Medical Student Research Conference Awards September 20, 2024

Mentor Awards

Summer Research Fellowship Outstanding Mentor in Basic Science Research

John Fingert, MD, PhD, Ophthalmology and Visual Sciences

Nominated by Brian Young, M2

Summer Research Fellowship Outstanding Mentor in Clinical Research

Bopha Chrea, MD, Orthopedics and Rehabilitation

Nominated by Andrew Behrens, M2 and Kenan Najdawi, M2

Summer Research Fellowship Outstanding Mentor in Translational Research

James Byrne, MD, PhD, Radiation Oncology

Nominated by Ryan Courtney, M2

Student Awards

François M. Abboud Prize for Best Platform Presentation (U of I Foundation Award)

John Davelaar, M2

Title: "Cystic fibrosis transmembrane conductance receptor as a mediator of oxidative stress in pancreatic ductal adenocarcinoma"

Mentor: Aliye Uc, Pediatrics

Donald D. Heistad Prize for Best Poster Presentation (U of I Foundation Award)

Tracy Chen, LOA

Title: "Evaluation of Systemic and Tissue-Specific Immunotolerance Mechanisms in Patients with Autoimmune Bullous Pemphigoid"

Mentor: Kelly Messingham, Dermatology

Borts Award (U of I Foundation Award)

Jason Hristopoulos, M2G

Title: "Investigating the metabolic landscape of alopecia areata"

Mentor: Ali Jabbari, Dermatology

Edward Heath Award (U of I Foundation Award)

Gizzy Keeler, M2

Title: "The role of hyperthermia in GBM cell killing and PD-L1 expression"

Mentor: Michael Petronek, Radiation Oncology

Melvin Marcus Clinical Research Award (U of I Foundation Award)

Andrew Behrens, M2

Title: "Analysis of Tibiotalar Joint Contact Stresses in Patients with Cavovarus Foot Pathology Using Discrete Element Analysis"

Mentor: Bopha Chrea, Orthopedics & Rehabilitation

Excellence in Global Health Programs Research Award

Julia Fleecs, M4

Title: "International acid burn violence: A systematic review of prevalence and the demographics of survivors" **Mentor:** Erin Shriver, Ophthalmology & Visual Sciences

Excellence in Anatomy and Cell Biology Research

Stepan Orlovskiy, M1G

Title: "Exploring Drivers of Progression of Cutaneous Melanoma"

Mentor: Adam Dupuy, Anatomy & Cell Biology

Margaret V. Lunsford Award for Research in Anesthesia

Ravina Vasanwala, M4

Title: "Epidural anesthesia and postoperative coagulation disturbances after hepatic surgery: A retrospective single institution study"

Mentor: Rakesh Sondekoppam, Anesthesia

Excellence in Anesthesia Research

Paul Cover, M2

Title: "Modeling phase I post-anesthesia care unit patient transport times among multiple destinations"

Mentor: Franklin Dexter, Anesthesia

Arthur A. Spector Award in Basic Biomedical Research

Jessica Smith, M1G

Title: "Drosophila models of TMEM43-associated Emery-Dreifuss muscular dystrophy reveal disease

mechanisms"

Mentor: Lori Wallrath, Biochemistry

Nicholas P. Rossi Award for Cardiothoracic Surgery Research

Cody Dvorak, M2

Title: "Optimizing Suturing Pressure in Aortic Valve Replacement: A Prototype for Color-Releasing Compression

Pods to Reduce Paravalvular Leak"

Mentor: Arun Singhal, Cardiothoracic Surgery

Excellence in Dermatology Research

Grace Haugstad, M2

Title: "The Effect of Systemic Immunosuppression and Nutrition on the Cutaneous Wound Environment"

Mentor: Kelly Messingham, Dermatology

Excellence in Emergency Medicine Research

Laura Ulibarri, M2

Title: "Surrogate Measures of Awareness during Endotracheal Intubation: A pilot observational study to evaluate patient anesthetic state during endotracheal intubation."

Mentor: Nicholas Mohr, Emergency Medicine

Excellence in Family Medicine Research

Abby Jones, M2

Title: "Quantifying relationships between readmission rates and demographic and hospital course factors for adults with intellectual disabilities"

Mentor: Meghan Connett, Family Medicine

John Stokes Award for Research in Internal Medicine

Lydia Guo, M2

Title: "Novel Pacing Modality for Cardiac Conditioning and Enhanced Cardioprotection"

Mentor: Denice Hodgson-Zingman, Internal Medicine

Excellence in Internal Medicine Research

Ethan Angle, M3

Title: "'Histopancreatosis?': A Case of Chronic Granulomatous Pancreatitis"

Mentor: Bradley Manning, Internal Medicine

Excellence in Internal Medicine Research

Sebastian Gomez, M2G

Title: "Playing Hide and Seek: Investigating Nav1.5 Expression Across Different Mouse Cardiomyocyte Fractions"

Mentor: Barry London, Internal Medicine

Excellence in Microbiology and Immunology Research

MaryTherese Gehrmann, M2

Title: "Role of Intrinsically Disordered Regions in the Organization of the Herpesvirus Particle"

Mentor: Richard Roller, Microbiology

Research Excellence in Molecular Physiology and Biophysics

Michael Huebner, M2G

Title: "Peripheral calcitonin gene-related peptide induces brain-wide resting state functional connectivity

changes in mice"

Mentor: Andrew Russo, Molecular Physiology & Biophysics

Excellence in Basic Neuroscience Research

Peyton Alder, M2G

Title: "Seizure-induced mortality and CO2 chemosensitivity in mice lacking the clock gene Bmal1"

Mentor: Gordon Buchanan, Neurology

Excellence in Clinical Neuroscience Research

Caitlyn Beals, M2

Title: "Incidence of Hydrocephalus in Myelomeningocele Patients in Zambia"

Mentor: Rebecca Reynolds, Neurosurgery

Excellence in Translational Neuroscience Research

Joe Heyrman, M2

Title: "Establishing a Normative Database for the Iowa VR Headset Perimeter"

Mentor: Michael Wall, Neurology

Excellence in Neuroscience and Pharmacology Research

Younes Rouabhi, M2

Title: "Caffeine and SS-31 Effects on BBS-associated Mitochondrial Elongation and Dysfunction"

Mentor: Kamal Rahmouni, Pharmacology

Excellence in Clinical Research in Obstetrics & Gynecology

Lydia Yang, M4

Title: "The Effect of Pursuing Infertility Treatment on Weight Loss in Obese Patients"

Mentor: Eyup Duran, Obstetrics & Gynecology

Excellence in Obstetrics & Gynecology Research

Anna Townsley, M2

Title: "Optimizing non-opioid analgesia timing after cesarean section"

Mentor: Stephanie Radke, Obstetrics & Gynecology

Thomas A. Weingeist Award in Ophthalmology

Brian Young, M2

Title: "Nigerian Pediatric Mutation Prevalence of EFEMP1 Mutations"

Mentor: John Fingert, Ophthalmology & Visual Sciences

William E. Scott Research Award in Ophthalmology

Simran Sarin, LOA

Title: "The Road to Failure: A Retrospective Analysis of Past Ophthalmic and Medical History Associations with

Corneal Transplant Failure"

Mentor: Christopher Sales, Ophthalmology & Visual Sciences

Hansjoerg E. Kolder Award for Ophthalmology Research

Quinn Christensen, M2

Title: "Comparison of two micro-invasive glaucoma surgeries" **Mentor:** Andrew Pouw, Ophthalmology & Visual Sciences

Ignasio V. Ponseti Prize in Orthopaedic Research

Samantha Corman, M2

Title: "Metallosis in Posterior Lumbar Fusion: Investigating Corrosion Susceptibility based on Rod Metal Type and Bending Method"

Mentor: Catherine Olinger, Orthopedics & Rehabilitation

Research Excellence in Orthopaedics

Cale Dobson, M2

Title: "Oxidative Stress and Inflammation in Posterior Cruciate Ligament Specimens of Bariatric Arthroplasty Patients"

Mentor: Jacob Elkins, Orthopedics & Rehabilitation

Excellence in Otolaryngology Research

Danny Bartelt, M2

Title: "Red- & Near-Infrared Light Therapy Post-Craniectomy Improves Recovery Timelines in Rodent TBI Model" **Mentor:** Brian Andrews **Co-Mentor:** Marlan Hansen, Otolaryngology - Head & Neck Surgery

Richard G. Lynch Award for Excellence in Pathology Research

Sandeep Dhingra, M2

Title: "The Role of Gut Microbiome as Biomarkers for Patients with Multiple Sclerosis: A Longitudinal Analysis" **Mentor:** Ashutosh Mangalam, Pathology

Richard G. Lynch Award for Excellence in Pathology Research

Maria Vardapetyan, M2

Title: "Cocaethylene and Other Cocaine Metabolites in Samples from Newborns and Young Children: Unraveling the Effects of Parental Substance Use"

Mentor: Matthew Krasowski, Pathology

Excellence in Pediatric Basic Science Research

Faith Prochaska, M2G

Title: "Traumatic Brain Injury Induced IFN-I Response Across the Lifespan"

Mentor: Elizabeth Newell, Pediatrics

Excellence in Pediatric Clinical Research

Anna Reelfs, M4

Title: "UGDH Variants Cause Congenital Muscular Dystrophy with Hypoglycosylation of Alpha-Dystroglycan"

Mentor: Katherine Mathews, Pediatrics

George Winokur Research Award in Psychiatry

Rachel Valente, M2

Title: "The relationship between hypertension and an epigenetic biomarker of alcohol use during alcohol

withdrawal"

Mentor: Allan Andersen, Psychiatry

Bob Robinson Research Award in Psychiatry

Gabe Ewert, M2

Title: "Investigating Outcomes and Predictors of Response to Transcranial Magnetic Stimulation for Treatment-

Resistant Depression Using the NIH Toolbox Emotion Battery"

Mentor: Mark Niciu, Psychiatry

Lauretta Bender Research Award in Psychiatry

Johanna Theeler, M2

Title: "COPD Subtypes and Risk of Cognitive Dysfunction"

Mentor: Karin Hoth, Psychiatry

Jason Martin Medical Student Research Award in Radiology

Isaac Lynch, M2

Title: "Expedited Mood Tracking with the ASERT Digital Survey"

Mentor: Vincent A. Magnotta, Radiology

Larry W. Oberley Award in Radiation Oncology

Ryan Courtney, M2

Title: "Addressing Tumor Hypoxia through Intratumoral Oxygen Injection"

Mentor: James Byrne, Radiation Oncology

Kimberly Ephgrave Medical Student Award for Research in Surgery

Colleen Bloeser, M2

Title: "Identifying admission predictors of poor outcomes in midlife and older trauma patients with rib fractures"

Mentor: Dionne Skeete and Co-Mentor: Colette Galet, Surgery

Excellence in Urology Research

Ryan Grandgenett, M2

Title: "The Predictive Value of Renal Medullary Pyramidal Thickness Post-Pyeloplasty"

Mentor: Christopher Cooper, Urology