The Student Research Forum is an annual event showcasing the research accomplishments of second year SMPH students who conducted summer research under the mentorship of UW faculty members. This year, more than 100 students will present their work through podium and poster presentations.

Noon- 1:00 PM  
HSLC Atrium

1:00 PM  
1306 HSLC

1:15 - 2:00 PM  
1306 HSLC

SHAPIRO GUEST LECTURE

Approach to Clinical Research:  
How to Maximize Yield and Impact

Perry J. Pickhardt, MD  
Professor of Radiology  
Chief of Gastrointestinal Imaging  
Medical Director of Oncological Imaging,  
UW Carbone Cancer Center

Dr. Pickhardt is the Chief of Gastrointestinal Imaging in the Department of Radiology and the Medical Director of Oncological Imaging for the UW Carbone Cancer Center. He is the recipient of the 2017 Dean’s Award for Excellence in Medical Student Research Mentorship. Throughout his career at UW, Dr. Pickhardt has taken an active role in mentoring students. In addition to mentoring more than a dozen students in the Shapiro Summer Research Program, he has also worked with students in the Research Honors Program and the ICTR-Shapiro Research Fellowship. Dr. Pickhardt graduated from the University of Wisconsin–Madison, his hometown school, and attended the University of Michigan Medical School. He completed a residency in diagnostic radiology at the Mallinckrodt Institute of Radiology at Washington University in St. Louis. After residency training, Dr. Pickhardt served in the U.S. Navy, spending one year as the Department Head of Radiology, U.S. Naval Hospital Guantanamo Bay, Cuba and three years as the head of GI-GU Imaging at the National Naval Medical Center (NNMC) in Bethesda, MD (twice named Teacher of the Year). Dr. Pickhardt joined the Abdominal Imaging and Intervention Section at the University of Wisconsin School of Medicine and Public Health in 2003 and was promoted to professor in 2009. His work in abdominal imaging has resulted in over 400 scientific publications and book chapters, as well as multiple textbooks. Among other honors, he has received the best paper award at the Annual Meeting for the Society of Gastrointestinal Radiology on four occasions and was named “Most Influential Radiology Researcher” by auntminnie.com in 2016.

2:15-4:00 PM  
1306,1325,  
1335,1345 HSLC

Podium Presentations

4:00-5:00 PM  
Poster Session and Reception
POSTER PRESENTATION SESSIONS

Noon - 1:00 pm and 4:00 - 5:00 pm Numbers correspond to display boards in the HSLC Atrium

1. Disadvantage Indices: A Way to Measure Neighborhood Disadvantage
   Britanny Anderson
2. Use of Statins in Combination with Androgen Deprivation Therapy in Patients with Advanced Prostate Cancer: Impact on Oncological Outcomes
   India Anderson-Carter
3. Radiofrequency Ablation and Pulsed Radiofrequency for Treating Peripheral Neuropathy
   Antonious Anis
4. Development of an Assay to Study ATP Dependent Mitochondrial Potassium Channels
   Matthew Bange
5. Barriers to Use of Long Acting Reversible Contraception in Wisconsin
   Melyssa Baron
6. Risk Factors for Pulmonary Vascular Dysfunction in Adults Born Preterm
   Tess Battiola
7. Emotion Identification and Visual Attention in Pediatric PTSD
   Ryan Benoy
8. Competency-Based Skills Assessment in Graduating Medical Students: A Mastery Learning Module for Sterile Technique
   Allison Blumenfeld
9. Improvement in Hyperphosphatemia Using Phosphate Education and Planning (PEP) Talks
   Alexander Brauer
10. Race, Ethnicity, and Insurance Status Influences on the Treatment and Outcomes in Patients Presenting with Traumatic Flail Chest
    Brandon T. Brummeyer
11. An Assessment of Surgical Disparities in Cleft Lip and Palate Treatment in Myanmar
    M. Kristine Carbullido
12. The Effect of Race and Insurance Status on Bicycle Trauma Outcomes in Adults
    HuaFu Chen
13. Time Impact of Radiation on Optical Metabolic Imaging in Head and Neck Squamous Cancer Cells
    Timothy Choi
14. Health Professionals’ Perceived Barriers and Practices Regarding Implementation of Preconception Care
    Erin Curtis Nacev
15. Validation Study for Peek Acuity in Pediatric Screening Programs in Paraguay
    Bryce de Venecia
16. Impact of Liposomal Bupivacaine Injected for Adductor Canal Block on Pain and Recovery Profile Following Total Knee Arthroplasty
    Mikola Filon
17. Use of E-Learning Applications to Improve Quality of Life in Patients With Cataracts in Imo State, Nigeria
    Christina Friedl
18. Effect of Soccer Headgear on Likelihood and Severity of Non-Concussive Injuries in High School Athletes
    Mikayla Gallenberger
19. Addressing the Hepatitis C Epidemic in Criminal Justice Settings Through Academic-Public Health Partnerships
    Emma Gill
20. Implementation of Nutrition and Physical Activity Programs by Wisconsin County Health Departments
    Wendy Guan
21. Standardized Train-of-Four Monitoring With the Use of Neuromuscular Blockade Agents to Reduce Adverse Post-Anesthesia Outcomes
    Kaley M. Gyorfi
22. Single Screw Anterior Hemi-Epiphyseodesis for the Treatment of Fixed Knee Flexion Deformities
    Michael Gyorfi
23. Tobacco Use and Hypertension Control Among Young Adults
    Ryan Haggart
    Bryan Hall
25. Postoperative Complications of Bactofer Pumps in Scoliosis Surgery for Cerebral Palsy Patients
    Rewais Hanna
26. 4D-Digital Subtraction Angiography: A Novel Technique for Quantifying Changes in Hepatic Arterial Flow During Transarterial Embolization
    Colin Harari
27. Evaluation of Clinic-Community Partnerships in Resident Clinics in UW Medicine Clinics
    Pei-Ning Hsu
28. Functional Recovery in Total Knee Arthroplasty Using Liposomal Bupivacaine for Adductor Canal Block
    Collin Hubler
29. Identifying Factors Impacting Time to MRI for Emergency Department Patients
    Matthew Hughes
30. Simulation-Based Medical Education: Development of an Assessment Tool for Novice Use
    Sasha M. Jascor
31. Dialysis Decision-Making Conversations Between Nephrologists and Older Adults with Late-Stage Renal Disease
    Kavita Kanwar
32. Quantitative MRI and EM Analysis of Myelin Content in Cats
    Jesse A. Kasim
33. Lymphangitic Carcinomatosis and Pulmonary Tumor Embolism in a Breast Cancer Patient: Diagnostic Challenges and Lessons
    Ivan Kaspruk
34. Barriers to Control of Hospital Acquired Infections in Jimma, Ethiopia
    Madeline Kenzie
35. Improving Recruitment for Community Wellness Worker-Led Postpartum Support Group
    Camila Khan
36. Compartment Syndrome in Pediatric Monteggia Fractures and Equivalents
    John Kopriva
37. Separate and Sick: Residential Segregation and Child Health in Large Metropolitan Areas
    Jack Kotecki
38. Gauging Knowledge & Attitudes About Health Reform Among Current and Future Physicians
    Sam Krabbenhoft
39. Matrix-Derived Regulators of Anti-Tumor Immunity
    Elena Kurudza
40. Investigating the Intergenerational Link Between Maternal Stressful Life Events on Child Growth in Chang Mai Province, Thailand
    Collin Lash
41. A Qualitative Evaluation of Community Paramedic Care Transitions Intervention Coach Training
    Hunter Singh Lau
42. Mitigation of Learner Anxiety After Simulation Death: Importance of Systematic Debriefing
    Joseph L’Huillier
43. Evaluation of Tissue Biomarkers for Renal Cell Cancer
    Gande Li
44. Comparing 1-Surgeon vs 2-Surgeon Results of Posterior Spine Fusion in Patients with Neuromuscular Scoliosis
    Rodolfo Macias
45. Prolotherapy for Symptomatic Knee Osteoarthritits: In-Progress Quality Improvement Data
    David Marshall
46. Fellow Self-Assessment of Procedural Skills Necessitates Need for Expert Feedback
    Caroline Matchett
47. Demographic Characterization and Health Needs Assessment of Medic Southside Clinic Patient Population
    Andrew McAsey
48. Cardioprotection Due to Ischemic Preconditioning: Does Preconditioning Lead to Increased SUR2-55A Expression in Wild Type Mice?
    Nina Mirabadi

Abstracts are posted at http://med.wisc.edu/student-research
POSTER PRESENTATION SESSIONS

Noon - 1:00 pm and 4:00 - 5:00 pm  Numbers correspond to display boards in the HSLC Atrium

49. Predictors of Intermediate to Long-Term Functional Outcomes Following ACL Reconstruction
   Mariana Montero Jaques

50. Identifying Youth and Adolescent Suicide Prevention Initiatives in Wisconsin
   Adithy Nagarajan

51. Investigation of Pediatric-Onset Discoid Lupus Erythematosus
   Cordelia Nguyen

52. Combined Tumor Treating Fields and Cabazitaxel Showed Additive Anti-Neoplastic Effect in Human-Derived Glioblastoma Stem-Like Cells
   Huy Tran N. Nguyen

53. Brachytherapy Does Not Provide Worse Outcomes Than Whole Breast Radiation in Patients With DCIS
   Katarina Nguyen

54. Evaluating the Epidemiology of Falls Within the Elderly Wisconsin Population
   Michael T. Nguyen

55. Investigating the Role of PADI4 in Rheumatoid Arthritis
   Thai Nguyen

56. Effect of Essential Amino Acid Restriction on the Growth of Triple Negative Breast Cancer Cells
   Sherwin A. Novin

57. Phenotypic Characterization of Natural Killer-Like B Cells in HIV/SIV-Infected Primates
   Chiadika Nwanze

58. Feeding Practices for Pediatric Patients Receiving High Flow Nasal Cannula
   Patrick O’Donnell

59. Kidney Transplant Recipients Are Not at Increased Risk of CMV Viremia Based on Cause of Native Kidney Disease
   Stephen Peery

60. Driving After Concussion: Association Between Concussion Symptoms Severity, Neurocognitive Tests, and a Computer-Based Driving Simulator
   Courtney Pfeuti

61. Characterization of Porcine Xenoantibody Response In Vitro
   Kim Pham

62. Fabrication of Agar Beads for X-Ray/Ultrasound Compitable Phantom Construction and Imaging Co-Registration
   Prashanth Prabakaran

63. Understanding Individual and Contextual Factors That Impact Non-Hispanic Black Infant Mortality Disparities in Wisconsin
   Gabrielle Quiggle Avery

64. Barriers and Facilitators to Medical Device Reprocessing in Ambulatory Care Settings
   Anna Reagan

65. Long-Term Outcomes of Hybrid Technique for Open Repair of Inguinal Hernia
   Brenna Redemann

66. Acute Insulin Surges Lead to Brain Hypoperfusion in Human Metabolic Syndrome
   Kyle Rourke

67. Insufficient Iron Stores Disrupt Iron Metabolism More Than Inflammation in Overweight Adolescents
   Shoshana L. Rudin

68. Impact of Simvastatin on Cerebral Blood Flow, Pulsatility Index, and Alzheimer’s Disease Biomarkers: A Clinical Trial
   Natanya S. Russek

69. Systematic Analysis of Long-Term Outcomes in Biomet Metal-On-Metal Compared to Metal-On-Polyethylene Total Hip Arthroplasty
   Eleanor Sato

70. Evaluation of Surgically Placed Tap Catheter Analgesia Following Renal Transplant
   Trevor Schell

71. Assessing the Relationship Between Human Rights Violations and Perinatal Health Outcomes in Women of Rural Northern Thailand
   Kaylee Scott

72. Evaluation of Tumor-Selective Gadolinium-Alkylphosphocholine Chelate for MRI by Mass Spectrometry
   Orlin O. Sergev

73. Analysis of Pulmonary Vascularity Defects in Pbx CKO Mice Using Micro CT
   Chelsea Sloan

74. Novel Cardiac Fibroblast-Derived Extracellular Matrix Educates Monocytes into Alternatively Activated Macrophages with Low Inflammatory Marker Expression
   Keith Spinali

75. Mental Illness and Opioid Misuse at 4 Weeks Post-Discharge Following Traumatic Injury
   Bailee Stark

76. Combined Innate and Adaptive Immunotherapy Effect on Myeloid-Derived Suppressor Cell Populations in a Murine Model of Pancreatic Cancer
   Ari Stone

77. A Systematic Review and Meta-Analysis of Patient Outcomes in Vertebral Infections
   Michael Z. Tao

78. GPI-Anchored Membrane Proteins as a Biomarker of Response to Immune Checkpoint Blockade Therapy in Metastatic Melanoma
   Ran Tao

   Ronghua Tong

80. aβ-crystallin Expression in Breast Cancer Correlates with Poor Clinical Outcomes
   Gisele Toumi

81. Autoimmunity and Pollution: Identifying Tools for Assessing Pollution Samples for Autoimmune Promoting Activity
   Helen Tran

82. Potential Sex Bias Exists in Interventional and Diagnostic Radiology Basic Science and Translational Research
   Jennifer Tran

83. Clinical Utility of Hendrich II Scores in Predicting Outpatient Falls
   Alex Trinh

84. The Impact of Metformin on Survival of Diabetic Veterans on Androgen Deprivation Therapy for Prostate Cancer Receiving Docetaxel Chemotherapy
   Andrew Truong

85. The Association Between Pre-Operative Executive Function and Post-Operative Delirium
   Lily Turner

86. Modeling Physiologic Flow Variation in Total Cavopulmonary Connection with 4D Flow MRI and Physical Model Experiments
   Ryan Valk

87. Electrophysiological Analysis of Spinal Cord Nerve Fibers in Adult Rats with Administration of Pancuronium Bromide and Dihydro-Beta-Erythroidine Bromide
   Jose J. Vargas Alvarado

88. The Association of Frontal Cortex Neurodegeneration and Postoperative Delirium
   Daniel Wayer

89. Comparison of Use of a Shortened Air-Q SP Versus the Williams Intubating Airway for Single-Operator Flexible Bronchoscopic Intubation
   Benjamin J. Weigman

90. Investigation of the Mechanism of Neutrophil Inhibition by Candida Biofilms
   Allison Weinsicht

91. Impact of Race and Socioeconomic Status on Treatment and Outcomes of Blunt Spleenic Injuries
   Lauren Wolodanski

92. Trends in ED Evaluation of Pediatric Patients with Mental Health Complaints
   Connie Wu

93. Effects of Pre-Operative Opioid Use on Post-Operative Patient Outcomes After Orthopedic Knee Surgery
   Bohan Xing

94. Immediate Visual Feedback and Its Effect on Technical Skills and Confidence During Complex Tourniquet Application
   James Xu

95. Improving Screening, Diagnosis and Treatment of Iron Deficiency Anemia in Infancy
   Micaela Zywicki

Abstracts are posted at http://med.wisc.edu/student-research
PODIUM PRESENTATION SESSIONS
All sessions run concurrently starting at 2:15 pm

SESSION A................................. 1306 HSLC
Facilitator: Robert F. Lemanske, Jr, MD

Associations Between Pain Coping and Opioid Use: 1-Month Follow-Up Results of a Prospective Study in a Cohort of Traumatic Injury Patients
Jordan C. Smith

Contraceptive Choices Among High Level Female Athletes
Hannah Blanchard

Identifying Candidate Novel Genes for Primary Congenital Glaucoma
Kevin Vo

Examining the Impact of Using the Simpl Application on Feedback in Surgical Education
Kirsten Gunderson

Efficacy of Real-Time US Compression in Decreasing Distance and Enabling Percutaneous Biopsy of Deep Targets in the Abdomen and Pelvis
Matthew Elissa

Analysis of Pulmonary Vascular Impedance and Remodeling in Ischemic Heart Failure
Thomas Murphy

SESSION B................................. Room 1325 HSLC
Facilitator: Pamela J. Kling, MD

Competence-Based Mastery Learning for Chest Tube Placement: A Study of Anxiety, Confidence, and Performance
Andrew J. Velic

Dual PI3K/BCL Inhibition in Colorectal Cancers with APC and PIK3CA Mutations
Devon Miller

Diagnostic Accuracy of MRI and US for Evaluation of Female Pelvic Pathology
John Harringa

Examining Relationships Between Smoking, Poverty and Race in Systemic Lupus Erythematosus
Nnenna S. Ezeh

Intratumor Injection of Tumor-Specific Antibody and IL2 Triggers In Situ Vaccination Following Local Radiation Therapy
Emily I. Guy

Insurance Status and Race Affect Treatment and Outcome of Severity Stratified Traumatic Brain Injury
Benjamin Nguyen

SESSION C................................. Room 1335 HSLC
Facilitator: Perry J. Pickhardt, MD

Hospitalizations and Emergency Department Use Due to Device Complications for Children with Medical Complexity
Allison Nackers

Evaluation of the Coordination of Cancer Care by Multidisciplinary Teams and Effect on Patient Experience
Melissa Ricker

Examining Systemic Approach to Detecting the Diagnosis of Dementia Using Electronic Medical Records
Steven Wang

Depression Severity in Adolescent Male and Female Athletes Following Sports-Related Concussion
Nikki Niewold

Identifying Predictors of Prolonged Levothyroxine Dose Adjustment After Thyroidectomy
Tenzin S. Atruktsang

Barriers to Appropriate Surgical Hand Antisepsis in a Tertiary Care Hospital
Xavier Schwartz

Investigating the Use of Education on Diet and Medical Comorbidities to Reduce Cataract Surgery Screening Failure in a Rural Community in Imo State, Nigeria
Aaron Anderson

SESSION D................................. Room 1345 HSLC
Facilitator: Elizabeth M. Petty, MD

Association of Gender with the Utilization of Peritoneal Dialysis
Savannah Vogel

Estimating the Impact of Post-Prescribing Review on the Quality of Antibiotic Prescribing in Skilled Nursing Facilities
Tamanna Hossin

Timely Evaluation and Management of Primary Hyperparathyroidism in Patients with Kidney Stones
Alberto A. Perez

Early Bacteremia After Solid Organ Transplantation is Associated with Lower 10-Year Survival
Soibhan Kelley

Relationship Between CD4/CD8 Ratio and Viremia in Incarcerated Patients
Alec Winzenried

The Effects of Prolactin on the Chondrogenic Potential of Bone Marrow-Derived Mesenchymal Stem Cells
Lucas Zarling

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(Specific grant sources are listed on student posters or presentations.)

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