44th Annual
Medical Student Research Day
September 7, 2012

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

Program of Events

Sponsored by:
Medical Student Research Club and
Medical Student Research Council

Funds provided by University of Iowa Student Government
Free to University of Iowa Students
Welcome to the 44th Annual Student Medical Research Day. Research Day provides an opportunity for medical students who have conducted research to present their results, receive feedback, and compete for awards. The day’s events begin at 8:00 A.M. and include the following schedule:

8:00-8:45 Atrium MERF
Continental Breakfast and Registration

8:30–10:15 1103, 2117, 2123, 2135, 2155, 2165, 2189 MERF
Oral Presentations (concurrent sessions)

10:15–10:30 Break

10:30-11:15 1110A MERF
Plenary Speaker: Christopher Adams, MD, PhD
Associate Professor, Department of Internal Medicine

“Investigating Causes and Treatment of Skeletal Muscle Atrophy”

11:15–11:30 Break

11:30-1:30 Atrium MERF
Poster Session and Buffet Lunch

6:00 – 6:30 Ballroom, 2nd Floor, IMU
Social Time

6:30 – 8:30 Ballroom, 2nd Floor, IMU
Keynote Speaker: Peg Nopoulos, MD
Kate Daum Professor of Psychiatry, Pediatrics, and Neurology
Director, Medical Student Research Program
Vice Chair for Research, Department of Psychiatry
University of Iowa Carver College of Medicine

Awards Banquet for student presenters, research mentors and invited guests
AWARDS BANQUET

There are several Research Day awards, including three Foundation Awards given to an outstanding oral presentation and to an outstanding poster presentation, 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 Dr. 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 Dr. Edward Heath, this award recognizes outstanding medical research. As Professor and Chairman of the Biochemistry Department at the University of Iowa, Dr. Heath was an outstanding example 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 Dr. Melvin L. Marcus, faculty supervisor of the ISMRC for over a decade. Dr. Marcus was instrumental in maintaining the club as an integral part of the University of Iowa research community. Dr. 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.
DEPARTMENTAL AWARDS

CARDIOTHORACIC SURGERY
The Department of Cardiothoracic Surgery will sponsor the Nicholas P. Rossi Award for research in cardiothoracic surgery.

EMERGENCY MEDICINE
The Department of Emergency Medicine will sponsor two awards, the best poster presentation and the best oral presentation in emergency medicine research.

FAMILY MEDICINE
The Department of Family Medicine will sponsor one award designated for the best oral or poster presentation by a medical student in family medicine research.

INTERNAL MEDICINE
The Department of Internal Medicine will sponsor three awards, the John Stokes Award for Research in Internal Medicine and two awards designated for Research Excellence in Internal Medicine.

NEUROLOGY and NEUROSURGERY
The Departments of Neurosurgery and Neurology will sponsor three awards designated for the best poster or oral presentation by a medical student in the categories of basic neuroscience, translational neuroscience and clinical neuroscience.

OPHTHALMOLOGY
The Department of Ophthalmology will sponsor two awards designated for the best oral or poster presentations by a medical student in eye research.

ORTHOPAEDICS
The Department of Orthopaedics will sponsor the Ponseti Prize in Orthopaedic Research. The award will be designated for the best poster or oral presentation by a medical student in the discipline of musculoskeletal/orthopaedic research basic, biomedical or clinical.
PEDIATRICS

The Department of Pediatrics will sponsor two awards designated for the best poster or oral presentation by a medical student for research in pediatrics.

PHARMACOLOGY

The Department of Pharmacology will sponsor one award designated for the best poster or oral presentation by a medical student for research in pharmacology.

PSYCHIATRY

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

RADIATION ONCOLOGY

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

A special thank you to:
The Medical Student Research Council
The Medical Student Research Club, Dr. Peg Nopoulos, Director, IMSRP
Judi Lehman, Assistant Director, IMSRP, Stephanie Whitlock,
OSAC, The Departments of Cardiothoracic Surgery, Emergency Medicine, Family Medicine, Internal Medicine, Neurology and Neurosurgery, Ophthalmology, Orthopaedics, Pediatrics, Psychiatry, and Radiation Oncology.
Acknowledgements

JUDGES

Dr. Emine Ozgur Bayman
Dr. Gregory Bell
Dr. Patrick Brophy
Dr. Chadi Calarge
Dr. Yury Chaly
Dr. Anil Chauhan
Dr. Dominic Cirillo
Dr. John Colgan
Dr. Natalie Denburg
Dr. David Dick
Dr. Marygrace Elson
Dr. Eric Epping
Dr. Bradley Erickson
Dr. Polly Ferguson
Dr. Ryan Flynn
Dr. Apollina Goel
Dr. Prabhat Goswami
Dr. Justin Grobe
Dr. Duane Hall
Dr. Marlan Hansen
Dr. Jon Houtman
Dr. Charles Jennissen
Dr. Melinda Johnson
Dr. Charuta Joshi
Dr. Natalie Kamberis
Dr. Michael Knudson
Dr. Markus Kuehn
Dr. Kathryn Lamping
Dr. Archana Laroia
Dr. Sandeep Laroia

Dr. Wendy Maury
Dr. Laurie McCormick
Dr. Paul McCray
Dr. Steven McElroy
Dr. Kelly Messingham
Dr. David Meyerholz
Dr. Nicholas Mohr
Dr. Martha Monick
Dr. Jeff Murray
Dr. Carla Nester
Dr. Clark Obr
Dr. Matthew Potthoff
Dr. Robert Roghair
Dr. Andrew Russo
Dr. Neil Segal
Dr. Madhu Singh
Dr. Megan Smith
Dr. Douglas Spitz
Dr. Chris Spofford
Dr. George Stauffer
Dr. Michael Tansey
Dr. Christie Thomas
Dr. Stewart Thompson
Dr. Jatin Vaidya
Dr. Michelle Weckmann
Dr. Daniel Weeks
Dr. George Wehby
Dr. Mary Wilson
Dr. Nicholas Zavazava
Dr. Ekhard Ziegler
Oral Presentations
8:30 am – 10:15 am
Concurrently in Rooms 2117, 2123, 2135, 2155, 2165, 2189

Room 2117

8:30 Maria Stunkel, M2
“Vitritis in Retinal Degeneration: A Pilot Study”
Mentor: Dr. Arlene Drack

8:45 Alan Edwards, M2
“Clinical Assessment of the J-sign in Patients with Patellar Instability Requiring Operative Treatment”
Mentor: Dr. John Albright

9:00 Evan Larson, M2
“Functional Outcomes of MPFL Reconstruction vs. Graft Tissue Placement”
Mentor: Dr. John Albright

9:15 Yue Ding, M2
“length of triplet trinucleotide repeat in the Huntingtin gene is directly related to behavior in children”
Mentor: Dr. Peggy Nopoulos

9:30 Erin Wahle, M2
“The Effect of Vaginal Misoprostol on Difficult Intrauterine Contraceptive Removal: a Retrospective Chart Review”
Mentor: Dr. Colleen Stockdale

9:45 Matthew Grunewald, M1G
“Developing a C5 Convertase Stabilizing Assay”
Mentor: Dr. Richard Smith

10:00 Khushboo Goel, M2
“Modification of the microRNA maturation complex protein Dicer by cigarette smoke components”
Mentor: Dr. Martha Mary Monick

Room 2123

8:30 Sam Bailin, M2
“Leukocyte Esterase Test Results Are Significantly Associated with Antimicrobial Treatment for Urinary Tract Infection among Patients Undergoing Total Hip or Total Knee Arthroplasty at the University of Iowa Hospitals and Clinics”
Mentor: Dr. Loreen Herwaldt

8:45 Mukund Premkumar, M2
“The Epidemiology of Clostridium difficile Infection at an Academic Healthcenter”
Mentor: Dr. Loreen Herwaldt

9:00 Tyler Berroche, M2
“Merlin function in Schwann cells supports sciatic nerve regeneration”
Mentor: Dr. Marlan Hansen
9:15  Andy Erwood, M2  
“Spiral ganglion neuron survival and neurite extension depend on substrate polarity while Neurite guidance depends on pattern features”  
Mentor: Dr. Marlan Hansen

9:30  Zachary Miles, M1  
“Functional Brain Networks in Adolescents with a Family History of Alcoholism”  
Mentor: Dr. Jatin Vaidya

9:45  Colin Burnett, M1  
“Total Calorimetry: Putting the Heat Back into Calorimetry”  
Mentor: Dr. Justin Grobe

10:00  Adam Nicholson, M2  
“Cancer cell quiescence and redox-state regulate radiation therapy response”  
Mentor: Dr. Prabhat Goswami

Room 2135

8:30  Katherine Ryken, M1  
“Viral Activation Transiently Reverses Tolerance in Prenatal Allogeneic Chimeras, But Does Not Result in Graft Rejection”  
Mentor: Dr. Aimen Shaaban

8:45  Nolan Winslow, M1  
“Photic-blink reflex and salivary CGRP presentation in migraine patients”  
Mentor: Dr. Andrew Russo

9:00  Travis Snyders, M1  
“Using modified ketogenic diets in the treatment of cancer”  
Mentor: Dr. Douglas Spitz

9:15  Mitchell Pitlick, M1  
“Congenital Cytomegalovirus Infection as a Risk Factor for Preterm Birth”  
Mentor: Dr. Jeffrey Murray

9:30  Josh Schoenfeld, M2G  
“Ascorbate: Adjuvant to Chemotherapy and Radiation Therapy in Non-Small Cell Lung Carcinoma”  
Mentor: Dr. Bryan Allen

9:45  Marissa Decker, M2  
“The relationship of Zmiz1, a novel potential oncogene in epithelial ovarian cancer, to alterations in BRCA1 and BRCA2.”  
Mentor: Dr. Michael Goodheart

10:00  Bryan Koestner, M1  
“Scamming Depression Era Elders: Neuroanatomical Basis for Poor Decision-Making Among Older Adults”  
Mentor: Dr. Natalie Denburg
Room 2155

8:30  Ben Dilger, M2
“Lung Phantom for Multi-Spectral CT Imaging-based Assessment of Regional Pulmonary V/Q”
Mentor: Dr. Eric Hoffman

8:45  Adam Norton, M2
“Correlation of Knee and Hindfoot Deformities in Patients with Advanced Knee Arthritis”
Mentor: Dr. John Callaghan

9:00  Michael Zhang, M2G
“Protein Complex Formation Downstream of TCR Activation”
Mentor: Dr. Jon Houtman

9:15  Benjamin Sines, M2
“The Association between Spirometry and ILO Profusion Scores in a Cohort of Former Nuclear Weapons Workers”
Mentor: Dr. Laurence Fuortes

9:30  Alice Xu, M2
“Eye Movement Perimetry in Glaucoma Patients”
Mentor: Dr. Michael Wall

9:45  Katherine Gavinski, M2
“Validation of the Delirium Observation Screening Scale in Hospitalized Elderly Patients”
Mentor: Dr. Michelle Weckmann

10:00 Jordan Peterson, M2
“Hospice eligibility in the dialysis population for reasons other than end-stage renal disease”
Mentor: Dr. Michelle Weckmann

Room 2165

8:30  Katherine Hu, M2
“Inhibition of HCV Protease with Metalloporphyrins”
Mentor: Dr. Warren Schmidt

8:45  Hannah Rowell, M2
“Extracellular superoxide dismutase (SOD3) regulates oxidative stress in the vitreous and inner retina”
Mentor: Dr. Vinit Mahajan

9:00  Eric Wilson, M1
“Metagenomic Effects on Human Behavior and Well-being”
Mentor: Dr. George Wehby

9:15  Kristen Olney, M2
“A Model for the Mechanism of Ascorbate-Induced Cytotoxicity”
Mentor: Dr. Joseph Cullen
9:30 Nikhil Sahai, M2  
“Evaluation of IBX as a Bone Graft Extender and Substitute in a Rabbit Posterolateral Lumbar Fusion Model”  
Mentor: Dr. Joseph Smucker

9:45 Bethany Harpole, M2  
“Dot Counting Test Performance in a Clinic Sample of Patients with Huntington's Disease”  
Mentor: Dr. Megan Smith

10:00 John Collier, M1  
“Identifying Current Staffing Models in Iowa Intensive Care Units”  
Mentor: Dr. Nicholas Mohr

Room 2189

8:30 Luke Prest, M1  
“Exchanging the functional domains of cardiac Nkx2 transcription factors to determine their specific roles in heart development”  
Mentor: Dr. Daniel Weeks

8:45 Desire Christensen, M1  
“5-HT receptor expression and influence of serotonin on proliferation in ovarian cancer cells”  
Mentor: Dr. Susan Lutgendorf

9:00 Dan Belatti, M2  
Mentor: Dr. Phinit Phisitkul

9:15 Daniel Cook, M2G  
“Myographical Studies of a Novel Inhibitor of Skeletal Muscle Atrophy”  
Mentor: Dr. Christopher Adams

9:30 Bryan English, M2  
“Iowa Cares: Surprising Results in Our Growing Emergency Department Population”  
Mentor: Dr. Gregory Bell

9:45 Elizabeth Breitbach, M2  
“A Monte Carlo dose calculation model for intensity modulated brachytherapy radiation sources”  
Mentor: Dr. Ryan Flynn

10:00 Quentin Adams, M1  
“Alternative radioisotopes for use as radiation sources in rotating-shield brachytherapy”  
Mentor: Dr. Ryan Flynn
1. Chris Anthony, M3
   “Observation Of Concussion Patients With SCAT2 And Text Messages”
   Mentor: Dr. Andy Peterson

2. Tim Bahr, M2
   “Using Public dbGAP Data to Increase Number of Controls in a Genome-wide
   Association Study of Preterm Birth”
   Mentor: Dr. John Dagle

3. Jason Baker, M2
   “Adult Urology Consults at a Tertiary Medical Center: Characteristics, Trends
   and Follow Up”
   Mentor: Dr. Bradley Erickson

4. Kiley Boone, M1
   “Minimal Incision Technique for Intrahepatic Definitive Endodermal Cell
   Transplant”
   Mentor: Dr. Carla Nester

5. Ezequiel Brown, M1
   “Visits to the Emergency Department for Back Pain: Surprising Determinants
   of Repeat Visits”
   Mentor: Dr. Gregory Bell

6. Joseph Caballero, M2
   “Alexithymia in Anorexia Nervosa Associated with Reduced dmPFC Volume”
   Mentor: Dr. Laurie McCormick

7. Brendan Case, M2
   “Comparison of Early Postoperative Pain among Patients Undergoing
   Surgery for ACL Reconstruction, Patellofemoral Instability, Unicompartmental
   Osteoarthritis, and Shoulder Instability”
   Mentor: Dr. Carolyn Hettrich

8. Benjamin Chapin, M2
   “Driving strategies, judgment and reaction speed among useful field of view
   (UFOV) impaired older adults, UFOV unimpaired older adults, and middle-
   aged adults”
   Mentor: Dr. Matthew Rizzo

9. Justin Chau, M2
   “A Population-Based Study of All-Terrain Vehicle Exposure in a Rural Iowa
   County”
   Mentor: Dr. Charles Jennissen
10. Natalya Cherepanova, M1G
   “Epilepsy-associated variants are not present in large genetic databases”
   Mentor: Dr. Alexander Bassuk

11. Ashley Christensen, M2
    “Evaluation of Patient Handoff Process in an Academic Obstetric and
    Gynecology Practice”
    Mentor: Dr. Marygrace Elson

12. Ashley Christensen, M2
    “C-Reactive Protein, Obesity, and Adverse Pregnancy Outcomes”
    Mentor: Dr. Mark Santillan

13. Elizabeth Colwell, M1
    “Identifying high-risk groups for alcohol-related ED visits among college-age
    patients in a Big Ten University community”
    Mentor: Dr. Michael Takacs

14. Kevin Cwach, M2
    “Risk Factor Assessment of Ventilator Associated Pneumonia in Trauma Patients”
    Mentor: Dr. Kent Choi

15. Emilie Dore, M2
    “Characterization of Dendritic Calcium Release in Wild-Type and PRICKLE2 Null
    Hippocampal Neurons”
    Mentor: Dr. Alexander Bassuk

16. Bryce Duchman, M2
    “Regulation of vascular smooth muscle cell migration by phosphorylation of
    specific Nox1 residues”
    Mentor: Dr. Francis Miller

17. Renee Eigsti, M2
    “MicroRNA expression regulation during monocyte-to-macrophage differentiation”
    Mentor: Dr. Mary Wilson

18. Mgbechi Erondu, M2
    “Appropriate Use of TEE for the Evaluation of Possible Endocarditis – The Mayo
    Experience”
    Mentor: Dr. Abinash Virk

19. Blake Eyberg, M2
    “A Novel Protocol for Harvesting Distal Airway Epithelia and Establishing Growth
    in Culture at Air Liquid Interface”
    Mentor: Dr. Kalpaj Parekh

20. Charlotte Feddersen, M1G
    “Inhibition of Interleukin-6 (IL-6) Signaling Increases the Efficacy of Erlotinib in
    Head and Neck Cancer”
    Mentor: Dr. Andrean Simons-Burnett
21. Tyler Fick, M2
   “Telemedicine in Pediatric Epilepsy - an analysis of practicality”
   Mentor: Dr. Charuta Joshi

22. Matt Folchert, M2
   “Global Genetic Deletion of Intracellular Renin, or Neuron-Specific Deletion of Secreted Renin or AT1a Receptors Result in Altered Glycemic Control and Fluid Balance”
   Mentor: Dr. Justin Grobe

23. Rachel Genova, M1G
   “Functional expression of the olfactory signaling pathway in skeletal muscle”
   Mentor: Dr. Michael Welsh

24. Justin Greiner, M1
   “Metal-on-Metal Total Hip Arthroplasty at Five to Nine Year Follow-up”
   Mentor: Dr. John Callaghan

25. Atul Gupta, M2
   “Development of Pediatric Brain Atlases for Infants and Pediatric Subjects”
   Mentor: Dr. Vincent Magnotta

26. Kimberly Hagarty, M1
   “Identification of the uptake pathway(s) of Chikungunya virus into mammalian cells”
   Mentor: Dr. Wendy Maury

27. Eric Heller, M2
   “The Effect of EGF-like Ligands on Nox1 Expression in Vascular Smooth Muscle Cells”
   Mentor: Dr. Francis Miller

28. Emily Hesselink, M2
   “Does an automated pain treatment protocol improve pain management in trauma patients in the emergency department: a retrospective chart review pre and post implementation”
   Mentor: Dr. Christopher Buresh

29. Brendan Hodis, M2
   “White Matter Integrity in the Anorexic Brain”
   Mentor: Dr. Laurie McCormick

30. Jordan Imoehl, M1
   Mentor: Dr. Chun-Fang Wu
31. Stephanie Ivins, M1
   “Characterization of Human Distal Gut Microbiome in Children and Adolescents Taking Psychotropics”
   Mentor: Dr. Chadi Calarge

32. Andrew Jesson, M1
   “Expression ratios of p120 catenin isoforms and the metastatic potential of E-adherin-positive murine mammary carcinoma cells.”
   Mentor: Dr. Christopher Stipp

33. Lauren Jones, M1
   “Anosmia as a Biomarker for Personality Change in Amyotrophic Lateral Sclerosis (ALS)”
   Mentor: Dr. Daniel Tranel

34. Christo Jose, M1G
   “Development of DNA methyl-transferase isozyme-specific inhibitors”
   Mentor: Dr. Charles Brenner

35. Jaci Keller, M2
   “Metformin Effects on Anti-Cancer Agents in Lymphoma Cells”
   Mentor: Dr. C Michael Knudson

36. Courtney Kerestes, M2
   “Identification of Follicle Stimulating Hormone Receptor in Adipose Tissue in pre- and post-menopausal women: A potential novel role for Follicle Stimulating Hormone in Adipose Homeostasis”
   Mentors: Dr. Eyup Duran, Dr. Deborah Segaloff

37. Hana Khidir, M2
   “Identifying Clinical Predictors of Treatment Response in Early Cutaneous Leishmaniasis—Initial Results from a Cohort Study in Northeast Brazil”
   Mentor: Dr. Mary Wilson

38. Michael Klein, M1
   “Pax2 regulation of Dab2 during renal embryogenesis and genitourinary oncogenesis”
   Mentor: Dr. Patrick Brophy

39. Lindsey Knake, M2
   “Using EPIC as a Research Tool to Study Genetic and Epidemiological Factors”
   Mentor: Dr. Jeffrey Murray

40. Justin Kuiper, M2
   “Biomechanics of Medial Patellofemoral Ligament Reconstruction”
   Mentor: Dr. Matthew Bollier

41. Allison Lane, M2
   “Genetic Predisposition to Patent Ductus Arteriosus in Premature Infants”
   Mentor: Dr. John Dagle
42. Guanghao Liu, M1G

“Metabolic Labeling with [14C]acetate to Characterize the Overall Composition of Lipid A and Lipopolysaccharide (LPS) of Francisella Grown in different temperature conditions”
Mentor: Dr. Jason Barker

43. William Martin, M2

“Clinical outcomes after coracoclavicular (CC) ligament reconstruction done for Type 3, 4 or 5 acromioclavicular (AC) joint dislocation”
Mentor: Dr. Brian Wolf

44. Leigh McDonald, M2G

“Progestosterone receptor variations and association with preterm birth”
Mentor: Dr. Jeffrey Murray

45. Marissa Michel, M2

“Subchorionic Hemorrhage: Clinical Incidence and Significance in Fertile vs. Infertile Women”
Mentor: Dr. Ginny Ryan

46. Brian Mooers, M2

“Clinical outcomes of pectoralis major muscle rupture repair by suture anchor fixation”
Mentor: Dr. Brian Wolf

47. Tyler Mouw, M2

“Rescue of Dendritic Arborization Defects in Prickle2-/- Murine Hippocampal Neurons by Wnt5a and Wnt7a”
Mentor: Dr. Alexander Bassuk

48. Eli Musselman, M2

“Evaluation of a non-invasive hemoglobin pulse co-oximeter in surgical patients”
Mentor: Dr. Javier Campos

49. Emily Nguyen, M2G

“Oxidized CaMKII mediates flow-mediated vascular remodeling”
Mentor: Dr. Isabella Grumbach

50. Adam Norton, M2

“The Relationship between Posterior Tibial Slope and ACL Deficiency at the Time of TKA”
Mentor: Dr. John Callaghan

51. Melissa Palma, M2

“The Ponseti Method: Barriers for a low-cost clubfoot treatment in Peru”
Mentor: Dr. Jose Morcuende

52. Andrew Papendieck, M2

“Eye Movement Perimetry Technique Integrating Two Novel Parameters in Optic Neuritis Patients”
Mentor: Dr. Michael Wall
53. Patrick Poston, M1
   “Measuring Haller indices: A case for two-way chest radiography in assessing pectus excavatum”
   Mentor: Dr. Joseph Turek

54. Clancy Quinn, M2
   “UIHC Experience with Hepatocellular Carcinoma and Iron Deposition: 1997-2007”
   Mentor: Dr. Kyle Brown

55. Guy Raz, M2
   “Direct Aortic Implantation of a Trans-catheter Resheathable Valve in a Chronic Large Animal Model”
   Mentor: Dr. Robert Farivar

56. Nick Rettenmaier, M2
   “Wnt pathway expression is important in both Type I and Type II endometrial carcinomas”
   Mentor: Dr. Michael Goodheart

57. Jeremy Sandgren, M1G
   “Sodium and bicarbonate transport are important in pig bronchus epithelial cell pH regulation”
   Mentor: Dr. Michael Welsh

58. Deepti Sharma, M1
   “Symptoms of Anxiety are Associated with Increased Sympathetic Nervous System Activity at Rest and During Stress”
   Mentor: Dr. William Haynes

59. Kurt Swanson, M2
   “Pupillometry and the Neurological Pupil Index™: Predicting Traumatic Brain Injury and Patient Outcome in the Emergency Department”
   Mentor: Dr. Jon Van Heukelom

60. Sean Tompkins, M2G
   “Dystroglycan in AMPK Signaling”
   Mentor: Dr. Michael Henry

61. Mackenzie Treloar, M1
   “Retrospective Study of Underage vs. Legal Drinking and Emergency Department (ED) Visits: Before and After the Iowa City 21 Ordinance”
   Mentor: Dr. Michael Takacs

62. Vinnie Wagner, M1
   “Identifying Pathways Involved in Mechanoregulation of Cartilage Metabolism”
   Mentor: Dr. James Martin
63. Ameya Walimbe, M2G
   “Genetic Rescue TRIAL of Fukutin-Related Protein Knockdown”
   Mentor: Dr. Kevin Campbell

64. Amy Walz, M1
   “Rescue of CFTR by Small Molecules”
   Mentor: Dr. Paul McCray

65. Jeffrey Wang, M2
   “The Role of Eosinophils in Bullous Pemphigoid”
   Mentor: Dr. Janet Fairley

66. Miriam Weiner, M2
   “Unifying and differentiating symptoms and concerns of women presenting to a vulvovaginal disease specialty clinic”
   Mentor: Dr. Colleen K. Stockdale

67. Kaitlin White, M1
   “Health Benefits of Micronutrients in Multimodal Intervention to Treat Secondary Progressive Multiple Sclerosis”
   Mentor: Dr. Terry Wahls

68. Noah Williford, M1
   “The Extent to Which Hip and Knee Arthroplasty Replace Joint Function”
   Mentor: Dr. Neil Segal

69. Ty Willman, M2
   “Moderately Cross-linked Polyethylene in Total Hip Arthroplasty: Results at Minimum 10-year Follow-up”
   Mentor: Dr. John Callaghan

70. Cristina Woodhouse, M2
   “A multi-country study of the effects of prenatal care on birth weight in South America”
   Mentor: Dr. George Wehby

71. Zhi Xiong, M2
   “Alzheimer disease: evidence for the expression of inflammatory interleukin-33 and its receptor ST2 in the brain”
   Mentor: Dr. Asgar Zaheer

72. Kaitlyn Zenner, M2
   “Arsenic induced bladder cancer and miRNAs as biomarkers for non-invasive early detection”
   Mentor: Dr. Mohammad Hoque

73. Mark Zhao, M2
   “Preoperative Resiniferatoxin Reduces Dorsal Root Ganglia Calcium Influx After Laminecctomy”
   Mentor: Dr. Christina Spofford