

Division Data Summary

Research and Training Details

Number of Faculty	11
Number of Joint Appointment Faculty	5
Number of Support Personnel	38
Direct Annual Grant Support	\$534,211
Peer Reviewed Publications	74

Clinical Activities and Training

Number of Other Students	7
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Division Photo



Row 1: S Salisbury, M Macaluso
Row 2: J Khoury, H Sucharew, J Meinzen-Derr
Row 3: R Ittenbach, E King, R VanDyke, J Woo

Significant Publications

Liu C, Cripe TP, Kim MO. **Statistical Issues in Longitudinal Data Analysis for Treatment Efficacy Studies in the Biomedical Sciences.** *Mol Ther.* 18(9), 1724-1730. 2010.

While longitudinally collected outcomes are increasingly common in cell biology and gene therapy research, the statistical analysis of these data often does not adhere to high standards. Dr. Kim and her coworkers reached out to researchers in these fields with a review article that recommends the "best performing" statistical methods among those available in most statistical packages.

Martin LJ, Woo JG, Morrison JA. **Evidence of shared genetic effects between pre- and postobesity epidemic BMI levels.** *Obesity.* 18(7), 1378-1382. 2010.

This paper evaluates genetic influences on body mass index (BMI) in family members at two time points over 25 years apart, during the period when the obesity epidemic occurred. The results indicate a strong genetic correlation between the two time points, suggesting that by in large the genes that influenced BMI before the obesity epidemic continued to play an important role afterwards.

Meinzen-Derr J, Wiley S, Grether S, Choo DI. **Children with cochlear implants and developmental disabilities: a language skills study with developmentally matched hearing peers.** *Research in developmental disabilities.* 32(2), 757-767. 2011.

The number of children receiving cochlear implants with significant disabilities in addition to their deafness has increased substantially in recent years. In this paper, Dr. Meinzen-Derr and her research team define the "appropriate" control population and provide a quantitative assessment of the cognitive-linguistic gap that is often qualitatively described by clinicians.

Xu Y, Yolton K, Khoury J. **Earliest appropriate time for administering neurobehavioral assessment in newborn**

infants. *Pediatrics*. 127(1), e69-75. 2011.

This study assessed the effect of examination time on newborn neurobehavioral examinations. The proportion of normal Network Neurobehavioral Scale (NNNS) scores increased significantly during the first 20 hours after delivery, becoming stable thereafter, suggesting that results of NNNS examinations performed 20 hours after delivery are not contaminated by the acute effects of labor and delivery.

Piyathilake CJ, Macaluso M, Alvarez RD, Chen M, Badiga S, Edberg JC, Partridge EE, Johannig GL. **A higher degree of methylation of the HPV 16 E6 gene is associated with a lower likelihood of being diagnosed with cervical intraepithelial neoplasia.** *Cancer*. 117(5):957-63. Mar 1, 2011.

Appreciation for the importance of epigenetic mechanisms in the pathogenesis of human disease is steadily increasing. This study provides evidence that epigenetic changes made by host mechanisms to key genes of a carcinogenic human papillomavirus (HPV) may modulate progression of the infection and cervical carcinogenesis.

Division Highlights

Maurizio Macaluso, M.D., Dr.P.H., Professor and Director

Dr. Macaluso joined the faculty in January as the DBE director. His 30 year research work has covered a variety of topics including epidemiologic research methods; cancer epidemiology; occupational epidemiology; health effects of sexual, reproductive and contraceptive behavior; acceptability, efficacy and safety of contraceptive technology; efficacy and safety of assisted reproductive technology; infectious disease epidemiology; surveillance systems; and immunology. In 2010 Dr. Macaluso published 8 peer-reviewed articles and submitted 15 abstracts. Of note is a paper published in the journal *Cancer* (Piyathilake CJ, Macaluso M, Alvarez RD, Chen M, Badiga S, Edberg JC, Partridge EE, Johannig GL. **A higher degree of methylation of the HPV 16 E6 gene is associated with a lower likelihood of being diagnosed with cervical intraepithelial neoplasia.** *Cancer*. 117(5):957-63. Mar 1, 2011.), which provides evidence that epigenetic changes made by host mechanisms to key genes of a carcinogenic human papillomavirus (HPV) may modulate progression of the infection and cervical carcinogenesis. Dr. Macaluso is co-director of the Biostatistics, Epidemiology, and Research Design Core of the NIH-funded CCHMCH Center for Clinical and Translational Science and Training. He did not submit grant applications in 2010 because he was a federal government employee with the Centers for Disease Control and Prevention (CDC). At the CDC he mentored junior scientists, Association of Schools of Public Health fellows, Preventive Effectiveness fellows, and Epidemiologic Intelligence Service Officers, in addition to junior scientists.

Mekibib Altaye, Ph.D., Research Associate Professor

In 2010 Dr. Altaye published 6 peer-reviewed articles and submitted 7 abstracts (3 presented, 4 accepted). Of note is a contribution to the journal "Science," which provides reassuring evidence for the safety of repeated MRI scans in children (Holland SK, Byars AW, Plante E, Szaflarski JP, Dietrich K, Altaye M. **Studies support probable long-term safety of MRI.** *Science*. 329(5991): 512-3. 2010.). Dr. Altaye is developing proposals for follow-up studies to further assess the long-term safety of repeated MRI. He is actively participating in NIH-funded research, and in 2010 he participated in the submission of 5 new grant applications. Dr. Altaye continues to mentor staff, junior investigators and trainees in multiple academic units.

Bin Huang, Ph.D., Research Associate Professor

In 2010 Dr. Huang published 5 peer-reviewed articles and submitted 7 abstracts. Of note is a contribution to the *American Journal of Sports Medicine*, which improves the ability to predict cruciate ligament injury after surgery

(Paterno MV, Schmitt LC, Ford KR, Rauh MJ, Myer GD, Huang B, Hewett TE. **Biomechanical Measures during Landing and Postural Stability Predict Second Anterior Cruciate Ligament Injury after ACL Reconstruction and Return to Sport.** *AJSM*. In Press). The paper received the award for the best research paper at the 2010 meeting of the American Orthopaedic Society for Sports Medicine. Dr. Huang's methodologic research aims to develop/enhance methodologies for statistical causal inference, mediation analysis, and modeling of pubertal development. She is active in NIH-funded research, and in 2010 she participated in the submission of 7 new grant applications. Dr. Huang continues to mentor staff, junior investigators and trainees in multiple academic units, and leads an internship program developed in collaboration with the UC Department of Mathematics.

Richard Ittenbach, Ph.D., Research Associate Professor

In 2010 Dr. Ittenbach published 10 peer-reviewed articles and submitted 5 abstracts. Dr. Ittenbach continued to lead the CCHMC-wide effort to establish state-of-the-art quality standards in data management and develop a data management center, a key activity recognized as a priority in the CCHMC Strategic Plan. Of note are also his efforts to develop a measurement scale unit and to advance empirical ethics at CCHMC, which led to the development of three grant applications and the publication of five papers. Dr. Ittenbach's methodologic research aims to develop/enhance methodologies for the design and statistical analysis of multi-item scales, and for the application of ethics principles in pediatric research. In 2010 Dr. Ittenbach participated in the submission of 4 new grant applications. Dr. Ittenbach mentored staff, junior investigators and trainees in multiple academic units, and has contributed to the development of the Biostatistics and Epidemiology modules of the Pediatrics Fellowship Core Curriculum and the education and training modules for the data management curriculum.

Jane C. Khoury, Ph.D., Research Assistant Professor

In 2010 Dr. Khoury published 17 peer-reviewed articles and submitted 16 abstracts. Her research focuses on diabetes, obesity and cardiovascular disease and stroke. She serves as the principal investigator of the biostatistical core for SPOTRIAS, which includes 2 clinical trials, a registry and a basic science project, and of a CCHMC sub-contract to UC for the Stroke epidemiology R01. She also is a co-investigator on five other NIH-funded projects and submitted one new R01 application in 2010 as the PI. In 2010 Dr. Khoury participated in the submission of 14 new grant applications. Dr. Khoury continues to mentor staff, junior investigators and trainees in multiple academic units, and is the lead instructor of classes in the UC Department of Occupational and Environmental Health, where she holds a secondary appointment.

Mi-Ok Kim, Ph.D., Research Associate Professor

In 2010 Dr. Kim published 8 peer-reviewed articles and submitted 10 abstracts. Of note is a paper in the *Journal Molecular Therapy* (Liu C, Cripe TP, Kim MO. **Statistical Issues in Longitudinal Data Analysis for Treatment Efficacy Studies in the Biomedical Sciences.** *Mol Ther.* 18(9), 1724-1730.), in which Dr. Kim and her coworkers reached out to researchers in cell biology and gene therapy research with a review article that recommends the "best performing" statistical methods among those available in most statistical packages. Dr. Kim's methodologic research focuses on quantile regression, for which she received an award by the National Science Foundation, and on adaptive clinical trials design and she is the PI of an intramural research grant on this topic awarded by the CCTST. Dr. Kim leads the Cancer and Blood Disease Institute Biostatistics Unit and is the biostatistics director of the NIH-funded Cincinnati Center for Excellence in Molecular Hematology (Zheng, PI). In 2010 Dr. Kim participated in the submission of 11 new grant applications including one as a PI. Dr. Kim continues to mentor staff, junior investigators and trainees in multiple academic units.

Eileen King, Ph.D., Research Associate Professor

Dr. King joined the DBE in 2009 after a distinguished career as a statistician in the pharmaceutical industry, where she last directed the department of Biostatistics at Procter and Gamble. In 2010 Dr. King published 1 peer-reviewed article and submitted 4 additional manuscripts and 7 abstracts. Her research focuses on outcomes research, digestive diseases, asthma and cardiovascular diseases. She serves as a senior statistician for the Anderson Center, the Heart Institute Research Core, the CCTST and the Digestive Health Center. She serves as a statistician on 6 NIH-funded projects and participated in the submission of three new applications in 2010: she is developing a data coordinating center application as the PI, in coordination with a proposal for a multi-site clinical trial of interventions for patients with asthma. Dr. King serves as the director of the Data Management Center, a key part of the CCHMC-wide effort to establish state-of-the-art quality standards in data management, recognized as a priority in the CCHMC Strategic Plan. Dr. King continues to mentor staff, junior investigators and trainees in multiple academic units, and is the lead instructor of "Statistical Principles for Clinical Research Studies" in the UC College of Pharmacy, where she holds an adjunct faculty position.

Jareen Meinzen-Derr, Ph.D., Research Assistant Professor

In 2010 Dr. Meinzen-Derr published 7 peer-reviewed articles and submitted 17 abstracts. Of note is a paper in the journal *Research in Developmental Disabilities* (Meinzen-Derr J, Wiley S, Grether S, Choo DI. **Children with cochlear implants and developmental disabilities: a language skills study with developmentally matched hearing peers.** *Research in developmental disabilities.* 32(2); 757-767.), in which Dr. Meinzen-Derr and her research team define the "appropriate" control population and provide a quantitative assessment of the cognitive-linguistic gap that is often qualitatively described by clinicians. Dr. Meinzen-Derr's research focus is on developmental disabilities associated with hearing loss and on perinatal health outcomes. In 2011, her work led to the award of a Maternal and Child Health Research Grant funded by HRSA, and has also gained the group resonance in the field of deafness and additional disabilities. The CCHMC cochlear implant team is viewed as a leader in implantation of multiply complex children mainly due to the research efforts and clinical care of these children. Dr. Meinzen-Derr mentored staff, junior investigators and trainees in multiple academic units. She contributed to the Biostatistics and Epidemiology modules of the Pediatrics Fellowship Core curriculum and leads the Experimental Design lectures in Neonatology and Developmental and Behavioral Pediatrics. She was the primary instructor of "Introduction to Epidemiology" in the graduate program in Biostatistics and Epidemiology in the Department of Environmental Health and developed an online curriculum for the same program and for the CCTST.

Shelia Salisbury, Ph.D. - Research Assistant Professor

In 2010 Dr. Salisbury published 11 peer-reviewed articles and submitted 8 abstracts. She serves as a statistician for the Divisions of Infectious Diseases, Anesthesiology and Radiology. She is a co-investigator on 4 NIH-funded projects, 4 industry-sponsored projects and 4 division-supported research studies, and participated in the submission of three new applications in 2010. Dr. Salisbury continued to mentor junior faculty, staff and students in multiple academic units. She has taught "Introduction to Biostatistics" in the graduate program in Biostatistics and Epidemiology in the Department of Environmental Health where she holds a secondary appointment, and invited lectures in the Departments of Radiology and Physical Medicine & Rehabilitation.

Rhonda VanDyke, Ph.D., Research Assistant Professor

In 2010 Dr. Vandyke published 3 peer-reviewed articles and submitted 7 abstracts. She serves as a statistician

for the Division of Pulmonary Medicine. Her methodologic research interests are in functional data analysis, classification methods, self-modeling regressions, and instrumental variables regression. She is also interested outcomes research for children with cystic fibrosis and obstructive sleep apnea. She was recently awarded a CCTST statistical methods development grant to further her research on ambulatory blood pressure monitoring and cardiac outcomes in children with obstructive sleep apnea. She is a co-investigator on 3 NIH-funded projects, and participated in the submission of three new grant applications in 2010. Dr. Vandyke continued to mentor junior faculty, staff and students in multiple academic units and contributed to the Biostatistics modules of the Pediatrics Fellowship Core curriculum.

Jessica Woo, Ph.D., Research Assistant Professor

In 2010 Dr. Woo published 3 peer-reviewed articles and submitted 10 abstracts. Her research focuses on the epigenetic developmental pathways leading to pediatric obesity. Of note is a paper published in the journal *Obesity* (Martin LJ, Woo J G, Morrison JA. **Evidence of shared genetic effects between pre- and postobesity epidemic BMI levels.** *Obesity.* 18(7), 1378-1382.), in which Dr. Woo and colleagues evaluate genetic influences on body mass index (BMI) in family members at two time points over 25 years apart, during the period when the obesity epidemic occurred. Dr. Woo received the CCHMC Schmidlapp Women Scholars award in 2010, was the PI of a research contract with Mead Johnson and participated in the submission of 6 new grant applications. In addition, Dr. Woo leads the Biostatistics unit of the Heart Institute Research Core and continues to mentor staff, junior investigators and trainees in multiple academic units. She also contributes to the Biostatistics and Epidemiology modules of the Pediatrics Fellowship Core curriculum and has taught "Introduction to Epidemiology" in the graduate program in Biostatistics and Epidemiology in the Department of Environmental Health, where she holds a secondary appointment.

Division Collaboration

Adolescent Medicine » Frank Biro, Jessica Kahn

Bin Huang, Ph.D. - Dr. Huang collaborates with Dr. Biro on two NIH funded projects (U01 & R21), investigating the relationship between puberty and cancer initiation, and understanding the role of pubertal developmental process to the development of childhood obesity. She collaborates with Dr. Kahn on her R01 entitled behavioral and virologic impact of HPV immunization.

Allergy and Immunology » Marc Rothenberg

Eileen King, Ph.D. – Dr. King provides statistical support for study design, data base creation, statistical analysis, and abstract and manuscript preparation for research studies.

Anderson Center for Health Systems Excellence » Jim Heubi, Carole Lannon, Peter Margolis, Kieran Phelan

Jane Khoury, Ph.D. – Dr. Khoury has been collaborating with Dr. Phelan over the past ten years, providing statistical support. In particular we work together on interpretation of the analyses and preparation of abstracts and manuscripts.

Eileen King, Ph.D. – Dr. King provides leadership for the Data Coordinating Center activities for the multi-site learning networks. She leads all data management support including data base creation, cleaning and maintenance and also leads the statistical support for abstract and manuscript development.

Anesthesia » Charles Eastwood, Nancy Hagerman, George Istaphanous, Fay Jou, Dean Kurth, Mahamed Mahmoud, John McAuliff, David Moore, Mario Patino, Jayant Pratap, Senthilkumar Sadhasivan, Alexandra Szabova, Anna Varughese, Junzheng Wu

Shelia Salisbury, Ph.D. - Dr. Salisbury collaborates with all of the listed collaborating faculty by providing statistical support for approximately 20 various research studies to include study design, data base creation, statistical analysis, and preparation of abstracts and manuscripts.

Audiology » David Brown

Jareen Meinzen-Derr, Ph.D. – Dr. Meinzen-Derr collaborates with Dr. Hunter as a co-investigator, providing study design and statistical support for her grants. She also provides statistical support for study design, statistical analysis, abstract, and manuscript preparation for research projects conducted within Audiology.

Behavioral Medicine and Clinical Psychology » Robert Ammerman, Dennis Drotar, Jeff Epstein, Kevin Hommel, Josh Langburg, Ahna Pai, Leanne Tamm

Mekibib Altaye, Ph.D. – Dr. Altaye collaborates with Drs Ammerman, Epstein, Lagburg and Tamm. He provides statistical support for study design, grant development, statistical analysis, and abstract and manuscript preparation for various studies.

Richard Ittenbach, Ph.D. – Dr. Ittenbach collaborates with researchers in the Adherence Center on measurement and methodological issues related to medication treatment adherence and self-management issues.

Child Psychiatry » Elana Harris

Rhonda VanDyke, Ph.D. – Dr. VanDyke collaborates with Dr. Elana Harris on neuronal activity in children with obsessive compulsive disorder.

Critical Care Medicine » Hector Wong

Shelia Salisbury, Ph.D. - Dr. Salisbury has ongoing collaboration with Dr. Hector Wong in developing a biomarker risk model for pediatric septic shock.

Developmental and Behavioral Pediatrics » Susan Wiley

Jareen Meinzen-Derr, Ph.D. – Dr. Meinzen-Derr has an ongoing collaboration with Dr. Wiley (as co-principal investigators) and Dr. Grether on studies regarding co-existing hearing impairment and developmental disabilities. She also provides study design and statistical support to the clinical fellows as needed.

Education and Learning » Fellows Core Curriculum

Richard Ittenbach, Ph.D. – Dr. Ittenbach collaborates with the Education and Learning department with respect to the statistics and study design components of the Fellowship Core Curriculum.

Emergency Medicine » Melinda Mahabee Gittens

Jane Khoury, Ph.D. – Dr. Khoury has an ongoing collaboration with Dr. Mahabee-Gittens focusing on the initiation and potential family influences on youth cigarette smoking. Dr. Khoury provides statistical support together with, Yang Xiao, a graduate student. Support is given for analysis interpretation for abstracts and manuscripts, and also for grants proposals.

Endocrinology » Nancy Crimmins, Lawrence Dolan, Deborah Elder, Meilan Rutter

Jane Khoury, Ph.D. – Dr. Khoury has an ongoing collaboration with Dr. Dolan working on an RO1 grant submission, to examine the long-term effects of in-utero exposure to diabetes.

Jessica Woo, Ph.D. – Dr. Woo has ongoing collaborations with Dr. Meilan Rutter on the use of growth hormone in Duchenne Muscular Dystrophy patients, with Dr. Deborah Elder on the assessment of beta cell function in

newly-diagnosed adolescents with Type 2 diabetes, and with Dr. Nancy Crimmins on the assessment of metabolic dysregulation in obese toddlers.

Gastroenterology, Hepatology, and Nutrition » Conrad Cole, James Franciosi, Adam Mezzoff, Stavra Xanathos

Eileen King, Ph.D. – Dr. King provides statistical support for study design, data base creation, statistical analysis, and abstract and manuscript preparation for research studies.

General and Community Pediatrics » Robert Kahn, Kiera Phelan, Kimberly Yolton

Mekibib Altaye, Ph.D. – Dr. Altaye collaborates with Dr. Yolton on her insecticide exposure study provide statistical analysis, abstract and manuscript preparation services.

Bin Huang, Ph.D. – Dr. Huang collaborates with Dr. Robert Kahn on his RO1 aimed to understand racial disparity in child asthma morbidity. She collaborates with Dr. Phelan on his RO1 that evaluating an injury intervention program in young children.

Jane Khoury, Ph.D. – Dr. Khoury has ongoing collaboration with Drs. Copeland and Yolton, providing help with study design and statistical support. Dr. Khoury has also been involved with overseeing data management and very involved with abstract and manuscript preparation.

Global Child Health » Adekunle Dawodu

Jessica Woo, Ph.D. – Dr. Woo collaborates with Dr. Adekunle Dawodu to assess the vitamin D status in breastfed infants and their mothers.

Mekibib Altaye, Ph.D. – Dr. Altaye collaborates with Dr. Adekunle Dawodu on his randomized controlled trial to investigate the impact of different doses of Vitamin D on the mother and child outcome.

Heart Institute » Jeffrey Anderson, Jim Cnota, Robert Hinton, Kan Hor, John Jeffries, Shelly Kirk, Bradley Marino, Jeffrey Shuhaiber, Robert Siegel, Jeffrey Towbin

Richard Ittenbach, Ph.D. – Dr. Ittenbach collaborates with a number of different HIRC investigators with respect to statistical and study design related issues, particularly those that involve hypoplastic left heart syndrome and its variants.

Eileen King, Ph.D. – Dr. King provides statistical support for study design, data base creation, statistical analysis, and abstract and manuscript preparation for research studies.

Jessica Woo, Ph.D. – Dr. Woo is the statistical manager of the Heart Institute Research Core, including active collaborations with Drs. Robert Hinton, James Cnota, Catherine Krawczeski, Robert Siegel, Shelley Kirk, and Woody Benson.

Hematology / Oncology » Cancer and Blood Diseases Institute

Mi-Ok Kim, Ph.D. - Dr. Kim collaborates with the Cancer and Blood Diseases Institute (CBDI) on the design and analysis of clinical and preclinical studies generally, with a special focus on determining the antitumor effects in models of malignant peripheral nerve sheath tumors of drugs or drug combinations identified as potentially important in NF1-related cell signaling.

Infectious Diseases » Monical McNeal, Mary Staat

Eileen King, Ph.D. – Dr. King provides statistical support for the validation of a clinical ELISA assay.

Shelia Salisbury, Ph.D. – Dr. Salisbury collaborates with Dr. Mary Staat on a number of research studies involving vaccine effectiveness, burden of Staphylococcus aureus in the Cincinnati area, burden of acute

respiratory infections in Hamilton County, rotavirus disease burden and trends, intussusception, intestinal parasite detection in internationally adopted children, immunization verification in internationally adopted children, and norovirus outbreak. She provides statistical support for study design, data base creation, statistical analysis, and preparation of abstracts and manuscripts.

Mass Spectrometry Laboratory » Ken Setchell

Eileen King, Ph.D. – Dr. King provides statistical support for data base creation, statistical analysis, and abstract and manuscript preparation for research studies.

Molecular Immunology » Claire Chougnet

Eileen King, Ph.D. – Dr. King provided support for statistical analysis and abstract and manuscript preparation for evaluating the effect of antiretroviral therapy (HAART) on regulatory T cells.

Neonatology and Pulmonary Biology » Laurel Bookman, James Greenberg, Suhas Kallapur, Beena Kamath, Stephanie Merhar, Ardythe Morrow, Vivek Narendran, Laurie Nommsen-Rivers, Kurt Schibler, Andrew South, Laura Ward

Mekibib Altaye, Ph.D. – Dr. Altaye collaborates with Drs. Morrow and Schibler in their investigation of characterizing and comparing microbiome of the gut in different infant groups. He provides study design and statistical analysis support for different projects.

Bin Huang, Ph.D. – Dr. Huang collaborates with Dr. Nommsen-Rivers on understanding relationship between maternal obesity and the poor lactation outcomes.

Jareen Meinzen-Derr, Ph.D. – Dr. Meinzen-Derr has ongoing collaborations with Drs. Bookman (tongue-based obstruction studies), Greenberg (neonatal outcomes related to prematurity), Morrow and Ward (human milk studies in premature infants), Kurt Schibler (NEC in premature infants), South (Gastroschisis and imaging studies). She also provides epidemiologic and statistical support, abstract and manuscript preparation for research studies.

Jessica Woo, Ph.D. – Ongoing collaboration with Dr. Ardythe Morrow on an international birth cohort of breastfed infants.

Nephrology » John Bissler, Prasad Deverajan, Mark Mitsnefes

Eileen King, Ph.D. – Dr. King provides statistical support for study design, data base creation, statistical analysis, and abstract and manuscript preparation for research studies.

Shelia Salisbury, Ph.D. – Dr. Salisbury collaborates with Dr. John Bissler on two studies regarding angiomyolipomata therapy in patients with Tuberous Sclerosis Complex, and several studies with Dr. Mark Mitsnefes regarding markers of cardiovascular disease in children with chronic kidney disease. She provides statistical support for study design, data base management, statistical analysis, and abstract and manuscript preparation.

Jessica Woo, Ph.D. – Ongoing collaboration with Dr. Prasad Deverajan on two manuscripts regarding biomarker evaluation for acute kidney injury after cardiopulmonary bypass in children.

Neurology » Jennifer Vannest, Douglas Rose, Brenda Wong, Jing Xiang

Mekibib Altaye, Ph.D. – Dr. Altaye collaborates with Dr. Vannest providing study design and statistical analysis support for her grant that examines how seizures and abnormal brain activity affect language skills in children with centro-temporal spikes.

Rhonda VanDyke, Ph.D. – Dr. VanDyke collaborates with Drs. Douglas Rose and Jing Xiang on MEAG research.

Jessica Woo, Ph.D. – Dr. Woo collaborates with Dr. Brenda Wong on use of growth hormone in Duchenne Muscular Dystrophy patients.

Ophthalmology » Michael Gray, William Motley; William Motley

Shelia Salisbury, Ph.D. - Dr. Salisbury collaborates with Drs. Michael Gray and William Motley to examine the strabismus surgery outcomes in children with Down syndrome. She provides statistical support for the statistical analysis, and preparation of abstract and manuscript.

Otolaryngology » Daniel Choo, Allesandro deAlarcon, Ravi Elluru, John Greinwald, Michael Rutter, Sally Shott

Jareen Meizen-Derr, Ph.D. – Dr. Meizen-Derr collaborates with Dr. Choo, Greinwald, and Arjmand regarding research directly related to pediatric hearing loss. She collaborates with Drs. Elluru, deAlarcon, and Rutter on projects that are related to airway reconstruction. She also provides support to Drs. deAlarcon and Myer for education of fellows and ENT residents. She provides ongoing epidemiologic and statistical support for research projects.

Shelia Salisbury, Ph.D. – Dr. Salisbury collaborates with Dr. Sally Schott to develop a functional model of the upper airway in children with Down syndrome. She provides statistical support for the study design, data base creation, statistical analysis, and preparation of abstract and manuscript.

Pediatric Neuroimaging Research Consortium » Mark DiFrancesco, Scott Holland, Janaka Wansapura, Weihong Yuan

Mekibib Altaye, Ph.D. – Dr. Altaye collaborates with Drs. Holland, Yuan and DiFrancesco in study design and statistical analysis of MRI, fMRI and DTI imaging projects.

Shelia Salisbury, Ph.D. – Dr. Salisbury collaborates with Dr. Janaka Wansapura regarding angiomyolipomata therapy in patients with Tuberous Sclerosis Complex. She provides statistical analysis, and abstract and manuscript preparation.

Pediatric Neurosurgery » Todd Maugans

Mekibib Altaye, Ph.D. - Dr. Altaye collaborates with Dr. Maugans in his study to investigate sport related concussion in brain blood flow and metabolism.

Shelia Salisbury, Ph.D. - Dr. Salisbury collaborates with Dr. Todd Maugans regarding tranexamic acid use in minimally invasive versus open craniosynostosis procedures. She provided the statistical analysis and preparation of abstracts and manuscript.

Physical Medicine and Rehabilitation » Jilda Vargus-Adams

Shelia Salisbury, Ph.D. – Dr. Salisbury collaborates with Dr. Jilda Vargus-Adams. She provided the statistical analysis and preparation of abstracts and manuscript in a study involving children with CP. The study examined perspectives of the child's functioning from the viewpoint of the child, parent and medical professional. She also provided statistical support in the design and preparation of a grant protocol looking at robotic gait Training in children with CP.

Pulmonary Medicine » Raouf Amin, Paul Boesch, Barbara Chini, Joseph Crisalli, Mathew Ednick, Daniel Grossoehme, Bill Hardie, Carolyn Kercksmar, Karen McDowell, Gary McPhail, Hemant Sawrani, Michael Seid, Abu Shamsuzzaman, Narong Simakajornboon, Bruce Trapnell

Bin Huang, Ph.D. – Dr. Huang collaborates with Dr. Seid on his RO1 evaluating health related quality of life in JIA patients.

Eileen King, Ph.D. – Dr. King provides statistical support for study design, data base creation, statistical analysis, and abstract and manuscript preparation for research studies.

Shelia Salisbury, Ph.D. – Dr. Salisbury collaborates with Dr. Raouf Amin to develop a functional model of the upper airway in children with Down syndrome. She provides statistical support for the study design, data base creation, statistical analysis, and preparation of abstract and manuscript.

Rhonda VanDyke, Ph.D. – Dr. VanDyke collaborates with investigators in Pulmonary Medicine on extramural grants and publications for asthma, neuromuscular dystrophy, cystic fibrosis, rare lung disease and sleep apnea research.

Radiology » Alan Brody, Kim Cecil, Charles Dumoulin, John Egelhoff, Kathy Emery, Robert Fleck, Beth Kline-Fath, David Larson, Daniel Podberesky, Janaka Wansapura

Mekibib Altaye, Ph.D. –Dr. Altaye collaborated with Dr. Cecil in her study of the effect of lead in spectroscopy measures.

Shelia Salisbury, Ph.D. – Dr. Salisbury collaborates with Drs. Alan Brody, Charles Dumoulin, John Egelhoff, Kathy Emery, Robert Fleck, Beht Kline-Fath, David Larson, and Daniel Podberesky by providing statistical support for approximately 32 various research studies to include study design, data base creation, statistical analysis, and preparation of abstracts and manuscripts.

Rhonda VanDyke, Ph.D. – Dr. VanDyke collaborates with Drs. Janaka Wansapura and Robert Fleck on cardiac MRI research.

Rheumatology » Ed Giannini, Dan Lovell, Esi Morgan Dewitt

Bin Huang, Ph.D. – Dr. Huang collaborates with Dr. Lovell on his RO1 investigate biology of responses to TNF blockage in JRA patients; she also collaborate with Dr. Lovell on several other NIH funded RO1 projects that involves randomized clinical trials in autoimmune disease patients. She collaborates with Dr. Dewitt on her UO1entitled enhancing PROMIS in pediatric pain, rheumatology and rehabilitation research. Dr. Huang serves as the principal statistician to P60 methodological core PI by Dr. Giannini, serving number of Rheumatology investigators.

Speech Pathology » Ann Kummer

Jareen Meizen-Derr, Ph.D. – Dr. Meizen-Derr collaborates with Dr. Kummer on speech, language, and voice-related projects specific to velopharyngeal insufficiency.

Sports Medicine » Nicholas Edwards, Kevin Ford, Tim Hewett, Greg Myer, Mark Paterno, Laura Schmitt

Bin Huang, Ph.D. – Dr. Huang collaborates with Drs. Hewett, Paterno and Schmitt investigating risk factors related to second onset of ACL injury after ACL reconstruction surgery, and success return to sports.

Jane Khoury, Ph.D. – Dr. Khoury collaborates with Dr Ford, Dr Hewett and Dr Myer regarding ACL injury in female adolescent athletes. Dr Khoury provides statistical support and is involved in interpretation for abstract and manuscript preparation and also in writing grant applications.

Jessica Woo, Ph.D. – Dr. Woo collaborates with Dr. Nicholas Edwards regarding physical activity in the BMI rebound cohort.

Trauma Services » Richard Falcone

Eileen King, Ph.D. – Dr. King provides statistical support for study design, statistical analysis, and abstract and manuscript preparation for research studies.

Faculty Members

Maurizio Macaluso, MD, DrPH, Professor

Division Director

Research Interests Research methods; cancer; infectious disease; occupational health; sexual and reproductive health; contraception; assisted reproductive technology; surveillance systems

Mekibib Altaye, PhD, Associate Professor

Research Interests Design and analysis of correlated, clustered and longitudinal data. Design and analysis of functional brain image data inference procedures for reliability data.

Bin Huang, PhD, Associate Professor

Research Interests Application motivated statistics development include statistical modeling of mediation or surrogacy effect, and general latent variable modeling

Richard F. Ittenbach, PhD, Associate Professor

Research Interests Study Design, Scale Development; Rasch analysis, Empirical Bioethics

Jane C. Khoury, PhD, Assistant Professor

Research Interests Experimental design of cohort studies and trials, long term effects of the diabetic intra-uterine environment

Mi-Ok Kim, PhD, Associate Professor

Research Interests Using quantiles to better depict the rate of decline in a key pulmonary functional measurement in cystic fibrosis patients. Principal area of application is blood diseases and cancer.

Eileen King, PhD, Associate Professor

Research Interests Statistical Quality Control Methods for Correlated Data in Outcomes Research; Statistical Methods for Comparative Effectiveness Research

Jareen Meinzen-Derr, PhD, Assistant Professor

Research Interests Hearing and deafness, developmental disabilities, neonatal outcomes

Shelia R. Salisbury, PhD, Assistant Professor

Research Interests Cancer research: Design and analysis of correlated longitudinal data

Rhonda VanDyke, PhD, Assistant Professor

Research Interests Bayesian modeling, Markov Chain Monte Carlo (MCMC). Functional Data Analysis, and latent variable regressions with focus on Pulmonary outcomes.

Jessica G. Woo, PhD, Assistant Professor

Research Interests Molecular epidemiology, with a particular research interest in pediatric obesity

Joint Appointment Faculty Members

Melinda Butsch Kovacic, MPH, PhD, Assistant Professor

Personalized & Predictive Medicine

Research Interests Molecular, genetic and environmental epidemiology, biomarkers of environmental exposure and disease severity

Adekunle Dawodu, MD, Professor

Center for Global Child Health

Research Interests Vitamin D and International child health outcomes

Lisa J. Martin, PhD, Associate Professor

Human Genetics

Research Interests Genetic Epidemiology, Obesity, Heart Malformations

Ardythe L. Morrow, PhD, Professor

Director, Center for Interdisciplinary Research in Human Milk and Lactation

Research Interests Molecular Epidemiology of Human Milk, Epidemiologic Methods, Prevention of Infectious Disease, Predictive Biomarkers of Neonatal Outcomes

Jennie G. Noll, PhD, Professor

Behavioral Medicine & clinical Psychology

Research Interests Developmental effects of childhood abuse, longitudinal methods, multivariate, dynamic modeling

Significant Accomplishments

Collaborations enhance grants and publications

The Division of Biostatistics and Epidemiology continued its strong research program through collaborations with 54 other divisions and publication of more than 100 peer-reviewed articles. Key articles covered the safety of MRI scans, neurobehavioral assessment of newborns, developmental disabilities of cochlear implant recipients, genetics of obesity, and statistical issues in longitudinal data analysis. We also participated in 43 collaborative grants and received three new extramural awards and seven institutional awards.

Building the Data Management Center

Our team continued to lead the institution-wide effort to build a strong Data Management Center, including developing its vision, mission and organizational structure and launching the search for a faculty director. The center has hosted a series of educational events to promote excellence in data management and is finalizing its marketing plan and web page.

Education and Faculty Growth

Our division was actively engaged in education and training activities to serve pediatric residents, fellows, junior faculty, and graduate/post-graduate students at Cincinnati Children's and the University of Cincinnati. In January 2011, we also began to reorganize and expand our faculty, strengthening our ability to collaborate with other divisions and to develop its independent research. Two faculty positions have been filled and a national search continues.

Division Publications

1. Adeoye O, Heitsch L, Moomaw CJ, Alwell K, Khoury J, Woo D, Flaherty ML, Ferioli S, Khatri P, Broderick JP, Kissela BM, Kleindorfer D. **How much would performing diffusion-weighted imaging for all transient ischemic attacks increase MRI utilization?** *Stroke; a journal of cerebral circulation*. 2010; 41:2218-22.
2. Akinbi H, Meinzen-Derr J, Auer C, Ma Y, Pullum D, Kusano R, Reszka KJ, Zimmerly K. **Alterations in the host defense properties of human milk following prolonged storage or pasteurization.** *Journal of*

- pediatric gastroenterology and nutrition*. 2010; 51:347-52.
3. Anderson JE, Warner L, Jamieson DJ, Kissin DM, Nangia AK, Macaluso M. **Contraceptive sterilization use among married men in the United States: results from the male sample of the National Survey of Family Growth**. *Contraception*. 2010; 82:230-5.
 4. Barzman DH, Brackenbury L, Sonnier L, Schnell B, Cassedy A, Salisbury S, Sorter M, Mossman D. **Brief Rating of Aggression by Children and Adolescents (BRACHA): Development of a Tool for Assessing Risk of Inpatients' Aggressive Behavior**. *The journal of the American Academy of Psychiatry and the Law*. 2011; 39:170-9.
 5. Baye TM, Butsch Kovacic M, Biagini Myers JM, Martin LJ, Lindsey M, Patterson TL, He H, Ericksen MB, Gupta J, Tsoras AM, Lindsley A, Rothenberg ME, Wills-Karp M, Eissa NT, Borish L, Khurana Hershey GK. **Differences in candidate gene association between European ancestry and African American asthmatic children**. *PloS one*. 2011; 6:e16522.
 6. Baye TM, Martin LJ, Khurana Hershey GK. **Application of genetic/genomic approaches to allergic disorders**. *The Journal of allergy and clinical immunology*. 2010; 126:425-36; quiz 437-8.
 7. Binder S, Hill K, Meinzen-Derr J, Greenberg JM, Narendran V. **Increasing VLBW deliveries at subspecialty perinatal centers via perinatal outreach**. *Pediatrics*. 2011; 127:487-93.
 8. Bollepalli S, Dolan LM, Deka R, Martin LJ. **Association of FTO gene variants with adiposity in African-American adolescents**. *Obesity*. 2010; 18:1959-63.
 9. Bollepalli S, Dolan LM, Miodovnik M, Feghali M, Khoury JC. **Asymmetric large-for-gestational-age infants of type 1 diabetic women: morbidity and abdominal growth**. *American journal of perinatology*. 2010; 27:603-10.
 10. Braun JM, Daniels JL, Poole C, Olshan AF, Hornung R, Bernert JT, Khoury J, Needham LL, Barr DB, Lanphear BP. **Prenatal environmental tobacco smoke exposure and early childhood body mass index**. *Paediatric and perinatal epidemiology*. 2010; 24:524-34.
 11. Brown NM, Belles CA, Lindley SL, Zimmer-Nechemias L, Witte DP, Kim MO, Setchell KD. **Mammary gland differentiation by early life exposure to enantiomers of the soy isoflavone metabolite equol**. *Food and chemical toxicology : an international journal published for the British Industrial Biological Research Association*. 2010; 48:3042-50.
 12. Calloway TJ, Martin LJ, Zhang X, Tandon A, Benson DW, Hinton RB. **Risk factors for aortic valve disease in bicuspid aortic valve: a family-based study**. *American journal of medical genetics. Part A*. 2011; 155A:1015-20.
 13. Cecil KM, Dietrich KN, Altaye M, Egelhoff JC, Lindquist DM, Brubaker CJ, Lanphear BP. **Proton magnetic resonance spectroscopy in adults with childhood lead exposure**. *Environmental health perspectives*. 2011; 119:403-8.
 14. Choo D, Meinzen-Derr J. **Universal newborn hearing screening in 2010**. *Current opinion in otolaryngology & head and neck surgery*. 2010; 18:399-404.
 15. Copeland KA, Sherman SN, Khoury JC, Foster KE, Saelens BE, Kalkwarf HJ. **Wide variability in physical activity environments and weather-related outdoor play policies in child care centers within a single county of Ohio**. *Archives of pediatrics & adolescent medicine*. 2011; 165:435-42.
 16. Costa NS, Salisbury SR, Donnelly LF. **Retropharyngeal lymph nodes in children: a common imaging finding and potential source of misinterpretation**. *AJR. American journal of roentgenology*. 2011; 196:W433-7.
 17. Crombleholme TM, Lim FY, Habli M, Polzin W, Jaekle R, Michelfelder E, Cnota J, Liu C, Kim MO. **Improved recipient survival with maternal nifedipine in twin-twin transfusion syndrome complicated by TTTS cardiomyopathy undergoing selective fetoscopic laser photocoagulation**. *American journal of obstetrics and gynecology*. 2010; 203:397 e1-9.

18. DeBrosse CW, Collins MH, Buckmeier Butz BK, Allen CL, King EC, Assa'ad AH, Abonia JP, Putnam PE, Rothenberg ME, Franciosi JP. **Identification, epidemiology, and chronicity of pediatric esophageal eosinophilia, 1982-1999.** *The Journal of allergy and clinical immunology*. 2010; 126:112-9.
19. Denson LA, Kim MO, Bezold R, Carey R, Osuntokun B, Nylund C, Willson T, Bonkowski E, Li D, Ballard E, Collins M, Moyer MS, Klein DJ. **A randomized controlled trial of growth hormone in active pediatric Crohn disease.** *Journal of pediatric gastroenterology and nutrition*. 2010; 51:130-9.
20. DeRosa BW, Kazak AE, Doshi K, Schwartz LA, Ginsberg J, Mao JJ, Straton J, Hobbie W, Rourke MT, Carlson C, Ittenbach RF. **Development and validation of the health competence beliefs inventory in young adults with and without a history of childhood cancer.** *Annals of behavioral medicine : a publication of the Society of Behavioral Medicine*. 2011; 41:48-58.
21. Doshi K, Kazak AE, Derosa BW, Schwartz LA, Hobbie W, Ginsberg J, Ittenbach RF. **Measuring health-related beliefs of mothers of adolescent and young adult childhood cancer survivors.** *Families, systems & health : the journal of collaborative family healthcare*. 2011; 29:55-63.
22. Epstein JN, Brinkman WB, Froehlich T, Langberg JM, Narad ME, Antonini TN, Shiels K, Simon JO, Altaye M. **Effects of stimulant medication, incentives, and event rate on reaction time variability in children with ADHD.** *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*. 2011; 36:1060-72.
23. Gallo MF, Steiner MJ, Hobbs MM, Weaver MA, Hoke TH, Van Damme K, Jamieson DJ, Macaluso M. **Predictors of unprotected sex among female sex workers in Madagascar: comparing semen biomarkers and self-reported data.** *AIDS and behavior*. 2010; 14:1279-86.
24. Habli M, Cnota J, Michelfelder E, Salisbury S, Schnell B, Polzin W, Lim FY, Crombleholme TM. **The relationship between amniotic fluid levels of brain-type natriuretic peptide and recipient cardiomyopathy in twin-twin transfusion syndrome.** *American journal of obstetrics and gynecology*. 2010; 203:404 e1-7.
25. Hillis SD, Anda RF, Dube SR, Felitti VJ, Marchbanks PA, Macaluso M, Marks JS. **The Protective Effect of Family Strengths in Childhood against Adolescent Pregnancy and Its Long-Term Psychosocial Consequences.** *The Permanente journal*. 2010; 14:18-27.
26. Hobbs MM, Steiner MJ, Rich KD, Gallo MF, Warner L, Macaluso M. **Vaginal swab specimen processing methods influence performance of rapid semen detection tests: a cautionary tale.** *Contraception*. 2010; 82:291-5.
27. Ida JB, Mansfield S, Meinzen-Derr JK, Choo DI. **Complications in pediatric osseointegrated implantation.** *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*. 2011; 144:586-91.
28. Isemann B, Meinzen-Derr J, Akinbi H. **Maternal and neonatal factors impacting response to methadone therapy in infants treated for neonatal abstinence syndrome.** *Journal of perinatology : official journal of the California Perinatal Association*. 2011; 31:25-9.
29. Jickling GC, Xu H, Stamova B, Ander BP, Zhan X, Tian Y, Liu D, Turner RJ, Mesias M, Verro P, Khoury J, Jauch EC, Pancioli A, Broderick JP, Sharp FR. **Signatures of cardioembolic and large-vessel ischemic stroke.** *Annals of neurology*. 2010; 68:681-92.
30. Kaplan HC, Tabangin ME, McClendon D, Meinzen-Derr J, Margolis PA, Donovan EF. **Understanding variation in vitamin A supplementation among NICUs.** *Pediatrics*. 2010; 126:e367-73.
31. Kim HK, Gottliebson W, Hor K, Backeljauw P, Gutmark-Little I, Salisbury SR, Racadio JM, Helton-Skally K, Fleck R. **Cardiovascular anomalies in Turner syndrome: spectrum, prevalence, and cardiac MRI findings in a pediatric and young adult population.** *AJR. American journal of roentgenology*. 2011; 196:454-60.

32. Kleindorfer DO, Khoury J, Moomaw CJ, Alwell K, Woo D, Flaherty ML, Khatri P, Adeoye O, Ferioli S, Broderick JP, Kissela BM. **Stroke incidence is decreasing in whites but not in blacks: a population-based estimate of temporal trends in stroke incidence from the Greater Cincinnati/Northern Kentucky Stroke Study.** *Stroke; a journal of cerebral circulation.* 2010; 41:1326-31.
33. Krawczeski CD, Vandevoorde RG, Kathman T, Bennett MR, Woo JG, Wang Y, Griffiths RE, Devarajan P. **Serum cystatin C is an early predictive biomarker of acute kidney injury after pediatric cardiopulmonary bypass.** *Clinical journal of the American Society of Nephrology : CJASN.* 2010; 5:1552-7.
34. Krawczeski CD, Woo JG, Wang Y, Bennett MR, Ma Q, Devarajan P. **Neutrophil gelatinase-associated lipocalin concentrations predict development of acute kidney injury in neonates and children after cardiopulmonary bypass.** *The Journal of pediatrics.* 2011; 158:1009-1015 e1.
35. Lanphear BP, Hornung RW, Khoury J, Yolton K, Lierl M, Kalkbrenner A. **Effects of HEPA air cleaners on unscheduled asthma visits and asthma symptoms for children exposed to secondhand tobacco smoke.** *Pediatrics.* 2011; 127:93-101.
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37. Larson DB, Johnson LW, Schnell BM, Salisbury SR, Forman HP. **National trends in CT use in the emergency department: 1995-2007.** *Radiology.* 2011; 258:164-73.
38. Laskin BL, Goebel J, Davies SM, Khoury JC, Bleesing JJ, Mehta PA, Filipovich AH, Paff ZN, Lawrence JM, Yin HJ, Pinkard SL, Jodele S. **Early clinical indicators of transplant-associated thrombotic microangiopathy in pediatric neuroblastoma patients undergoing auto-SCT.** *Bone marrow transplantation.* 2011; 46:682-9.
39. Mackey J, Kleindorfer D, Sucharew H, Moomaw CJ, Kissela BM, Alwell K, Flaherty ML, Woo D, Khatri P, Adeoye O, Ferioli S, Khoury JC, Hornung R, Broderick JP. **Population-based study of wake-up strokes.** *Neurology.* 2011; 76:1662-7.
40. Marino BS, Drotar D, Cassedy A, Davis R, Tomlinson RS, Mellion K, Mussatto K, Mahony L, Newburger JW, Tong E, Cohen MI, Helfaer MA, Kazak AE, Wray J, Wernovsky G, Shea JA, Ittenbach R. **External validity of the pediatric cardiac quality of life inventory.** *Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation.* 2011; 20:205-14.
41. Marsh RA, Vaughn G, Kim MO, Li D, Jodele S, Joshi S, Mehta PA, Davies SM, Jordan MB, Bleesing JJ, Filipovich AH. **Reduced-intensity conditioning significantly improves survival of patients with hemophagocytic lymphohistiocytosis undergoing allogeneic hematopoietic cell transplantation.** *Blood.* 2010; 116:5824-31.
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43. McPhail GL, Ednick MD, Fenchel MC, VanDyke R, Chima A, Amin RS, Seid M. **Improving follow-up in hospitalised children.** *Quality & safety in health care.* 2010; 19:e35.
44. McPhail GL, Weiland J, Acton JD, Ednick M, Chima A, VanDyke R, Fenchel MC, Amin RS, Seid M. **Improving evidence-based care in cystic fibrosis through quality improvement.** *Archives of pediatrics & adolescent medicine.* 2010; 164:957-60.
45. Mehta PA, Harris RE, Davies SM, Kim MO, Mueller R, Lampkin B, Mo J, Myers K, Smolarek TA. **Numerical chromosomal changes and risk of development of myelodysplastic syndrome--acute myeloid leukemia in patients with Fanconi anemia.** *Cancer genetics and cytogenetics.* 2010; 203:180-6.
46. Meinzen-Derr J, Wiley S, Grether S, Choo DI. **Children with cochlear implants and developmental disabilities: a language skills study with developmentally matched hearing peers.** *Research in developmental disabilities.* 2011; 32:757-67.
47. Morrow AL, Meinzen-Derr J, Huang P, Schibler KR, Cahill T, Keddache M, Kallapur SG, Newburg DS, Tabangin M, Warner BB, Jiang X. **Fucosyltransferase 2 non-secretor and low secretor status predicts**

- severe outcomes in premature infants.** *The Journal of pediatrics.* 2011; 158:745-51.
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51. Nylund CM, D'Mello S, Kim MO, Bonkowski E, Dabritz J, Foell D, Meddings J, Trapnell BC, Denson LA. **Granulocyte macrophage-colony-stimulating factor autoantibodies and increased intestinal permeability in Crohn disease.** *Journal of pediatric gastroenterology and nutrition.* 2011; 52:542-8.
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53. Paterno MV, Schmitt LC, Ford KR, Rauh MJ, Myer GD, Huang B, Hewett TE. **Biomechanical measures during landing and postural stability predict second anterior cruciate ligament injury after anterior cruciate ligament reconstruction and return to sport.** *The American journal of sports medicine.* 2010; 38:1968-78.
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58. Propst EJ, Prager JD, Meizen-Derr J, Clark SL, Cotton RT, Rutter MJ. **Pediatric tracheal reconstruction using cadaveric homograft.** *Archives of otolaryngology--head & neck surgery.* 2011; 137:583-90.
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- differences in the Heschl's gyrus of hearing impaired and normal hearing infants.** *Cerebral cortex.* 2011; 21:991-8.
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Grants, Contracts, and Industry Agreements

Grant and Contract Awards

Annual Direct / Project Period Direct

KHOURY, J

Hemorrhagic & Ischemic Stroke Among Blacks and Whites

National Institutes of Health(University of Cincinnati)

R01 NS 030678

07/01/09-06/30/14

\$65,714

Recanalization Therapies and Markers of Outcomes in Acute Stroke

National Institutes of Health(University of Cincinnati)

P50 NS 044283

8/1/2008-4/30/2013

\$115,332

KIM, M**Empirical Bayes Analysis of Quantile Regression Model**

National Institutes of Health

R03CA133944

07/01/09-06/30/11

\$55,629

Extension of Quantile Regression and Empirical Likelihood Analysis for Censored Data

National Science Foundation

NSF 1007666

10/01/10-09/30/13

\$24,618

Risk Stratification and Identification of Immunogenetic and Microbial Markers of Complicated Disease Course in Pediatric Crohn's Disease

Crohn's & Colitis Foundation of America(Emory University)

07/01/09-06/30/13

\$11,598

MEINZEN-DERR, J**Impact of Cognition on Language in Pediatric Hearing Loss**

Health Resources & Services Admin

R40 MC 21513-01-00

02/01/11-01/31/14

\$178,202

WOO, J**Genetic and Environmental Risk Factors for Hemorrhagic Stroke**

National Institutes of Health (University of Cincinnati)

R01 NS 036695

09/30/08-06/30/13

\$45,342

Current Year Direct**\$496,435**

Industry Contracts

KHOURY, J.

Mead Johnson & Co.

\$585

WOO, J.

Mead Johnson & Co.

\$22,984

Mead Johnson & Co.

\$14,207

Current Year Direct Receipts**\$37,776**

Funded Collaborative Efforts

ALTAYE, M.**fMRI of Normal Language Development in Children**

National Institutes of Health

Holland, S.

08/01/06-06/30/11

6%

High Prevalence of Rickets and Subclinical Maternal Health

Thrasher Foundation

Dawodu, A

01/01/08 -06/30/11

5 %

Neurobehavior Effects of Insecticide Exposure in Pregnancy

National Institutes of Health

Yolton, K

09/14/09 -06/30/11

20 %

Pediatric Functional Neuroimaging Research Network

National Institutes of Health

Holland, S

09/28/09 -09/27/14

25%

The Role of Human Milk in Infant Nutrition and Health

National Institutes of Health

Morrow, A

08/01/09-07/31/14

5%

Cincinnati Ctr for Clin & Trans Sciences & Training

National Institutes of Health

Heubi, J

04/03/09-03/31/14

15%

Longitudinal DTI study in Children Treated for Congenita

National Institutes of Health

Yuan, W	09/30/09-06/30/13	5%
Treatment of Maternal Depression in Home Visitation		
National Institutes of Health		
Ammerman, R	08/15/10-06/30/15	5%

HUANG, B

Early Aggressive Therapy in Juvenile Idiopathic Arthritis		
Children's Hospital & Regional Medical Center - Seattle		
Lovell, D	09/01/06 -04/30/11	2%
Impact of Peripubertal Exposure to Xenohormones on Fat Distribution and Cytokines		
National Institutes of Health		
Biro, F	04/01/10 -03/31/12	10%
Enhancing PROMIS in Pediatric Pain, Rheumatology, and Rehabilitation Research		
National Institutes of Health		
Morgan DeWitt, E	09/30/09 -07/31/13	5%
Multidisciplinary Clinical Research Center		
National Institutes of Health		
Seid, M	08/18/08 -07/30/13	4%
Behavioral & Virologic Impact of HPV Immunization		
National Institutes of Health		
Kahn, J	01/15/07 -12/31/12	5 %
IL-1 Trap for Treatment of Familial Mediterranean Fever		
Cleveland Clin Lerner Col of Med of CWRU		
Lovell,D	03/01/09-02/28/11	3 %
Multidisciplinary Clinical Research Center		
National Institutes of Health		
Glass, D/Lovell, D	08/18/08-07/31/13	2 %
Improving Parent/Adolescent Communication about Tobacco		
National Cancer Institute		
Mahabee-Gittens, M	07/01/06-06/30/11	5 %
Cincinnati Ctr for Clin & Trans Sciences & Training		
National Institutes of Health		
Heubi, J	04/03/09-03/31/14	5%
Continued studies of environmntl impact on puberty:GUF2		
National Institutes of Health		
Biro, F	09/01/10-04/30/15	10%
Explaining Racial Disparities in Child Asthma Morbidity		
National Institutes of Health		
Kahn, R	05/01/10-04/30/14	12%
Mediating Factors in the Relationship between Obesity and breastmilk		
Eunice Kennedy Shriver Natl Inst Child		
Nommsen-Rivers, L	09/07/10-08/31/12	5%
Injury Prevention in a Home Visitation Population		
National Institutes of Health		
Phalen, KJ	11/01/10-10/31/15	5%
Myositis Registry		
The Myositis Association		
Brunner, H	09/01/10-08/31/11	19%

ITTENBACH, R

Self-Management of Type 1 Diabetes During Adolescence		
National Institutes of Health		
Drotar, D	08/01/07 -07/31/11	20 %
Cincinnati Ctr for Clin & Trans Sciences & Training		
National Institutes of Health		
Heubi, J	04/03/09-03/31/14	10%

KHOURY, J**Exploring the Role of Race/Ethnicity & Family Influences to Reduce Youth Smoking**

National Institutes of Health

Mahabee-Gittens, M 07/01/09 -06/30/11 5 %

Neurobehavior Effects of Insecticide Exposure in Pregnancy

National Institutes of Health

Yolton, K 09/14/09 -08/30/11 20 %

Neuromuscular Intervention Targeted to Mechanisms of ACL Load in Female Athletes

National Institutes of Health

Hewett, T 09/01/08 -08/31/12 8 %

Intervention to Reduce Body Burden of PCBs in Residents

University of Cincinnati

Heubi, J 08/01/10-07/31/12 3%

KIM, M**Virotherapy for Neuroblastoma Stem Cells**

National Institutes of Health

Cripe, T 08/01/08 -07/31/10 5 %

Biomarkers for Inflammatory Bowel Disease Behavior and Treatment Responses

National Institutes of Health

Denson, L 04/01/09 -03/31/13 10 %

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SALISBURY, S**Pediatric Sepsis Biomarker Risk Model**

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