

# Arkansas Children's Hospital Research Institute

# RESEARCH UPDATE



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## CUMG Intramural Grant Program: An Immeasurable Return on Investment

Research institutes intend intramural grant programs to fund investigators at various stages of their careers and along the paths of their explorations. Among four intramural programs ACHRI administers is the Children's University Medical Group (CUMG) Grant Program. The funds for this program are comprised of 1% of the Faculty Group Practice revenue plus an additional 1% match from the Dean of the College of Medicine at UAMS. The UAMS College of Medicine Children's University Medical Group established this program at ACHRI to support and enhance its faculty at ACH.

Since 2001, 144 CUMG grants totaling approximately \$3.8 million have been awarded. Over 200 presentations and almost 100 publications have resulted from these projects. Building on their CUMG-funded projects, researchers have submitted over 100 grant applications to extramural funding sources. With a success rate of almost 40%, these applications have brought in awards of almost \$30 million. These include seven NIH Program Grants (average award approximately \$2.1 million) and ten R01 grants (average award approximately \$850,000). The remaining 22 extramural awards average approximately \$300,000. The return on the work supported by the CUMG program has been extensive for investigators at all levels of their research careers.

The funding categories for the CUMG program support the work of both beginning and established researchers. The Established Investigator Awards (\$40,000 over 2 years) provides three methods to assist researchers with a track record of NIH research funding and scholarly publications. The first is to help these researchers "bridge" from a current grant to a targeted federal funding source, ideally NIH. The second category supports established investigators who would like to expand or redirect research activities towards a new extramural funding opportunity. The final category allows these investigators to purchase common equipment that would benefit a group of investigators with an identified extramural funding opportunity.

A CUMG Established Investigator Award helped Mary Aitken, MD, MPH, Director of the Injury Prevention Center at ACH, by providing critical funding to support development of research projects focusing on all-terrain vehicle safety and teen driving safety leading to sustained, extramurally funded projects. Dr. Aitken says, "Both of these were areas with either little existing evidence about effective interventions (ATV safety) or with little activity in the region (teen driving), so the funded pilot projects were critical to establishing the thematic areas for our group, assembling a research team, and developing preliminary data."

"The CUMG ATV project, led by Dr. James Graham, has led to a number of additional studies and activities," says Dr. Aitken, "The ATV research program now encompasses ATV injury epidemiology [several publications by Dr. Aitken, Dr. Steve Bowman, Dr. Graham, and collaborators in other centers], ATV injury prevention [fellow projects, statewide and national interventions, helmet

effectiveness research], and advocacy [state and national policy initiatives].” Funding support for these projects and interventions has come from HRSA/Emergency Medical Services for Children, the Centers for Disease Control, and others. The teen driving program, built on insights gained from the CUMG-funded research project, has led not only to extramurally funded projects supported by NHTSA, Allstate, and other private foundations, but also to new collaborative efforts that have helped build the overall injury program.

The CUMG supports new investigators through a category designed to provide seed money (\$40,000 over 2 years) to young investigators. To qualify, these researchers must not have previously received a large research grant from NIH, such as an R01. ACHRI specifically intends this category for Assistant Professors or Instructors who need preliminary data for an extramural grant application. One ACHRI researcher benefitting from this goal of the CUMG program is Uma Nagarajan, Ph.D., Assistant Professor of Pediatrics and Microbiology and Immunology.

Dr. Nagarajan found the CUMG funding very useful as a start-up research fund to strengthen an NIH R01 application. She explains, “The funding was extremely valuable in generation of preliminary data for my R01 proposal...The CUMG funds also paid part time for a tech salary so I was able to avail technical help.” She received the R01 award for her research into molecular mechanisms of Chlamydia-induced type I interferon response. About the support she received through the CUMG program, Dr. Nagarajan says, “Very valuable funding...All new investigators must apply.”

The CUMG Grant Program also supports research by clinicians, faculty, and trainees that will answer questions important to a particular clinical or translational area, but that will not necessarily lead to an extramural grant application. These Clinician/Faculty/Trainee awards are intended to promote scholarly activity with a maximum award amount of \$20,000 over 2 years.

Amir Mian, M.D., Assistant Professor of Hematology/Oncology, received an award to develop an outcome prediction model for pediatric immune-compromised patients with fever and neutropenia. He says, “The CUMG project has helped me tremendously to develop a pathway for professional growth and at the same time, engage in translational research, which has significant impact to change patient care.” Dr. Mian feels that “intramural funding programs are critically important for providing a stepping stone for junior faculty and new investigators to develop investigator-initiated projects which could provide data for applying for extramural grants.” Dr. Mian will be presenting his preliminary data soon and in addition to publishing his results, apply for extramural funds.

ACHRI accepts applications for CUMG grants twice a year: March 1 and September 1. The review process allows ACHRI to recommend applications for funding to the Dean of the College of Medicine. For more information about the CUMG funding programs, contact Amy Stalls (364-3627).

### **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.

- Bowman SM, Aitken ME, Sharp GB. Disparities in hospital outcomes for injured people with epilepsy/seizures. *Epilepsia*. 2010 Jan 7. [Epub ahead of print]
- Kathryn M. Thrailkill, Cynthia S. Moreau, Gael E. Cockrell, Chan-Hee Jo, Robert C. Bunn, Alba E. Morales-Pozzo, Charles K. Lumpkin, John L. Fowlkes. Disease and gender-specific dysregulation of NGAL and MMP-9 in type 1 diabetes mellitus. *Endocrine*. January 2010. [Epub ahead of print]

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.

### **2010 Lyon Award to Michael Stroud**

Dr. Michael Stroud has been awarded the 2010 Marion B. Lyon New Scientist Development Award for his project, "Goal-directed Resuscitative Interventions during Pediatric Inter-facility Transport (The GRIPIT Trial)." His project focuses on goal-directed therapy by specialized pediatric transport teams during inter-facility transport to decrease hospital length of stay for critically ill patients with Systemic Inflammatory Response Syndrome (SIRS), prevent progression to Multiple Organ Dysfunction Syndrome (MODS), and reduce the need for subsequent ICU interventions. The project involves noninvasive measurement of tissue oxygenation during pediatric inter-facility using Near Infrared Spectroscopy (NIRS). NIRS technology reads the light reflected by tissue to determine the level of hemoglobin in the targeted tissue. This project builds on Dr. Stroud's work in the area of pediatric transport medicine research and the potential to change the paradigm for pediatric inter-facility transport and improve the outcomes of critically ill children.

The Lyon Award is possible thanks to a generous gift from Mr. Frank Lyon, Jr., honoring his mother, Marion B. Lyon. Arkansas Children's Hospital Research Institute established the Marion B. Lyon New Scientist Development Award program to support a highly promising beginning scientist in his or her efforts to become an independent investigator. The funding period is for two years from the award date and the award totals at \$50,000.

One of Dr. Stroud's pediatric transport medicine projects was featured in *Research Update* in 2009 (<http://achri.archchildrens.org/about/Stories/Transport.pdf>).

### **Request for Summer Science Program Students and Mentors and High School Student Mentors**

The UAMS Department of Pediatrics and Arkansas Children's Hospital Research Institute are again co-sponsoring the Summer Science Program. The program is intended to give college students experience in working in medical research and a view of medicine in general. The program lasts nine weeks during the summer. To learn more about the program and to download the student or mentor application, please visit the program web page at <http://achri.archchildrens.org/Education/SummerScienceProgram.htm>.

Applications are due March 1, 2010. Please forward completed applications to Jenny Kubacak, Summer Science Program Coordinator, at 13 Children's Way, Slot 842, Little Rock, AR 72202.

Additionally, the ACH Volunteer Services Office is receiving inquiries from Arkansas School for Mathematics, Sciences, and the Arts (high school) students who are looking for a summer research mentor. If you are interested in working with one of these bright, young scientists please contact Sandy Burrow (364-1812) in the ACH Volunteer Services Office.

### ACHRI Staff Supports ACH's Radiothon

On February 11, members of ACHRI's administrative staff worked the phone lines during the B98.5 Champions for Children Radiothon in support of ACH. In the past five years, with B98.5 as our partner, more than \$1,000,000 in gift commitments has been made in support of ACH/ACHRI for the benefit of our patients. This year, B98.5's sister stations in the Citadel network also held live remotes and caregiver interviews in support of the Radiothon. During the Radiothon, Dr. Richard Jacobs was interviewed on both B98.5 and KARN News Radio.



### Ongoing Feature on ACHRI Clinical Trials on Today's THV Web Site

Little Rock's CBS affiliate, Today's THV, now features clinical trials at Arkansas Children's Hospital at its web site. The web page currently plays a video of 2 physicians, Dr. Jose Romero and Dr. Paula Morris, discussing clinical research and trials in the areas of pediatric infectious disease and rheumatology, respectively. ACHRI Clinical Trials Administrator Janet Storment, RN, CCRC, says that the web page will feature different physicians each month. She plans these web videos to be generic or focused on a specific study; however, if a video focuses on a specific study, the IRB must approve the script. If you have a study or physician that you want featured in the upcoming months, please contact Janet (364-2760). The web page and videos are part of ACHRI's campaign to raise awareness and recruitment for clinical trials at ACHRI. You can view the web page and video at <http://www.todaysthv.com/life/community/events/story.aspx?storyid=98133&catid=116#comments>.

### DOP's Biostatistics Program Holds Inaugural 3B Lunch Seminar

The Biostatistics Program of the Department of Pediatrics held its first Basic Biostatistics Boxed (3B) Lunch seminar on January 14. Dr. Chris Swearingen led the inaugural seminar designed to assist investigators and their teams to construct their CUMG grant research plans taking into account statistical considerations by developing their ideas with a consult with the Biostatistics Program. Over 14 people attended the noontime seminar. Biostatistics will hold the next 3B Lunch on Thursday, March 11, in Brandon South from 12 pm to 1 pm; the topic will be "Reading Statistics in Medical Literature Correctly". To reserve a seat or for more information, contact Dr. Swearingen (364- 6639) or Darcy Ewalt (364-6638).



**Debra Watkins (left) and Judy Weber (right) of CARE discuss a possible CUMG submission with Chan-Hee Jo (center) at Biostatistics recent 3B Lunch.**

### eRequest Budget Revisions to Accommodate Animal Research Expenditures

As you know ACHRI and SDG are in the process of developing a new system for ordering animals. Animal procurement will be initiated by generating a request in the eRequest system. You will be hearing more about this system once it is ready to roll out.

To prepare for implementation, budget revisions must be made in the eRequest system to include the newly assigned expense codes for animal procurement and animal per diem. The expense codes are as follows:

- 472 Animal Procurement
- 473 Animal Per Diem

Once this system is implemented, you will not be able to use expense codes 599 Other Supplies or 989 Other Expense as you have in the past for animal expenditures. Please complete a budget revision at your earliest convenience to prevent delays in ordering of animals when the new system is implemented. This will also assist you in managing your animal expenditures as you will be able to view what has been spent for animal procurement and per diem by viewing the budget in eRequest or in the PI Reporting System.

If you need assistance in making the budget revisions, please contact Leslie Montgomery (364-6546) or Inna Selivra (364-6554).

### **Compliance Corner**

It is a new year and we take the time to look forward to the activities of the months to come. While you are reviewing your assets and commitments for the coming year, take a moment to make sure that you do not have any new conflicts of interest. ACHRI's Conflict of Interest policy can be found at: <http://achri.archildrens.org/resources/policies/ConflictofInterest.pdf>  
UAMS released their Conflict of Interest policy in November 2007 and it can be found at: <http://www.uams.edu/orsp/COI%20policy%2011%201%2007%20final%20academic.pdf>

### **Activities Preparatory to Research Form**

Have you completed a "Use of PHI in Activities Preparatory to Research" form in the past?

This form is used to access medical records in order to develop research questions, determine study feasibility, and develop eligibility (inclusion/exclusion criteria) and determination of eligibility for study participation of individual potential subjects.

This form is only valid for one year. If it has been more than one year since you completed your form, you will need to complete another in order to access these types of files.

You can find a copy of this form on our website at:  
[http://achri.archildrens.org/resources/HIPAA\\_forms/Reviews%20Prep%20form.doc](http://achri.archildrens.org/resources/HIPAA_forms/Reviews%20Prep%20form.doc)

Please contact Tanda Grisham, Esq. if you have any questions (364-3571 or [grishamtandar@uams.edu](mailto:grishamtandar@uams.edu)).

### **Grant Writing Tip: Preparing Your NIH Application's Abstract**

While NIH has not yet provided samples of the new abbreviated R01 research strategies for applicants, NIAID has posted samples of abstracts from five outstanding, funded grants from new investigators <<http://funding.niaid.nih.gov/ncn/grants/charts/titleabs.htm>>. In these examples, applicants used their abstracts to list Specific Aims and spell out the significance and innovation of the research.

This helpful section of the NIAID's NIH Grant Cycle tutorial provides the following advice on the content of the Project Summary/Abstract:

- Write a succinct summary of your project that both a scientist and a lay person can understand. Expect all the peer reviewers to read your Abstract.
- In the first sentence, describe the significance of your research to your field and relevance to the target Institute's mission.
- Next state your hypothesis and the innovative potential of your research.
- Then describe your Specific Aims and long-term objectives.

- If your application is funded, its title and abstract become a public text document in the NIH [Research Portfolio Online Reporting Tool Expenditures and Results](#) (RePORTER) database. Don't include confidential or proprietary information.
- Don't include graphs or images.
- Make sure your Abstract has appropriate keywords so NIH referral staff can assign your application and NIH computer systems can retrieve your grant properly. Avoid incidentally related keywords.

This section is not affected by the application changes, but it is critical in that it helps create an important first impression for your application, and all your reviewers read them.

To look for commonalities in providing this advice, NIAID reviewed the abstracts of top-scoring applications from new investigators. They found that these abstracts listed the Specific Aims and spelled out the significance and innovation of the research. For more examples, you can find most titles and abstracts online in NIH's [RePORTER](#).

### Recent Clinical Trial Activity

Clinical Trials	Agency	Project Period	Total Cost
Kristi Palmer	Biosynexus	12/09 - 11/10	\$47,000
Kimo Stine	Novo Nordisk	2/09 - 12/10	\$23,415
Jose Romero	BioMerieux	2/09 - 8/10	\$140,210
Laura James	J&J	1/10 - 7-10	\$20,784

### Recent Extramural Grant Awards and Submissions

Awards				
PI	Agency	Project Title	Project Period	Total Funding
Kathleen Gilbert	NIH	Determining how Trichloroethylene Alters CD4t T Cell Function	1/7/10-11/30/12	\$997,688.00
Submissions				
PI	Agency	Project Title	Project Period	Total Funding
Jennings Boyette	American Academy of Otolaryngology	Psychomotor Vigilance Testing in the Diagnosis and Management of Pediatric Obstructive Sleep Apnea	1/1/10-12/31/10	\$10,560
Clay Bunn	American Heart Association	Mechanism of Inflammatory Activation of Peripheral Blood Monocytes by Insulin and Metabolic Stress	7/1/10-6/30/12	\$140,000
James Graham	Emergency Medicine Foundation	Trial to Improve Time to Antibiotics during ED Crowding	7/1/10-6/30/11	\$49,932
Larry Hartzell	American Academy of Otolaryngology	In Vitro Investigation of Distraction Chondrogenesis	7/1/10-6/30/11	\$10,000

## Intramural Grant Submissions

PI	Program	Project Title	Project Period	Total Funding
Yuemeng Dai	CUMG	Role and Mechanism of Propranolol in the Novel Treatment of Infantile Hemangiomas	2/1/10-1/31/12	\$39,879.00
Stephen Erickson	CUMG	Genome-wide Association Test of DNA Copy Number Variation in Congenital Heart Defects	2/1/10-1/31/12	\$40,000.00
Charlotte Hobbs	CUMG	Validation of Buccal Cell DNA in Genome-Wide Association Studies	2/1/10-1/31/12	\$40,000.00
Jerry Jones	CUMG	Effectiveness of Somatosensory Evoked Potential Testing for Identification of Cervical Spinal Cord Injuries in Victims of Suspected Non-accidental Head Injury	2/1/10-1/31/12	\$4,000.00
Catherine O'Brien	CUMG	Bone Microarchitecture at the Radius: A Pilot Comparison between Children with Cystic Fibrosis and Healthy Controls	2/1/10-1/31/12	\$37,986.84
David Smith	CUMG	A Pilot Study of Central Venous-to-Arterial Partial Pressure of Carbon Dioxide Difference as a Prognostic Indicator in Children	2/1/10-1/31/12	\$18,679.80

### In Case You Missed It: Important Announcement from Recent Editions of *Research Update*

#### Biostatistical and Database Services Available to Researchers

Are you looking to improve the quality of your research project and significantly increase your chance of funding? Do you need a user-friendly database built, an existing database restructured, or reports designed and analyzed? The faculty and staff of [Pediatric Biostatistics](#) under the direction of Dr. Todd Nick can help. We are dedicated to providing outstanding statistical and database support to researchers while advancing the reputation and research capacity of the campus. Our services include grant development (pre-award activities) assistance with framing and refining research questions and reshaping the study design. In addition, we can collaborate in creating a statistical analysis plan (SAP), develop a randomization plan, determine/justify sample size, and develop a data management and data collection plan. For other types of work, such as post-award activities, we can provide database management, statistical analysis, interpretation, and preparation of results for publication and presentation. Database development and management services include building end-user research or clinical databases on secured networks or using secured web-based applications (<http://project-redcap.org>) and providing data from MEDITECH on research-funded projects. For project management questions and funding options for services provided, contact Darcy Ewalt at 364-6638 or [DKEwalt@uams.edu](mailto:DKEwalt@uams.edu). For all administration questions contact Hannah Feild at 364-6631 or [FeildHannah@uams.edu](mailto:FeildHannah@uams.edu).

#### Pathology Services Available to the ACH Research Community

After two years of intense recruiting, the ACH Pathology Unit is now fully staffed with eight MDs and two PhDs who have expertise in all areas of pathology practice. Our major clinical areas of interest

include autopsy pathology, gastrointestinal pathology, hematopathology, neuropathology, and the pathology associated with pediatric malignancies of all types. Our group is keenly interested in collaborating with ACH scientists, particularly those working with human tissues or focused on animal models of disease for which histopathological evaluation is required. To make a connection with the ACH pathologist who can best meet your research needs, please contact Dr. Douglas Blackall, Chief of Pediatric Pathology, at 364-1316 or at [blackalldouglasp@uams.edu](mailto:blackalldouglasp@uams.edu). He will facilitate your interaction with one or more of our pathologists.

### **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.

### **Revised Application Guide for NIH Electronic Submissions Released**

NIH has released the revised "[SF424 \(R&R\) Application Guide for NIH and Other PHS Agencies](#)". This guide is for preparing and submitting applications via Grants.gov to NIH and other PHS agencies using the SF424 (R&R). It is compatible with the Adobe Forms Version B (to be used with FOAs specifying use of Adobe-Forms-B application packages). Applications intended for due dates on or after January 25, 2010, must use the updated version of the FOA and SF 424 (R&R) ADOBE-FORMS-B. The new electronic application packages are not yet available.; as FOAs are updated with new language, the restructured forms will become available. You can register at the grant opportunity listing on grants.gov, to receive email notification when the revised application package is released. Regardless, check the announcement and NIH's Enhancing Peer Review (<http://enhancing-peer-review.nih.gov>) Web page often to ensure you obtain the revised package and other crucial information as soon as possible. Contact John Gregan (364-6296) if you have any questions.

### **Business Mileage Rate for 2010**

The IRS has announced that the business mileage rate for 2010 will be \$0.50. This is a decrease from the 2009 rate of \$0.55. For travel occurring after 12/31/09, the new rate should be used when requesting mileage reimbursement.

### **ACHRI Promoting Clinical Trials on Television**

If you have not seen it already, you soon may see a television commercial narrated by Dr. Tamara Perry about clinical trials at ACHRI. This 30-second advertisement ran primarily during local newscasts and selected prime time shows. Janet Storment, Clinical Trials Administrator, explains the commercials are part of a campaign to raise awareness and recruitment for clinical trials at ACHRI. The commercials will be scheduled to run at various periods through June. The campaign will also include banner and video advertisements at [todaysthv.com](http://todaysthv.com). You can [view the commercial here](#). The campaign is a joint effort of ACHRI clinical trials administration and ACH's Public Relations and Media Services departments. Cute Kid Alert: The adorable little boy being examined by Dr. José Romero in the commercial is Joshua Williams, the son of proud mom ACHRI's Tanda Grisham.

### **UAMS to Enforce Password Protection on Blackberries, iPhones, Win Mobile, and Other Active-Sync Devices (Smart Phones)**

Because of changes to federal law, UAMS is taking steps to minimize the risks of a data breach involving confidential information. [Click here to read more.](#)

### **Purchasing from Staples (formerly Corporate Express)**

The ACH Purchasing Department has requested assistance from the research community when placing orders to Staples (formerly Corporate Express) to allow ACH to take advantage of discounts that in turn are cost savings to you and to promote the “Green Initiative” by reducing waste and packaging materials for these deliveries.

- **ADMINISTRATIVE/NON-GRANT RELATED PURCHASES**  
For all administrative and non-grant related purchases, the total cost of each request must be at least \$50. If you are ordering for multiple departments using different general ledger account numbers, each order must meet the minimum amount.
- **GRANT RELATED PURCHASES**  
For grant related purchases, the \$50 minimum is NOT a requirement. However, if at all possible to accommodate the \$50 minimum per order, please do. For example, before you place any orders for office supplies, consider the frequency of ordering. If you order on a weekly basis and the total is less than \$50, consider ordering once every two weeks or once a month to meet the minimum dollar amount. For center grants that may have multiple projects but costs are charged to one account number, the order must be placed on one request versus placing a request for each project.

First and foremost, remember that expenditures for office supplies are not allowed to grants if using for general daily use or if used for multiple purposes. All requests of office supplies for research projects must accompany a justification that the office supplies are needed for the project being charged and will be used exclusively for that project.

Also, for Staples purchases only, choose ACHRI Drop Off (Research Staples Only) for the SHIP TO option. This will allow for encumbrances to clear once invoice is paid. If there are special shipping instructions, please include in the COMMENT box.

### **Reminder: Review Your Clinicaltrials.gov Submission Every Six Months**

Do you have a study on clinicaltrials.gov? Take a moment today to put a reminder in your calendar to check your submission every six months. Not only is this required, but just good practice. Protocol records for active trials should be reviewed or modified as needed at least every six months. Pay special attention to the recruiting status and contact information as the accuracy and timeliness of this information is extremely important to patients and health care professionals. Update the record's verification date (via the Edit Protocol screen) to confirm the record has been reviewed.