# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>2</td>
</tr>
<tr>
<td>RADISSON CONFERENCE CENTER FLOOR PLANS</td>
<td>4</td>
</tr>
<tr>
<td>SCHEDULE</td>
<td>5</td>
</tr>
<tr>
<td>KEYNOTE SPEAKER</td>
<td>6</td>
</tr>
<tr>
<td>ORAL PRESENTATIONS</td>
<td>7</td>
</tr>
<tr>
<td>POSTER PRESENTATIONS</td>
<td>12</td>
</tr>
<tr>
<td>INDEX</td>
<td>18</td>
</tr>
</tbody>
</table>

The complete program including abstracts is available on the Western Michigan University Homer Stryker M.D. School of Medicine website: [http://www.med.wmich.edu/research/research-activities/research-day](http://www.med.wmich.edu/research/research-activities/research-day).

**WIFI Information:**

<table>
<thead>
<tr>
<th>WIFI Username: WMU Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIFI Password: bronco4 (all lowercase)</td>
</tr>
</tbody>
</table>

## CME CREDIT

The evaluation of this activity will be done electronically through the WMed CME website: [http://med.wmich.edu/education/continuing-medical-education](http://med.wmich.edu/education/continuing-medical-education)

Click on ‘Evaluation Forms’ from the left menu.

After completion of the form, print or save a copy for your files.

*The CME Activity Code is available by handout at the Check-in table.*

Western Michigan University Homer Stryker M.D. School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Western Michigan University Homer Stryker M.D. School of Medicine designates this live activity for a maximum of 5.0 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Western Michigan University Homer Stryker M.D. School of Medicine is accredited by the Accredidation Council for Continuing Medical Education (AACME). The Michigan Board of Nursing accepts continuing education credits from the ACCME.

## DISCLOSURES

Please see the handout offered at the registration table for a listing of disclosure statements from today’s presenters.
INTRODUCTION

RESEARCH, EDUCATION AND SCHOLARSHIP

The commitment and participation of Western Michigan University Homer Stryker M.D. School of Medicine (WMED), its faculty, and the Kalamazoo scientific community in “Research Day” continues on this day marking a 35th anniversary milestone. One-hundred thirty-one abstracts were received and reviewed by a panel of 22 judges. One-hundred twenty-one have been accepted for either oral or poster presentation.

Such success is due, of course to a large number of talented and dedicated people. We wish to acknowledge the participation of a group of faculty and thank them for volunteering their time and expertise to review the submissions. A panel of over 20 judges participated in the reviews. Each judge typically reviewed approximately 15 submissions, which were assigned based upon area of expertise. The judges’ evaluations were critical in determining the award winning presentations and posters, as well as those selected for presentation in the oral sessions.

In addition, it is my privilege to have worked with this year’s Research Day organizing committee. This committee worked diligently over an extended period of time to endeavor to bring you an exceptional learning and networking opportunity. Members of this year’s committee were: Bethany Banner, Laura Bauler, PhD, Craig Beam, PhD, Heather Chen, Shanna Cole, PharmD, Prentiss Jones, PhD, Keith Kenter, MD, Wendy Lackey, PhD, Samuel Lai, David Lee, Elizabeth Lorbeer, EdM, Benjamin Roush, David Spillers, and Sheri VandenBerg, RN, MS.

We hope this year’s Research Day will inspire you to pursue your own research and to, as well, support the basic, medical and healthcare research of our Southwestern Michigan Community colleagues. As you attend today’s activities, please be sure to stop by the various tables in the venue to learn about the many resources that have been created to support your research activities.

Finally, I want to personally thank Dr. Laura Bauler for “going above and beyond” in ensuring the success of this year’s Research Day. Her signal contributions are greatly appreciated by myself and the community.

Craig Beam, PhD
Chair
2017 Research Day
We wish to thank the following WMed professionals who dedicated their time to participate as abstract scoring judges and/or session moderators for today’s event.

<table>
<thead>
<tr>
<th>Robert Baker, MD</th>
<th>Laura Bauler, PhD</th>
<th>Tim Bauler, PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craig Beam, PhD</td>
<td>Tyler Gibb, PhD</td>
<td>Lisa Graves, MD</td>
</tr>
<tr>
<td>Jeffrey Greene, PhD</td>
<td>Krishna Jain, MD</td>
<td>Jagadeesh Kalavakunta, MD</td>
</tr>
<tr>
<td>Keith Kenter, MD</td>
<td>Andrey Leonov, MD</td>
<td>Larry Lutwick, MD</td>
</tr>
<tr>
<td>Thomas A. Melgar, MD</td>
<td>Tracey Mersfelder, PharmD</td>
<td>Lisa Miller, MD</td>
</tr>
<tr>
<td>Gitonga Munene, MD</td>
<td>David Overton, MD</td>
<td>Dilip Patel, MD</td>
</tr>
<tr>
<td>Elizabeth Brooke Pope, PhD</td>
<td>Jerry Pratt, MD</td>
<td>Dale Rowe, MD</td>
</tr>
<tr>
<td>Steven Rudich, MD</td>
<td>Carrie Sandborn, MD</td>
<td>Mark Schauer, MD</td>
</tr>
<tr>
<td>Robert Satonik, MD</td>
<td>Shama Tareen, MD</td>
<td>Dale Vandré, PhD</td>
</tr>
<tr>
<td>Perry Westerman, MD</td>
<td>Allan Wilke, MD</td>
<td></td>
</tr>
</tbody>
</table>
RADISSON CONFERENCE CENTER FLOOR PLANS

Lobby Level

Check-in and Sessions
- Keynote Speaker with Lunch
- Afternoon Oral Presentations and Awards

Lower Level

Sessions
- Oral Presentations Sessions I & II
- Poster Session
- Vendor Displays
SCHEDULE

8:00 – 8:30 am  Check-in  Lobby Level
Refreshments available

8:30 – 9:45 am  Oral Presentation Session 1  Stone Theatre
Session 1A
Session 1B
Session 1C
Session 1D
Session 1B
Session 1C
Session 1D

9:50 – 10:50 am  Poster Presentations  Kalamazoo Room
Vendor Display Tables  Lower Level Area

11:00 am – 12:15 pm  Oral Presentation Session 2  Stone Theatre
Session 2A
Session 2B
Session 2C
Session 2D
Session 2B
Session 2C
Session 2D

12:15 – 12:25 pm  Break  Arcadia Ballroom I & II
Restrooms, pick up boxed lunch, find seat

12:30 – 1:40 pm  Lunch / Keynote Speaker  Arcadia Ballroom I & II

1:45 – 3:15 pm  Oral Presentation Session 3  Arcadia Ballroom I & II
1:45-2:00 pm  Clinical Research
2:00-2:15 pm  Quality Improvement Research
2:15-2:30 pm  Educational Research
2:30-2:45 pm  Community Research
2:45-3:00 pm  Basic Science Research
3:00-3:15 pm  Medical Humanities Research

3:15 – 3:30 pm  Award Presentation  Arcadia Ballroom I & II

3:30 pm  Farewell  Arcadia Ballroom I & II
KEYNOTE SPEAKER

The Dr. Robert P. Carter Research Lecture

This is the ninth year of this annual lecture supported by the Board of Western Michigan University Homer Stryker M.D. School of Medicine to celebrate the Research Day activities and to recognize Dr. Carter’s commitment and support of research.

Richard Miller, MD, PhD
Professor of Pathology;
Associate Director for Research, Geriatrics Center;
Research Professor, Institute of Gerontology at the University of Michigan
presents

The Search for Drugs that Slow Aging

Richard A. Miller, M.D., Ph.D., is a professor of Pathology and associate director for research of the Geriatrics Center at the University of Michigan. He received a B.A. degree in 1971 from Haverford College, and M.D. and Ph.D. degrees from Yale University in 1976-1977. After postdoctoral studies at Harvard and Sloan-Kettering, he moved to Boston University in 1982 and then to his current position at Michigan in 1990.

Dr. Miller has served in a variety of editorial and advisory positions on behalf of the American Federation for Aging Research and the National Institute on Aging, and as an editor-in-chief of Aging Cell. He is the recipient of the Nathan Shock Award, the AlliedSignal Award, the Irving Wright Award and the Kleemeier Award for aging research. His main research interests all relate to the control of aging rate in mice, and include ongoing studies of mutations that slow aging, the relation of cellular stress resistance to longevity, mapping of genes that influence lifespan and age-sensitive traits, screens for drugs that extend lifespan in mice, and methods to improve function of T lymphocytes from old donors.
ORAL PRESENTATIONS

SESSION 1A

Moderator: Andrey Leonov, MD; Pediatrics and Adolescent Medicine

8:30-8:45 am Evaluation to Determine the Utility of a Pharmacist-Driven Protocol to Discontinue Inappropriate Proton Pump Inhibitors or Histamine-2 Receptor Blockers in an Inpatient Setting. Chris Jacob, DO; Tracey L. Mersfelder, MD; Monoj Kumar Konda, MD; Jason K. Lam, DO; Suceil L. Sivsammye, MD; Christin M. Campbell; Eric J. Edewaard; Andrew M. Fiore; Aness Al-Khateeb, MD; Kevin J. Kavanaugh, MD

8:45-9:00 am Aeromonas Hydrophila as a Cause of Chronic Diarrhea. Lauren Lamie, DO; Larry Lutwick, MD

9:00-9:15 am Fourniers Gangrene as the Presenting Sign for Perforated Rectal Cancer. A Rare Presentation of a Highly Fatal Pathology. Alan Hifko; Jairo Espinosa, MD; Thomas Rohs, MD; William Curtiss, MD

9:15-9:30 am Thallium Toxicity: Complexities of a Diagnosis and Management. Emily Cordes, DO; Chris Di Felice, MD; Lauren Lamie, DO; Thomas Melgar, MD

9:30-9:45 am Nutritional Assessment of a Charitable Meal Program in Kalamazoo. Eleanor Yu; Janet Karpus; Melissa Olken, MD, PhD, FHM

SESSION 1B

Moderator: Liz Lorbeer, EdM; Medical Library

8:30-8:45 am Use of Dopamine in a Statewide Emergency Medical Services System. Jennifer E. Raae-Nielsen, BS, E; William Fales, MD

8:45-9:00 am Symptomatic Giant Basilar Pseudoaneurysm in a Young Male. Aydin Tavakoli, MD, MSc; Zhen H. Geng, MD; Lauren S. Piper, DO; Jeffrey W. Miller, MD

9:00-9:15 am Case Report of Late-Onset Bipolar Disorder with EEG Changes after Left Temporal Meningioma Resection. John Jacob, MD; Arslan Ahmed, DO; Peter Longstreet, MD

9:15-9:30 am A Year in Review: Clarifying the State of Chronic Traumatic Encephalopathy Research in 2016. Patrick Albright; Dagan Hammar; Xavier Jean; Beau Prey; Nicholas Sweda; Brendan Tamm

9:30-9:45 am Alopecia: A Less Known but Devastating Side Effect of Serotonin Reuptake Inhibitors. Kinza Tareen; Joshua Hekmatjah; Ruqiya Shama Tareen, MD
ORAL PRESENTATIONS (cont.)

SESSION 1C

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-8:45 am</td>
<td>Developing a Perinatal Depression Clinic within a Psychiatry Residency Program</td>
<td>Ruqiya Shama Tareen, MD; Catherine L. Kothari, PhD; Colleen L. MacCallum, MS; Remitha M. Charoth, BS, RN; Suzanne M. Suchyta, MPA; Michael R. Liepman, MD</td>
</tr>
<tr>
<td>8:45-9:00 am</td>
<td>A Retrospective Review of Clinical Admissions to Afghan National Security Forces Healthcare Institutions</td>
<td>Jairo Espinosa, MD; Christian Ertl, MD; David Royal, PhD</td>
</tr>
<tr>
<td>9:00-9:15 am</td>
<td>Patient Safety Reporting: Impact of a Novel Training Program on Medical Residents</td>
<td>Satya Dalavayi; Serena Chen; Amy Chonghasawat; Michael Behun; Cheryl Dickson, MD</td>
</tr>
<tr>
<td>9:15-9:30 am</td>
<td>Experimental Characterization and Numerical Simulations of Surgical Knots</td>
<td>Arz Y. Qwam Alden; Peter Gustafson, PhD; Andrew G. Geeslin, MD; Jeffrey C. King MD</td>
</tr>
<tr>
<td>9:30-9:45 am</td>
<td>Analysis of Appropriate Initial Shoulder Imaging by Referring Physicians Referred to an Orthopaedic Surgeon for Shoulder Pain</td>
<td>Christopher Betzle, MD; Keith Kenter, MD</td>
</tr>
</tbody>
</table>

SESSION 1D

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-8:45 am</td>
<td>Partner Abuse Changes with Pregnancy and Postpartum: A Mixed Methods Analysis</td>
<td>Catherine L. Kothari, PhD; Angie Moe, PhD; Grace Lubwama, MPH, DPPD</td>
</tr>
<tr>
<td>8:45-9:00 am</td>
<td>The Impact of Sexually Transmitted Infections on the Birth Outcomes for Women in Kalamazoo, Michigan Between 2008-2014</td>
<td>Laura Bauler, PhD; Catherine L. Kothari, PhD; Alyssa Woodwyk, MS; Duncan Vos, MS; Terra Bautista, BA</td>
</tr>
<tr>
<td>9:00-9:15 am</td>
<td>Using Focus Groups to Understand Racial Disparities in Infant Mortality</td>
<td>Amy Damashek, PhD; Alison Geist; Kalamazoo College Students in Community and Global Health 210, Spring 2015; Ariel Berman, MA; Catherine Kothari, PhD</td>
</tr>
<tr>
<td>9:15-9:30 am</td>
<td>Pregnancy, Crime and Birth Outcomes</td>
<td>Lauren Rosenthal, BA; Catherine L. Kothari, PhD; Thomas Duong; Xandie Gold, MD, MPH; Jeff Getting, JD; Alyssa Woodwyk, MS; Heather Rauch</td>
</tr>
<tr>
<td>9:30-9:45 am</td>
<td>Engagement in Home Visiting Services During the Perinatal Period: Focus Group Findings</td>
<td>Ariel Berman, MA; Amy Damashek, PhD; Catherine L. Kothari, PhD; Ann Miles, PhD</td>
</tr>
</tbody>
</table>
### ORAL PRESENTATIONS (cont.)

#### SESSION 2A  
**STONE THEATRE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00-11:15 am</td>
<td>A Stochastically and Biomechanically Accurate Finite Element Approach for Patient Specific Modeling of Cancellous Bone.</td>
<td>Saif Alrafeek; James R. Jastifer, MD; Peter A. Gustafson, PhD</td>
</tr>
<tr>
<td>11:15-11:30 am</td>
<td>Rare Intraoperative Fracture of Intramedullary Reamer.</td>
<td>Dart Newby; Nicholas Miladore, MD; Karen Bovid, MD</td>
</tr>
<tr>
<td>11:30-11:45 am</td>
<td>Orthopaedic Traumatologist Preference for Use of Regional Anesthesia in Fracture Management. A Survey of OTA Members.</td>
<td>Tyler Snoap, MD; Jason Roberts, MD; Robert Gorman, MD</td>
</tr>
<tr>
<td>11:45 am-12:00 pm</td>
<td>Posterior Dislocation of a Total Knee Arthroplasty with a Polyethylene Tibial Post Fracture.</td>
<td>Alexander Connaughton, MD; Mark Noffsinger, MD</td>
</tr>
<tr>
<td>12:00-12:15 pm</td>
<td>Lower Extremity Surgical Treatment to Improve Function in a Patient with Gollop Wolfgang Complex.</td>
<td>Joshua M. Veenstra, MD; Karen Bovid, MD; Jason Habeck, MD</td>
</tr>
</tbody>
</table>

#### SESSION 2B  
**THE PRAIRIES IV & V**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00-11:15 am</td>
<td>Arrhythmogenic Right Ventricular Cardiomyopathy Associated with Pediatric Cardiac Arrest.</td>
<td>Thomas Pott, MD</td>
</tr>
<tr>
<td>11:15-11:30 am</td>
<td>Thromboelastography Following Liver Resection.</td>
<td>Brandon Tanner, MD; Gitonga Munene, MD, FACS; Steven Lu, MD; Richa Khatri, MD; Guston Zervoudakis</td>
</tr>
<tr>
<td>11:30-11:45 am</td>
<td>Success of Retrograde Tibial Artery Approach in Lower Extremity Revascularization.</td>
<td>Samuel H. Lai; Jordan Fenlon; Bejamin Roush; Krishna M. Jain, MD</td>
</tr>
<tr>
<td>11:45 am-12:00 pm</td>
<td>Success of Atherectomy in Lower Extremity Ischemia Performed in Office Based Lab.</td>
<td>Benjamin Roush; Jordan Fenlon; Samuel Lai; Charles Brewerton; Krishna M. Jain, MD; John Munn, MD; Daniel Johnston, MD; Mark Rummel, MD; Syed Alam, MD</td>
</tr>
<tr>
<td>12:00-12:15 pm</td>
<td>Impact of Socioeconomic Status, Race, and Insurance Payer on Outcomes following Allogenic Hematopoietic Cell Transplantation.</td>
<td>Nicole Foley; Aaron Logan, MD, PhD</td>
</tr>
</tbody>
</table>
ORAL PRESENTATIONS (cont.)

SESSION 2C

Moderator: Tom Melgar, MD; Medicine-Pediatrics

11:00-11:15 am Times of Peak Innate and Adaptive Immunity in Peripheral Blood Subsets: Potential Implications for Study Design, Assessment of Immune Function, and Therapeutic Intervention in Type 1 Diabetes. McKenzie Akers; Heather Rauch; Alyssa Woodwyk, MS; Thomas Blok, MD; Patrice Mason, RN; Daniel Perry, PhD; Todd Brusko, PhD; Clive Wasserfall, MS; Mark Atkinson, PhD; Craig Beam, PhD

11:15-11:30 am Adverse Reaction to Nebulized Budesonide in a Patient with Mast Cell Activation Syndrome. Alissa Welsh, MD; Andrey Leonov, MD

11:30-11:45 am Successful Desensitizations with Ceftriaxone and Azithromycin in a Patient with Mast Cell Activation Syndrome. Patrick Staso, MD; Andrey Leonov, MD

11:45 am-12:00 pm Gastrocnemius Contracture in Patients with Rheumatoid Arthritis. James Jastifer, MD; Adam Green, BS

SESSION 2D

Moderator: Ruqiya Shama Tareen, MD; Psychiatry

11:00-11:15 am Chronic Refractory Candida Parapsilosis Infecting the Pneumonectomy Stump in a Patient with Cystic Fibrosis. Joseph Lamar, MD; Myrtha Gregoire-Bottex, MD; Lauren Vandenbos; Mitchel Kardux; Teresa Bailey, PharmD

11:15-11:30 am Vancomycin Resistant Enterococcal Endocarditis Presenting as Spondylodiskitis. Meveshni Govender, MD; Larry Lutwick, MD; Yirong Zhu

11:30-11:45 am Infection of Atrial Septal Defect Closure Device: Even Low Turbulence Devices Get Infected. Michelle L. Knapp; Larry Lutwick, MD; Janie Katarsky, DO

11:45 am-12:00 pm Non-Hemolytic Group B Streptococcus as a Cause of Chemotherapy Port Infection. Ray-Young Tsao; Larry Lutwick, MD

12:00-12:15 pm Single Incision Laparoscopic Resection of a Giant Ovarian Mature Cystic Teratoma. Hira H. Abidi, MD; Michael J. Leinwand, MD
ORAL PRESENTATIONS (cont.)

The following presentations represent the top-scoring abstracts in each of the six topic areas. Together with Dean Jenson, we congratulate all of the authors on their fine work.

SESSION 3 ARCADIA BALLROOM

**Moderator:** Craig Beam, PhD; Epidemiology & Biostatistics

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:45-2:00 pm</td>
<td>Treatment of Headache in the ED: Haloperidol in the Acute setting (THE-HA Study)</td>
<td>Kim Aldy, DO; Jessica McCoy, MD; Elizabeth Arnall, DO; Joshua Petersen, PharmD</td>
</tr>
<tr>
<td>2:00-2:15 pm</td>
<td>Assessment of the Accuracy and Effectiveness of Pediatric Drug Dosing Tools used by Paramedics</td>
<td>Maria Willoughby-Byrwa, M.Ed, E; Donald Sefcik, DO, MBA; William Fales, MD, FACEP, FAEMS</td>
</tr>
<tr>
<td>2:15-2:30 pm</td>
<td>Design and Evaluation of a More Realistic Tube Thoracostomy Task Trainer.</td>
<td>Mark Williams; Richard Lammers, MD</td>
</tr>
<tr>
<td>2:30-2:45 pm</td>
<td>A Multivariable Analysis of Risk Factors Affecting Low Birth Weight Infant Mortality in Kalamazoo County.</td>
<td>Teresa Evans; Jennifer Kim; Samuel Lai; Dart Newby; Duncan Polot; Terra Bautista, BA; Duncan Vos, MS; Catherine L. Kothari, PhD</td>
</tr>
<tr>
<td>2:45-3:00 pm</td>
<td>Deafferentation and Direct Injury Cause Different Microbial Response Profiles in the Adult Zebrafish Olfactory Bulb</td>
<td>Susanna R. Var; Christine A. Byrd-Jacobs, PhD</td>
</tr>
<tr>
<td>3:00-3:15 pm</td>
<td>Burnout in Healthcare Professions: Reigniting the Flame.</td>
<td>Tyler Gardner; Auditi Kundu; Amrith Shettigar; Daphne Darmawan; Yen-Yu Tina Chen</td>
</tr>
</tbody>
</table>
POSTER PRESENTATIONS

1. Paired Samples Analysis of Isolated Gastrocnemius Contracture in Patients with Foot and Ankle Pathology. James Jastifer, MD; Adam Green, BS

2. Effect of Variable Activities on the Engagement of Memory Care Patients. Ai Yamasaki; Cheryl Dickson, MD; Patrick Albright; Tyler Gardner; Katherine Han; Brendan Tamm

3. Intrathoracic Mesenteroaxial Gastric Volvulus with Massive Gastric Necrosis Requiring Total Gastrectomy and Roux-En-Y Esophagojejunostomy Reconstruction. Alan Hifko; Saad Shebrain, MD; Mathew Pryor, MD; Earl Norman, MD

4. Improving Productivity Through Scheduling at the WMed Family Medicine Residency Clinic. Alex Witte, MD; Susan Jevert-Eichorn, DO; Alison Radigan, MD; Larry Mann, DO; Jamie McCartney, MD; Aisha Shakoor, MD

5. A Case of Difficult-to-Treat Asthma Due to Uncontrolled Atypical Gastroesophageal Reflux. Alissa Welsh, MD; Andrey Leonov, MD

6. Death Related to Fistulas Involving the Gastrointestinal and Cardiovascular Systems. Allan Joseph Medwick, EdD; Joseph A. Prahlow, MD

7. Pseudocyesis presenting in a Case of Bipolar 1 Disorder, Manic with Psychosis. Arslan Wali Ahmed, DO; John Jacob, MD; Chaz Johnson, MD; Ramesh Bangalore, MD; Peter Longstreet, MD

8. Delivery of Health Education in Adolescents with Behavioral Health Challenges. Ashley Akkal; Ransome Eke, MD, PhD; Sulin Wu; Amy Rechenberg; Michael Madrid; Jose Lopez-Vera; Duncan Vos, MS

9. Mycobacterial Disease Overlooked in a Frail Diabetic Male Treated for Pneumonia. Aydin Tavakoli, MD, MSc; Glenn V. Dregansky, DO

10. Retrospective Analysis of the Efficacy of The Vulnerable and Elderly Assessment Tool. Benjamin Roush; Carolyn Isaac, PhD; Nathan Welham; Kristina Le; Evan Kohler; Monte Bermeo; Joyce de Jong; Joseph Prahlow, MD; Duncan Vos, MS

11. Calcaneus Fracture: A Possible Musculoskeletal Emergency. Cayla Williams, MD; Tyler Snoap, MD; Matthew Jaykel, MD; Jason Roberts, MD

12. The Impact of an Electronic System on Behavioral Screening Compliance in a Pediatric Clinic. Charles Brewerton; Roger Apple, PhD; Peter Hoeksema; Beau Prey; Stephanie Van Alsten; Grace Parikh Walter

13. Aripiprazole vs Lurasidone in the Treatment of a Patient with Capgras Syndrome. Chaz Johnson, MD; Arslan Ahmed, DO; John Jacob, MD
14. **The Effect of Health Fair Attendance on Attitude Toward Health.** Cheryl Dickson, MD; Elizabeth Kinsella; Michael Chavarria; Daphne Darmawan; Auditi Kundu; Lakshmi Ramachandran

15. **Longstanding Esophageal Foreign Body Misdiagnosed as Croup.** Daniel Zindrick, MD; Philip Pazderka, MD

16. **Surviving as a Cancer Survivor: A Case Report of Radiation-Induced Autonomic Dysfunction.** Daphne Sy; Mark D. Schauer, MD

17. **Injection-Associated Mycobacterium Fortuitum Infection.** Dennis T. Huang; Larry Lutwick, MD

18. **Challenges in the Diagnosis and Management of Pediatric Pulmonary Tuberculosis in Madagascar.** Emily Cordes, DO; Richard Roach, MD

19. **Widening the Differential: A Case of Hemophagocytic Lymphohistiocytosis Disguised as a Fever of Unknown Origin.** Emily Cordes, DO

20. **A Case of Native Valve Staphylococcus Epidemidis Endocarditis with Cardiac Abscess Formation.** Emily Cordes, DO; Chris Jacob, DO; Mark Loehrke, MD

21. **Stridor of Two Months Duration in a Twelve Month Old.** Garrett Koon, DO; Scottie Paitl, MD; Aaron Lane-Davies, MD; Michelle Halley, MD

22. **Traumatic Stab Wound to the Chest: A Rare Cause of Pituitary Apoplexy.** Jairo Espinosa, MD; Tim Wysozan; Chris Sloffer, MD

23. **Gallbladder Duplication: Case Report of a Rare Congenital Anomaly Treated by Single-Incision Laparoscopic Cholecystectomy in a Pediatric Patient.** Jairo Espinosa, MD; Peter White; Michael Leinwand, MD

24. **Mixed Goblet Cell Carcinoid-Adenocarcinoma: A Case Series.** Jairo Espinosa, MD; Timothy Truong; Julia Miladore, MD; John T. Collins, MD, FACS; Saad Shebrain, MDm FACS; Gitonga Munene, MD, FACS

25. **Rare Presentation of High Grade Retroperitoneal Angiosarcoma in a Patient Status Post Endovascular Aortic Repair (EVAR).** Jairo Espinosa, MD; Alan Hifko; Julia Miladore, MD; John T. Collins, MD, FACS

26. **The Role of Nutritional Education for the Homeless.** Jen Raae-Nielsen; Claire Cameron-Ruetz; Chandler Vondy; Michael Krafitt; Audrey Jensen; Cheryl Dickson, MD; Catherine Kothari, PhD; Ransome Eke, MD, PhD

27. **A Case Series of Anterograde and Retrograde Vascular Bullet Embolization.** Jennifer Chao; Joseph Prahlow, PhD; Joyce de Jong, DO; Jeffrey Barnard, MD
POSTER PRESENTATIONS (cont.)

28. Pheochromocytoma with IVC Invasion: Case Report & Systematic Review of Literature. Jennifer Kim; Gitonga Munene, MD, FACS; David Schutter, MD

29. New Onset Mood Disorder and Seizure Disorder in the Pediatric Patient After Undergoing Cardiopulmonary Arrest. Joseph Lamar, MD; Matthew LaCasse, DO

30. First 100 Cases of BLS First Responder Administered Naloxone in a Statewide EMS System. James Markman, MBA; Tyler Koedam, MD; Joshua Mastenbrook, MD; William Fales, MD, FACEP, FAEMS

31. Mechanical Loading as Potential Treatment for Wnt Inhibitor Induced Bone Loss. Juraj Zahatnansky, MD; Daniel Dick; Gabrielle Foxa; Robert Baker, MD; Bart Williams, PhD

32. A Review of Transcatheter Ablation for the Treatment of AVNRT in Children. Keegan Colletier; Sulin Wu; Stephanie Van Alsten; Brittany Chow

33. The Impact of WMed Family Medicine Obesity Clinic on Weight Loss and Patients Overall Health in the Family Health Center, Kalamazoo, MI. Latifa Pacheco, DO; Abigail Annan, MD, FAAFP, Dipl., ABOM

34. Acute Hypoxic Respiratory Failure as a Complication of a Urinary Tract Infection During Pregnancy: A Case Presentation. Manpreet S. Narwal, MD; Susan Jevert-Eichorn, DO; Narinder Nina Clair, MD

35. Feasibility Study to Assess Medical Student Visits to Developmentally Disabled Adults. Maria Mason; Ransome Eke, MD, PhD; Brittany Chow; Xavier Jean; Sarah Khalil; Megan Cibulas

36. Patient Demographics and In-Hospital Complications Associated with Operative Scheuermann Kyphosis in Pediatric Patients. Matthew Jaykel, MD; Karen Bovid, MD

37. Determining Best Practices of Peer Mediation Methods in Kalamazoo Public Schools. Melanie Bourgeau; Dagan Hammar; Neil Hughes; Sarah Kemp; Sydney Spitler; Catherine Kothari, PhD

38. Left Carotid Artery Thrombosis due to Thromboangiitis Obliterans. Melanie Bourgeau; Joseph Prahlow, MD

39. Peer-Led Diabetes Self-Management Program for Patients with Glycated Hemoglobin Values Greater Than 7%. Michael A. Behun; McKenzie J. Akers; Peter J. White; Amy O. Chonghasawat; Yen-Yu Tina Chen; Thu N. Nguyen; Grant M. Finlayson; Catherine L. Kothari, PhD

40. History of Anticoagulants. Michael Chavarria; Melanie Bourgeau; Elizabeth Kinsella; Michelle Knapp; David Lee; Raphael Szymanski; Kimberly Wells
POSTER PRESENTATIONS (cont.)

41. Cryptococcal Empyema: A Rare Manifestation of Disease. Mohamed Mortagy, MD; Larry Lutwick, MD; Stephen Breisach

42. It’s all in the Flow-Volume Curve: Kommerell Diverticulum Presenting as Pseudo-Asthma. Musunkumuki Kadochi, MD; Myrtha Gregoire-Bottex, MD; Joseph Lamar, MD; Rose Archemetre, MD

43. Implementation of a Collaborative Care Model to Prevent, Assess and Treat Anxiety and Depression in Cystic Fibrosis Patient. Myrtha Gregoire-Bottex, MD; Polly Hollenbeck, RTR; Sally Bonnema; Andrea Caskey, MSW

44. Of Plugs and Casts: A Case Plastic Bronchitis in a 17-year-old Patient with Mild Asthma. Myrtha Gregoire-Bottex, MD; Musunkumuki Kadochi, MD; Rose Archemetre, MD

45. Childhood Idiopathic Pulmonary Hypertension: a Case Report. Nathaniel Balmert; Joseph Prahlow, MD

46. A Case of Successful Treatment of Skin Excoriation Disorder with N-Acetyl Cysteine. Nauman Khan, MD; Priya Mahajan, MD; Sadia Shaukat, MD; Matthew LaCasse, DO; Mark Kanzawa, DO

47. Traumatic Laceration of the Posterior Tibial Tendon Treated with Novel Technique. Nicholas Miladore, MD; Robert Gorman, MD

48. Food Insecurity in Kalamazoo. Nicholas Sweda; Cheryl Dickson, MD; Jeffrey Friedman; Michelle Knapp; David Lee; Vina Tran

49. 16-year-old Baseball Pitcher Presenting with Gradual Worsening of Posterolateral Right Elbow Pain and Negative MRI Findings. Nithin Natwa, MD; Reema Sheth, DO; Nisha Sheth, BS

50. Benefit of Ultrasound Curriculum Development for Family Medicine Residents. Nithin Natwa, MD; Uzair Munshey, MD; Duncan Vos, MS; Robert Baker, MD

51. Atypical Presentation of Trisomy 13 in the Context of Maternal Amphetamine and Benzodiazepine Abuse. Patrick Staso, MD; Theotonius Gomes, DO

52. Atypical Neuroleptic Malignant Syndrome: a Case Presentation. Philip McCarthy; Matthew LaCasse, DO; Ruqiya Shama Tareen, MD

53. Rupture of Left Ventricular Aneurysm Leading to Hemopericardium and Subsequent Death from Cardiac Tamponade. Raphael M. Szymanski; Joseph A. Prahlow, MD

54. Assessing the Utility of the Healthwise Program in Substance Abuse and Mental Health Service Programs. Raphael M. Szymanski; Kimberly Wells; Nathaniel Balmert; Keegan Colletier; Hiba Samaha; Ransome Eke, MD, PhD; Lisa Graves, MD
POSTER PRESENTATIONS (cont.)

55. **Case Presentation: Pauci-immune Glomerulonephritis and Autoimmune Hypothyroidism.** Rheanne Maravelas, MD; Elizabeth Doherty, MD

56. **Sudden Death Caused by Hyponatremia Related to Psychogenic Polydipsia.** Rohan Kedar; Joseph Prahlaw, MD

57. **Substantial Recovery Gains Seen by Utilizing Mental Health Court in Treating and Maintaining Recovery in Psychiatric Patients.** Ruqiya Shama Tareen, MD; Catherine L. Kothari, PhD; Meagan Maas, MD; John Jacob, MD; Olivia Fournier; Bob Butkiewicz, MA, LPC; Jeff Getting, JD

58. **Is it Conversion Disorder or Creutzfeldt Jakob Disease, Psychiatric Presentation.** Sadia Shaukat, MD; Perry Westerman, MD

59. **Zolpidem in Treatment of Refractory Catatonia.** Sala V. Sadaps, MD; Michael Redinger, MD; Jessica Ramsay; Meagan Maas, MD; Peter Longstreet, MD

60. **Relevance of Neuroscience Seminar Teaching to Day-to-Day Clinical Practice of Psychiatry.** Sala V. Sadaps, MD; Perry Westerman, MD

61. **Pimavanserin for Parkinson’s Disease Psychosis.** Sala V. Sadaps, MD; Perry Westerman, MD; Arslan Ahmed, DO

62. **The Crippling Stigma of Psychiatry.** Sala V. Sadaps, MD; Bangalore K. Ramesh, MD; Nicole J. Baker

63. **Priapism After Epidural or Spinal Anesthesia.** Sarah Khalil; Kelly Quesnelle, PhD; Jeffrey Friedman; Audrey Jensen; Duncan Polot; Sydney Spitler

64. **Conversion Disorder in a Child with Pentasomy X: A Rare Presentation of a Rare Genetic Syndrome.** Sarah Myer, DO; Ruqiya Shama Tareen, MD

65. **Small Bowel Obstruction Secondary to Large Gallstone.** Satya Dalavayi; Saad Shebrain, MD

66. **Social Determinants – Impacting or Causing Disparities in Patient Care?** Shaena Faye Freeman, MD; Kristi VanDerKolk, MD

67. **Enhancing Children’s Social-Emotional Learning Skills Through Mindfulness Practices.** Shun Yi (Felix) Wan; Stephanie Chang; Jordan Fenlon; Amrith Shettigar; McKenzie Johnson; Sam Lealofi

68. **Antegrade Endosteal Fibular Strut Augmentation for Periprosthetic Femur Fracture Above Stemmed Total Knee Arthroplasty.** Tyler Snoap, MD; Matthew Jaykel, MD; Jason Roberts, MD
POSTER PRESENTATIONS (cont.)

69. The Cadaver Memorial: An Opportunity to Incorporate Medical Humanities in the WMed Anatomy Curriculum. Wendy Lackey-Cornelison, PhD

70. Acquired Craniosynostosis in a Patient with Iatrogenic Vitamin D Intoxication. Wesley Eichorn, DO; Kristi VanDerKolk, MD

71. Utility of Fern Test to Determine Rupture of Membranes. Wesley Eichorn, DO; Susan Jevert-Eichorn, DO

72. Evaluation of Injury Severity Differences in Intoxicated Blunt Trauma. Zachary Brady, MS, MD; John Walsh, MD, MPH; Sheri L. Vandenberg, RN, MS

73. A Highly Unusual Case of Metastatic Pancreatic Adenocarcinoma. Zachary Koehn, DO; Lauren Piper, DO
INDEX

Aaron Lane-Davies: 13
Aaron Logan: 9
Abigail Annan: 14
Adam Green: 10, 12
Ai Yamasaki: 12
Aisha Shakoor: 12
Alan Hifko: 7, 12, 13
Alex Witte: 12
Alexander Connaughton: 9
Alison Geist: 8
Alison Radigan: 12
Alissa Welsh: 10, 12
Allan J. Medwick: 12
Allan Wilke: 3
Alyssa Woodwyk: 8, 10
Amrith Shettigar: 11, 16
Amy Chonghasawat: 8, 14
Amy Damashek: 8
Amy Rechenberg: 12
Andrea Caskey: 15
Andrew G. Geeslin: 8
Andrew M. Fiore: 7
Andrey Leonov: 10, 12
Aness Al-Khateeb: 7
Angie Moe: 8
Ann Miles: 8
Ariel Berman: 8
Arslan Ahmed: 7, 12, 16
Arz Y. Qwam Alden: 8
Ashley Akkal: 12
Audit Kundu: 11, 13
Audrey Jensen: 13, 16
Aydin Tavakoli: 7, 12
Bangalore K. Ramesh: 16
Bart Williams: 14
Bart Prey: 7, 12
Benjamin Roush: 9, 12
Bob Butkiewicz: 16
Brandon Tanner: 9
Brendan Tamm: 7, 12
Brittany Chow: 14
Carolyn Isaac: 12
Carolyn Sandborn: 3
Catherine L. Kothe: 8, 11, 13, 14, 16
Cayla Williams: 12
Chandler Vondy: 13
Charles Brewerton: 9, 12
Chaz Johnson: 12
Cheryl Dickson: 8, 12, 13, 15
Chris Di Felice: 7
Chris Jacob: 7, 13
Chris Sloffer: 13
Christian Ertl: 8
Christin M. Campbell: 7
Christine A. Byrd-Jacobs: 11
Christopher Betzle: 8
Claire Cameron-Ruetz: 13
Clive Wasserfall: 10
Colleen L. MacCallum: 8
Craig Beam: 3, 10, 11
Dagan Hammar: 7, 14
Dale Rowe: 3
Dale Vandre: 3
Daniel Dick: 14
Daniel Johnston: 9
Daniel Perry: 10
Daniel Zindrick: 13
Daphne Darmawan: 11, 12
Daphne Sy: 13
Dart Newby: 9, 11
David Lee: 14, 15
David Overton: 3
David Royal: 8
David Schutter: 14
Dennis T. Huang: 13
Dilip Patel: 3
Donald Sefcik: 11
Duncan Polot: 11, 16
Duncan Vos: 8, 11, 12, 15
Earl Norman: 12
Eleanor Yu: 7
Elizabeth Arnall: 11
Elizabeth Doherty: 16
Elizabeth Kinsella: 13, 14
Elizabeth Brooke Pope: 3
Emily Cordes: 7, 13
Eric J. Edewaard: 7
Evan Kohler: 12
Gabrielle Foxa: 14
Garrett Koon: 13
Gitonga Munene: 3, 9, 13, 14
Glenn V. Dregansky: 12
Grace Lubwama: 8
Grace Parikh Walter: 12
Grant M. Finlayson: 14
Guston Zervoudakis: 9
Heather Rauch: 8, 10
Hiba Samaha: 15
Hira H. Abidi: 10
Jairo Espinosa: 7, 8, 13
Jagadeesh Kalavakunta: 3
James Markman: 14
James R. Jastifer: 9, 10, 12
Jamie McCartney: 12
Janet Karpus: 7
Jamie Katarsky: 10
Jason Habecb: 9
Jason K. Lam: 7
Jason Roberts: 9, 12, 16
Jeff Getting: 8, 16
Jeffrey Barnard: 13
Jeffrey C. King: 8
Jeffrey Friedman: 15, 16
Jeffrey Greene: 3
Jeffrey W. Miller: 7
Jennifer Chao: 13
Jennifer E. Raae-Nielsen: 7, 13
Jennifer Kim: 11, 14
Jerry Pratt: 3
Jessica McCoy: 11
Jessica Ramsay: 16
John Jacob: 7, 12, 16
John Munn: 9
John T. Collins: 13
John Walsh: 17
Jordan Fenlon: 9, 16
Jose Lopez-Vera: 12
Joseph A. Prahlow: 12, 13, 14, 15, 16
Joseph Lamar: 10, 14, 15
Joshua Hekmatjah: 7
Joshua M. Veenstra: 9
Joshua Mastenbrook: 14
Joshua Petersen: 11
Joyce deJong: 12, 13
Julia Miladore: 13
Juraj Zahatnansky: 14
Karen Bovid: 9, 14
Katherine Han: 12
Keegan Colletier: 14, 15
Keith Kenter: 3, 8
Kelly Quesnelle: 16
Kevin J. Kavanaugh: 7
Kim Aldy: 11
Kimberly Wells: 14, 15
Kinza Tareen: 7
Krishna M. Jain: 9
Kristi VanDerKolk: 16, 17
Kristina Le: 12
Lakshmi Ramachandran: 13
Larry Lutwick: 3, 7, 10, 13, 15
Larry Mann: 12
Latifa Pacheco: 63, 99
Laura Bauler: 3, 8
Lauren Lamie: 7
Lauren Rosenthal: 8
Lauren S. Piper: 7, 17
Lauren Vandenbos: 10
Lisa Graves: 3, 15
Lisa Miller: 3
Manpreet S. Narwal: 14
Maria Mason: 14
Maria Willoughby-Byrwa: 11
Mark Atkinson: 10
Mark D. Schauer: 13
Mark Kanzawa: 15
Mark Loehrke: 13
Mark Noffsinger: 9
Mark Rummel: 9
Mark Williams: 11
Matthew Pryor: 12
Matthew Jaykel: 10, 12, 14, 16
Matthew M. LaCasse: 14, 15
McKenzie Akers: 10, 14
McKenzie Johnson: 16
Meagan Maas: 16
Megan Cibulas: 14
Melanie Bourgeau: 14
Melissa Olken: 7
Meveshni Govender: 10
Michael Behun: 8, 14
Michael Chavarria: 13, 14
Michael J. Leinwand: 10, 13
Michael Krafft: 13
Michael Madrid: 12
Michael R. Liepman: 8
Michael Redinger: 16
Michelle Halley: 13
Michelle L. Knapp: 10, 14, 15
Mitchel Kardux: 10
Mohamed Mortagy: 15
Monoj Kumar Konda: 7
Monte Bermeo: 12
Musunuki Kasochi: 15
Myrtha Greigoire-Botte: 10, 15
Narinder Nina Clair: 14
Nathan Welham: 12
Nathaniel Balmert: 15
Nauman Khan: 15
Neil Hughes: 14
Nicholas Sweda: 7, 15
Nicholas Miladore: 9, 15
Nicole Foley: 9
Nicole J. Baker: 16
Nisha Sheth: 15
Nithin Natwa: 15
Olivia Fournier: 16
Patrice Mason: 10
Patrick Albright: 7, 12
Patrick Staso: 10, 15
Perry Westerman: 3, 16
Peter A. Gustafson: 8, 9
Peter Hoeksema: 12
Peter Longstreet: 7, 12, 16
Peter White: 13, 14
Philip McCarthy: 15
Philip Pazderka: 13
Polly Hollenbeck: 15
Priya Mahajan: 15
Ramesh Bangalore: 12
Ransome Eke: 12, 13, 14, 15
Raphael Szymanski: 14, 15
Ray-Young Tsao: 10
Reema Sheth: 15
Remitha M. Charoth: 8
Rheanne Maravelas: 16
Richa Khatri: 9
Richard Lammers: 11
Richard Roach: 13
Robert Baker: 3, 14, 15
Robert Gorman: 9, 15
Robert Satonik: 3
Roger Apple: 12
Rohan Kedar: 16
Rose Archemeterere: 15
Ruqiya Shama Tareen: 3, 7, 8, 16
Saad Shebrain: 3, 12, 13, 16
Sadia Shaukat: 15, 16
Saif Alrafeek: 9
Sala V. Sadaps: 16
Sally Bonnema: 15
Sam Lealofi: 16
Samuel H. Lai: 9, 11
Sarah Kemp: 14
Sarah Khalil: 14, 16
Sarah Myer: 16
Satya Dalavayi: 8, 16
Scottie Paitl: 13
Serena Chen: 8
Shaena Faye Freeman: 16
Sheri Vandenberg: 17
Shun Yi (Felix) Wan: 16
Stephanie Chang: 16
Stephanie Van Alsten: 12, 14
Stephen Breisach: 15
Steven Lu: 9
Steven Rudich: 3
Sucess L. Sivsammye: 7
Sulin Wu: 12, 14
Susan Jevett-Eichorn: 12, 14, 17
Susanna R. Var: 11
Suzanne M. Suchyta: 8
Sydney Spiter: 14, 16
Syed Alam: 9
Teresa Bailey: 10
Teresa Evans: 11
Terra Bautista: 8, 11
Theotonius Gomes: 15
Thomas Blok: 10
Thomas Dung: 8
Thomas Melgar: 3, 7
Thomas Pott: 9
Thomas Rohs: 7
Thu N. Nguyen: 14
Tim Bauler: 3
Tim Wysozan: 13
Timothy Truong: 13
Todd Brusko: 10
Tracey L. Mersfelder: 3, 7
Tyler Gardner: 11, 12
Tyler Gibb: 3
Tyler Koeedam: 14
Tyler Snoap: 9, 12, 16
Uzair Munsheee: 15
Vina Tran: 15
Wendy Lackey-Cornelison: 17
Wesley Eichorn: 17
William Curtiss: 7
William Fales: 7, 11, 14
Xandie Gold: 8
Xavier Jean: 7, 14
Yen-Yu Tina Chen: 11, 14
Yirong Zhu: 10
Zachary Brady: 17
Zachary Koehn: 17
Zhen H. Geng: 7