Proceedings - Wright State University Boonshoft School of Medicine Ninth Annual Medical Student Research Symposium: Celebrating Medical Student Scholarship

Wright State University Boonshoft School of Medicine Office of Research Affairs

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PRELIMINARY PROCEEDINGS

Wright State University
Boonshoft School of Medicine
Ninth Annual Medical Student Research Symposium

Celebrating Medical Student Scholarship

April 12, 2017
Gandhi Medical Education Center
White Hall
5:45 – 8:00 PM
PROGRAM

Opening ............................................................................................................................................. 5:45 pm
Atrium

Welcome & Distinguished Scholar Lecture ..................................................................................... 6:00 pm
Auditorium

Poster Presentations and Reception ................................................................................................. 6:30 pm
Atrium

Awards .............................................................................................................................................. 8:00 pm
Atrium

DISTINGUISHED SCHOLAR AWARDS

Gandhi Auditorium
6:00 – 6:30 PM

The annual Distinguished Scholar award is presented to the fourth year student or students who have demonstrated a continued commitment to medical scholarship. Distinguished Scholars are recognized for generating a significant body of scholarly work, for working collaboratively with students and faculty, for demonstrating leadership in the Research Learning Community, and for advancing student research at the Boonshoft School of Medicine. The Medical Student Research Club is proud to announce the 2016 BSOM Distinguished Scholar Award recipients:

Adam Deardorff, PhD, M4

Thomas Cheslik, M4

Dave Cook, M4

Anthony Oddo, M4

Alison Bales, M4
The Medical Student Research Learning Community would like to thank those who fostered the Medical Student Research Symposium from its founding through to the success that it is today. This would not have been possible without the support of not only the Deans of the School of Medicine, Dr. Howard Part, Dr. Marjorie Bowman, and Dr. Margaret Dunn, but of the Office of Research Affairs, first, under Dr. Robert Fyffe, supported by Kathleen Friedman, then under Dr. Arthur Pickoff, supported by Virginia Byrd, and finally under Dr. Timothy Broderick, supported by Judy Grant. Adam Deardorff and Mark Willis’ vision started and grew a small community into a larger movement and event. It is with deep gratitude that we acknowledge their conception, founding, and stewardship that will continue its impact on medical students for years to come.
1. **Treating Chronic Post Herpetic Neuralgia Using Topical Superconcentrated Capsaicin**
   Scott Seider, Jason Miller, Cole Budinsky, and Amol Soin MD,MBA, Jaree Naqvi
   
   *Presenting Author: Jaree Naqvi*
   *Faculty Mentor: Amol Soin MD,MBA*
   *Mentor’s Department: Surgery*
   *Previous submission: Medical Student Research Symposium, Wright State University Boonshoft School of Medicine, 2012*

2. **Pilot Study on High-frequency Nerve Block for Post-Amputation Pain: Long-term Outcomes.**
   Marisa Smith, Supriya Shah, MD; Amol Soin, MD, MBA
   
   *Presenting Author: Marisa Smith*
   *Faculty Mentor: Amol Soin, MD*
   *Mentor’s Department: Surgery*

3. **Unplanned Removal of Invasive Devices in Trauma Patients: Identifying Risk Factors and Opportunities for Prevention.**
   Marisa Smith, Riyad J. Tayim, MD, MS; Marisa T. Smith; Ronald J. Markert, PhD; Akpofure P. Ekeh, MD, FACS; Mary C. McCarthy, MD, FACS
   
   *Presenting Author: Marisa Smith*
   *Faculty Mentor: Mary McCarthy, MD*
   *Mentor’s Department: Surgery*
   *Previous submission: Wright State University Central Research Forum, Boonshoft School of Medicine, October 16, 2014*

4. **Evaluation of Morning and Afternoon Patient Wait-Times in an FQHC.**
   Jennifer Rehbein, Michael Zhou, Lisa Righter, MD
   
   *Presenting Author: Michael Zhou & Jennifer Rehbein*
   *Faculty Mentor: Lisa Righter, MD*
   *Mentor’s Department: Obstetrics and Gynecology, Division of Reproductive Endocrinology and Infertility*
Jen Rehbein, Kathryn Coyne, Georges Sylvestre, MD, Rose Maxwell, PhD

Presenting Author: Jen Rehbein
Faculty Mentor: Steven R. Lindheim, MD
Mentor’s Department: Obstetrics and Gynecology

6. Improving Informed Consent (IC) to IVF through Multimedia Platform (MP).
Jen Rehbein, Kathryn Coyne, Jody Lynee Madeira, JD, PhD, Rose Maxwell, PhD, J Preston Parry, MD

Presenting Author: Jen Rehbein
Faculty Mentor: Steven R. Lindheim, MD
Mentor’s Department: Obstetrics and Gynecology

7. Quality assessment of Barrett’s esophagus endoscopic surveillance.
Drew Triplett, DO, We’am Hussain, Padmini Krishnamurthy, MD

Presenting Author: We'am Hussain
Faculty Mentor: Padmini Krishnamurthy, MD
Mentor’s Department: Gastroenterology, Internal Medicine

8. A Retrospective Study: Reduction in Hemoglobin A1C in Children with Type 1 Diabetes After Attending a Diabetes Camp.
Nivine Elhor, We'am Hussain, Adrienne Stolfi, MSPH, Yelena Nicholson, DO, Ankur Gupta, MD, FACE

Presenting Author: Nivine El-hor & We'am Hussain
Faculty Mentor: Ankur Gupta, MD
Mentor’s Department: Endocrinology

9. How Medical Student Resilience is Influenced through the Locus of Control and Beliefs about Intelligence Modification.
William Trautman, Nivine Elhor, Colleen Hayden, MS, Kim Gilliam, Ed.D, Brenda Roman, MD

Presenting Author: William Trautman & Nivine Elhor
Faculty Mentor: Brenda Roman, MD
Mentor’s Department: Medical Education
10. Development of Autoimmune Diseases in Women with HPA-1a Alloimmunization and Fetal-Neonatal Alloimmune Thrombocytopenia (FNAIT)
Ramanjot Kang, Peter J. Keefe, James B. Bussel

Presenting Author: Ramanjot Kang
Faculty Mentor: James B. Bussel, MD
Mentor’s Department: Department of Pediatrics, Division of Pediatric Hematology/Oncology

Andrew J. La’Pelusa, Elizabeth Cates, LNP, Faye Hager, RN, Nathan Weir, MD, PhD, Jeffery B. Travers, MD, PhD.

Presenting Author: Andrew La’Pelusa
Faculty Mentor: Jeffrey Travers, MD, PhD
Mentor’s Department: Pharmacology & Toxicology Professor, Dermatology

12. Examining the Relationship between Adequate Sleep, Sleep Behaviors, and Psychological Distress in College Students
Neil Knight, MPH, Sabrina Neeley, PhD, Valerie Houseknecht, MD

Presenting Author: Neil Knight
Faculty Mentor: Valerie Houseknecht, MD
Mentor’s Department: Psychiatry

Hershel E. Dobkin, G. Dane Fritz, Smita Krishnamurthy, MD

Presenting Author: Hershel E. Dobkin & Dane Fritz
Faculty Mentor: Smita Krishnamurthy, MD
Mentor’s Department: Pathology

14. Squamous Cell Carcinoma Arising Within a Recent Red Permanent Makeup Tattoo.
Ali Rkein, MD, Eric C. Wilkerson, MD, Hershel E. Dobkin, Maggie Sullivan, Heidi B. Donnelly, MD

Presenting Author: Hershel Dobkin
Faculty Mentor: Ali Rkein, MD
Mentor’s Department: Dayton Skin Surgery Center
15. **Investigating the Psychomotor Proficiency of Novice Subjects Using Fundamentals of Arthroscopic Surgery Training (FAST).**
Zachary Sirois B.S., Brett Meeks M.D., Eric Kiskaddon M.D., Andrew Froehle, Ph.D., Jessica Shroyer B.S., Richard Laughlin M.D.

*Presenting Author: Zachary Sirois & Jessica Shroyer*
*Faculty Mentor: Richard Laughlin, MD*
*Mentor’s Department: Orthopedic Surgery*

Eric Kiskaddon MD, Brett Meeks MD, Graham Roberts BS, Richard Laughlin MD

*Presenting Author: Graham Roberts*
*Faculty Mentor: Richard Laughlin, MD*
*Mentor’s Department: Orthopedic Surgery*

17. **Achilles Midsubstance Tear: Fibertape versus Fiberwire.**
Eric Erb, Brett Meeks, MD, Eric Kiskaddon MD, Greg Gould, BS, Andrew Froehle, PhD, Richard Laughlin, MD

*Presenting Author: Eric Erb*
*Faculty Mentor: Richard Laughlin, MD*
*Mentor’s Department: Orthopedic Surgery*

18. **The Role of Far Cortical Endosteal Fixation for the Treatment of Medial Malleolus Fractures: A Biomechanical Study.**
Benjamin D. Willen BS, Brett D. Meeks, MD, Eric M. Kiskaddon MD, Michael A. Boin MD, Tejas Patel DO, MBA, Michael J. Prayson, MD

*Presenting Author: Benjamin Willen*
*Faculty Mentor: Michael Prayson, MD*
*Mentor’s Department: Orthopedic Surgery*

19. **Suture-Only Repair versus Suture Anchor-Augmented Repair for Achilles Tendon Ruptures with a Short Distal Stump: A Biomechanical Comparison.**
Michael A. Boin MD, Mathew A. Dorweiler MD, Christopher J. McMellen BS, Gregory C. Gould BS, Richard T. Laughlin MD

*Presenting Author: Christopher McMellen*
*Faculty Mentor: Michael Boin, MD*
*Mentor’s Department: Orthopedic Surgery*
20. **Pediatric Jejunal Intussesception without Lead Point: A Case Report.**
Casey T Walk, Malvika Sharma, Molly Osterhage, Dasha Hardisky, Joshua L Pringle MD, Annika Storey DO, Arturo Aranda-Garcia MD, Jeffrey C Pence MD, Sean Barnett MD, David Meagher MD

*Presenting Author:* Molly Osterhage
*Faculty Mentor:* David Meagher, Jr., MD
*Mentor’s Department:* Pediatric Surgery

21. **Lipoprotein (a) and its Role in Atherosclerosis.**
Marc Lubitz, Vaskar Mukerji, MD

*Presenting Author:* Marc Lubitz
*Faculty Mentor:* Vaskar Mukerji, MD
*Mentor’s Department:* Cardiology

22. **Medical and Dental Health Disparities across Rural Jamaica.**
Jon Miller, Anne J. Miller, Mary White PhD

*Presenting Author:* Jon Miller
*Faculty Mentor:* Mary T. White, PhD
*Mentor’s Department:* Population and Public Health Science

23. **Impact of the Affordable Care Act on a Level 1 Trauma Center.**
Kirstin Acus & Jon Miller

*Presenting Author:* Kirstin Acus & Jon Miller
*Faculty Mentor:* Mary McCarthy, MD, Karen Herzing, BSN
*Mentor’s Department:* Surgery

24. **Identifying Knowledge Gaps of Parasites in Belen, Peru.**
Kirstin Acus & Isaiah Cochran

*Presenting Author:* Kirstin Acus & Isaiah Cochran
*Faculty Mentor:*
*Mentor’s Department:*

25. **Paraesophageal Paradigm: An Unusual Cause of Dyspnea.**
Drew Triplett DO, Kevin Harvey, Padmini Krishnamurthy MD

*Presenting Author:* Kevin Harvey
*Faculty Mentor:* Drew Triplett, DO
*Mentor’s Department:* Gastroenterology
Rose Maxwell, PhD, Abigail Bootes, Pam Hume, RNC, Varonica Caldwell, Jerome Yaklic, MD, Gina McFarlane-El

*Presenting Author: Abigail Bootes*
*Faculty Mentor: Rose Maxwell, PhD*
*Mentor’s Department: Obstetrics & Gynecology*
*Previous submission: Ohio Infant Mortality Summit 2016, Cleveland, Ohio, December 5-6, 2016*

Kamari Jackson, William K. Rundell, MD

*Presenting Author: Kamari Jackson*
*Faculty Mentor William K. Rundell, MD*
*Mentor’s Department: Surgery*

28. Early Discharge within 36 hours After Total Joint Arthroplasty Does Not Increase Major Complication and Readmission Rates.
Spencer Barnhill, BS, Eric Kiskaddon, MD, Brett Meeks, MD, Jessica Lee, MD, Andrew Froehle, PhD, Anil Krishnamurthy, MBBS

*Presenting Author: Spencer Barnhill*
*Faculty Mentor: Anil Krishnamurthy, MBBS*
*Mentor’s Department: Orthopedic Surgery*

29. Pasteurella multocida Central Line Associated Bloodstream Infection (CLABSI) following feline contamination in immunocompromised chemotherapy patient.
Spencer Barnhill, Jennifer Hilgeman, MD, Jordan Wright, MD, Ayman El Sheikh, MD, Sherman Alter, MD, Mukund Dole, MD

*Presenting Author: Spencer Barnhill*
*Faculty Mentor: Mukund Dole, MD*
*Mentor’s Department: Hematology/Oncology*

30. The Relationship Between Ocular Trauma and Substance Abuse in Emergency Department Patients.
Sylvia Chang, Vaama Patel, John Giltner, Richard Lee, Catherine A. Marco, MD

*Presenting Author: John Giltner, Vaama Patel*
*Faculty Mentor: Catherine A. Marco, M.D., FACEP*
*Mentor’s Department: Emergency Medicine*
31. Surgical Site Infection Prevention - Is it time to Change Antibiotic Prophylaxis in Spinal Surgical Procedures?
Julie Corbett; Devin Kelly, DO; Gregory Buchek, MD; Hari Polenakovik, MD; Kathy Zegarski, BS, CIC; Ronald Markert, PhD

*Presenting Author:* Julie Corbett
*Faculty Mentor:* Hari Polenakovik, MD
*Mentor’s Department:* Internal Medicine, Infectious Disease
*Previous submission:* Dayton Area Graduate Medical Education Community, Virginia C. Wood Resident Research Forum, April 2016

Michael G Burton Jr., Brett D. Meeks, MD, Eric Kiskaddon, MD, Richard T. Laughlin, MD

*Presenting Author:* Michael Burton Jr.
*Faculty Mentor:* Richard T. Laughlin, MD
*Mentor’s Department:* Orthopedic Surgery

33. Application of advance directives to clinical scenarios: a survey of emergency department patients.
Mark Serpico, Michael B. Holbrook, Eric Mozeleski, MD, Ahnas Ahmed, Karolin Ginting, Alban Holyoke, Jordan Bjerke, Catherine A. Marco, MD, FACEP

*Presenting Author:* Mark Serpico
*Faculty Mentor:* Catherine A. Marco, MD
*Mentor’s Department:* Emergency Medicine

34. Inform and Consent to IVF: More Than Just Sign Her.
Brianna Williamson, Katie Coyne, Jody Lynee Madeira, JD, Ph.D., Rose Maxwell, PhD 1, J Preston Parry, MD, MPH, and Steven R. Lindheim, MD, MMM

*Presenting Author:* Brianna Williamson & Katie Coyne
*Faculty Mentor:* Steven Lindheim, MD, MMM
*Mentor’s Department:* Obstetrics and Gynecology

35. Overall Rates of Breastfeeding Initiation and Continuation and the Barriers that Result in Discontinuation: A Quality Improvement Study.
Brianna Williamson, Kelly Clinton-Cirocco, MD, Mercedes Palmisano, MD, Sheela Barhan, MD, Borna Brzezinska, MD

*Presenting Author:* Brianna Williamson
*Faculty Mentor:* Rose Maxwell, PhD
*Mentor’s Department:* Obstetrics and Gynecology
36. Comparing the influenza vaccination to seat belt use to increase vaccination intent.
Gavriella Pora, Kate Conway, MD

**Presenting Author:** Gavriella Pora  
**Faculty Mentor:** Kate Conway, MD  
**Mentor’s Department:** Family Medicine

37. Occipital Nerve Radiofrequency Denervation as a possible modality to treat chronic cervicogenic headaches.
Melissa Burtoft, Amol Soin, MD

**Presenting Author:** Melissa Burtoft  
**Faculty Mentor:** Amol Soin, MD  
**Mentor’s Department:** Surgery

38. NIHSS Elements Associated with the Presence of a Large Vessel Occlusive Stroke.
Arun Balagopal, Jeri L Braunlin, ACNS BC RN, John B Terry, MD

**Presenting Author:** Arun Balagopal  
**Faculty Mentor:** John B Terry, MD  
**Mentor’s Department:** Neurology & NCBP

39. Herpes zoster presenting with urinary retention and constipation.
C. Smiley, M. Smith, MD

**Presenting Author:** Casey Smiley  
**Faculty Mentor:** Michael Smith, MD  
**Mentor’s Department:** Internal Medicine

40. Management of Central Hypothyroidism in Patients on an Antineoplastic Agent, Bexarotene.
Elisabeth Tabb, MS, Ankur Gupta, MD

**Presenting Author:** Elisabeth Tabb  
**Faculty Mentor:** Ankur Gupta, MD  
**Mentor’s Department:** Internal Medicine  
**Previous submission:** American Association of Clinical Endocrinologists meeting in Austin, Tx, May 4, 2017.
41. **Photoreceptor Cell Protein Levels in an Animal Model of Retinitis Pigmentosa.**
Richard Lee, Ruth M. Darrow, Daniel T. Organisciak, PhD

*Presenting Author:* Richard Lee  
*Faculty Mentor:* Daniel Organisciak, PhD  
*Mentor’s Department:* Biochemistry and Molecular Biology  
*Previous submission:* American Association of Clinical Endocrinologists meeting in Austin, Tx, May 4, 2017.

42. **Uncommon Presentation Of C. Diff Enteritis In A Patient With Total Colectomy.**
Aminu, Erin Dreessens DO

*Presenting Author:* Peace Aminu  
*Faculty Mentor:* Irina Overman, MD  
*Mentor’s Department:* Internal Medicine

43. **Onabotulinum Toxin A Injections to Triceps Unmasks Elbow Flexion in Infant Brachial Plexus Birth Palsy—A Case Series.**
Matthew Thomas, Mark J. Adamczyk, M.D.; Suneet Sahgal, M.D.; Melanie Morscher, B.S

*Presenting Author:* Matthew Thomas  
*Faculty Mentor:* Mark Adamczyk, MD  
*Mentor’s Department:* Pediatric Orthopedic Surgery

44. Obese patients with rib fractures are at increased risk for requiring mechanical ventilation.
Andrew Lichter, MD, Karen Herzing, BSN, Rebekah Wood, BS, Francis Speranza, BS Gregory Semon. MD

*Presenting Author:* Francis Speranza & Rebekah Wood  
*Faculty Mentor:* Gregory Semon, DO  
*Mentor’s Department:* Surgery

45. **The Utility of a Hyperdense Artery Sign on Thin Slice Non-Contrast CT for Patient Selection Related to Intra-arterial Stroke Rescue.**
Laura Wolgamott, Maryam N. Shahin, Tom Cheslik, Haitham Alabsi MD, Amr Elmaghraby MD

*Presenting Author:* Maryam Shahin  
*Faculty Mentor:* Bryan R. Ludwig, MD  
*Mentor’s Department:* Neurology
46. **The Role of Proprioceptive Somata in Neural Transmission.**
Marie Walters, Jessica Kane, Martha Sonner, David Ladle, PhD

*Presenting Author:* Marie Walters  
*Faculty Mentor:* David Ladle, PhD  
*Mentor’s Department:* Neuroscience, Cell Biology, and Physiology

47. **Factors affecting recanalization of thrombosed vessel following administration of IV tPa.**
Felipe Ayala and Michael Kentris, MD

*Presenting Author:* Felipe Ayala  
*Faculty Mentor:* Michael Kentris, MD  
*Mentor’s Department:* Neurology

48. **Long Term Safety and Efficacy of Single-Port Pars Plana Anterior Vitrectomy with Peri-limbal Infusion During Anterior Segment Surgery by a Single Surgeon.**
Ivey L. Thornton MD, Brian K. McMains, Michael E. Snyder MD

*Presenting Author:* Brian McMains  
*Faculty Mentor:* Michael Snyder, MD  
*Mentor’s Department:* Ophthalmology

49. **Have barriers to the diagnosis of Autism Spectrum Disorders improved since the establishment of the Autism Diagnostic Center at Dayton Children’s Hospital?**
Stephanie Ahlers, Craig Boreman, MD, Adrienne Stolfi, MSPH, Caitlyn McComb

*Presenting Author:* Stephanie Ahlers  
*Faculty Mentor:* Craig Boreman, MD  
*Mentor’s Department:* Developmental Behavioral Pediatrics

50. **Non-enhancing Breast Metastases in the Brain, A Case Report.**
Luke Bramlage, Ania Polluck, MD

*Presenting Author:* Luke Bramlage  
*Faculty Mentor:* Ania Pollack, MD  
*Mentor’s Department:* Neurosurgery
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ACKNOWLEDGEMENTS

The Ninth Annual Medical Student Research Symposium was made possible in part by generous donations the Boonshoft School of Medicine. A complete list of contributing departments will be included in the published Proceedings, available soon in print and electronic format.

Poster judging provided by: F. Javier Alvarez-Leefmans, M.D., Ph.D., Thomas L. Brown, Ph.D., John F. Donnelly, M.D., Andrew W. Froehle, Ph.D., Nadja Grobe, Ph.D., Thomas E. Herchline, M.D., Timothy G. Janz, M.D., Karen E. Kirkham, M.D., Barbara Kraszpulska, Ph.D., David R. Ladle, Ph.D., Ronald J. Markert, Ph.D., Debra A. Mayes, Ph.D., Gary L. Nieder, Ph.D., Lawrence J. Prochaska, Ph.D., Larry J. Ream, Ph.D., Mark M. Rich, M.D., Ph.D., Nick A. Ritiucci, Ph.D., Eric J. Romer, Ph.D., Shannon Romer, Ph.D., Patrick M. Sonner, Ph.D., Courtney Sulentic, Ph.D., Raymond P. Ten Eyck, M.D., Christopher N. Wyatt, Ph.D., Andrew A. Voss, Ph.D.

The Medical Student Research Club is deeply grateful for the continued support and guidance of Timothy J. Broderick, M.D, Amber McCurdy, and Judy Grant of the Boonshoft School of Medicine Office of Research Affairs; Robert E.W. Fyffe, Ph.D. and Kathleen Friedman of the Wright State University Office of the Vice President for Research and Dean of Graduate Studies; Medical Student Research Learning Community faculty advisor Mark Rich, M.D., Ph.D. of the Department of Neuroscience, Cell Biology, and Physiology.

Symposium Directors: Ahmed Hawash, Jacob Vincent