

**2018 Summer Research Program
Student Abstracts**

| Student LN | Student FN | SRP Faculty LN | SRP Faculty FN | SRP Research Project |
|-------------|--------------------|----------------|-----------------------|--|
| Abada | Sharon | Strahle | Jennifer | Investigating the role of hemoglobin-haptoglobin iron transporter CD163 in cilia dysfunction and development of hydrocephalus after neonatal IVH |
| Adams | Nathaniel (Nathan) | Chapman | William | Will Hepatitis C Antiviral Therapy Change the Future of Liver Transplants? |
| Adodo | Gregory | Kornfeld | Stephen (Kerry) | Identification of new genes involved in aging |
| Adusumilli | Gautam | Gilbert; Chung | Fiona; Koong-Nah | Gray-Scale Imaging as a Cost-Effective Alternative to Quantify Cartilage Delamination |
| Atagu | Norman | Akinwande | Olaguoke | Construction of a predictive model for future liver remnant hypertrophy after portal vein embolization |
| Bagwell | Michelle | Luby | Joan | Observational Analyses of PCIT-ED on kids with preschool depression |
| Balta | Eric | Snyder-Warwick | Alison | Role of Terminal Schwann Cells in NMJ Function and Reinnervation |
| Bhat | Nisha | Abraham | Christopher | Predictors of Discovery of Previously Undetected Brain Metastases at the Time of Gamma Knife Radiosurgery |
| Brooks | Anthony | Luhmann | Scott | Effectiveness of Definitive Fusion Surgery after Vertebral Body Stapling |
| Chadha | Ashima | Humphreys | Benjamin | Defining Host-Donor Chimerism in Kidney Rejection by Single Cell RNA-Sequencing |
| Chen | Kevin | Schwarz | Julie | Characterizing Oxidative Stress in Glioblastoma Multiforme and Cervical Cancer Induced by Proton Beam Therapy |
| Chen | Rebecca | Shenoy | Shalini | The Natural History of Sickle Cell Disease after Successful Stem Cell Transplantation |
| Christ | Ryan | Hall; Aslett | Ira; Louis | Writing a publicly available R software package for genome-wide association studies (GWAS) based on a new haplotype approach |
| Christensen | Lucille | Cole; Wambach | F. Sessions; Jennifer | Characterization of Allelic Expression from Lung Explants of Children with ABCA3 Deficiency |
| Chua | Chanelle | Colditz | Graham | Reducing Rural Colon Cancer Disparities Through Multi-Level Intervention on Follow-Up After Abnormal Screening Tests |
| Cook | Madison | Limbrick | David | The role of cell-cell junction disruption in the pathogenesis of post-hemorrhagic hydrocephalus |
| Dania | Vanessa | Colditz | Graham | Risk factor of body mass index on breast cancer |
| Darko | Rachel | Rubin | Deborah | Role of the transcriptional co-regulator IFRD1 in regulating apoptosis during colorectal carcinogenesis |
| De Togni | Elisa | DiPersio | John | Developing CAR T Cell Therapeutic Targets in Acute Myeloid Leukemia |
| Duncan | Margaret | Nicol | Ginger | Interactive obesity prevention for adolescents with early serious mental illness |
| Egekeze | Kemdi | Masood | Muhammad | Aortic Root Procedures in Endocarditis |
| Etienne | Ernst | Luhmann | Scott | PROMIS Scores in Surgically Treated AIS Patients: The Impact of Curve Characteristics |
| Evans | Sophia | Calfee | Ryan | The Relationship between PROMIS Domains and Physical and Functional Outcomes in Upper Extremity Conditions |
| Farkouh | Farid | Chheda | Milan | Zika Virus Has Oncolytic Activity Against Glioblastoma Stem Cells |
| Forte | Blake | Prather | Heidi | Clinical Outcomes of Young Adult Hip Patients |
| Fosu-Apraku | Irene | Rogers | Cynthia | Predictors of Social-Communication Problems in Very Preterm and Term Children at Age 5 Years |

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| French | Cory | MD Anderson | MD Anderson | MD Anderson |
| Gan | Connie | Margenthaler | Julie | Analysis of HRU Utilization in HERZ Breast Cancer |
| Gibson | Ella | Patel | Kamlesh | Presurgical orthodontic interventions prior to cleft lip and palate repair: NAM versus passive molding |
| Hayes | Jane | Punch | Laurie | Interventions to Prevent Exsanguinating Hemorrhage in the Prehospital Setting |
| Hernandez Calderon | Dayana | Integrated Health Network | Integrated Health Network | Integrated Health Network |
| Hodges | Wesley | Finck | Brian | Identification of Zaprinast as a Mitochondrial Pyruvate Carrier Modulator to Treat Diabetes and Nonalcoholic Fatty Liver Disease |
| Hoffman | Maximilian | Swamidass | Joshua | Approximating quantum mechanical properties with coordinate-free models |
| Hu | Jesse | Moore | Amy | Prevention of Neuromas using Acellularized Nerve Allografts |
| Hunt | Matthew | Swamidass | Joshua | Automated Localization and Quantification of Hepatic Macrovesicular Steatosis by Convolutional Neural Networks for Transplant Evaluation |
| Hurst | Vernon Tillman | Cipriano | Cara | PROMIS Scores and Depression in Musculoskeletal Oncology |
| Jaeger | Zachary | Staser | Karl | Genetic profiling of NF1-associated pigmented lesions |
| Jia | Lena | Pruett | John | The Effects of Intentional Joint Attention on Language Development in Autistic Children |
| Jordan | Katherine | Avidan | Michael | Obstructive Sleep Apnea as an Independent Predictor of Postoperative Delirium and Pain: An Observational Study of a Surgical Cohort |
| Katz | Benjamin | Wang | Ting | Detection of Transposable Elements from RNA-seq Data |
| Keane | Grace | Mackinnon; Wood | Susan; Matthew | Brief electrical stimulation as a therapy to improve nerve grafting |
| Khan | Amish | Piccirillo | Jay | Pre-implant cognitive rehabilitation for cochlear implant candidates |
| Kim | Benjamin | James | Aimee | Rural Cancer Disparities |
| Kneiber | David | Brogan | David | Generation of a three-dimensional model of the median nerve for customized conduit design |
| Kuo | Iris | Awad | Michael | An analysis of ten-year minimally invasive foregut clinical outcomes at BJH |
| Lammers | Matthew | Newland | Jason | Scout-CAP: Evaluating the optimal duration of therapy for children 6 months to 6 years of age with community-acquired pneumonia |
| Landon | Megan | Kuroki | Lindsay | Siteman |
| LeClair | John | Chheda | Milan | Characterizing Hits of Synthetic Lethal Kinase Screen in IDH1 Mutant Glioblastoma Cell Lines |
| Lee | Kamaria | Viterna | Jocelyn | The Causes and Consequences of Total Abortion Bans in El Salvador |
| Lee | Jin (Vivian) | Zipfel | Gregory | Role of Heparin Sulfate Proteoglycans in Cerebral Amyloid Angiopathy Pathogenesis |
| Liljenwall | Helen | Rogers | Cynthia | Social and Family Predictors of ADHD Symptoms on Very Preterm Children at Age 5 Years |
| Lingampalli | Nithya | Luhmann | Scott | Traditional Iliac Screw Fixation Using Single Midline Approach |
| Loh | Francis | Payne | Philip | Early-Warning Prediction Model of Sepsis |
| Lund | Samantha | McNicholas | Colleen | The Choice Project |
| Ma | Sirui | Grigsby | Perry | Quantitative MRI relaxometry in assessment and treatment planning for chemoradiation therapy of cervical cancer and correlation with FDG-PET |

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| Miller | Matthew | Blatnik | Jeffrey | Accuracy of Information about Inguinal Hernias and Surgical Inventions on the Internet, and the Impact on Patient Healthcare Decisions and Attitudes |
| Moffa | Jamie | Tychsen | Lawrence | A Randomized Controlled Trial to Compare Pain Medications in Children Undergoing Strabismus Surgery |
| Mohammodu | Zainab | Fields | Ryan | Post-Operative Leak Rates of PNETs Compared to PDACs After a Distal Pancreatectomy or Whipple |
| Morris | Jason | Doctor | Allan | Pediatric Critical Care Implementation Research |
| Nuako | Akua | Colditz | Graham | Enhancing Referrals to Lung Cancer Screening: Assessment, Smoking Cessation, and Shared Decision Making |
| Olufawo | Michael | Leuthardt | Eric | Does the change in RSNs following radiation vary differently as dose is escalated |
| Otun | Ayodamola | Limbrick | David | Brain injury mediated by ventricular zone disruption as a pathogenic mechanism for post infectious hydrocephalus |
| Pal | Reeti | Herrick | Cynthia | Implications of Interpregnancy Medicaid Eligibility on Recurrent GDM and T2D Development |
| Pandya | Lekha | Piccirillo | Jay | Acute and Chronic Rhino-Sinusitis: Quality Metrics and Outcomes |
| Pappal | Ryan | Fuller | Brian | Multicenter, prospective, observational, cohort study of practice patterns and clinical outcomes associated with Emergency Department SEDation for mechanically ventilated patients: The ED-SED Study |
| Parameswaran | Priyanka | Manary; Hendrixson | Mark; D. Taylor | Collaborating with government peripheral health units (PH's) in Sierra Leone to investigate malnourished pregnant women receiving a specially formulated Ready-to-Use Food Supplement, as well as five anti-infective interventions, compared to women receiving standard care |
| Parikh | Amisha | Racette | Brad | Association between oil refineries and incident Parkinson disease |
| Potts | Jolee | Coughlin | Carrie | Cutaneous Effects in Children Treated with MEK and BRAF Inhibitors |
| Qi | Andrew | Joynt Maddox | Karen | The Impact of Neighborhood Income on Dialysis Facility Performance |
| Raval | Neel | Desai | Alana | A Prospective, Randomized, Controlled Study of Preoperative Anti-Inflammatory Treatment for Ureteral Stent Symptoms – A Pilot Study |
| Renfroe | Stephen (Chase) | Kim | Alfred | Photoacoustic Tomography - a new diagnostic tool in the detection of early-stage lupus nephritis |
| Rhee | Gina | Rubin | Joshua | The contribution of stromal cell senescence to sex differences in glioblastoma |
| Roh | Joseph | Mackinnon; Wood | Susan; Matthew | Effects of Shorter Duration Electrical Stimulation on Nerve Growth and Recovery Following Nerve Transection and Repair |
| Rome | Eric | Masood | Muhammad | Aortic Root Repair is Associated with Worse Outcomes - Patients Undergoing Valve Replacement |
| Rooney | Timothy | Ley | Timothy | Identification of potential molecular drivers of self-renewal in hematopoietic cells expressing the PML-RARA fusion gene that initiates Acute Promyelocytic Leukemia |
| Sanchez Ortiz | Tamara | Sargent | Carolyn | Obstacles immigrant refugee patients face in accessing and navigating healthcare in France |
| Scott | Alexander | Leuthardt | Eric | How do resting state cortical networks change over time following radiation? |
| Selden | Leslie | Figenshau | Robert | Risk Factors for Renal Transplantation |

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| Shah | Arjav | Payne | Philip | A Multi-Scale Modeling Approach to Identify Various Disease Outcomes in Individuals with Neurofibromatosis Type 1 |
| Sibbald | Carrie | Iannotti; Good | Lora; Misty | Investigating the effects of egg supplementation on maternal health and resulting child growth, malnutrition, and stunting rates in Ecuador |
| Silverstein | Aaron | Razani | Babak | Autophagy is required for maximal cytosolic lipolysis in adipose tissue |
| Skidmore | Alexander | Strahle | Jennifer | The Effect of Ferroportin Inhibition on Ventricular Iron Transport and Hydrocephalus |
| Snowden | Caroline | Mitreva | Makedonka | Comparison of Soil-Transmitted Helminth (STH)-Discriminatory Taxa in Humans and Mice |
| Sogade | Omolade | Columbia U | Columbia | Columbia U |
| Som | Avira | Patel | Kamlesh | Opioid Use Among Patients Undergoing Surgical Management of Facial Fractures |
| Stecher | Priscilla | Ray | Wilson | Changes in longitudinal bone accrual and fracture risk after chronic bioelectric stimulation |
| Surti | Adam | Rubin | Deborah | Examining the Effect of Epimorphin-Deficient Myoblasts on Enteroid Growth in SBS Patients |
| Tarkunde | Yash | Wright | Rick | Medial Meniscus Posterior Horn Repair vs Meniscectomy |
| Terng | Mark | Lavine | Kory | Effects of Combination Chemotherapy on Cardiac Microphage Composition in a Model of Hypertensive Heart Disease |
| Thompson | Eliza | Shinawi | Marwan | Multidisciplinary Clinic of Movement Disorders of the Upper Extremity |
| Tiwary | Sajal | Yoo | Andrew | Investigating Genetic Expression Changes Required in the Onset of Huntington's Disease in Fibroblast-Derived Medium Spiny Neurons |
| Velicki | Katherine | Wall; Goldfarb | Lindley; Charles | Syndactyly Reconstruction and Contracture Release in Hand Treated with Dermal Substitute |
| Vural | Corey | Ley | Timothy | Exploring If Acute Myeloid Leukemia Cells Use the Skin as an Extramedullary Niche to Avoid Chemotherapy |
| Wahl | Garrett | Luhmann | Scott | Idiopathic scoliosis and the use of intraoperative RBC scavenging |
| Xing | Maggie | Piccirillo | Jay | Investigating the Impact of Cognitive Training for Individuals with Bothersome Tinnitus |
| Yu | Cathy | Lieu | Judith | Parent Proxy HEAR-QL Assessment |
| Yuan | Jane | Zipfel | Gregory | The SIRT1-eNOS cascade: Role in endogenous neurovascular protection in SAH |
| Zhu | Meng'ou (Mary) | Walter | Matt | The Role of Mutant U2AF1 (Q157P) in Pre-mRNA Splicing and Hematopoiesis |