

Student Abstracts
Fall 2015 Research Training Symposium

Ankomah, Felix. Mentor: Varun Puri, MD, MSCI. Predictors & consequences of readmission after major thoracic surgery

Bauman, Tyler. Mentors: R. Sherburne Figenshau, MD; Aaron Potretzke, MD. Cerebrovascular disease and chronic obstructive pulmonary disease increase risk of complications during robotic partial nephrectomy

Berg, Julia. Mentor: Shalini Shenoy, MD. Reduced-intensity conditioning for hematopoietic stem cell transplantation using mismatched bone marrow or cord blood in children with non-malignant hematological diseases

Boozalis, Amanda. Mentor: Jeffrey Peipert, MD, PhD. Changes in libido with hormonal contraception

Briscoe, Cristopher. Mentor: Brian Fuller, MD, MSCI. Lung-protective ventilation and the prevention of ventilator-associated conditions in the emergency department

Burdis, Nora. Mentor: Scott Hultgren, PhD. Type 1 pili and motility in uropathogenic Escherichia coli

Chang, Randy. Mentors: Whitney B Pope, MD, PhD; Jesse G Jones, MD. Melanin as a MRI tracking agent in intracerebral cell delivery for stroke

Chen, Howard. Mentors: Rajendra Apte, MD, PhD; Jonathan Lin. Role of microRNA-150 in macrophage aging and cholesterol homeostasis

Christenson, Eleanor. Mentors: Kimberly Johnson, MPH, PhD; David Gutmann, MD, PhD. Prevalence of diabetes in individuals with neurofibromatosis type 1

Coley, Avril. Mentor: Traves Crabtree, MD. Adherence to lymph node sampling guidelines in non-small lung cancer patients

CreveCoeur, Travis. Mentors: David Hackam, MD, PhD; CP Sodhi, PhD; Diego Nino, MD, PhD. The role of microglial activation in the development of premature brain injury associated with necrotizing enterocolitis

Cusworth, Brian. Mentors: Jeremy McCormick, MD; Sandra Klein, MD; Jeffrey Johnson, MD. Outcomes of revision ankle arthroscopy

Dalton, Jonathan. Mentor: Michael Kelly, MD, MSc. Persistent pain and dissatisfaction with self-appearance determine poor outcomes in adult spinal deformity (ASD) surgery: evaluation of 229 patients with two-year follow-up

Dandulakis, Mary. Mentors: John Constantino, MD; Azad Bonni, MD, PhD. Induced pluripotent stem cell derived neuronal model of familial x-linked autism

Daniels, Elizabeth. Mentors: Christina Stallings, PhD; Jacqueline Kimmey. Investigating the effect of autophagy on neutrophil differentiation

Davis, Emily. Mentors: Indi Trehan, MD, MPH, DTM&H; Karl le Roux, MD. Challenges mothers and babies face in a rural South African setting

De Freitas, Danielle. Mentor: Scott Luhmann, MD. Proximal junctional kyphosis in adolescent idiopathic scoliosis

Del Valle, Michael. Mentors: Eric Leuthardt, MD; David Bundy, PhD. Beta-gamma phase-amplitude coupling differences between contralateral and ipsilateral arm movements

Desai, Kshitij. Mentor: Gregory Zipfel, MD. Application of remote ischemic conditioning to subarachnoid hemorrhage

Dib, Paolo. Mentor: Andrew Heath, DPhil. Predictors of discordance for obesity in dizygotic twin pairs

Erickson, Stephen. Mentor: Rajendra Apte, MD, PhD. Diagnostic biomarkers in uveitis and intraocular lymphoma

Ferguson, Ian. Mentor: Gregory Van Stavern, MD. Risk factors for radiation optic neuropathy: a case-control study

Gedallovich, Seren. Mentor: Chyi-Song Hsieh, MD, PhD. Culture and characterization of fastidious human gut microbiota from patients with inflammatory bowel disease (IBD)

Goldberg, Rachel. Mentor: Jay Piccirillo, MD, FACS. Ecological Momentary Assessment (EMA) of tinnitus, a reliable instrument to assess and understand tinnitus

Groenendyk, Jacob. Mentor: Seth Strobe, MD, MPH. Assessing the compliance of an Enhanced Recovery After Surgery (ERAS) protocol for radical cystectomy

Guo, Mindy. Mentors: Timothy Ley, MD; David A Russler-Germain. Molecular consequences of AML-associated mutations in DNMT3A

Hall, Douglas. Mentor: Michael Kelly, MD, MSc. Surgical and nonsurgical outcomes for odontoid fractures in the elderly: a national retrospective analysis

Haque, Nowrin. Mentor: Ralph Damiano, MD. Effectiveness of surgical ablation for atrial fibrillation in patients with hypertrophic obstructive cardiomyopathy

Hong, Thomas. Mentors: Susan MacKinnon, MD; Amy Moore, MD; Matthew Wood, PhD. Prevention of neuromas using acellular nerve allografts

Huang, Lingling. Mentors: Mark Onaitis, MD; Daniel Kreisel, MD, PhD. Comparative evaluation for anatomic lung resection by robotic-assisted vs video-assisted thoracoscopic surgery

Iseyemi, Abigail. Mentor: Jeffrey Peipert, MD, PhD. Risk factors for unintended pregnancy in the Contraceptive CHOICE Project

Jain, Radhika. Mentors: Katie Plax, MD; Gaurav Kaushik, MPH. Using a comprehensive medical home model to increase access to contraception for youth in foster care

Javaherian, Kavon. Mentors: John Morris, MD; Brianne Disabato, MD; Josh Weng. Examining the relationship between depressive symptoms and cognitive deficits in preclinical dementia of the Alzheimer type

Jiang, Diana. Mentors: Ting Wang, PhD; Josh Jang. Conditional Bi-allelic knockout via CRISPR-Cas9 in zebrafish

Jo, Sally. Mentors: Wilson Ray, MD; Matthew MacEwan, MD, PhD. Utilizing allogenic amniotic membrane tissue to repair peripheral nerve injuries

Karlow, Nicholas. Mentor: Dana Abendschein, PhD. Targeting the antithrombotic effect of human apyrase directly to the site of arterial thrombosis

Kolodziej, Julia. Mentors: Mark Manary, MD; Indi Trehan, MD, MPH, DTM&H. The effect of interventions on the relapse rate of Malawian children recovered from moderate acute malnutrition

Konstantinoff, Katerina. Mentor: Daniel Link, MD. The role of megakaryocytes in G-CSF induced HSC mobilization

Kovac, Victor. Mentors: Manu Goyal, MS, MD; Avi Snyder, MD, PhD. Local resting-state fMRI BOLD signal characteristics of gliomas

Kuang, Dalen. Mentor: Kelly Botteron, MD. Longitudinal changes in the anterior cingulate cortical (ACC) thickness in children with preschool-onset major depressive disorder (MDD)

Labin, Jonathan. Mentors: Ralph Damiano, MD; Richard B Schuessler, PhD; Laurie Sinn, RN, BSN. Rheumatic mitral valve disease is not associated with a lower success rate of the Cox-Maze IV procedure

Lapidus, Jodi. Mentor: Joshua Rubin, MD, PhD. Molecular signatures of angiogenesis in high grade glioma

Li, Kevin. Mentor: Ida Fox, MD. Management of concomitant vascular and nerve trauma to the upper extremity: a 15 year review

Liang, Brooke. Mentor: Russell Pachynski, MD. Evaluation of the leukocyte chemoattractant receptor CMKLR1 on T cells

Lingam, Deepak. Mentor: Safa Herfat, PhD. Creating a testing machine for arm flexion studies

Liu, Sonya. Mentors: Rajendra Apte, MD, PhD; Abdoulaye Sene, PhD. Nicotinamide phosphoribosyltransferase inhibition on LPS-induced cytokine production in mouse macrophages

Maidl, Elizabeth. Mentors: Mark Manary, MD; Indi Trehan, MD, MPH, DTM&H. Assessing the efficacy of post-recovery interventions for pediatric moderate acute malnutrition in southern Malawi

Majumdar, Shamaita. Mentor: Varun Puri, MD, MSCI. Utility of preoperative biopsy for lung nodules suspicious for early stage lung cancer

Margolis, Mathew. Mentor: Douglas Larsen, MD. The effects of varying spaced repetition methods in preparation for preclinical board examinations

Markov, Alexander. Mentors: Matthew Ciorba, MD; David M Alvarado, PhD; Srikanth Santhanam, PhD. Using public data to identify potential modulators of CRC survival in the kynurenine pathway

Masserano, Benjamain. Mentors: Kamlesh Patel, MD; Gary Skolnick, MS. Temporal expansion in unilateral coronal craniosynostosis: a comparison between endoscopic and open repair and an analysis of long-term repair result

Mathur, Kunal. Mentors: Graham Colditz, MD, DrPH, MPH; Aimee James, PhD, MPH. Insurance "instability" and colorectal cancer screening utilization

Mathur, Shagun. Mentor: Michael Avidan, MBBCh. Intraoperative awareness with explicit recall: a sub-study of SATISFY-SOS

McCarley, Saudia. Mentors: John Chi, MD; Jay Piccirillo, MD, FACS. Quality-of-life instruments following post-Mohs facial reconstruction

Mejia, Manuela. Mentor: Jeffrey Peipert, MD, PhD. Effect of baseline bleeding on amenorrhea with levonorgestrel intrauterine system use

Mejias, Christopher. Mentors: Randal Paniello, MD, PhD; Neel Bhatt, MD. Laser tissue welding to repair complete nerve transection

Mendez, James. Mentor: Ari Cedars, MD. The effects of disease specific health knowledge on hospitalization rates in adult congenital heart disease

Mendiola-Pla, Michelle. Mentors: Joel Perlmutter, MD; Scott Norris, MD. Electrode lead localization in the brain by co-registration of magnetic resonance images with optical images

Merfeld, Emily. Mentors: Jennifer Wambach, MD, MS; Molly Stout, MD, MSCI; F Sessions Cole, MD. Neonatal outcomes after spontaneous versus indicated preterm birth

Mokkarala, Mahati. Mentors: Daniel Kang, MD; Jacob Buchowski, MD, MS. Comparison of sacral alar-iliac screws (S2AI) vs. iliac pelvic fixation outcomes and complications

Morris, Gabriela. Mentor: John Morris, MD. Comparison of three dementia-screening approaches to predict neuropathological Alzheimer disease (AD)

Murthy, Sindhoora. Mentor: Albert Woo, MD. Long-term characterization of cranial defects after surgical correction for single-suture craniosynostosis

Naylor, Adam. Mentors: Steven Brody, MD, PhD; Allen Cole Burks, MD. Status of autophagy in airway epithelial cells from asthmatic and non-asthmatic donors

Newcomer, Kenneth. Mentor: Denis Nam, MD. Short term survivorship of cemented and cementless total knee arthroplasty

Newton, Brandon. Mentor: Alexandre Carter, MD, PhD. Connectivity and plasticity in human brain networks

Opara, Gregory. Mentors: Stavros Thomopoulos, PhD; Hua Shen, MD, PhD. Enhanced flexor tendon healing via delivery of stem cell sheets to the repair site

Otchere, Elaine. Mentors: William H McCoy IV, MD, PhD; Caroline M Mann, MD. Granulomatous dermatitis as a post-herpetic isotopic response in immunosuppressed patients: a report of 5 cases

Page, Joshua. Mentor: John Constantino, MD. Intergenerational patterns of quantitative traits in Hispanic families

Pokala, Naveen. Mentor: Milan Anadkat, MD. Mortality in patients with graft-versus-host disease after hematopoietic stem cell transplant

Powell, Dylan. Mentor: Kwee Liu Lin Thio, MD, PhD. Predictive factors in the efficacy of the ketogenic diet for childhood epilepsy

Pruett, Cliff. Mentors: John DiPersio, MD, PhD; Michael Rettig, PhD. Characterization of a set of novel peptide CXCR4 antagonists

Rizzo, Michael. Mentors: Robert Brophy, MD; Charles Goldfarb, MD. Complications associated with orthopedic ambulatory surgery centers and their associated risk factors: a literature review

Robb, Caroline. Mentor: Constantine Raptis, MD. Impact of pre-transplantation computed tomography on organ donation in patients who have suffered terminal events

Rosano, Kristen. Mentors: Jennifer Wambach, MD, MS; F Sessions Cole, MD; Daniel Wegner. Multiplexed direct genomic selection to detect rare, deleterious variants associated with Respiratory Distress Syndrome in late preterm and term infants

Rosenberg, Abby. Mentor: Lynn Cornelius, MD. Pilot study to determine quality of life in melanoma patients

Sartor, Lauren. Mentor: Steven Brandes, MD. Long-term urinary function and sexual health follow-up on patients who underwent hypospadias repair in childhood

Savarese, Erica. Mentor: Laura Beirut, MD. Combustible cigarettes, electronic cigarettes, and carbon monoxide levels among smokers

Schloemann, Derek. Mentor: Lawrence Lewis, MD. The utility of serum biomarkers in the diagnosis of mild traumatic brain injury

Shah, Amar. Mentor: Gavin Dunn, MD, PhD. The use of intraoperative MRI in glioblastoma multiforme and other prognostic factors: a single institution study

Sindhar, Sampat. Mentor: Beth Kozel, MD, PhD. Investigating the true incidence of hypercalcemia in Williams Syndrome

Soares, Andrea. Mentor: Michael Avidan, MBBCh. Intraoperative awareness with explicit recall: a sub-study of SATISFY-SOS

Stanley, Katherine. Mentor: Gregory Storch, MD. Resurgence of rare rotavirus genotype G12 in St. Louis during the 2014-2015 rotavirus season

Stephens, Robert. Mentor: Brian Fuller, MD, MSCI. The Impact of a standardized lung-protective mechanical ventilator protocol in the Emergency Department on the incidence of ventilator-associated conditions

Thomas, Robert Lucas. Mentors: Michael Avidan, MBBCh; Ben Palanca, MD, PhD. Power spectral density analysis of EEG and delirium in cardiac surgery patients

Tian, Andrea. Mentor: Daniel Osei, MD. Long-term outcomes of proximal row carpectomy vs. four-corner arthrodesis for treatment of SLAC wrist

Toland, Angus. Mentor: Douglas Chalker, PhD. A conserved amino acid motif in Lia3 is required for binding to G Quadruplex DNA

Tooba, Rubabin. Mentors: Rupa Patel, MD, MPH, DTMandH; Aimee James, PhD, MPH. Pre-exposure prophylaxis for HIV (PrEP) knowledge, acceptability, and messaging preferences among young adult men who have sex with men in the Midwest

Uzamere, Theodor. Mentors: Allison King, MD, PhD, MPH; Ashley Houston, OTD, MSCI, MPA; Regina Abel, PhD. The development of a sickle cell inheritance educational tool

Veligati, Sirish. Mentor: Eric Leuthardt, MD. Capturing the "Aha!" moment: EEG examination of insight

Wang, Cynthia. Mentor: Cristina de Guzman-Strong, PhD. Elucidating the antimicrobial activity of S100 family proteins towards increased prophylactic capabilities

Weiner, Eric. Mentors: Robert Brophy, MD; Charles Goldfarb, MD. Complications associated with orthopedic ambulatory surgery centers and their associated risk factors: a literature review

Wentworth, Caroline. Mentor: Colleen McNicholas, DO, MSCI. Levonorgestrel-releasing intrauterine system for emergency contraception

Wesevich, Victoria. Mentor: Nico Dosenbach, MD, PhD. A novel system for real-time head motion monitoring and feedback during functional MRI

Wong, Jeannette. Mentors: Todd Druley, MD, PhD; Kimberly Johnson, PhD. A retrospective analysis of pediatric oncology patients and congenital anomalies

Wood, Ian. Mentors: Susan Mackinnon, MD; Amy Moore, MD. The effect of proximal crush on neuroma formation and pain marker expression in rats

Wright, Alec. Mentor: R. Sherburne Figenshau, MD. The role of positive surgical margins in outcomes following robot-assisted partial nephrectomy

Xu, Zhuchen. Mentors: Su-Hsin Chang, PhD; Cynthia Herrick, MD, FACP. Long-term outcomes of Roux-en-Y gastric bypass in adult bariatric patients at Washington University/Barnes Jewish Hospital

Yates, Tari-Ann. Mentor: Jay Piccirillo, MD, FACS. Exploring risk factors for the diagnosis of acute invasive fungal sinusitis in patients with leukemia: a nested case control study

Ye, Yuting. Mentor: Sabrina Nunez, PhD. A review for USMLE Step 1 Biochemistry

Zarate Rodriguez, Jorge. Mentors: Adam Vogel, MD; Lauren Muckleroy, MD. Extracorporeal life support outcomes in neonatal and pediatric cardiac patients

Zhang, Shiyang. Mentors: Christina Tsien, MD; Mikhail Milchenko, PhD. Physiologic MR imaging parameters in detecting non-enhancing tumor and predicting outcome in glioblastoma multiforme (GBM)

Zheng, Lingjin. Mentor: Morvarid Karimi, MD. Anatomical connectivity differences in isolated idiopathic focal dystonias

Zuckerman, Aaron. Mentor: Matthew Ciorba, MD. Probiotic LGG as a safe and effective intestinal-specific radioprotectant