

Student Abstracts
Fall 2013 Research Training Symposium

Abraamyan, Torgom. Mentor: Christopher McAndrew, MD. Relationship between pre-operative urinary tract infection (UTI) and surgical site infection (SSI) following traumatic hip fracture repair

Adaralegbe, Adejuyigbe. Mentor: Varun Puri, MD. Associations of the conversion of a laparoscopic procedure during hiatal hernia repair

Agenor, Aouod. Mentor: Susan Mackinnon, MD. Peripheral nerve regeneration across a conduit embedded with Seprafilm compared to fibrin glue

Ajibade, Olufemi. Mentor: Jennifer Allsworth, PhD. Racial disparities in contraceptive continuation: Evidence from the contraceptive CHOICE project

Altenhofen, Brannon. Mentor: Lisa Connor, PhD. Determining factors that predict listenability of auditory materials in people with aphasia

Bansal, Anchal. Mentor: Susan Mackinnon, MD. Evaluation of inter-rater reliability of the scratch collapse test; Evaluation of common peroneal nerve compression in high fall-risk patient populations

Benjamin, Lawrence. Mentor: Ari Cedars, MD. Clinical predictors of hospitalization in patients with transposition of the great arteries

Benzoni, Nicole. Mentor: Joaquin Barnoya, MD, MPH. Congenital heart surgery outcomes at a Guatemalan surgical center's intensive care unit between 2009 and 2013

Berlin, Ari. Mentor: Jose Pineda, MD. Predicting cardiac arrest in the pediatric intensive care unit using aggregate physiological data

Bichanich, Miles. Mentor: Charles Canter, MD. Outcomes after referral for heart transplant in the pediatric population

Blonski, Allison. Mentor: Allison King, MD, MPH. Hearing loss in children treated with platinum-based chemotherapies -a systematic review

Bruck, Brent. Mentor: Wilson Z. Ray, MD. A wireless nerve stimulator for monitoring functional recovery of the rat sciatic nerve

Buchanan, Porsche. Mentor: Jie Zheng, PhD. Fast resting non-contrast MRI perfusion can detect myocardial ischemia with moderate sensitivity and specificity

Cai, Alice. Mentor: Michael Avidan, MBBCh. Memories of the postoperative period study

Chambers, Ethan. Mentor: Ben Palanca, MD, PhD. Optical imaging of brain networks during sleep

Chen, Simon. Mentor: Traves Crabtree, MD. Radiographic surveillance with chest X-Ray versus CT after resection for stage I lung cancer: Impact on survival

Chen, Ishita. Mentor: Albert Kim, MD, PhD. Gene expression signature for low and high survival glioblastoma based on TCGA microarray analysis

Chen, Raymond . Mentor: Daniel Osei, MD. Factors predictive of failure of non-operative treatment in lateral epicondylitis

Cheng, Tiffany. Mentor: Maria Doyle, MD. Survival in liver retransplants : A comparison to primary liver transplantation

Chi, Vivian Tingying. Mentor: Michelle Lee, MD. Imaging features of solid palpable masses in women younger than 40 that may obviate the need for tissue sampling

Chimezie, Onyii Stephenie. Mentor: Matthew Ellis, MB, Bchir, PhD. Cloning and expression of ESR1-AKAP12 fusion protein involved in hormone insensitivity in ER+ breast cancer patients

Chiu, Ami. Mentor: Gautam Dantes, PhD. Plasmid-size bias in the transformation of the cyanobacteria *Synechocystis* sp. PCC 6803

Chu, Cheryl. Mentors: Leonard Pineda, MD; Jeffrey Jose, MD. A clinical prediction tool to guide therapeutic intervention in children with traumatic brain injury

Dardas, Agnes. Mentor: David Limbrick, MD, PhD. Comparison of spinal deformities in patients with chiari I malformation and/or syringomyelia

Deng, Francis. Mentor: Umar Mahmood, MD. 18F-fluoroestradiol imaging guides dosing of estrogen receptor targeted therapy

Essuman, Kow. Mentor: David Rudnick, MD, PhD. Biomarker discovery in acute liver failure (ALF)

Fischer, Caroline. Mentor: Judith Lieu, MD, MSPH. Unilateral hearing loss is associated with a negative effect on language scores in adolescents

Fram, Brianna. Mentor: Delphine Chen, MD. Macrophage activation states in lung inflammation: in-vitro study of TSPO protein as a PET tracer target

Frisse, Ann. Mentor: Jeffrey Peipert, MD, PhD. Self-reported history of *Chlamydia trachomatis* compared to serologic status

Gallin (Cohen), Hilary. Mentor: Alex Evers, MD. The pharmacology of cyclopropyl-methoxycarbonyl metomidate: A comparison with propofol

Gamble, Paul. Mentor: Matthew MacEwan, PhD. Observing functional recovery after nerve damage using inductive implanted electrodes

Gefen, Ashley. Mentor: Robert Brophy, MD. Public understanding and expectations of meniscus injury and surgery

Gluckstein, Jeffrey. Mentor: Corey Deeken, PhD. The effects of mesh design on the mechanical properties of hernia meshes

Godbold, Tracey. Mentor: Melody Goodman, PhD. Correlation between the racial composition of life environment and health literacy among low-income and underinsured patients at the Barnes-Jewish Center for Outpatient Health in St. Louis

Grant, Aubrey. Mentor: Phyllis Stein, MD. Normal vs. abnormal sleep heart rate patterns and mortality in high risk cardiac patients: The cast

Greenstein, Daniel. Mentor: Lawrence Tychsens, MD. Gaze apraxia in children with cerebral palsy

Groves, Andrew. Mentor: Susan Mackinnon, MD. Evaluation of inter-rater reliability of the scratch collapse test; Evaluation of common peroneal nerve compression in high fall- risk patient populations

Han, Rowland . Mentor: Matthew Smyth, MD. Characterization of temperatures achieved in human neocortex during intraoperative focal cooling

Huverserian , Ari. Mentor: Michael Avidan, MBBCh. Nothing sinister about anaesthetizing lefties

Jacobi, Celina. Mentor: Robert Hayashi, MD. Patients with hereditary cancer predisposition syndromes have defined phenotypes specific to their syndrome

Jalalizadeh, Bayan. Mentor: David Vollman, MD. Developing a screening test to identify macular dysfunction

Jalalizadeh, Rohan. Mentor: Gregory Zipfel, MD. Cerebral vasospasm after the clipping of an unruptured aneurysm

James, Michael. Mentor: Devyani Hunt, MD. The return to dance activity profile for hip preservation surgery

Kaufinan, Johanna. Mentor: Amit Mathur, MD. Continuous amplitude-integrated EEG in the preterm infant

Khan, Taleef. Mentor: Luke Zebala, MD. Long-term outcomes of transforaminal lumbar interbody fusion in spine surgery

Kleckner, Vanessa. Mentor: Thaddeus Stappenbeck, MD, PhD. Study of the T300A mouse secretory lineage and its contribution to Crohn's Disease pathogenesis

Lalchandani, Gopal. Mentor: Ryan Calfee, MD. Impact of obesity on postoperative complication rates in hand surgical patients

Liang, Albert Zhe. Mentor: Susan Holley, MD, PhD. Utility of breast imaging for focal breast pain

Lin, Kenneth. Mentor: Robert Brophy, MD. Association of socioeconomic and occupational factors with shoulder activity level

Lindburg, Miranda. Mentor: Lawrence Lewis, MD. The Rivermead Post-Concussion Questionnaire in the acute and recovery phases of mild traumatic brain injury

Liu, Carol. Mentor: Anthony French, MD, PhD. Sex differences in interferon-stimulated gene expression in human monocyte-derived macrophages

Lohse, Austin. Mentor: Anjali Bhorade, MD. IOP surprise study: Quantifying the difference in intraocular pressure at home vs. clinic

Lorbeer, Karly. Mentor: Michael Brunt, MD. Comparison of local institutional and national database outcomes for adrenalectomy: A comprehensive retrospective analysis

Ma, Yuntong Linda. Mentor: Patti Gravitt, PhD. Development of culturally tailored educational leaflets on HPV and cervical cancer for a multiethnic population in Malaysia

Ma, Lisa. Mentor: Alastair O'Brien, MD, PhD. An investigation of the anti-inflammatory effects of prostaglandin E2 on leukocytes

Madubata, Chinwe. Mentor: Kimberly Johnson, PhD, MPH. Neurofibromatosis type 1 and chronic neurological conditions in the United States

Martin, Lauren. Mentor: Mark Manary, MD. Comparison of two ready-to-use supplementary foods for the treatment of moderate acute malnutrition in rural Malawian children: A randomized, double-blinded, clinical effectiveness trial

McGilvray, Martha. Mentor: Graham Colditz, MD, DrPH. Adolescent fiber intake and risk of adult breast cancer or benign breast disease

Meyerson, Cherise. Mentor: Mark Manary, MD. Growth and HIV-free survival of HIV-exposed infants in Malawi: A randomized trial of two complementary feeding interventions in the context of maternal antiretroviral therapy

Min, Jaspur. Mentor: Tessa Madden, MD, MPH. The effectiveness of a checklist to exclude pregnancy at the time of contraceptive initiation

Mishra, Shruti. Mentor: Timothy Hullar, MD. The role of head movements in sounds localization

Mohapatra, Anand. Mentor: Michael Kelly, MD. The influence of topical vancomycin on surgical site infection rates following instrumented spinal surgery

Morris, Marie. Mentor: Brad Racette, MD. Appropriateness of dopamine antagonist prescribing in hospitalized patients with dopamine requiring diseases after implementation of an automated prescribing alert system

Moses, Lindsey. Mentors: David Clifford, MD ; Avril What, MD ; Claudine Fermin, RN, NP. Healthcare challenges and managing the HIV epidemic in South Africa

Obi, Joseph. Mentor: Deborah Rubin, MD. Growth of mouse intestinal crypts is controlled by myofibroblast secretion of growth regulatory factors

Osafo, Nina. Mentor: Lawrence Lewis, MD. Is the Rivermead Post-Concussion Questionnaire a valid tool for diagnosing traumatic brain injury in the acute setting?

Ott, Katherine. Mentor: William Chapman, MD, FACS. The role of anti-CD47 antibody in phagocytosis of hepatocellular carcinoma in vitro

Overschmidt, Bo. Mentor: Terence Myckatyn, MD. Correlation of patient satisfaction with 3D imaging use in consultation and mammometric parameters

Patel, Aalok. Mentor: Varun Puri, MD. Comparative effectiveness of chemoradiation alone versus chemoradiation and surgery for locally advanced lung cancer

Qi, Owen. Mentor: David Murray, MD. High-fidelity patient simulator cardiovascular laboratory: The new dog lab?

Qualls, David. Mentors: Jeffrey Leonard, MD; Julie Leonard, MD, MPH. Utility of magnetic resonance imaging in diagnosing cervical spine injury in pediatric patients

Ramsey, Kara. Mentor: Randall Bateman, MD. Optimization of an immunoprecipitation/mass spectrometry protocol for measurement of amyloid beta metabolism in human plasma

Rodgers, Ariel. Mentor: Varun Puri, MD. The utility of pre-operative biopsy for suspicious lung nodules

Rodriguez, Jocelyn. Mentor: Rick Wright, MD. Multicenter studies concerning the pathological knee joint

Russell, Aaron. Mentors: Albert Woo, MD ; Kamlesh Patel, MD. Path of the superior sagittal sinus in unicoronal synostosis

Sacks, Gina. Mentor: Susan Mackinnon, MD. Evaluation of inter-rater reliability of the scratch collapse test; Evaluation of common peroneal nerve compression in high fall-risk patient populations

Salib, Christopher. Mentor: Scott Luhmann, MD. Radiographic outcomes of patients treated with shilla growth guidance system and definitive posterior spinal fusion

Scheel, Paul. Mentor: Varun Puri, MD. Effect of surgeon experience on short and long term outcomes in stage 1 lung cancer

Shankar, Vikram. Mentor: William Peck, MD. The Health Care Handbook at One Year

Shen, Tony. Mentor: Matthew Silva, PhD. The role of hedgehog signaling in determining the osteogenic response to mechanical loading of bone

Siller, Alejandro. Mentor: Charles Canter, MD. Neurological complications post-orthotopic heart transplant in a pediatric population

Simien, Adrian. Mentor: William Chapman, MD, FACS. An agarose-albumin phantom for evaluating image guided radiofrequency ablation

Skillington, Scott. Mentor: Matthew Smith, MD. Shoulder activity level in normal and pathological shoulders and its relationship to shoulder dominance

Slade, Michael. Mentor: Michael Lane, MD, MSc. Process analysis of outpatient parenteral antibiotic therapy in the infectious disease clinic

Sun, Sam Qiancheng. Mentor: Albert Kim, MD, PhD. Recurrence in atypical meningiomas: An analysis of predictive factors and the role of adjuvant radiation

Swor, Erin. Mentor: Colleen McNicholas, DO. Comparing serum etonogestrel levels in implant users across BMI categories at the end of three years of use

Thomas, Ariel. Mentor: Jennifer Allsworth, PhD. Contraceptive continuation in poverty areas

Vandenberg, James. Mentor: Christopher Carpenter, MD. Evidence-based diagnostics: Blunt thoracolumbar spine trauma

Yarman, Rahul. Mentor: Ida Fox, MD. Investigating patient access to surgical treatment options for cervical spinal cord injury to improve upper extremity function

Vryhof, Nick. Mentor: David Beebe, PhD. Examining the antioxidant potential of the eye: The degradation of Vitamin C

Vyhmeister, Ross. Mentor: Adam Wallace, MD. Evaluation of low dose protocol for cerebrospinal fluid shunt head CT

Wagner, Julia. Mentor: Eric Leuthardt, MD. Phase-power coupling in partial complex neocortical seizures

Wang, Pengcheng. Mentor: Eric Leuthardt, MD. Modulation of electroencephalography with emotional state of a comatose patient

Weese, Jonathan. Mentor: Rick Wright, MD. Multicenter studies concerning the pathological knee joint

Witt, Jacob. Mentor: Clifford Robinson, MD. A study of the anatomic distribution of brain metastases in HER2 positive breast cancer

Wondmeneh, Sarah. Mentor: Beth Kozel, MD. Role of inflammatory response in modifying the vascular phenotype in elastin insufficient mice

Xiao, Qi. Mentor: Michael Gross, PhD. The study of intrinsically disordered proteins (IDPs) using fast photochemical oxidation of protein (FPOP) protein footprinting

Xiao, Daphne. Mentor: Aaron Hamvas, MD. Identification of mutations associated with newborn respiratory distress syndrome.

Xu, Amy. Mentor: Jacob Buchowski, MD, MS. Surgical spinal fusion rate following implementation of preoperative serum vitamin D measurement and repletion: A single-center investigation

Xu, Wen Zhu. Mentor: Richard Lo-Man, PhD. The role of IL-19 and IL-20 in the modification of naive CD4⁺ T cell polarization

Yu, Jenny Lijun. Mentor: Wayne Yokoyama, MD. Liver-resident natural killer (lrNK) cells are developmentally distinct from conventional splenic natural killer (csNK) cells

Zhao, Johnny. Mentor: Jacob Buchowski, MD, MS. Neuromuscular scoliosis and trigeminal neuralgia

Zhou, Daisy. Mentor: Michael Avidan, MBBCh. Reconstitution of consciousness and cognition

Zhu, Tina. Mentor: Kimberly Kaphingst, MD. Predictors of health outcome among patients at Barnes Jewish Center for Outpatient Health

Zubovic, Ema. Mentor: Albert Woo, MD. Cranial base asymmetry after open and endoscopic repair of isolated lambdoid craniosynostosis