability in Arkansas through service, education, innovative research, and advocacy. Through the Building Consensus for Safer Teen Driving program, an IPC research team is evaluating the effectiveness of a parent/teen driving contract in reducing preventable motor vehicle-related injuries in young drivers and passengers. This program aims to help parents and teens develop skills to negotiate a family-based graduated driving contract.

Shawlonda and her son Michael, who had recently received his learner's permit, saw a flyer about the program at the Adolescent Center at ACH. They spoke to their physician about the teen driving study. Shawlonda contacted the IPC, and she and Michael joined the study.

The mother and son were assigned to the study's intervention group. They attended a two-hour training workshop on motor vehicle safety. The information discussed the consequences of unsafe vehicle operation and strategies to improve driver and passenger safety. After attending the workshop, the parent-child pairs generated a parent/teen driving contract at home and received emails with driver and passenger safety information. (A comparison group did not attend the workshop session but did receive the safety and contract information given to the intervention group.) The research team is following up with all study families after 3 months, 6 months, and one year to inquire about the contract, driving restrictions, and adherence to the parent-teen agreements.

"Developing the contract was easy for us," says Shawlonda. "Michael understands that it is a privilege. He does not have a right to drive." Their contract includes the hours Michael can drive and plotting his routes between home, school, and work. For example, he comes straight home after work. If he is going to the movies or some other activity, Michael and his parents determine times and locations he can drive. The contract also addresses the number of passengers Michael can have in the car: 1 passenger except when he's taking his brother to school. Concerning cell phone usage, Michael cannot use the cell phone while driving—he must pull over. Infractions of the contract agreements result in Michael losing privileges and, depending on the severity, may result in loss of his vehicle.

Michael concurs that it was easy to create the contract. Concerning the agreements it contains, he says, "I know my limits and places I can go." The information he received at the workshop swayed him to work on the contract with his mother. Michael thinks the parent/teen driving contract is a good program. "They should push the information out there," Michael says. "They could put it in place in schools and football games—tell us and promote it." The program also had an impact on Shawlonda's driving as well. "It brought to my attention some things I wasn't doing anymore," she says. More importantly, she says though, "It opened communication between us."

The Building Consensus for Safer Teen Driving program is funded by the Allstate Foundation via the National Program Office of the Injury Free Coalition for Kids. Dr. Mary E. Aitken, the project's principal investigator and Medical Director of the IPC, and her team are working with other Injury Free programs to increase collaborative research and programs in this area of national interest. The researcher team will also be involved with National Safe Teen Driving Week, October 19 through 25, a weeklong event that began last year. For more information about the IPC and its activities, contact the center at (501) 364-3400 or visit its website at <http://www.archildrens.org/injury%5Fprevention/>.

PRESIDENT'S CHOICE

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.

- Blossom SJ, Doss JC, Hennings LJ, Jernigan S, Melnyk S, James SJ. Developmental exposure to trichloroethylene promotes CD4+ T cell differentiation and hyperactivity in association with oxidative stress and neurobehavioral deficits in MRL+/+ mice. *Toxicol Appl Pharmacol.* 2008 Sep 15;231(3):344-53.
- Simmen FA, Su Y, Xiao R, Zeng Z, Simmen RC. The Krüppel-like factor 9 (KLF9) network in HEC-1-A endometrial carcinoma cells suggests the carcinogenic potential of dys-regulated KLF9 expression. *Reprod Biol Endocrinol.* 2008 Sep 10;6:41.

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. To see all recent publications by ACHRI researchers and their collaborators, please visit the [publications web page](#).

NATIONAL CHILDREN'S STUDY

Congratulations to Dr. Charlotte Hobbs, Dr. Jim Robbins, and their research team for their success in securing a \$14.4 million contract to participate in the National Children's Study, the largest study of child health to date. On October 2, NIH officials named ACHRI as one of 36 new and existing study centers that would recruit study volunteers from a total of 72 locations. Benton County was selected as the study location for Arkansas. The researchers will collect genetic, biological, and environmental samples, and will compile statistical information for study analyses investigating how genetic and environmental factors influence health and disease. To read the complete press release announcing the award, please visit the [ACH Press Release web page](#). The news of the award has received well-deserved attention from the media. To view Dr. Robbins' interview with Channel 11, visit [todaysthv.com](#).

INTRODUCTIONS ARE IN ORDER

With this growth in the number of investigators on campus comes the challenge of ensuring that everyone is properly introduced to new researchers as they arrive on campus. Collaboration is the key to successful research, and a proper introduction is the key to collaboration. Here we introduce Dr. Gresham Richter, MD.



Dr. Richter, is an assistant professor in the division of Division of Pediatric Otolaryngology at ACH and the Department of Otolaryngology-Head and Neck Surgery at UAMS. Prior to joining us in July, he completed complete a 2-year fellowship in pediatric otolaryngology at Cincinnati Children's Hospital where he learned complex pediatric airway management and reconstruction, general pediatric otolaryngology, vascular anomalies, and pediatric otology. Dr. Richter is no stranger to Little Rock, he completed his residency training in otolaryngology at UAMS in 2006. We are happy he returned.

Dr. Richter has multiple research interests, including 1) pathophysiology and management of laryngomalacia; 2) airway remodeling and mucosal wound healing; 3) pathogenesis and prevention of subglottic stenosis; 4) identifying genetic and molecular determinants of vascular anomalies; 5) exploring potential molecular pharmacotherapeutic targets for vascular anomalies; and 6) role of chemotherapy in management of vascular malformations and problematic hemangiomas.

"The ultimate role of research in my mind is to help clinicians identify safe and effective tools to manage complex

and often poorly understood pediatric medical conditions," says Dr. Richter. "This cannot be done without preliminary investigation in animal models and well designed prospective analyses. Another important fundamental role of research is to stimulate preemptive evaluation of potential therapies and establish structure in applying those that work."

WELCOME TO ACHRI

Join us in welcoming Phyllis Perry Dodson as ACHRI’s Research Support Coordinator in Animal Operations Services. She has recently returned to Arkansas from Texas where she worked in the emergency room at the Children’s Medical Center of Dallas for three years. Prior to her time in the Lone Star State, she lived back her in Arkansas and worked at ACH for three years. During her last year here, she worked with Dr. Lisa Buckmiller and before that in Radiology for two years. She was a paralegal with the Arkansas Office of Child Support Enforcement for 14 years.



IN THE SPOTLIGHT

Dr. José Romero Installed as Horace C. Cabe Endowed Chair

On September 10, ACH and UAMS held an investiture ceremony to install José Romero, MD, FAAP, as the recipient and steward of the Horace C. Cabe Endowed Chair in Infectious Diseases. This chair was created in 1996 with a \$1 million gift from the Horace C. Cabe Foundation. Congratulations to Dr. Romero!

Joyce Norton Named EWI Chapter President

We have great reason to be proud of Joyce Norton, Administrative Assistant to the President of ACHRI. On September 30, Joyce was installed as the President of the Little Rock Chapter of the Executive Women International. Executive Women International is an organization that brings together key individuals from diverse businesses for the purpose of promoting member firms, enhancing personal and professional development, and encouraging community involvement. Joyce's motto for the upcoming year of service is *big enough to serve, small enough to care*. This is a great honor and we are very proud of Joyce.

Congratulations Theo Calloway!

Theo Calloway, a Health Information Specialist with the Arkansas Reproductive Health Monitoring System, has been selected as a student representative on the Arkansas Health Information Management Association Board of Directors. Theo was chosen as the UAMS representative from all students enrolled in the Health Information Management program at UAMS. He will serve as 1 of only 3 student advisors to this statewide organization for the 2008-2009 year. Theo has worked with ARHMS in the Section of Birth Defects Research for 5 years and is pursuing a Health Information Management degree at UAMS.

RECENT AWARDS AND SUBMISSIONS

Extramural Awards				
PI	Agency	Project Title	Project Period	Total Funding
Sunny Anand	Mayday Fund	Does Noninvasive Electrical Stimulation of Acupuncture Points (NESAP) Reduce Heelstick Pain in Infants?	9/1/08-8/31/10	\$401,884
Sunny Anand	NIH	NIH Project 3-Assessment of the Pharmacok and Pharmacod effects of an anesthetic in infants undergoing surgical procedures	9/19/08-9/18/10	\$308,000
Charlotte Hobbs	NIH/NICHD	National Children's Study	9/26/08-9/25/13	\$14,474,966
Jill James	DOD	Redox Abnormalities for Autism	9/15/08-9/14/11	\$536,250
Judy Weber	USDA	Delta Physical Activity 2010	9/15/08-8/31/10	\$450,000
Intramural Grant Program Awards				

PI	Sponsor	Project Title	Project Period	Total Funding
Mary Aitken	ACHRI/ABI	Child Health Data Center	10/1/08-9/30/09	\$124,173
John Carroll	ACHRI/ABI	Postnatal Resetting of Chemoreceptor Sensitivity	10/1/08-9/30/09	\$84,402
John Fowlkes	ACHRI/ABI	Focus Group Initiatives in Diabetes and Endocrinology	4/1/09-3/31/10	\$125,000
Kathleen Gilbert	ACHRI/ABI	Developing an Immunotoxicology Center in Arkansas	7/1/09-6/30/10	\$124,849
Charlotte Hobbs	ACHRI/ABI	Congenital Heart Defects and Gene-Specific Methylation	11/1/08-10/31/10	\$125,000
Laura James	ACHRI/ABI	Examination of Predisposition to Acetaminophen Toxicity in Hospitalized Infants and Young Children	7/1/09-6/30/10	\$50,000
Debra Jeffs	ACHRI/ABI	Comparison of Virtual Reality and Passive Distraction on Burn Wound Care Pain in Adolescents	10/1/08-9/30/10	\$44,227
Stepan Melnyk	ACHRI/ABI	Oxidative Stress Core Facility at ACHRI	11/1/08-10/31/09	\$98,530
Tamara Perry	ACHRI/ABI	Telemedicine Education for Children with Asthma	7/1/09-6/30/10	\$50,000
Frank Simmen	ACHRI/ABI	Malic Enzyme-1 and Dietary Programming in Colon Cancer Initiation	10/1/2008-9/30/09	\$50,000

Extramural Submissions

PI	Agency	Project Title	Project Period	Total Funding
Mary Aitken	AR Department of Human Services	School Challenge for Safer Teen Driving (Drive Smart Challenge)	7/1/09-6/30/12	\$45,000
Mary Aitken	CDC	Arkansas Injury Prevention and Research Center	7/31/09-7/30/14	\$4,527,422
Sunny Anand	ABI Collaborative	Epigenetic Effects and Long-term Consequences of Prenatal Stress	11/15/08-11/14/10	\$120,000
Sarah Blossom	ABI Collaborative	Prenatal Cigarette Smoke Exposure and Neuroimmune Networks	11/15/08-11/14/10	\$30,000
Jin-Ran Chen	NIH	Estrogen-Independent Effects of Soy Consumption on Bone Formation	7/1/09-6/30/14	\$1,787,500
John Fowlkes	NIH/NIDDK	The Insulin/IGF-I Axis in Diabetic Osteopathy	7/1/09-6/30/14	\$1,837,500
Horacio Gomez	National Science Foundation	Mathematical Models for the Immune Response to Environmental Toxicants	4/1/09-3/31/12	\$709,071
Charlotte Hobbs	CDC	Centers for Birth Defects Research and Prevention (CBDRP)	12/1/08-11/30/13	\$5,593,361
Karen McNiece	RWJ	Hypertension in Arkansas Youth (HAY): Influence of Overweight and Fitness on Early Cardiovascular Disease	7/1/09-6/30/12	\$300,000

Martin Ronis	NIH/NIAAA	Alcohol Induction of Bone Resorption: The Role of Oxidative Stress	4/1/08-3/31/13	\$1,837,500
Kartik Shankar	NIH	Maternal Obesity and Long-term Consequences on Offspring Insulin Signaling	7/1/09-6/30/12	\$1,837,500
Frank Simmen	NIH	Dietary Regulators of Intestinal Metabolism	7/1/09-6/30/14	\$1,837,500
Rosie Simmen	NIH	Dietary Factors and Breast Cancer Prevention	7/1/09-6/30/14	\$1,837,500
Kimo Stine	American Thrombosis & Hemostasis Network	Data Management Funding	11/1/08-10/31/09	\$54,364
Joanne Szabo	NIH	Dietary Sugars in Low Birth Weight Preterm and Term Infants	7/1/09-6/30/14	\$2,089,788
Xianli Wu	NIH	Effects of Blueberry in Prevention of Atherosclerosis	7/1/09-6/30/14	\$1,837,500

Intramural Grant Program Submissions

PI	Program	Project Title	Project Period	Total Funding
Mary Aitken	CUMG	Efficacy of Family-based GDL to Reduce Motor Vehicle Injuries in Teens	11/1/08-10/30/09	\$39,959
Carrie Brown	CUMG	Resident Education on Patient and Family Centered Pediatric Palliative Care	11/8/08-10/9/09	\$40,000
Katherine Clement	CUMG	Neurally Adjusted Ventilatory Assist (NAVA) Reduces Response Times in Pediatric Patients with Bronchiolitis	1/1/09-12/31/10	\$39,594
Xiomara Garcia	CUMG	Vasopressin as Therapy for Iatrogenic Vasoplegia in Neonates with Congenital Heart Disease: A Pilot Single Center Randomized Controlled Trial	1/1/09-12/31/11	\$36,383
Mohy Morris	CUMG	Forced Expiration and Lung Volume in Infant Lung Disease	9/1/08-8/31/10	\$40,000
Xiawei Ou	CUMG	Conventional MRI with Diffusion Tensor Imaging and Magnetization Transfer Evaluation of Cerebral White Matter Injury in Extremely Low Birth Weight Infants	1/1/09-12/31/10	\$18,416
Rahul Pathak	CUMG	Comparison of Computer-based Video Training to Traditional Text Book Methods in Teaching Pediatric Surgical Procedures to Medical Trainees	9/15/08-9/14/10	\$39,700
Tommy "Mac" Bird	Student and Clinical Staff Research Program	Long-term Health Related Outcomes of Late Preterm Infants: A Propensity Score Matched Analysis	11/1/08-10/31/09	\$2,000

Chaoxuan Dong	Student and Clinical Staff Research Program	bFGF Protects Neural Stem/Progenitor Cells from Ketamine-Induced Toxicity by Activating Akt	1/1/09-12/31/09	\$2,000
Della Fleming	Student and Clinical Staff Research Program	The Efficacy of Standardized Exercise Protocol in Inpatient Care of the Patients with Cystic Fibrosis	1/1/09-12/1/11	\$1,250
Omar Rahal	Student and Clinical Staff Research Program	Tumor Suppressor PTEN-Induced Signaling Pathways in Mammary Epithelium	1/1/09-12/1/11	\$2,100
Shannon Rose	Student and Clinical Staff Research Program	Technical Training for PhD Dissertation at the Center for Free Radical Biology at the University of Alabama at Birmingham (UAB)	11/1/08-10/31/09	\$1,664
Christian Simmons	Student and Clinical Staff Research Program	Klf9-mediated Reproductive and Morphological Effects of Postnatal Estrogenic Exposure	11/1/08-10/31/09	\$2,000

NEW INDUSTRY-SPONSORED PROJECTS

Clinical Trials	Agency	Project Period	Total Cost
Rigsby	Octicon	9/08 - 8/09	\$3,825
Schmitz	J&J	9/08 - 8/09	\$31,975
Elser	Mead Johnson	9/08 - 8/09	\$37,787

ACHRI INVESTIGATOR MEETING

The next ACHRI Investigators' meeting will be held October 29 in the Brandon Auditorium at 11:30 a.m. Lunch will be provided to the first 50 attendees.

The [August meeting PowerPoint presentation](#) is available at the ACHRI web site.

FUNDING OPPORTUNITIES

The National Association of Children's Hospitals (NACH) prepares and distributes upcoming funding opportunities every two weeks. Funding opportunities recently distributed by the NACH are available on the ACHRI web site (http://achri.archildrens.org/resources/funding_opp.htm). This file is updated monthly. Bookmark the page! The listing of funding opportunities is located on the intranet; you must have access to MyACH vault files to open the file.

GRANT WRITING TIP: ONWARD TO ADOBE FORMS

If you're wondering what forms to fill out for your upcoming application, the [October 1 NIAID Funding News](#) provides the following update:

For the January receipt dates, you will use Adobe forms for all applications except conference and small business grants, which are slated to switch in April.

Existing opportunities with non-standard submission dates expiring by January 31, 2009, stay with the current PureEdge forms. All others switch to the new forms.

You may notice that some opportunities lack application forms altogether. Since the new forms are not yet ready in [Grants.gov](#), NIH is including a note in new funding opportunity announcements telling you to check in December for the arrival of your form package.

Meanwhile, you can work on your research plan and some of the other labor-intensive sections of your application in your regular word processing program.

To ease yourself into this transition smoothly, keep the following in mind:

- Download an [Adobe Reader](#) 8.1.2 or 9.0 now. Older versions can corrupt your data even though they may open a form and appear to be working.
- Once this switch to Adobe occurs, Grants.gov will reject the PureEdge forms. If you've already started an application using the old forms, save your data so you can copy them into the new ones.

Read more in the [September 22, 2008, Guide notice](#).

Considering a CUMG Grant Application?

The next deadline for CUMG grant applications is March 2, 2009. On November 18 (2:00 to 3:30 p.m., Brandon North A and B), ACHRI will hold a workshop on the CUMG grant program. The panel will include a researcher who has received CUMG funding and has served as a CUMG reviewer. For more information, contact [John Gregan](#) (364-6296) or [Amy Stalls](#) (364-3627).

MATHEMATICAL MODELING SERVICES FOR RESEARCHERS

Have you measured (or plan to measure) a variable consistently over a period of time, say growth, cell counts, cell movement, disease severity, or protein levels? Would you like to predict the outcome when you change some variables in your experiment without a complete repetition? Do you need to add extra scientific value to your grant to increase your chances of funding? If so, you may need help to develop a mathematical model for your research project. Contact Horacio Gómez-Acevedo, PhD, of the Department of Pediatrics to learn more about the advantages of mathematical modeling. He can work with you to take factors that are consistently measurable at different time points to build a model that can reinforce your conclusions and help you with some predictions on how any one of those factors can affect the outcome of your experiment. Model development is very open to various factors and applicable in many research scenarios. Contact Dr. Gómez-Acevedo at 364-4532 when you're planning your project. His early involvement can help you determine what you should measure and how to construct a model that provides support to your experimental work.

UAMS COM RESEARCH WEB SITE AND CALENDAR

Please take a minute or two to explore the UAMS COM Research and Web site:

<http://www.uams.edu/com/research/>. The site offers a host of announcements and resources to assist UAMS faculty researchers. [Research conferences hosted by ACHRI are included on the research calendar](#). A link to the calendar can be found on the left-hand side of the [UAMS homepage](#). Linda Williams and Larry Cornett have done a fabulous job in putting this together.

WHO DO YOU CALL WHEN YOU NEED STATISTICAL SERVICES?

For questions and requests regarding statistical services and reviews, please e-mail achbiostat@uams.edu. If you are currently working on a project with an individual in the statistics group, please copy achbiostat@uams.edu on your email correspondence with that individual.

CHILDREN IN CLINICAL STUDIES WEB SITE

A link to a web site designed to offer information about participation of children in clinical studies has been added to the ACH web site's [clinical trials page](#) and will soon be available on the CareHub system. The site, which was developed by NIH's National Heart Lung and Blood Institute, features videos of children, parents, and health care providers discussing their experiences with clinical research. This is a truly remarkable web site and we hope that you share this with families considering participation in clinical research.

<http://www.nhlbi.nih.gov/childrenandclinicalstudies/index.php>

