



Children's Foundation  
Research Institute

# Research Matters

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## RESEARCH DAY SET FOR NOV. 14

The fifth-annual Pediatric Research Day, hosted by The Children's Foundation Research Institute, Le Bonheur Children's Hospital, and the Department of Pediatrics at UTHSC, will be held Wednesday, Nov. 14, in the auditorium and the First and Ground Floor lobbies of the Children's Foundation Research Center on Le Bonheur's campus.



Leland Fan, MD

This multi-faceted event will heighten awareness of the basic and transitional sciences, clinical research programs, and patient care and community educational programs.

The day will begin at 8 a.m. with breakfast and opening remarks. Leland Fan, MD, professor of Pediatrics at the University of Colorado and recipient of the 2012 Phillip George Pediatric Pulmonology Lectureship award, will present, "Children's Interstitial Lung Disease (ChILD): Past, Present and Future." His lecture will set the theme for

this year's emphasis on acute and chronic pulmonary diseases in children.

For more than 20 years, Fan has had an interest in pediatric interstitial lung disease (ILD), a diverse group of rare diffuse lung disorders that are difficult to diagnose and treat and that are associated with considerable morbidity and mortality.

Jonathan McCullers, MD; Christie Michael, MD; Anjaparavanda Naren, MD; Saumini Srinivasan, MD; and Dennis Stokes, MD; will each present their current research. The morning session concludes at noon.

From noon - 2 p.m., students, staff and faculty members will discuss their poster displays. Lunch will be available. Four to six posters will receive commendation and financial rewards. Projects on which medical students are the primary authors will be judged separately, and the students are eligible to receive a scholarship award.

The event will conclude at 3:30 p.m., following a cookies and coffee mixer, presentation of outstanding poster awards and closing remarks.

## Arnold focuses on antibiotic misuse

Sandra Arnold, MD, is an associate professor in the Department of Pediatrics in the Division of Infectious Diseases and a pediatrician for ULPS. Arnold completed medical school and training in pediatrics and pediatric infectious diseases at the University of Toronto and The Hospital for Sick Children in Toronto, Canada. She joined the faculty at Le Bonheur in 2001. Her research interests include antibiotic misuse in the community and hospital settings, and common pediatric infections. She is on the writing committee for pediatric bone and joint infections guidelines from the Infectious Disease Society of America. She and her team have recently completed enrollment in a multicenter study of the incidence and etiology of pneumonia in hospitalized children sponsored by the Centers for Disease Control and Prevention. Results from this study have been presented at several national meetings and the first publications are expected in 2013. Dr. Arnold will focus her time on the new Antimicrobial Stewardship program at Le Bonheur and research related to improving antibiotic use in both the hospital and community settings.



Sandra Arnold, MD

THE UNIVERSITY of  
**TENNESSEE** UT  
HEALTH SCIENCE CENTER

Le Bonheur  
Methodist Healthcare Family  
Children's Hospital

Fall 2012

## Researchers offered statistical, informatics support

The Children's Foundation Research Institute offers both statistical and informatics support through its Biostatistics Core and Biomedical Informatics Core (BMIC).

Led by Clinical Director **Dr. Eunice Huang** and Technical Director **Dr. Teeradache Viangteeravat ("Dr. Tee")**, the BMIC offers investigators training and support to ensure successful implementation and execution of small-, medium-, and large-scale studies by providing state-of-the-art informatics expertise, solutions and technologies to

meet individual study needs. Research grant development for extramural funding from the NIH and other sources is especially encouraged.

**Dr. Akunna Emeremni** leads the CFRI Biostatistics Core to help researchers implement research projects with scientific and ethical quality and rigor through consultation and collaboration at all phases of the research. This Core provides statistical support with grant applications, study design, power and sample-size analysis, statistical analysis and statistical support with manuscript preparation and review. Consulting services are also available to guide researchers in

the proper methods needed to conduct their own analysis when the analysis plan is simple and straightforward. Lectures are planned for residents, fellows and faculty in basic biostatistics in the near future.

We encourage researchers to consult as early as possible and to work with the biostatistician and biomedical informaticists to develop a collaborative relationship. To meet with CFRI Core staff, faculty should send an e-mail and/or submit an initial meeting request form to provide information on their study,

including study title, description, hypotheses, aims, endpoints, data sources and collaborating

investigators. Whenever possible, effort for statistical and informatics support should be included in grant budgets for projects utilizing Core expertise.

Following the initial meeting, the Core staff will prepare a summary report of what was discussed and send it to researchers and all appropriate individuals to confirm that the summary is correct. Once confirmed, bioinformatics and statistical support for the project will begin.



Eunice Huang, MD



Teeradache Viangteeravat, MD



Akunna Emeremni, MD

## CFRI Publications July-September 2012

- Alpert BS. Validation of the Nihon Kohden PVM-2701/Impulse-1 automated device by both AAMI (2002) and ISO standards testing. *Blood Press Monit.* 2012;17:207-209.
- Backstrom IC, MacLennan PA, Sawyer JR, Creek AT, Rue LW, 3rd, Gilbert SR. Pediatric obesity and traumatic lower-extremity long-bone fracture outcomes. *J Trauma Acute Care Surg.* 2012;73:966-971.
- Bhutta AT, Schmitz ML, Swearingen C, James LP, Wardbegnoche WL, Lindquist DM, Glasier CM, Tuzcu V, Prodhon P, Dyamenahalli U, Imamura M, Jaquiss RD, Anand KJ. Ketamine as a neuroprotective and anti-inflammatory agent in children undergoing surgery on cardiopulmonary bypass: a pilot randomized, double-blind, placebo-controlled trial. *Pediatr Crit Care Med.* 2012;13:328-337.
- Brey JM, Conoley J, Canale ST, Beaty JH, Warner WC, Jr., Kelly DM, Sawyer JR. Tibial tuberosity fractures in adolescents: is a posterior metaphyseal fracture component a predictor of complications? *J Pediatr Orthop.* 2012;32:561-566.
- Chan SY, Figueroa M, Spentzas T, Powell A, Holloway R, Shah S. Prospective assessment of novice learners in a simulation-based extracorporeal membrane oxygenation (ECMO) education program. *Pediatr Cardiol.* 2012.
- Chesney RW. The five paradoxes of vitamin D and the importance of sunscreen protection. *Clin Pediatr (Phila).* 2012;51:819-827.
- Dong C, Rovnaghi CR, Anand KJ. Ketamine alters the neurogenesis of rat cortical neural stem progenitor cells. *Crit Care Med.* 2012;40:2407-2416.
- Figueroa MI, Sepanski R, Goldberg SP, Shah S. Improving teamwork, confidence, and collaboration among members of a pediatric cardiovascular intensive care unit multidisciplinary team using simulation-based team training. *Pediatr Cardiol.* 2012.
- Kim YI, Park JE, Kwon KH, Hong CY, Yi AK. Interleukin-1 receptor-associated kinase 2- and protein kinase D1-dependent regulation of IRAK-monocyte expression by CpG DNA. *PLoS One.* 2012;7:e43970.
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- Lieberman JA, Huang FR, Sampson HA, Nowak-Wegrzyn A. Outcomes of 100 consecutive open, baked-egg oral food challenges in the allergy office. *J Allergy Clin Immunol.* 2012;129:1682-1684 e1682.
- Lieberman JA, Morotti RA, Konstantinou GN, Yershov O, Chehade M. Dietary therapy can reverse esophageal subepithelial fibrosis in patients with eosinophilic esophagitis: a historical cohort. *Allergy.* 2012;67:1299-1307.
- Lieberman JA, Wang J. Nonallergen-specific treatments for food allergy. *Curr Opin Allergy Clin Immunol.* 2012;12:293-301.
- Malboeuf CM, Yang X, Charlebois P, Qu J, Berlin AM, Casali M, Pesko KN, Boutwell CL, Devincenzo JP, Ebel GD, Allen TM, Zody MC, Henn MR, Levin JZ. Complete viral RNA genome sequencing of ultra-low copy samples by sequence-independent amplification. *Nucleic Acids Res.* 2012.
- Mundt C, Sventitskiy A, Cehelsky JE, Patters AB, Tservistas M, Hahn MC, Juhl G, Devincenzo JP. Assessing modeled CO<sub>2</sub> retention and rebreathing of a facemask designed for efficient delivery of aerosols to infants. *ISRN Pediatr.* 2012;2012:721295.
- Papanicolaou AC. Consciousness revealed? *Cognitive Critique.* 2012;5:1-36.
- Spencer JD, Hastings MC, Wyatt RJ, Ault BH. Has the incidence of childhood steroid sensitive nephrotic syndrome changed? *Clin Nephrol.* 2012;78:112-115.
- Xie Y, Pivnick EK, Cohen HL, Adams-Graves PE, Pourcyrus M, Aygun B, Hankins JS. Phenocopy of warfarin syndrome in an infant born to a mother with sickle cell anemia and severe transfusional iron overload. *J Pediatr Hematol Oncol.* 2012