

Program of Events

**Medical Student
Research Conference
September 12 - 14, 2018**

University of Iowa
Roy J. & Lucille A. Carver College of Medicine

**Sponsored by:
Medical Student Research Council**

Free to University of Iowa Students

Medical Student Research Conference

Welcome to the 55th Annual Carver College of Medicine Student Medical Research Conference. This Conference provides an opportunity for medical students who have conducted research to present their results, receive feedback, and compete for awards.

September 12, 2018

8:00 - 10:00 AM Concurrent Oral Présentations
1117, 2117, 2123, 2135, 2136, 2155, 2165, 2189 MERF

12:00 - 12:50 PM Poster Session #1
Medical Student Poster Presentations in MERF Atrium

September 13, 2018

12:00 - 12:50 PM Poster Session #2
Medical Student Poster Presentations in MERF Atrium

September 14, 2018

Awards Banquet

5:30 - 7:30 PM Buffet Dinner, Keynote Speaker, and Award Presentations
Second Floor Ballroom, Iowa Memorial Union (IMU)

Keynote Speaker

Nicholas Mohr, MD, MS

Clinical Associate Professor of Emergency Medicine,
Anesthesia - Critical Care Medicine, and Epidemiology

For student presenters, research mentors, & invited guests

Awards Banquet

Friday, September 14, 2018

There are several Research Day awards, including five Foundation Awards given to outstanding oral and outstanding poster presentations, and departmental and college sponsored general awards given to the top oral and poster presentations in eligible categories.

Foundation Awards

The Borts Award

The Borts Award was established by the Alpha Psi Chapter of Alpha Kappa Kappa Medical Fraternity in 1974 to honor I.H. Borts, a graduate of the University of Iowa College of Medicine and long-time supporter of the AKK. He is a distinguished scientist who has long been associated with the State Hygienic Laboratory. As a student he was influential in founding the Alpha Psi Chapter and for over thirty years remained one of their most loyal alumni. This award is open to all students.

The Edward Heath Award

In honor of Edward Heath, this award recognizes outstanding medical research. As Professor and Chairman of the Biochemistry Department at the University of Iowa, Heath was an outstanding example of a physician-scientist and supported excellence in research. His commitment to excellence was exemplified by the quality of research done in his laboratory as well as the many years spent teaching students. This award recognizes the student whose performance best represents outstanding achievement in the laboratory and the ability to communicate that achievement. All students will automatically be considered for this award.

Melvin Marcus Clinical Research Award

This award was originally established as the Iowa Student Medical Research Club (ISMRC) Award in 1989. We are honored to dedicate this award to the memory of Melvin L. Marcus, faculty supervisor of the ISMRC for over a decade. Marcus was instrumental in maintaining the club as an integral part of the University of Iowa research community. Marcus was also actively involved in clinical research and teaching of students, both in the laboratory and on the wards. He was frequently honored by his colleagues for his achievements. In keeping with this tradition, the Marcus Clinical Research Award is presented to the student whose presentation reflects outstanding work performed within a clinical area involving intact organ physiology. This prize is open to students involved in such research.

François M. Abboud Prize for Best Platform Presentation

This award was established in 2017 to honor Dr. François Abboud for his overall contributions as a research mentor and scholar. Abboud was instrumental in creating the research mentorship environment for medical students in the Carver College of Medicine from the time he joined the faculty in 1960. Abboud is known for his excellence in guiding students and colleagues in the principles of research. This award recognizes the student whose performance best represents outstanding communication in a podium presentation.

Donald D. Heistad Prize for Best Poster Presentation

This award was established in 2017 to honor Donald Heistad who, along with Abboud, established the collaborative research and mentorship environment that has become a hallmark of the Carver College of Medicine and medical student experience. Heistad took the mentorship experience he received working with Abboud and developed his own style, always making time to work with students and discuss research ideas. This award recognizes the student whose performance best represents outstanding communication in a poster presentation.

Global Health Programs

The Global Health Program will sponsor an award for Excellence in Global Health research. The award will be designated for the best poster or oral presentation by a medical student in the field of Global Health.

Departmental Awards

ANESTHESIA

The Department of Anesthesia will sponsor two awards; the *Margaret V. Lunsford Award for Research in Anesthesia* and the *Excellence in Basic Science Research* for the best oral or poster presentation by a medical student doing research in anesthesia.

BIOCHEMISTRY

The Department of Biochemistry will sponsor The *Arthur A. Spector Award in Basic Biomedical Research* for the best oral or poster presentation by a medical student doing research in biochemistry.

DERMATOLOGY

The Department of Dermatology will sponsor the *Excellence in Dermatology Research* award, designated for the best poster or oral presentation by a medical student in the discipline of dermatology.

EMERGENCY MEDICINE

The Department of Emergency Medicine will sponsor an award for *Excellence in Emergency Medicine Research* for the best poster or oral presentation by a medical student in the discipline of emergency medicine.

FAMILY MEDICINE

The Department of Family Medicine will sponsor an award for *Excellence in Family Medicine Research* designated for the best oral or poster presentation by a medical student in family medicine research.

HEALTH & HUMAN PHYSIOLOGY

The Department of Human Physiology will sponsor the *Carl V. Gisolfi Research Award for Excellence in Health and Human Physiology*. The award will be designated for the best poster or oral presentation by a medical student in the discipline of human physiology.

INTERNAL MEDICINE

The Department of Internal Medicine will sponsor three awards for outstanding student presentations. *The John Stokes Award for Research in Internal Medicine* is designated for the best poster or oral presentation by a medical student in the discipline of internal medicine. Two additional awards for *Excellence in Internal Medicine Research* are for best oral or poster presentation by a medical student for research in any division and in any project area.

MICROBIOLOGY & IMMUNOLOGY

The Department of Microbiology and Immunology will sponsor the *William Johnson Award for Research in Microbiology and Immunology*, designated for the best oral or poster presentation by a medical student in microbiology research.

MOLECULAR PHYSIOLOGY & BIOPHYSICS

The Department of Molecular Physiology and Biophysics will sponsor the *Research Excellence in Molecular Physiology and Biophysics* award, designated for the best poster or oral presentation by a medical student in the discipline of physiology and biophysics.

NEUROLOGY and NEUROSURGERY

The Departments of Neurosurgery and Neurology will sponsor three awards for the best poster or oral presentation by a medical student designated as *Excellence in Basic Neuroscience Research*, *Excellence in Clinical Neuroscience Research*, and *Excellence in Translational Neuroscience Research*.

OBSTETRICS/GYNECOLOGY

The Department of Obstetrics and Gynecology will sponsor two awards for *Excellence in Clinical Research in Obstetrics & Gynecology* and *Excellence in Obstetrics & Gynecology Research*, each designated for the best poster or oral presentation by a medical student in Ob-Gyn research.

OPHTHALMOLOGY

The Department of Ophthalmology will sponsor three awards for the best oral or poster presentations by a medical student in eye research named in honor of former physicians; the *Thomas A. Weingeist Award in Ophthalmology*, the *William E. Scott Research Award in Ophthalmology*, and the *Hansjoerg E. Kolder Award for Ophthalmology Research*.

ORTHOPAEDICS

The Department of Orthopaedics will sponsor two awards; the *Research Excellence in Orthopaedics* award, and the *Ponseti Prize in Orthopaedic Research*. The awards will be designated for the best poster or oral presentation by a medical student in basic, biomedical or clinical musculoskeletal/orthopaedic research.

OTOLARYNGOLOGY

The Department of Otolaryngology will sponsor an award for *Excellence in Otolaryngology Research* designated for the best oral or poster presentation by a medical student in otolaryngology research.

PATHOLOGY

The Department of Pathology will sponsor two awards to honor *Richard G. Lynch, MD*, for the best poster or oral presentation by a medical student. The award will be open to student research in any project area.

PEDIATRICS

The Department of Pediatrics will sponsor two awards designated for the best oral or poster presentation by a medical student for *Excellence in Pediatric Clinical Research* and *Excellence in Pediatric Basic Science Research*.

PHARMACOLOGY

The Department of Pharmacology will sponsor an award in *Pharmacological and Toxicological Sciences*. The award will be designated for the best poster or oral presentation by a medical student in the discipline of pharmacology or toxicology, either basic science or clinical investigation.

PSYCHIATRY

The Department of Psychiatry will sponsor three awards, the *George Winokur Research Award*, the *Bob Robinson Research Award* and the *Lauretta Bender Research Award*. The awards will be designated for the best poster or oral presentations by a medical student for research in psychiatry.

RADIOLOGY

The Department of Radiology will sponsor the *Jason Martin, MD- Medical Student Research Award*. The award will be designated for the best poster or oral presentation by a medical student in image-based research. Martin graduated from the University of Iowa Carver College of Medicine and participated in medical research in the Radiology department as a medical student.

RADIATION ONCOLOGY

The Department of Radiation Oncology will sponsor the *Larry W. Oberley Award in Radiation Oncology*. The award will be designated for the best poster or oral presentation by a medical student in the discipline of radiation oncology, for either basic science or clinical investigation.

SURGERY AND CARDIOTHORACIC SURGERY

The Department of Surgery will sponsor two awards designated for the best poster or oral presentation by a medical student in the discipline of surgery: the *Kimberly Ephgrave Medical Student Award for Research in Surgery*, and the *Nicholas P. Rossi Award for Cardiothoracic Surgery Research*.

UROLOGY

The Department of Urology will sponsor an award for *Excellence in Urology Research* designated for the best oral or poster presentation by a medical student in urology research.

Outstanding Mentorship Awards

Students from the Summer Research Fellowship (SRF) began nominating outstanding research mentors in 2016. These award winners are selected from among nominations submitted by medical student research students at the completion of their summer research experience. This year we are awarding *Outstanding Mentorship in Clinical Research* and *Outstanding Mentorship in Basic Research*.

A special thank you to:

**The Iowa Medical Student Research Council - Robert Roghair, Director
Deanna Nielson, Gwen Hoffmann, CCOM Office of Student Affairs and Curriculum staff;
the Departments of Anesthesiology, Biochemistry, Dermatology, Emergency Medicine, Family
Medicine, Health and Human Physiology, Internal Medicine, Microbiology & Immunology,
Molecular Physiology & Biophysics, Neurology, Neurosurgery, Obstetrics & Gynecology,
Ophthalmology, Orthopaedics, Otolaryngology, Pathology, Pediatrics, Pharmacology, Psychiatry,
Radiology, Radiation Oncology, Surgery and Cardiothoracic Surgery, and Urology; Institute for
Clinical and Translational Science (REDCap)**

Acknowledgements

Judges

Bryan Allen, MD, PhD
Michael Anderson, PhD
Girish Bathla, MBBS, MMed
Emine Bayman, PhD
Maresi Berry-Stoelzle, MD, PhD
Robert Block, PhD
Noelle Bowdler, MD
Timothy Brown, MD
Carlos Chan, MD, PhD
Anil Chauhan, PhD
Mitch Coleman, PhD
Alejandro Comellas, MD
Natalie Denburg, PhD
Prakash Doddapattar, PhD
Arlene Drack, MD
Alina Dumitrescu, MD
Eric Epping, MD, PhD
Jess Fiedorowicz, MD, PhD
Laura Fuller, PhD
Marie Gaine, PhD
Colette Galet, PhD
Justin Grobe, PhD
Duane Hall, PhD
Sarah Haskell, DO
Martha Herbst, MD
Yumi Imai, MD
Unyime Ituk, MBBS
Gerald Jogerst, MD
Yusung Kim, PhD
Toshi Kitamoto, PhD
Matthew Krasowski, MD, PhD
Anne Kwitek, PhD
Kathryn Lamping, PhD
Laurel Lyckholm, MD
Alison Lynch, MD
Kelly Messingham, PhD
Nicholas Mohr, MD, MS
Arvind Murali, MBBS
Resmiye Oral, MD
Amy O'Shea, PhD
Dionne Peacher, MD
Perna Rastogi, MBBS
Dan Runde, MD, MME
Ginny Ryan, MD
Antonio Sanchez, MD
Donna Santillan, PhD
Eva Schoen, PhD
Thomas Scholz, MD
Christina Shutters, ARNP, CNM
Kelly Skelly, MD
Douglas Spitz, PhD
Hanna Stevens, MD, PhD
Melissa Swee, MD, MS
Michael Tansey, MD
Nicholas Trapp, MD
Eric Weatherford, PhD
Lucy Wibbenmeyer, MD

Oral Presentations

Room 1117

8:00 Kelly Yom, M2

The Effect of Visual Aids in Preoperative Patient Counseling for Oculoplastic Surgery

Mentor: Audrey Ko, Ophthalmology & Visual Sciences

8:15 Sarah Kottenstette, M2

Psychosocial Functional Capacities of Children and Their Immediate Caretakers

Mentor: Resmiye Oral, Pediatrics

8:30 Dabin Choi, M2

The Effect of Sleep Position Preference on Periorbital Symmetry

Mentor: Erin Shriver, Ophthalmology & Visual Sciences

8:45 Rob Manges, M1

The cough is coming from inside the house

Mentor: Alejandro Comellas, Internal Medicine

9:00 Marissa Martin, M4

Outpatient Frailty as a Risk Factor for the Development of Delirium in Geriatric Inpatients

Mentor: Michelle Weckmann, Family Medicine

9:15 Nate Mullin, M1

Transplantable photoreceptor grafts from patient-specific pluripotent stem cells

Mentor: Budd Tucker, Ophthalmology & Visual Sciences

9:30 Ben Fick, M2

A Retrospective Review of Percutaneous Ultrasonic Tenotomy for Chronic Tendinopathies

Mentor: Mederic Hall, Orthopaedics & Rehabilitation

9:45 Katherine Merritt, M2

Social Determinants of Health Needs Assessment Within an Inpatient Population at UIHC

Mentor: Kevin Glenn, Internal Medicine

Room 2117

8:00 Andrew Holte, M4

Instituting a Restrictive Opioid Prescribing Protocol for Primary Total Hip and Knee Arthroplasty: One Institution's Experience

Mentor: Timothy Brown, Orthopaedics & Rehabilitation

8:15 Rob Thinnies, M2

Preferences for Emergency Medical Service Transport After Childhood Injury: An Emergency Department-Based Mixed Methods Study

Mentor: Nicholas Mohr, Emergency Medicine

8:30 Cassandra Hardy, M2

Prediction Model for Diagnosing Patients with Anaphylaxis in the Emergency Department

Mentor: Sangil Lee, Emergency Medicine

Oral Presentations

- 8:45 Sarah Bakir, M2**
Accuracy of Vaginal pH Testing Before and After Addition of Sterile Saline
Mentor: Abbey Hardy-Fairbanks, Obstetrics & Gynecology
- 9:00 David Wang, M2**
Two-stage exchange arthroplasty for prosthetic joint infection: If at first you don't succeed, should you try again?
Mentor: Jesse Otero, Orthopaedics & Rehabilitation
- 9:15 Ben Wilkinson, M2**
The Utility of Routine X-ray Imaging Following Chest Tube Removal
Mentor: Kalpaj Parekh, Cardiothoracic Surgery
- 9:30 Maddie Mix, M1**
The role of the inflammasome in generating CD8 T cell responses and protection against malaria
Mentor: John Harty, Microbiology & Immunology
- 9:45 Will Lorentzen, M2**
The Effects of Sleep Quality on Heart Rate Variability in Varsity College Football Players
Mentor: Andrew Peterson, Pediatrics

Room 2123

- 8:00 Weiren Liu, M2**
Developing a Pipeline for Radiomics Biomarkers in Head and Neck Cancer
Mentor: John Buatti, Radiation Oncology
- 8:15 Alyssa Heinzman, M2**
Antegrade versus Retrograde IV Cannulas for the Aspiration of Blood
Mentor: Andrew Feider, Anesthesia
- 8:30 Heba Isaac, M2**
Characterization of Non-Syndromic Hearing Loss in a Family with Suspected vGLUT3 Mutation
Mentor: Marlan Hansen, Otolaryngology - Head & Neck Surgery
- 8:45 Luke Schiller, M2**
Assessing Reliability and Validity of Measuring Body Composition with A-mode Ultrasound
Mentor: Michael Willey, Orthopaedics & Rehabilitation
- 9:00 Joyce Wahba, M2**
Insights into the pathogenesis of leishmaniasis through the study of circulating exosomes
Mentor: Mary Wilson, Internal Medicine
- 9:15 Andrew Poggemiller, M2**
Use of Cyproheptadine for the Treatment of Serotonin Syndrome: A case series and retrospective review
Mentor: Colette Galet, Surgery

Oral Presentations

9:30 Michael Slattery, M2

Does Iatrogenic Cartilage Injury Risk Damage to Otherwise Healthy Chondrocytes Overlying CAM Morphology?

Mentor: Robert Westermann, Orthopaedics & Rehabilitation

9:45 Hayley Hansen, M2

Relationships Between Symptoms, Patient Demographics, and Cervical Cancer

Mentor: Colleen Stockdale, Obstetrics & Gynecology

Room 2135

8:00 Julie Amendola, M2

An Automated Approach to Counting Coughs

Mentor: Alejandro Comellas, Internal Medicine

8:15 Sawyer Kieffer, M1

Assessing Balance and Predicting Fall Risk in Older Adults for Inpatient Hospital Settings

Mentor: Philip Polgreen, Internal Medicine

8:30 Laura Scieszinski, M1

The Impact of Adverse Childhood Experiences (ACEs) on Burn Outcomes in Pediatric Patients

Mentor: Lucy Wibbenmeyer, Surgery

8:45 Nicholas Bartschat, M2

Cartilage Degeneration is Associated with Increased Joint Contact Stress in Patients with Hip Dysplasia

Mentor: Robert Westermann, Orthopaedics & Rehabilitation

9:00 Kasra Zarei, M2G

New Insights into Data-Driven Biomarkers, Mechanisms, and Treatments of Delirium

Mentor: Gen Shinozaki, Psychiatry

9:15 Hannah Trembath, M4

Dispositional mindfulness in healthy older adults is associated with cortical thinning in the brain

Mentor: Natalie Denburg, Neurology

9:30 Kevin Cheung, M2

The Genetics of Melanoma in a Veteran Population

Mentor: Jennifer Powers, Dermatology

9:45 Deepika Raghavan, M2

Upstream Obstetrics: Assessing the Prevalence of Food Insecurity in a High-risk Obstetrics Population

Mentors: Michael Haugsdal, Craig Syrop, Obstetrics & Gynecology

Oral Presentations

Room 2136

- 8:00 Guillermo Romano Ibarra, LOA**
CF airway smooth muscle transcriptome guides identification of small molecule agents with therapeutic potential for asthma
Mentor: David Stoltz, Internal Medicine
- 8:15 Soham Ali, M2**
Improving Rotamer Optimization Using an X-ray Target Function
Mentor: Michael Schnieders, Biomedical Engineering
- 8:30 Miranda Schene, M1**
Structure of a Mutant Form of PCNA Deficient in Error-Free Repair
Mentor: Todd Washington, Biochemistry
- 8:45 Brooke Jennings, M1**
Role of PAK Signaling in Vemurafenib Resistant Melanoma
Mentor: Christopher Stipp, Biological Sciences
- 9:00 Joseph Chin, M2G**
Characterization of Adenovirus Mediated Gene Delivery into the Cochlea
Mentors: Marlan Hansen, Otolaryngology & Samuel Young, Anatomy & Cell Biology
- 9:15 Hannah Van Ert, M1**
In vitro and in vivo evaluation of DEPDC5 as a causative gene for Brugada Syndrome
Mentor: Barry London, Internal Medicine
- 9:30 Sophia Williams-Perez, M2**
Exposure to Fluid Shear Stress Results in Activation of YAP/TAZ in prostate cancer cells
Mentor: Michael Henry, Molecular Physiology & Biophysics
- 9:45 Danial Syed, M1**
Refining mind control: using a bispectral analysis to improve brain-computer interface performance
Mentor: Matthew Howard, Neurosurgery

Room 2155

- 8:00 Patrick Rooney, M2**
Cellphone administration of the Short Hip Osteoarthritis Outcome Score (HOOS-PS) and Pain Subscale (HOOS-PAIN) using Text Messaging
Mentor: Robert Westermann, Orthopaedics & Rehabilitation
- 8:15 Hannah McAtee, M4**
Academic Achievement of Iowa Children with Brain Tumors
Mentor: Mariko Sato, Pediatrics

Oral Presentations

- 8:30 Cassie Moylan, M2**
Treating heart failure in Duchenne muscular dystrophy: is proactive better than reactive?
Mentor: Ravi Ashwath, Pediatrics
- 8:45 Maggie Gannon, M2**
Identification of biomic variables impacting clinical outcomes in non-small cell lung cancer patients to improve imaged-based machine learning response prediction
Mentor: Yusung Kim, Radiation Oncology
- 9:00 Eric Schnieders, M2**
Impact of Trauma Informed Assessment on case identification at the Child Assessment Clinic that requires referral for services
Mentor: Resmiye Oral, Pediatrics
- 9:15 Nicholas Evans, M2**
Assessing balance and determining assistive device use in older adults in community settings using a mobile health platform
Mentor: Philip Polgreen, Internal Medicine
- 9:30 Zoe Hildreth, M2**
White matter microstructure and behavioral inhibition in adolescents: Effects of family history of alcohol use disorder
Mentor: Jatin Vaidya, Psychiatry
- 9:45 Tucker Dangremond, M2**
Electrophysiology and optical coherence tomography of the central retina in aniridia due to PAX6 mutations
Mentor: Arlene Drack, Ophthalmology & Visual Sciences

Room 2165

- 8:00 Austin Kazarian, M2**
Clinical outcome of pancreatic cancer patients with indeterminate pulmonary nodules
Mentor: Carlos Chan, Surgery
- 8:15 Kelsey Sheets, M3**
Morbid Obesity: Effects on Cervical Cancer Screening and Presentation
Mentor: Abbey Hardy-Fairbanks, Obstetrics & Gynecology
- 8:30 Arham Pasha, M2**
Surgical Management of Proximal Femur Metastatic Disease of Bone - A Pilot Study
Mentor: Benjamin Miller, Orthopaedics & Rehabilitation
- 8:45 Allie Simpson, M4**
The association between MMP9 risk alleles and exudative age-related macular degeneration (wet AMD)
Mentor: John Fingert, Ophthalmology & Visual Sciences

Oral Presentations

9:00 Gabriel Conley, M2
Assessing the NSQIP® Surgical Risk Calculator's Accuracy in Predicting Radical Cystectomy Outcomes
Mentor: Kenneth Nepple, Urology

9:15 Beth Wole, M2
Electrocardiographic changes pre and post Transcatheter Pulmonary Valve Replacement
Mentor: Manish Bansal, Pediatrics

9:30 Madalyn Rasor, M2
Quality of Life Among Pediatric Patients with Limb Girdle Muscular Dystrophy type 2I
Mentor: Katherine Mathews, Pediatrics

9:45 Daniel Pape, M2G
Characterization of a small peptide ("B-peptide") in INS-1 pancreatic beta cells
Mentor: Ling Yang, Anatomy & Cell Biology

Room 2189

8:00 Tong Yu, M2
Epigenetics of Delirium: Investigation of DNA Methylation Changes on Tumor Necrosis Factor alpha in Search for Delirium Biomarker
Mentor: Gen Shinozaki, Psychiatry

8:15 Nealy Wooldridge, M2
Morning Blood Pressure Surge is Blunted in Individuals with Chronic Anxiety: Relation with Nocturnal Blood Pressure Dipping
Mentor: Gary Pierce, Health & Human Physiology

8:30 Greg Power, M2
Comparison of Outcomes in Extremely Premature Babies with Respiratory Distress Syndrome through Administration of Curosurf and Survanta
Mentor: John Dagle, Pediatrics

8:45 Mary Kate Skalitzky, M2
The Impact of Religiosity/Spirituality on Infertility Quality of Life Metrics in a Veteran Population
Mentor: Ginny Ryan, Obstetrics & Gynecology

9:00 Erik Anderson, M2
High- and Total- Spinal Anesthesia: A Systematic Review
Mentors: Cynthia Wong & Unyime Ituk, Anesthesia

9:15 Brendan George, M2
Deep Sedation is Associated with Increased Mortality in Mechanically Ventilated Air Transport Patients: A Cohort Study
Mentor: Azeemuddin Ahmed, Emergency Medicine

Oral Presentations

9:30 Tyler Foley, M2

Implementation of an ED Mechanical Ventilation Protocol Improves Compliance with Lung Protective Ventilation

Mentor: Nicholas Mohr, Emergency Medicine

9:45 Hannah Pope, M2

The Long-Term Outcome of Patients with Abnormal Head Position Due to Nystagmus Treated with The Anderson-Kestenbaum Procedure

Mentor: Alina Dumitrescu, Ophthalmology & Visual Sciences

Poster Presentations

- 1 Ryan Staudte, M2**
Endocrine Effects of BPF on HS Rats
Mentor: Anne Kwitek, Pharmacology
- 2 Kyle Leubka, M2**
Are College Football Players Who Also Wrestled in High School at a Lower Risk for Concussion than Non-Wrestlers?
Mentor: Andrew Peterson, Pediatrics
- 3 Conor Houlihan, M2**
Alcohol Consumption's Effect on Heart Rate Variability in High Endurance Athletes during a One Week Endurance Cycling Event.
Mentor: Britt Marcussen, Family Medicine
- 4 Austin DeLau, M2**
Identification & Preliminary Characterization of ATF4 Interacting Proteins in Skeletal Muscle Fibers
Mentor: Chris Adams, Internal Medicine
- 5 Vivian Pham, M2**
Improving Therapies for Metastatic Colorectal Cancer with Radiosensitizers and Stereotactic Body Radiotherapy
Mentor: Bryan Allen, Radiation Oncology
- 6 Michael Heffernan, M2**
Relationship between numeracy and pain burden in parturients using patient-controlled epidural labor analgesia (PCEA): a prospective cohort study
Mentor: Cynthia Wong, Anesthesia
- 7 Nicholas Fleege, M4**
MRI Occult Meniscal Tears of the ACL Deficient Knee: Characterization of Occult Meniscal Tears and Association with Medial Femoral Condyle Rim Bone Contusions
Mentor: D. Lee Bennett, Radiology
- 8 Sarah Dougherty, M2**
Obstacles Faced During Bracing in the Treatment of Clubfoot Deformity
Mentor: Jose Morcuende, Orthopaedics & Rehabilitation
- 9 Zachary Rye, M1**
Post-operative Pain Management of Pediatric Urological Procedures
Mentor: Douglas Storm, Urology
- 10 Grant Young, M4**
Qualitative systematic review of reports of dural puncture and cerebral vein thrombosis
Mentor: Cynthia Wong, Anesthesia
- 11 Jayden Bowen, M2G**
Leishmania major and Staphylococcus aureus coinfection in mice and human neutrophils
Mentor: Mary Wilson, Internal Medicine
- 12 Nolan Asprey, M2**
The Effect of Individualized Positive End-Expiratory Pressure Compared to Low Positive End-Expiratory Pressure on Tissue Oxygenation During One Lung Ventilation in Obese Patient undergoing Thoracic Surgery
Mentor: Dionne Peacher, Anesthesia

Poster Presentations

- 13 Julia Gales, M2**
Pediatric Surgery Near the End of Life
Mentor: Erica Carlisle, Surgery
- 14 Tori Troesch, M2**
Quality of Treatment for Clubfoot Deformity: A Decade Analysis
Mentor: Jose Morcuende, Orthopaedics & Rehabilitation
- 15 Hassan Ahamed, M1**
The Effect of Monoamine Reuptake Inhibitors on Seizure Susceptibility in DBA/1 Mice
Mentor: George Richerson, Neurology
- 16 Pavane Gorrepati, M2**
The Effect of Eyelid Surgery on the Ocular Surface, Tear Composition, and Meibomian Gland Morphology and Function
Mentor: Erin Shriver, Ophthalmology & Visual Sciences
- 17 Leo Brueggeman, LOA**
Forecasting Autism Gene Discovery With Machine Learning and Heterogeneous Biological Data
Mentor: Jacob Michaelson, Psychiatry
- 18 Jonathan Chou, M4**
Effect of dorsal raphe nucleus stimulation on post-ictal generalized EEG suppression following maximal electroshock induced seizures in mice
Mentor: Gordon Buchanan, Neurology
- 19 Marcus Munoz, M2**
A Survey of American Tegumentary Leishmaniasis in the Endemic Region of Corte de Pedra, Bahia, Brazil
Mentor: Mary Wilson, Internal Medicine
- 20 Morgan Bertsch, M4**
Anterior versus posterior total hip arthroplasty: A comparison of outcomes at an academic institution
Mentor: Jesse Otero, Orthopaedics & Rehabilitation
- 21 Mackenzie Walhof, M2**
Induction of Cell Death by Outer Membrane Vesicles Produced by Neisseria meningitidis
Mentor: Jason Barker, Internal Medicine
- 22 Lucas Nguyen, M4**
Impacts of Enhanced Recovery After Surgery Pathway on Length of Stay, 30-day Mortality Rate, and Complication Rates in Transhiatal Esophagectomy Patients
Mentor: John Keech, Surgery
- 23 Katharine Marsden, M2**
Ethical Concerns During the Medical Student Surgical Clerkship
Mentor: Erica Carlisle, Surgery
- 24 Jonathan Trinh, M2**
The Effect of Resilience and Depression on Outcomes After Total Hip and Knee Arthroplasty
Mentor: Timothy Brown, Orthopaedics & Rehabilitation
- 25 Qi Wang, M1**
Dissecting Downstream Effectors of Lef-1 in Primary Airway Stem Cells
Mentor: John Engelhardt, Anatomy & Cell Biology

Poster Presentations

- 26 Roshan Abid, M2**
Hip Wire Navigation Decision Making
Mentor: Don Anderson, Orthopaedics & Rehabilitation
- 27 Madeline Peters, M2**
Bone Regeneration and Fracture Healing Following Delivery of FGF-2, BMP-2, Insulin, and Vitamin D in a Type-2 Diabetic Rat Model
Mentor: John Femino, Orthopaedics & Rehabilitation
- 28 Jackson Walsh, M2**
Loss of RGS2 in the placenta: Consequence of reduced HDAC activity, and contributor to the pathogenesis of preeclampsia?
Mentor: Justin Grobe, Pharmacology
- 29 Mitch Kinkor, M1**
Determinants of Health-Care Utilization for Symptomatic RTIs in Rural Indian Women
Mentor: Kelly Baker, Occupational & Environmental Health
- 30 Kyle Walsh, M2**
The influence of chronic cerebellar stimulation on cognitive function and circuitry
Mentor: Krystal Parker, Psychiatry
- 31 Chloe Hlas, M2**
Inflammatory Biomarkers and Cognitive Performance in Smokers: A Pilot Study
Mentor: Karin Hoth, Psychiatry
- 32 Michael Orness, M2**
Nutritional Composition of Diet in Individuals with MS following a Multimodal Intervention
Mentor: Terry Wahls, Internal Medicine
- 33 Brian Grieve, M2**
Prospective Review of Factors Associated with Burn Wound Cellulitis
Mentor: Lucy Wibbenmeyer, Surgery
- 34 Chermaine Hung, M4**
Differences in characteristics and outcomes between married and unmarried patients undergoing radical cystectomy for bladder cancer
Mentor: Kenneth Nepple, Urology
- 35 Joanna Silverman, M2**
EyePrint PRO 3-D Scanned Scleral Contact Lenses: Primary Indications, Visual Outcomes, and Complications
Mentor: Mark Greiner, Ophthalmology & Visual Sciences
- 36 Richard Uhlenhopp, M2**
Staphylococcus aureus Nasal Carriage and the Risk of Surgical Site Infections among Patients Undergoing Orthopedic Surgical Procedures to Fix Acute Fractures: A Retrospective Cohort Study
Mentor: Loreen Herwaldt, Internal Medicine
- 37 Joseph Vecchi, M2G**
Using engineered photopolymerized micropatterns and live cell imaging to study the growth of Spiral Ganglion Neurons
Mentor: Marlan Hansen, Otolaryngology - Head & Neck Surgery
- 38 Jared Peterson, M2**
Neurocognitive Function in Pediatric Brain Tumor Survivors
Mentor: Mariko Sato, Pediatrics

Poster Presentations

- 39 Justin Valdez, M2**
Investigating the Link Between PKA Regulation and Late-Onset Neurodegeneration
Mentor: Ted Abel, Molecular Physiology & Biophysics
- 40 Michael Klemme, M2**
Identification and Analysis of Leishmania exosome-associated proteins and patient demographic information in Natal, Brazil.
Mentor: Mary Wilson, Internal Medicine
- 41 Ryan Neuhaus, M1**
Mental Health and Substance Abuse Patients in the Emergency Department: Mobile Crisis Outreach and Healthcare Utilization.
Mentor: Sangil Lee, Emergency Medicine
- 42 Sarah Oest, M3**
Activation and Utilization of an Electronic Health Record Patient Portal at an Academic Medical Center - Impact of Patient Demographics and Geographic Location
Mentor: Matthew Krasowski, Pathology
- 43 Alex Meyer, M1**
Insights into Arch Vessel Development in the Bovine Aortic Arch
Mentor: Ravi Ashwath, Pediatrics
- 44 Arthur Mercado, M2**
Quantifying Functional Disability in Individuals Undergoing Periacetabular Osteotomy for Hip Dysplasia
Mentor: Michael Willey, Orthopaedics & Rehabilitation
- 45 Grace Chabal, M2**
Recovery from cesarean delivery at UIHC: a comparison to Enhanced Recovery Protocols
Mentor: Noelle Bowdler, Obstetrics & Gynecology
- 46 Chris Amdahl, M2**
Resident perceptions of cross-specialty interaction
Mentor: Muneera Kapadia, Surgery
- 47 Olivia Atari, M2**
Evaluating the need for routine screening of carcinoid heart disease
Mentor: Mohammad Bashir, Cardiothoracic Surgery
- 48 Ashten Sherman, M1**
Neural Correlates of Positive and Negative Affectivity in Older Adults: A Structural MRI Study
Mentor: Natalie Denburg, Neurology
- 49 Ossama Abu-Halawa, M1**
Positive feedback between PI3Kd and glucocorticoids sensitizes resistant B-cell Precursor Acute Lymphoblastic Leukemia cells to treatment
Mentor: Miles Pufall, Biochemistry
- 50 Jasmine Roghair, M1**
Neuropsychological Profiles of Youth Participants in Flag vs. Tackle Football
Mentor: Patricia Espe-Pfeifer, Psychiatry & Andrew Peterson, Sports Medicine
- 51 Andrew Kalenkiewicz, M2G**
Novel Drug Candidate for Parkinson's Disease Stimulates the Glycolytic Enzyme PGK1
Mentor: Michael Welsh, Internal Medicine

Poster Presentations

- 52 Jessica Hui, M2**
Effects of region-specific knockouts of Ndufs4 on volatile anesthetic response
Mentor: Philip Morgan, Margaret Sedensky, Anesthesia (non-UI)
- 53 David Crompton, M2**
A New Rapid Visual Field Screening Test for Patients with Idiopathic Intracranial Hypertension
Mentor: Michael Wall, Neurology
- 54 Mikako Harata, M1**
Delivery of short hairpin RNA via lentivirus in human pseudoislets provides a model to test dynamic regulation of insulin secretion and gene function in human islets
Mentor: Yumi Imai, Internal Medicine
- 55 Akansha Jain, M1**
Utilizing ferroptosis to target therapy-resistant cancer cells
Mentors: Michael Henry & Adam Dupuy, Molecular Physiology & Biophysics
- 56 Sanjeeva Weerasinghe, M2**
Impact of medical scribing on the learning of clinical skills
Mentor: Kelly Skelly, Family Medicine
- 57 Yixi Wang, M1**
Creation of an inducible neonatal diabetic zebrafish model
Mentor: Christopher Emfinger, Colin Nichols, Physiology & Cell Biology, Washington Univ. School of Medicine
- 58 Shadeh Ghaffari-Rafi, M2**
Quantitative Susceptibility Mapping (QSM) and Vessel Wall Imaging (VWI) MRI sequences in Identifying Subjects with Intracranial Aneurysms who Have Microbleeds Associated with Sentinel Headache: Pilot Study
Mentor: David Hasan, Neurosurgery
- 59 Andres Dajles, M2G**
Penalized Regression Models on the Lipid Profile of Subjects With Multiple Sclerosis
Mentor: Yuan Huang, Public Health