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Han leads obesity program



Pediatric Endocrinologist Joan Han, MD, is the new director of Le Bonheur and the University of Tennessee Health Science Center's Pediatric Obesity Program. The four-armed approach to fighting obesity includes the Metabolic Research Center. Han comes from the National Institute of Child Health and Human Development at the National Institutes of Health. She has spent her career studying genetic determinants of obesity in the general population and in patients with rare disorders associated with obesity, such as Alstrom, Bardet-Biedl, Prader-Willi and WAGR/11p deletion syndromes.

Atanasovska: IRB coordinator

Kostadinka Atanasovska is the CFRI's new IRB regulatory coordinator. She is a recent graduate of The University of Memphis, where she worked as an Anatomy & Physiology Lab instructor and a graduate assistant at the Lipman School Montessori classroom. Kostadinka spent five years in the Regulatory Affairs Department at ACORN Research, LLC (currently Vector Oncology) and is a certified clinical research professional. She holds a Bachelor of Science degree from Freed-Hardeman University and a Master of Science in Biology from The University of Memphis.



Research Day set for Nov. 19

The 7th annual Pediatric Research Day, organized again this year by Dr. Ae-Kyung Yi, is scheduled for Wednesday, Nov. 19. Dr. Carlton M. Bates, chief of the Pediatric Nephrology Division at the Pittsburgh Children's Hospital and the University of Pittsburgh, is the 2014 James C. Hunt Distinguished Visiting Professor and will serve as keynote speaker. In addition, five UTHSC faculty

members will present their current research in kidney diseases in children. The afternoon will feature poster presentations of a broad spectrum of ongoing research in basic science, translational and clinical research being conducted here in Memphis at Le Bonheur Children's Hospital and the University of Tennessee Health Science Center.

BMIC to manage Dup15q Alliance data

After months of effort and participation in the Dup15q Alliance Consortium, the CFRI Biomedical Informatics Core (BMIC) has now been officially selected and funded by the **Dup15q Alliance Consortium** to serve as its Data Management Center. The mission of the Dup15q Alliance is to provide family support, promote awareness and foster research,

particularly in developing targeted treatments to individuals with chromosome 15q duplication syndrome. The Dup15q Alliance Consortium comprises clinics in cities across the United States, including Boston, New York, Lewisburg (PA), Miami and Weston (FL), St. Paul (MN), Seattle, San Francisco and Los Angeles, and Memphis.

Le Bonheur awards research grants

Five investigators were recently tapped to receive \$25,000-\$30,000 for research, as part of Le Bonheur's Research Grants Program. The researchers were selected among 17 applications -- members of Le Bonheur's medical and nursing staffs, and investigators in the Children's Foundation Research Institute were eligible to apply.

The grants program promotes meritorious clinical and basic investigation at Le Bonheur. It is especially designed to support studies by individuals who are in the early stages of their research career and individuals who are initiating new lines of investigation. Congratulations to the awardees.

Amali Samarasinghe, PhD

"Resistin-like molecules reduce influenza virus-induced morbidity in mice"

Dave Bridges, PhD

"Prediction of weight gain in inbred mouse strains"

Emma Tillman, PharmD, PhD

"Fish oil in parenteral nutrition associated liver disease"

Eszter Volgyi, PhD

"Obesity, exercise and sensorimotor development in children"

Abbas Babajani-Feremi, PhD

"Optimizing language mapping based on high gamma activity"

CFRI Publications January-July 2014

1. Alford EL, Chhim RF, Crill CM, Hastings MC, Ault BH, Shelton CM. Glomerular filtration rate equations do not accurately predict vancomycin trough concentrations in pediatric patients. *Ann Pharmacother*. 2014;48:691-696
2. Astur N, Flynn JM, Ramirez N, Glotzbecker M, van Bosse HJ, Hoashi JS, d'Amato CR, Kelly DM, Warner WC, Jr., Sawyer JR. The efficacy of rib-based distraction with VEPR in the treatment of early-onset scoliosis in patients with arthrogyposis. *J Pediatr Orthop*. 2014;34:8-13
3. Cannon TA, Neto NA, Kelly DM, Warner WC, Jr., Sawyer JR. Characterization of radiation exposure in early-onset scoliosis patients treated with the vertical expandable prosthetic titanium rib. *J Pediatr Orthop*. 2014;34:179-184
4. Caron E, Morgan R, Wheless JW. An unusual cause of flaccid paralysis and coma: baclofen overdose. *J Child Neurol*. 2014;29:555-559
5. Choudhri AF, Chin EM, Blitz AM, Gandhi D. Diffusion tensor imaging of cerebral white matter: technique, anatomy, and pathologic patterns. *Radiol Clin North Am*. 2014;52:413-425
6. Corkins MR, Guenter P, Dimaria-Ghalili RA, Jensen GL, Malone A, Miller S, Patel V, Plogsted S, Resnick HE, American Society for Parenteral Nutrition. Malnutrition diagnoses in hospitalized patients: United States, 2010. *J Parenter Enteral Nutr*. 2014;38:186-195
7. Cormier SA, Shrestha B, Saravia J, Lee GI, Shen L, DeVincenzo JP, Kim YI, You D. Limited Type I IFNs and Plasmacytoid Dendritic Cells during Neonatal Respiratory Syncytial Virus Infection Permit Immunopathogenesis upon Reinfection. *J Virol*. 2014
8. Davidson AR, Murphy RF, Spence DD, Kelly DM, Warner WC, Jr., Sawyer JR. Accessibility and quality of online information for pediatric orthopaedic surgery fellowships. *J Pediatr Orthop*. 2014
9. Denbo JW, Zhu L, Srivastava D, Stokes DC, Srinivasan S, Hudson MM, Ness KK, Robison LL, Neel M, Rao B, Navid F, Davidoff AM, Green DM. Long-Term Pulmonary Function after Metastectomy for Childhood Osteosarcoma. A Report from the St Jude Lifetime Cohort Study. *J Am Coll Surg*. 2014
10. Emery FD, Parvathareddy J, Pandey AK, Cui Y, Williams RW, Miller MA. Genetic control of weight loss during pneumonic Burkholderia pseudomallei infection. *Pathog Dis*. 2014
11. Fesmire S, Sawyer J, Warner WC, Jr., Buckingham S, Bagga B, Anand KJ, Kelly DM. Systemic Clostridium toxicity resulting from a knee laceration in a child. *J Pediatr Infect Dis*. 2014;9:31-35
12. Gilbert SR, MacLennan PA, Backstrom I, Creek A, Sawyer J. Altered lower extremity fracture characteristics in obese pediatric trauma patients. *J Orthop Trauma*. 2014
13. Grad Y, Newman R, Zody M, Yang X, Murphy R, Qu J, Malboeuf CM, Levin JZ, Lipsitch M, Devincenzo J. Within-host whole genome deep sequencing and diversity analysis of human RSV infection reveals dynamics of genomic diversity in the absence and presence of immune pressure. *J Virol*. 2014
14. Guay-Woodford LM, Bissler JJ, Braun MC, Bockenbauer D, Cadnapaphornchai MA, Dell KM, Kerecuk L, Liebau MC, Alonso-Peclat MH, Shneider B, Emre S, Heller T, Kamath BM, Murray KF, Moise K, Eichenwald EE, Evans J, Keller RL, Wilkins-Haug L, Bergmann C, Gunay-Aygun M, Hooper SR, Hardy KK, Hartung EA, Streisand R, Perrone R, Moxey-Mims M. Consensus Expert Recommendations for the Diagnosis and Management of Autosomal Recessive Polycystic Kidney Disease: Report of an International Conference. *J Pediatr*. 2014
15. Jacobs JD, Foster M, Wan J, Pershad J. 7% hypertonic saline in acute bronchiolitis: a randomized controlled trial. *Pediatrics*. 2014;133:e8-e13
16. Jones BG, Sealy RE, Surman SL, Portner A, Russell CJ, Slobod KS, Dormitzer PR, Devincenzo J, Hurwitz JL. Sendai virus-based RSV vaccine protects against RSV challenge in an in vivo maternal antibody model. *Vaccine*. 2014
17. Kelly DM, Heyworth BE, Kruse RW, Edmonds EW, VanderHave KL, Podeszwa DA, Talwalkar VR, Warner WC, Jr., Gordon JE, Pediatric Orthopaedic Society of North America T, Prevention C. Current state of pediatric orthopaedic disaster response. *J Pediatr Orthop*. 2014;34:231-238
18. Kingswood JC, Jozwiak S, Belousova ED, Frost MD, Kuperman RA, Bebin EM, Korf BR, Flamini JR, Kohrman MH, Sparagana SP, Wu JY, Brechenmacher T, Stein K, Berkowitz N, Bissler JJ, Franz DN. The effect of everolimus on renal angiomyolipoma in patients with tuberous sclerosis complex being treated for subependymal giant cell astrocytoma: subgroup results from the randomized, placebo-controlled, Phase 3 trial EXIST-1. *Nephrol Dial Transplant*. 2014;29:1203-1210
19. Krushkal J, Murphy LE, Palmer FB, Graff JC, Sutter TR, Mochizuki K, Hovinga CA, Thomas F, Park V, Tylavsky FA, Adkins RM. Epigenetic analysis of neurocognitive development at 1 year of age in a community-based pregnancy cohort. *Behav Genet*. 2014;44:113-125
20. Kumar TK, Ballweg J, Knott-Craig CJ. Lessons learned with the use of CentriMag as short-term ventricular assist device in a child. *Cardiol Young*. 2014;1-3
21. Lieberman J. Should we encourage allergen immunotherapy during pregnancy? *Expert Rev Clin Immunol*. 2014;10:317-319
22. Liesman RM, Buchholz UJ, Luongo CL, Yang L, Proia AD, Devincenzo JP, Collins PL, Pickles RJ. RSV-encoded NS2 promotes epithelial cell shedding and distal airway obstruction. *J Clin Invest*. 2014;124:2219-2233
23. Manji R, Zheng X, Patel A, Kowerska M, Vossinas M, Drain A, Todd KM, Lenny N, Devincenzo JP, Ginocchio CC. Multi-center evaluation of the adenovirus R-gene US assay for the detection of adenovirus in respiratory samples. *J Clin Virol*. 2014
24. Naik RJ, Shah NC. Teenage heart murmurs. *Pediatr Clin North Am*. 2014;61:1-16
25. Narayana S, Zhang W, Rogers W, Strickland C, Franklin C, Lancaster JL, Fox PT. Concurrent TMS to the primary motor cortex augments slow motor learning. *Neuroimage*. 2014;85 Pt 3:971-984
26. Oshansky CM, Gartland AJ, Wong SS, Jeevan T, Wang D, Roddam PL, Caniza MA, Hertz T, Devincenzo JP, Webby RJ, Thomas PG. Mucosal immune responses predict clinical outcomes during influenza infection independently of age and viral load. *Am J Respir Crit Care Med*. 2014;189:449-462
27. Pagni M, Khan NR, Cohen HL, Choudhri AF. Highly cited works in radiology: the top 100 cited articles in radiologic journals. *Acad Radiol*. 2014;21:1056-1066
28. Papanicolaou AC, Rezaie R, Narayana S, Choudhri AF, Wheless JW, Castillo EM, Baumgartner JE, Boop FA. Is it time to replace the Wada test and put awake craniotomy to sleep? *Epilepsia*. 2014;55:629-632
29. Patel A, Navidad J, Bhattacharyya S. Site-specific clinical evaluation of the Luminex xTAG gastrointestinal pathogen panel for detection of infectious gastroenteritis in fecal specimens. *J Clin Microbiol*. 2014;52:3068-3071
30. Patel V, Romano M, Corkins MR, DiMaria-Ghalili RA, Earthman C, Malone A, Miller S, Sabino K, Wooley J, Guenter P, the American Society for Parenteral Nutrition. Nutrition Screening and Assessment in Hospitalized Patients: A Survey of Current Practice in the United States. *Nutr Clin Pract*. 2014;29:483-490
31. Pretell-Mazzini J, Murphy RF, Sawyer JR, Spence DD, Warner WC, Jr., Beaty JH, Moisan A, Kelly DM. Surgical treatment of symptomatic accessory navicular in children and adolescents. *Am J Orthop (Belle Mead NJ)*. 2014;43:110-113
32. Rhodes L, Nash C, Moisan A, Scott DC, Barkoh K, Warner WC, Jr., Sawyer JR, Kelly DM. Does preoperative orientation and education alleviate anxiety in posterior spinal fusion patients? A prospective, randomized study. *J Pediatr Orthop*. 2014
33. Roan E, Waters CM, Teng B, Ghosh M, Schwingshackl A. The 2-pore domain potassium channel TREK-1 regulates stretch-induced detachment of alveolar epithelial cells. *PLoS One*. 2014;9:e89429
34. Rovnaghi CR, Kala AF, Allen SL, Anand KJ. Interpretation of cortisol concentrations and reference intervals from the CALIPER database. *Clin Chem*. 2014;60:418-419
35. Rush JK, Astur N, Scott S, Kelly DM, Sawyer JR, Warner WC, Jr. The use of magnetic resonance imaging in the evaluation of spondylolysis. *J Pediatr Orthop*. 2014
36. Ryckman KK, Rillamas-Sun E, Spracklen CN, Wallace RB, Garcia L, Tylavsky FA, Howard BV, Liu S, Song Y, Leblanc ES, White MV, Parikh NI, Robinson JG. Ethnic differences in the relationship between birth weight and type 2 diabetes mellitus in postmenopausal women. *Diabetes Metab*. 2014
37. Saravia J, You D, Thevenot P, Lee GI, Shrestha B, Lomnicki S, Cormier SA. Early-life exposure to combustion-derived particulate matter causes pulmonary immunosuppression. *Mucosal Immunol*. 2014;7:694-704
38. Saucier A, Huang EY, Emeremni CA, Pershad J. Prospective evaluation of a clinical pathway for suspected appendicitis. *Pediatrics*. 2014;133:e88-95
39. Schwingshackl A. The Fallacy of Chasing after Work-Life Balance. *Front Pediatr*. 2014;2:26
40. Selvaraju SB, Tierney D, Leber AL, Patel A, Earley AK, Jaiswal D, Menegus MA. Influenza and respiratory syncytial virus detection in clinical specimens without nucleic acid extraction using FOCUS direct disc assay is substantially equivalent to the traditional methods and the FOCUS nucleic acid extraction-dependent RT-PCR assay. *Diagn Microbiol Infect Dis*. 2014;78:232-236
41. Shappley RK, Spentzas T. Differential Role of Rapamycin and Torin/KU63794 in Inflammatory Response of 264.7 RAW Macrophages Stimulated by CA-MRSA. *Int J Inflamm*. 2014;2014:560790
42. Simos PG, Rezaie R, Papanicolaou AC, Fletcher JM. Does IQ affect the functional brain network involved in pseudoword reading in students with reading disability? A magnetoencephalography study. *Front Hum Neurosci*. 2014;7:932
43. Siroky BJ, Yin H, Dixon BP, Reichert RJ, Hellmann AR, Ramkumar T, Tsuchihashi Z, Bunni MA, Dillon J, Bell PD, Sampson JR, Bissler JJ. Evidence for pericyte origin of TSC-associated renal angiomyolipomas and implications for angiotensin receptor inhibition therapy. *Am J Physiol Renal Physiol*. 2014
44. Spentzas T. Are readmissions to the PICU preventable or is this the nature of the beast? *Pediatr Crit Care Med*. 2014;15:92
45. Spentzas T. Should I stay or should I go? *Pediatr Crit Care Med*. 2014;15:575-576
46. Spentzas T. Extracorporeal membrane oxygenation: is high volume better or worse for the patients? *Crit Care Med*. 2014;42:e603-604
47. Stephenson EJ, Hawley JA. Mitochondrial function in metabolic health: a genetic and environmental tug of war. *Biochim Biophys Acta*. 2014;1840:1285-1294
48. Tillman EM, Norman JL, Huang EY, Lazar LF, Crill CM. Evaluation of parenteral nutrition-associated liver disease in infants with necrotizing enterocolitis before and after the implementation of feeding guidelines. *Nutr Clin Pract*. 2014;29:234-237
49. Tutor JD. Chylothorax in infants and children. *Pediatrics*. 2014;133:722-733
50. Vasicek EM, Berkow EL, Flowers SA, Barker KS, Rogers PD. UPC2 Is Universally Essential for Azole Antifungal Resistance in Candida albicans. *Eukaryot Cell*. 2014;13:933-946
51. Venable GT, Khan NR, Taylor DR, Thompson CJ, Michael LM, Klimo P, Jr. A correlation between national institutes of health funding and bibliometrics in neurosurgery. *World Neurosurg*. 2014;81:468-472
52. Vangteeravat T, Nagisetty NS. Giving raw data a chance to talk: a demonstration of exploratory visual analytics with a pediatric research database using microsoft live labs pivot to promote cohort discovery, research, and quality assessment. *Perspect Health Inf Manag*. 2014;11:1d
53. Whaley SG, Caudle KE, Vermitsky JP, Chadwick SG, Toner G, Barker KS, Gyagax SE, Rogers PD. UPC2A Is Required for High-Level Azole Antifungal Resistance in Candida glabrata. *Antimicrob Agents Chemother*. 2014;58:4543-4554
54. Williams RF, Interiano RB, Paton E, Eubanks JW, Huang EY, Langham MR, Blakely ML. Impact of a randomized clinical trial on children with perforated appendicitis. *Surgery*. 2014;156:462-466