

Program of Events

**Medical Student
Research Conference
September 18-19, 2019**

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 56th 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 18, 2019

- 8:00 - 10:00 AM Concurrent Oral Présentations
1117, 2117, 2123, 2135, 2155, 2156, 2165, 2189 MERF
- 12:00 - 12:50 PM Poster Session #1
Medical Student Poster Presentations in MERF Atrium

September 19, 2019

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

September 20, 2019

Awards Banquet

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

Keynote Speaker

Arlene Drack

Ronald Keech Professor of Pediatric Genetic Eye Disease Research
Director, Electrophysiology Institute for Vision Research
Department of Ophthalmology and Visual Sciences

For student presenters, research mentors, & invited guests

Awards Banquet

Friday, September 20, 2019

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 one award; the *Margaret V. Lunsford Award for Research in Anesthesia* 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*.

NEUROSCIENCE AND 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

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*, *Outstanding Mentorship in Basic Research* and *Outstanding Mentorship in Translational 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**

Acknowledgements

Judges

John Albright, MD
Asma Al-Zougbi, PhD
Pat Barlow, PhD
David Bedell, MD
Maresi Berry-Stoelzle, MD, PhD
Gourav Bhardwaj, PhD
Gail Bishop, PhD
Noelle Bowdler, MD
Catherine Bradley, MD
Kyle Brown, MD, MSc
Erica Carlisle, MD
Jim Choi, MD
Natalie Denburg, PhD
Nirav Dhanesha, PhD
Cate Dicharry, MFA
Beth Dinoff, PhD
Prakash Doddapattar, PhD
Arlene Drack, MD
Eric Epping, MD, PhD
Marie Gaine, PhD
Colette Galet, PhD
Diogo Garcia Valadares, PhD
Joel Geerling, MD, PhD
Satya Geesala, PhD
Mark Graber, MD
Duane Hall, PhD
Kimberly Hart, PhD
Antentor Hinton, PhD
Jennifer Hrabe, MD
Nobutoshi Harata, MD
Yumi Imai, MD
Priyanka Iyer, MD, MPH
Jason Kosovski, PhD
Matt Krasowski, MD, PhD
Clare Kreiter, PhD
Sangil Lee, MD, MS
Barcey Levy, MD, PhD
Kelly Messingham, PhD
Jane Miller, PhD
Manasa Nayak, PhD
Nick Mohr, MD, MS
Luana Ortolan, PhD
Robin Paetzold, MBA
Christine Peterson, DMV, PhD
Stephanie Radke, MD
Robert Roghair, MD
Antonio Sanchez, MD
Carol Scott-Conner, MD, PhD, MBA
Sarah Shaffer, DO
Vijay Sonkar, PhD
Mingyao Sun, PhD
Doug Spitz, PhD
Jatin Vaidya, PhD
Brad Van Voorhis, MD
Mark Yorek, PhD

Oral Presentations

Room 1117

- 8:00 Emma Greimann, M2**
Stress Response Biomarker Assessment in Women with Overactive Bladder
Mentor: Catherine Bradley, Obstetrics and Gynecology
- 8:15 Brandon Bates, M2**
Impact of Surgeon's Choice of 1 vs. 2 Staged Revision ACL Reconstruction Based on Radiograph Assessment of Preoperative Bone Tunnel Characteristics.
Mentor: John Albright, Orthopaedics and Rehabilitation
- 8:30 Ashton Sherman, M2**
A Look into the Neuropsychological Functioning of Breast Cancer Survivors 10 Years Into Survivorship
Mentor: Natalie Denburg, Neurology
- 8:45 Yixi Wang, M2**
A novel synonymous variant in the COL4A6 gene causes congenital hearing loss due to exon skipping
Mentor: Richard JH Smith, Otolaryngology – Head & Neck Surgery
- 9:00 Trenton Greif, M2**
The Role of Immunosuppression in Cutaneous Scarring
Mentor: Jennifer Powers, Dermatology
- 9:15 Katie Christel, M2**
A Safe and Effective Approach to Clinical Scrotal Orchiectomy for Transgender Women Using Local Anesthesia
Mentor: Bradley Erickson, Urology
- 9:30 Hannah Botkin, M2**
Immunosuppression: Associations with Cervical Cancer Demographic Characteristics
Mentor: Abbey Hardy-Fairbanks, Obstetrics & Gynecology

Room 2117

- 8:00 Edison Chen, M2**
Outcomes and Management of Peripheral Neuropathies in Gynecologic Surgeries
Mentor: Joseph Kowalski, Obstetrics & Gynecology
- 8:15 Phani Chevuru, M2**
Effect of Late Surfactant Administration on Survival without Bronchopulmonary Dysplasia Among Extremely Preterm Infants
Mentor: Edward Bell, Pediatrics
- 8:30 Casey Inman, M2**
Finding the brain's internal clock: the role of dopamine in interval-timing behavior
Mentor: Nandakumar Narayanan, Neurology

Oral Presentations

- 8:45 Carlos Osorno-Cruz, M2**
Continuous IV tirofiban in Acute Aneurysmal Subarachnoid Hemorrhage is Associated with a Reduced Risk of Clinical Vasospasm
Mentor: David Hasan, Neurosurgery
- 9:00 Jenna Johnson, M4**
Effect of Timing of Gynecologic Oncology Rotation on NBME Shelf Examination Performance in the Obstetrics and Gynecology Core Clerkship
Mentor: Sarah Shaffer, Obstetrics & Gynecology
- 9:15 Nathan Walton, M2**
Regionalization for Time-Critical Conditions: Classifications, Comparisons, and Considerations
Mentor: Nicholas Mohr, Emergency Medicine
- 9:30 Rose McGlaulin, M2**
Visually evoked potentials in children with inherited retinal disease
Mentor: Arlene Drack, Ophthalmology & Visual Sciences
- 9:45 Olivia Chase, M2**
Human exposure to Anaplasma phagocytophilum and correlation with Leishmania infantum seropositivity in Natal, Brazil
Mentor: Christine Petersen, Epidemiology

Room 2123

- 8:00 Kristin Weeks, LOA**
Risk Factors for Venous Thromboembolism Events in Ovarian Cancer Patients: A Meta-Analysis of Observational Studies
Mentor: Mary Charlton, Epidemiology
- 8:15 Cassie Wassink, M2**
Biological Therapy for Rheumatic Disease in the Very Young Pediatric Population: A Case Series
Mentor: Sandy Hong, Pediatrics
- 8:30 Hannah Van Ert, M2G**
Evaluation of maternal prenatal stress and its effects on placental redox processes – a neurodevelopmental perspective
Mentor: Hanna Stevens, Psychiatry
- 8:45 Kelsey Anderson, M2**
The Model Development, Validation and Refinement to Identify Anaphylaxis in Pediatric Patients Presenting to the Emergency Department
Mentor: Sangil Lee, Emergency Medicine
- 9:00 Emily Capper, M2**
Clinical Factors that Affect the Cumulative Live Birth Rate from an IVF Cycle
Mentor: Brad Van Voorhis, Obstetrics & Gynecology

Oral Presentations

9:15 Rachel Dahl, M2
Investigating healthcare provider bias toward patients who use drugs
Mentor: Joshua Radke, Emergency Medicine

9:30 Alison Hefel, M2
Are Risk Factors the Same for All Cervical Cancers?
Mentor: Colleen Stockdale, Obstetrics & Gynecology

9:45 Cyrus Colah, M2
The Effect of Light on Eyelid Contraction: Physiology and Potential Uses
Mentor: Randy H. Kardon, Ophthalmology & Visual Sciences

Room 2135

8:00 Chris Schanbacher, M2
Buprenorphine Initiation and Treatment in Rural Iowa Communities: Emergency Departments as a Link to Sustained Therapy
Mentor: Maresi berry-Stoelzle, Family Medicine

8:15 Ben Kreitlow, M2
Identification of parabrachial complex-specific immunohistochemical markers in the human pons tegmentum.
Mentor: Joel Geerling, Neurology

8:30 Dake Huang, M1
Efferent Projections of Vglut2, Foxp2, and Pdyn expressing Parabrachial Neurons
Mentor: Joel Geerling, Neurology

8:45 Haley Egan, M2
Key High Efficiency Practices of Residents in an Academic Emergency Department: A Mixed Methods Study
Mentor: Azeemuddin Ahmed, Emergency medicine

9:00 Jonathan Birdsall, M4
Inflammatory and Vascular Correlates of Mood Change Over Eight Weeks
Mentor: Jess Fiedorowicz, Psychiatry

9:15 Jacob Gylten, M2
Retrospective Review of Wound Healing Outcomes for Patients Who Undergo Surgery for Sarcoma Removal
Mentor: Benjamin Miller, Orthopaedics and Rehabilitation

9:30 Alexandra Eckburg, M2
Survey and Analysis of Effect of Immunosuppression on Cutaneous T-Cell Lymphoma
Mentor: Vincent Liu, Dermatology

Oral Presentations

9:45 Mitch Kinkor, M2
Characterization of Neonatal Peritoneal Dialysis
Mentor: John M. Dagle, Pediatrics

Room 2155

8:00 Nate Mullin, M2G
The role of complement factor H in the choroidal endothelium
Mentor: Robert Mullins, Ophthalmology & Visual Sciences

8:15 Edvin Rosic, M2
Assessment of Social Environment: A Pilot Study using Smart Phone Technology
Mentor: Lane Strathearn, Pediatrics

8:30 Natalie Ross, M2
Implementing a Crisis Stabilization Unit: Impacts on Emergency Behavioral Health Patients
Mentor: Elaine Himadi, Psychiatry

8:45 Ryan Ward, M1
Cognitive Function in Relation to Hypertension and Education
Mentor: Gary Pierce, Health and Human Physiology

9:00 Michael Torres, M4
Effect of Late Intervention with Menhaden Oil on Peripheral Neuropathy in Diet-Induced Obese and Type 2 Diabetic Sprague-Dawley Rats
Mentor: Mark Yorek, Internal Medicine

9:15 Calvin Tran, M2
Systematic Review and Meta-Analyses of Weight Gain with FDA-approved Mood Stabilizers in Bipolar Disorder
Mentor: Jess Fiedorowicz, Psychiatry

9:30 Megan Vree, M2
Perceptions of Minority and White Women Regarding Their Physicians' Care: A Qualitative Analysis
Mentor: Barcey Levy, Family Medicine

9:45 Michael Lung, M2
Comparing BCVI in low and high energy mechanisms of injury
Mentor: Colette Galet, Surgery

Room 2156

9:00 Gage Liddiard, M1G
Sleep deprivation, cyclic AMP, and hippocampal learning and memory
Mentor: Ted Abel, Molecular Physiology & Biophysics

Oral Presentations

9:15 Maddie Mix, M2G
Description of a novel population of dynorphinergic neurons in the human brainstem that suppress pain and itch
Mentor: Alexander Bassuk, Pediatrics

9:30 Mikako Harata, M2
Elucidating the Immuno-metabolic Role of Lysosome on Atherosclerosis Disease Progression
Mentor: Ling Yang, Anatomy & Cell Biology

9:45 Tyler Hughes, M2
Respiratory Rate Variability in Medically Intractable Epilepsy Patients
Mentor: Brian Dlouhy, Neurosurgery

Room 2165

8:00 Akansha Jain, M2G
Effect of Terazosin on locomotion and aggregation in a C. elegans model of Parkinson's disease
Mentor: Michael Welsh, Internal Medicine

8:15 Daniel Stover, M4
Ultrasound Guided Tenotomy Improves Physical Function and Decreases Pain for Tendinopathies of the Elbow, A Retrospective Review
Mentor: Mederic Hall, Orthopaedics and Rehabilitation

8:30 Deepon Sarkar, M2
Immunological Response in Aneurysmal Subarachnoid Hemorrhage (IRASH)
Mentor: Edgar Samaniego, Neurology

8:45 Tyler Larson, M2
Regional Changes in Acetabular Coverage after PAO Are Not Responsible for Changes in Contact Stress in Dysplastic Hips
Mentor: Jess Goetz, Orthopaedics and Rehabilitation

9:00 Saul Rodriguez, M2
Investigating collateral projections of LJA5 neurons to the periaqueductal grey (PAG), parabrachial nucleus (PB), and lamina I of the spinal cord
Mentor: Alexander Bassuk, Pediatrics

9:15 Ossama Abu-Halawa, M2G
Lesion Localization of Post-Stroke Depression
Mentor: Aaron Boes, Pediatrics

9:30 Mason LaMarche, M2
Antibody responses to Staphylococcus aureus superantigens in cystic fibrosis
Mentor: Anthony Fischer, Pediatrics

Oral Presentations

9:45 Timothy Sevcik, M2

Nutrition and Exercise Patterns Among Toddlers

Mentor: David Bedell and Barcey Levy - Family Medicine

Room 2189

8:00 Alex Meyer, M2

Elevations in Joint Contact Stress Associated with Abnormal Femoral Version

Mentor: Jess Goetz, Orthopaedics and Rehabilitation

8:15 Qi Wang, M2G

Closing the gap: Developing a photopolymerized resorbable biomaterial for cleft palate surgery mucosal defect

Mentor: Kristan Worthington, Biomedical Engineering

8:30 Heather Greene, M2

Evaluation of Osmolal Gap to Estimate Concentrations of Toxic Alcohols and Glycols in Patients at an Academic Medical Center

Mentor: Matthew Krasowski, Pathology

8:45 Emily Parker, M2

Modifiable Factors that Influence Quadriceps Recovery after ACL Reconstruction

Mentor: Robert Westermann, Orthopaedics and Rehabilitation

9:00 Momin Nasir, M2

Psychosocial Determinants of Health in Young Adult Hip Patients

Mentor: Robert Westermann, Orthopaedics and Rehabilitation

9:15 Danial Syed, M2

Identification of phase amplitude coupling in the human mesial temporal lobe during episodic memory processing

Mentor: Matthew Howard, Neurosurgery

Poster Presentations

- 1 Kristin Weeks, M4G**
Impact of Rurality on Stage IV Ovarian Cancer at Diagnosis: A Midwest Cancer Registry Cohort Study
Mentor: Mary Charlton, Epidemiology
- 2 Ryan Neuhaus, M2**
The Association between Utilization of a Mobile Crisis Outreach Program and Future Emergency Department Utilization: A Propensity-Matched Case Control Study
Mentor: Sangil Lee, Emergency Medicine
- 3 Madalyn Rasor, M3**
PEG-Asparaginase Induced Liver Injury: Case Report and Systematic Review of the Literature
Mentor: Arvind Murali, Internal Medicine
- 4 Nicole Platti, M2**
A Scoping Review Examining the Validity of Medical School Grades
Mentor: Clarence Kreiter, Family Medicine
- 5 Abioye Oshodi, M2**
Evaluation of Femora Anteversion and Femoroacetabular impingement in Human Cadaveric Femora
Mentor: Kyle Duchman, Orthopaedics and Rehabilitation
- 6 Jocquil Givens, M2**
Assessing the Role of Routine Knee Aspiration in the Diagnosis of Prosthetic Joint Infections
Mentor: Jesse Otero, Orthopaedics and Rehabilitation
- 7 Joseph Carmody, M1**
Evaluation of secondary bone contusion patterns by pre-operative MRI in the ACL competent patient that may predict the presence of an MRI occult meniscal tear.
Mentor: D. Lee Bennett, Radiology
- 8 Nathan Cao, M2**
Anterior Inferior Iliac Spine Deformities: Incidence and Associations
Mentor: Kyle Duchman, Orthopaedics and Rehabilitation
- 9 James Pingnot, M2**
Patients with BMI<18.5 in Arthroplasty Clinic: An Examination of Co-Morbidities and Post-Surgical Outcomes compared to Controls
Mentor: Jesse Otero, Orthopaedics and Rehabilitation
- 10 David Moore, M2**
Comparing Dietary Assessment Tools for Multiple Sclerosis Patients Following an Extreme Dietary Intervention
Mentor: Terry L. Wahls, Internal Medicine
- 11 Emily Ruba, M1**
Leishmania major and Staphylococcus aureus coinfection in mice and human neutrophils Building a Better Consent Form: Lessons from SUPPORT
Mentor: Erica Carlisle, Surgery

Poster Presentations

- 12 Andrea Arthofer, M2**
Qualitative Investigation of Factors Associated with Successes and Challenges of Implementing a Therapeutic Lifestyle Intervention in Secondary Progressive Multiple Sclerosis.
Mentor: Terry L. Wahls, Internal Medicine
- 13 Jian Chu, M4**
Efficacy of Flow Monitoring for Oxygenator Failure in ECMO
Mentor: Aditya Badheka, Pediatrics
- 14 Brian Paul, M2**
Mafb is not required for palatogenesis in the mouse
Mentor: Martine Dunnwald, Anatomy & Cell Biology
- 15 Hassan Ahamed, M2G**
The Effects of Chronic Sleep Deprivation on Hippocampal Gene Expression
Mentor: Ted Abel, Molecular Physiology & Biophysics
- 16 Katelin Durham, M4**
SPINK1 Variants in Pediatric Patients with Acute Recurrent or Chronic Pancreatitis
Mentor: Aliye Uc, Pediatrics
- 17 Stephanie Saey, M1**
Adeno-associated viral targeting of Purkinje cells
Mentor: John Wemmie, Psychiatry
- 18 Stephanie Baldwin, M4**
Support for Burn Survivors: Influential Factors in the Recovery Process
Mentor: Lucy Wibbenmeyer, Surgery
- 19 John Henrich, M2**
Oxidative Stress from Pharmacological Ascorbate Induces Radio-Chemo-Sensitization in Lung Cancer Cell
Mentor: Douglas R. Spitz, Radiation Oncology
- 20 Ashley Radig, M2**
Role of DHH1 in insulin secretion and mitochondrial function in pancreatic beta cells
Mentor: Yumi Imai, Internal Medicine
- 21 Leigh Rettenmaier, M4**
Acquired Neuropathological Lesions in Patients Dying from Congenital Heart Disease from 2000 - 2017.
Mentor: Marco Hefti, Pathology
- 22 Matt Meyer, M2**
Lumbosacral Morphology, Mobility, and the Relationship with Instability Following Total Hip Arthroplasty
Mentor: Timothy Brown, Orthopaedics and Rehabilitation
- 23 Kyle Kinder, M2**
Post-SVR changes in spleen size and its relation to clinical outcomes in Iowa City Veterans cured of hepatitis C
Mentor: Kyle Brown, Internal Medicine

Poster Presentations

- 24 Emily Solsrud, M2**
The Prevalence of Hip Pathology in Male Patients Presenting to a General Urology Clinic for Orchialgia
Mentor: Timothy Brown, Orthopaedics & Rehabilitation
- 25 Mahek Shahid, M2**
AFP as a Reliable Marker for HCC in Patients with Cirrhosis and Cured HCV Infection
Mentor: Kyle Brown, Internal Medicine
- 26 Jennifer Good, M2**
Viral infection of the skin as a mechanism of Ebola transmission
Mentor: Kelly Messingham, Dermatology
- 27 Paige Noble, M1**
Trends in National Institutes of Health Funding to US Allopathic Medical Schools
Mentor: Brooks Jackson, Pathology
- 28 Alex Rier, M2**
Analysis of Shoulder Stability in Reverse Total Shoulder Arthroplasty Patients Using a Finite Element Model
Mentor: Brendan Patterson, Orthopaedics and Rehabilitation
- 29 Tasnia Iqbal, M2**
The Impact and Age-Dependent Effects of Traumatic Brain Injury on Astrocyte Activation State
Mentor: Elizabeth Newell, Pediatrics
- 30 Liana Meffert, M2**
Improving efficiency of hip fracture care by simplifying wound management and eliminating unnecessary clinical follow-up
Mentor: Michael Willey, Orthopaedics and Rehabilitation
- 31 Anna Greenwood, M1**
Differential effects of gram-negative bacteria in Paneth cell disruption-induced necrotizing enterocolitis
Mentor: Steven McElroy, Pediatrics
- 32 Bryn Myers, M1**
Cav1.2 as a therapeutic target for psychiatric disease: the role of the voltage-gated calcium channel Cav1.2 on cerebellum-associated behavior in mice
Mentor: Aislinn Williams, Psychiatry
- 33 Nancy Ha, M4**
A retrospective cohort study of the association of maternal obesity and fetal cord blood gases in parturients receiving phenylephrine during cesarean delivery
Mentor: Unyime Ituk, Anesthesia
- 34 Grant Henning, M2**
Ulnar nerve neuropathy recovery is common after operative fixation of distal humerus fractures
Mentor: Michael Willey, Orthopaedics and Rehabilitation
- 35 Joe Stearns, M2**
Predicting pain after cesarean section using a 3 question questionnaire, local anesthesia infiltration and observer rating
Mentor: Unyime Ituk, Anesthesia

Poster Presentations

- 36 Brandon Koch, M2**
Defining and Quantifying Malnutrition in Post-operative Orthopedic Trauma
Mentor: Michael Willey, Orthopaedics and Rehabilitation
- 37 Abby Moore, M2**
The Design and Validation of a Wire Navigation Simulator for Pediatric Supracondylar Humerus Fractures
Mentors: Emily Connor and Heather Kowalski, Orthopaedics and Rehabilitation
- 38 Teddie Ordog, M2**
Characterization of Helicobacter pylori phagosomes in human neutrophils
Mentor: Lee-Ann Allen, Internal Medicine
- 39 Eli Perez, M2**
Factors Predicting Spinal Cord Stimulator Explantation
Mentor: Matthew Howard, Neurosurgery
- 40 Brooke Jennings, M2**
Investigation of the Rac-Driven Drug Resistance Mechanism in Melanoma
Mentor: Christopher Stipp, Biological Sciences
- 41 Rob Manges, M2**
Chemical characterization and in vitro effects of indoor air particulate matter from kitchens using wood and LPG cookstoves in Tamil Nadu, India
Mentor: Alejandro Comellas, Internal Medicine
- 42 Benjamin Reasoner, M2**
Aortic Stiffness is Associated with Cerebral Perfusion via Arterial Spin Labeling (ASL) MRI in Heavy Smokers
Mentor: Karin Hoth, Psychiatry
- 43 Ryan Lavering, M2**
Investigating the Relationship Between the Labile Iron Pool and Proliferation in Glioma Cells
Mentor: Bryan Allen, Radiation Oncology
- 44 Dhruv Kothari, M2**
Dissecting the immune responses to in situ immunization designed to modify the tumor microenvironment
Mentor: George Weiner, Internal Medicine
- 45 Laurel Smeins, M2**
Effect of Labor & Delivery Unit Closures on Access to Obstetrical Care in Rural Iowa
Mentor: Stephanie Radke, Obstetrics & Gynecology
- 46 Sam Palmer, M2**
Endotyping Mucous Membrane Pemphigoid
Mentor: Janet Fairley, Dermatology
- 47 Sahaana Arumugam, M1G**
An Analysis of A Water, Sanitation & Hygiene Intervention and Enteric Pathogen Detection in Kisumu, Kenya
Mentor: Kelly Baker, Occupational & Environmental Health
- 48 Deepika Raghavan, M3**
Upstream Obstetrics: Assessing the Prevalence of Food Insecurity in a High-risk Obstetrics Population
Mentor: Michael Haugsdal, Obstetrics & Gynecology

Poster Presentations

- 49 Aparna Ajarapu, M1**
Nut Consumption and Renal Function Among Women at High Risk
Mentor: Cuilin Zhang (non UI)
- 50 Jared Peterson, M3 and Bethany Muyskens, M2**
Improving Disease Self-Management Through Food Choice
Mentor: Michael Haugsdal, Obstetrics & Gynecology
- 51 Josh Hagedorn, M1**
A novel MYRF mutation linked to Nanophthalmos
Mentor: John Fingert, Ophthalmology & Visual Sciences
- 52 Roberto Infante, M2**
Judging a Muscle by its Cover: Validation of Thenar Muscles via Surface Anatomy
Mentor: Joseph Buckwalter V, Orthopaedics and Rehabilitation
- 53 Eric Bertroche, M2**
Are Computed Tomography Angiograms Necessary for all Blunt Cervical Spine Injuries?
Mentor: Cassim Igram, Orthopaedics and Rehabilitation
- 54 Kendra Frey, M4**
Mechanisms of Leptin-Angiotensin Cross-Talk for the Control of Resting Metabolism
Mentor: Justin Grobe, Pharmacology
- 55 Timon Higgins, M1**
The Foreign Body Response to Cochlear Implant Biomaterials
Mentor: Marlan R. Hansen, Otolaryngology – Head & Neck Surgery
- 56 Jose Rios-Monterrosa, M2**
Analysis of the autophagy chaperone p62 in lamin-associated muscular dystrophy
Mentor: Lori Wallrath, Biochemistry
- 57 Ryan Sabotin, M1**
Development of Chimeric Helper-Dependent Adenovirus Vectors for Inner Ear Gene Delivery
Mentor: Marlan R. Hansen, Otolaryngology – Head & Neck Surgery
- 58 Gavin Davis-Ramos, M2**
Prediction of Fluid Intelligence Scores from Retinal Images Using Deep Learning
Mentor: Jacob Michaelson, Psychiatry
- 59 Jayden Bowen, LOA**
Triggering receptor expressed on myeloid cells-1 regulates many aspects of neutrophil function
Mentor: Julia Klesney-Tait, Internal Medicine
- 60 Jasmine Roghair, M2**
Neuropsychological Profiles of Young Participants in Flag vs. Tackle Football
Mentor: Andrew Peterson, Pediatrics
- 61 Velarchana Santhana, M2**
Assessment of central venous catheter repair procedure success in pediatric intestinal failure
Mentor: Riad Rahhal, Pediatrics
- 62 Miranda Schene, M2G**
AMPK Isoform Response to Increased Cellular Shear Stress
Mentor: Kris DeMali, Biochemistry

Poster Presentations

- 63 Anthony Schneider, M2**
Activity Level and Sport Type in Adolescents Correlates with Development of Cam Morphology
Mentor: Natalie Glass, Orthopaedics and Rehabilitation
- 64 Kristy Sevcik, M1**
Exploring the Involvement of Novel C-Type Lectin Receptors in Ebola Virus Entry
Mentor: Wendy Maury, Microbiology
- 65 Kuangda Shan, M4**
Endoscopic Dilation is a Safe and Effective Therapeutic Procedure for Patients with Eosinophilic Esophagitis
Mentor: Yehudith Assouline-Dayan, Internal Medicine
- 66 Zach Skopec, M1**
Discovery of p21-interacting Proteins in Skeletal Muscle Fibers
Mentor: Chris Adams, Internal Medicine
- 67 Nathen Spitz, M1**
Investigating cortico-limbic-striatal circuit interactions during risky decision-making
Mentor: Andrew Holmes, National Institute of Alcohol Abuse and Alcoholism, NIH
- 68 Charlene Tran, M2**
Trends in Horizontal Periocular Asymmetry
Mentor: Erin Shriver, Ophthalmology & Visual Sciences
- 69 Madison Wahlen, M1G**
Introduction of Ibrutinib and Venetoclax Associated with Improved Conditional Net Survival in Mantle Cell Lymphoma and Chronic Lymphocytic Leukemia
Mentor: Brian Link, Internal Medicine
- 70 Anna White, M2**
Evaluation of a Communication Skills Curriculum for Surgical Residents
Mentor: Muneera Kapadia, Surgery
- 71 Xavier Tijerina, M1G**
Staphylococcus Aureus Clinical Isolates Induce Pseudomonas Aeruginosa Exploratory Motility
Mentor: Dominique Limioli, Microbiology and Immunology
- 72 Brittany Todd, M1G**
Juvenile traumatic brain injury
Mentor: Alexander Bassuk, Pediatrics
- 73 Joseph Vecchi, LOA**
Exploring the role of CABP1 and Ca²⁺ in neurite growth, alignment, and pathfinding
Mentor: Amy Lee, Molecular Physiology & Biophysics
- 74 Benjamin Walker, M2**
The Effect of a Video Game Warm-Up on Surgical Simulator Performance
Mentor: Erin Shriver, Ophthalmology and Visual Sciences
- 75 Sophia Rotman, M1**
Family Encouragement of healthy Eating Predicts Child Dietary Intake and Weight Loss in Family-Based Behavioural Weight Loss Treatment
Mentor: Denise Wilfley, Psychiatry (non UI)
- 76 Leah Laageide, M4**
Loss of Peripheral Tolerance in Bullous Pemphigoid is Associated with Alterations in Skin Dendritic Cell Subsets
Mentor: Janet Fairley, Dermatology