

## TABLE OF CONTENTS

	Page
<b>INTRODUCTION.....</b>	<b>2</b>
<b>WMU JOHN T. BERNHARD CENTER FLOOR PLANS.....</b>	<b>4</b>
<b>SCHEDULE.....</b>	<b>5</b>
<b>KEYNOTE SPEAKER.....</b>	<b>6</b>
<b>ORAL PRESENTATIONS .....</b>	<b>7</b>
<b>POSTER PRESENTATIONS .....</b>	<b>12</b>
<b>INDEX.....</b>	<b>18</b>

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>.

**WIFI Information:**

| WIFI Username/Network: **WMUGuest** |  
 | WIFI Password: **manualarts1921** (all lowercase) |

**CME CREDIT**

The evaluation of this activity will be done electronically through the WMed CME website:  
<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 on screen at the Check-in table and on the screens in the ballroom.**

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*<sup>™</sup>. 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 Accreditation 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 36<sup>th</sup> anniversary milestone. One-hundred thirty-one abstracts were received and reviewed by a panel of 34 judges. One-hundred thirteen 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 30 judges participated in the reviews. Each judge typically reviewed approximately 16 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: Leah Bader, BS; Bethany Banner; Laura Bauler, PhD; Craig Beam, PhD; Richard Brandt, BS; Heather Chen; Sandra Cochrane; Shanna Cole, PharmD; Ethan Cutler; Mireya Diaz, PhD; Laura Eller; Rex Hall; Maddie Harlan; Prentiss Jones, PhD; Keith Kenter, MD; Wendy Lackey-Cornelison, PhD; Samuel Lai; David Lee; Elizabeth Lorbeer, EdM; Benjamin Roush; David Spillers; Dale Vandre, PhD.

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.



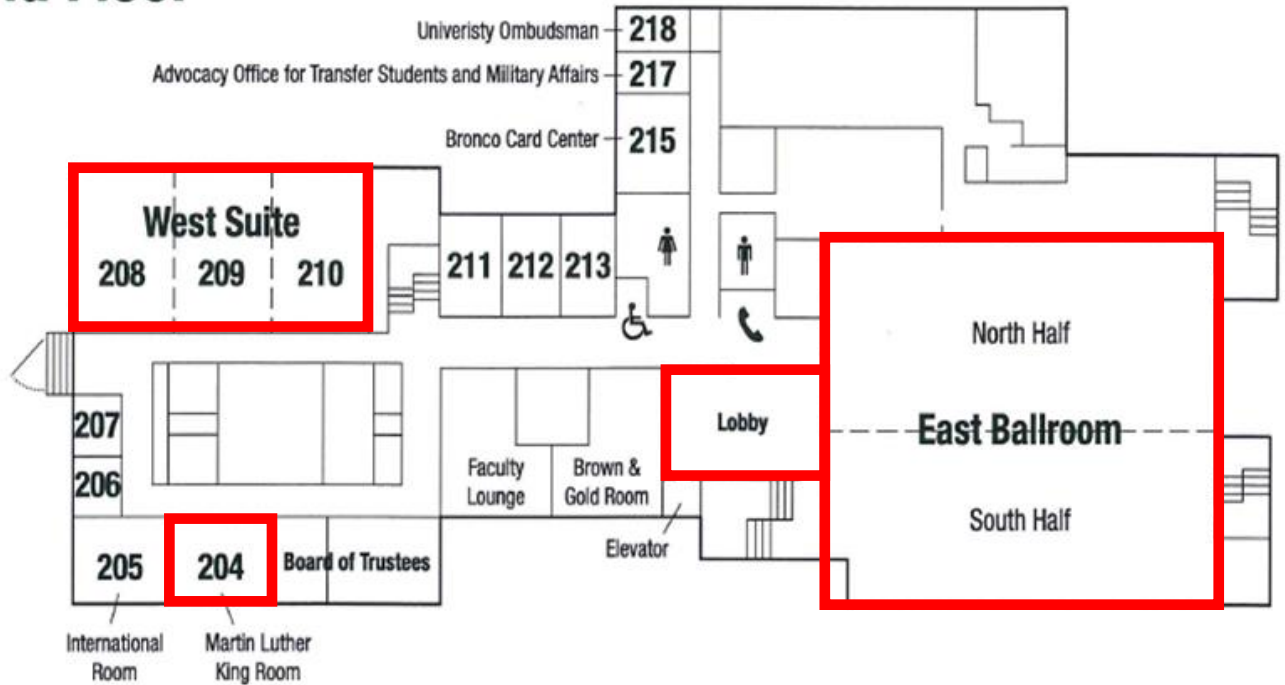
Craig Beam, PhD  
Chair  
2018 Research Day

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.

Roger Apple, PhD	Myrtha Gregoire-Bottex, MD	Dale Rowe, MD
Roua Azmeh, MD	Krishna Jain, MD	Carrie Sandborn, MD
Robert Baker, MD	Keith Kenter, MD	Robert Sawyer, MD
Jayne Barr, MD	Richard Lammers, MD	Neelkamal Soares, MD
Laura Bauler, PhD	Silvia Linares, MD	Deb Taubel, MD
Tim Bauler, PhD	Mark Loehrke, MD	Timothy Trichler, MD
Karen Bovid, MD	Liz Lorbeer, EdM	Kristi VanDerKolk, MD
Mireya Diaz, PhD	Josh Mastenbrook, MD	Erica VanderKooy, MD
Martin Draznin, MD	Tracey Mersfelder, PharmD	Dale Vandré, PhD
Glenn Dregansky, DO	Dilip Patel, MD	Perry Westerman, MD
Ransome Eke, PhD	Philip Pazderka, MD	Priscilla Woodhams, MD

# WMU JOHN T. BERNHARD CENTER FLOOR PLANS

## Second Floor



### WEST SUITE 210

Oral Presentation Session 1A & 2A

### WEST SUITE 209

Oral Presentation Session 1B & 2B

### WEST SUITE 208

Oral Presentation Session 1C & 2C

### MARTIN LUTHER KING ROOM (204)

Oral Presentation Session 1D & 2D

### LOBBY

Check-in

Vendor Tables

### EAST BALLROOM

Poster Displays

Keynote Speaker

Innovation Center Presentation

Oral Presentation Session 3

Award Presentation

Breakfast/ Lunch

## SCHEDULE

8:00 – 8:30 am	<b>Check-in</b> Refreshments available	2 <sup>nd</sup> floor Lobby
8:30 – 9:45 am	<b>Oral Presentation Session 1</b> Session 1A Session 1B Session 1C Session 1D	West Suite 210 West Suite 209 West Suite 208 MLK Room
9:50 – 10:50 am	<b>Poster Presentations</b>	East Ballroom
	<b>Vendor Display Tables</b>	2 <sup>nd</sup> Floor Lobby
11:00 am – 12:15 pm	<b>Oral Presentation Session 2</b> Session 2A Session 2B Session 2C Session 2D	West Suite 210 West Suite 209 West Suite 208 MLK Room
12:15 – 12:25 pm	<b>Break</b> Restrooms, pick up lunch, find seat	
12:30 – 1:40 pm	<b>Lunch / Keynote Speaker</b>	East Ballroom
1:45 – 2:15 pm	<b>Innovation Center Presentation</b>	East Ballroom
2:15- 3:45 pm	<b>Oral Presentation Session 3</b> 2:15-2:30 pm Clinical Research 2:30-2:45 pm Quality Improvement Research 2:45-3:00 pm Educational Research 3:00-3:15 pm Community Research 3:15-3:30 pm Basic Science Research 3:30-3:45 pm Medical Humanities Research	East Ballroom
3:45- 4:00 pm	<b>Award Presentation</b>	East Ballroom
4:00 pm	<b>Farewell</b>	East Ballroom

## KEYNOTE SPEAKER

### The Dr. Robert P. Carter Research Lecture

*This is the tenth 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.*



### James Cook, DVM, PhD, OTC, OTSC

William & Kathryn Allen Distinguished Professor  
in Orthopaedic Surgery  
Director, Thompson Laboratory for Regenerative  
Orthopaedics, Orthopaedic Research Division &  
Mizzou BioJoint Center

presents

### Biologic Joint Replacement – Does it really work?

After receiving his B.S. degree from Florida State University and competing for 5 years as a professional waterskier, Dr. James (Jimi) Cook completed his DVM in 1994 and PhD in 1998. In 1999, he founded the Comparative Orthopaedic Laboratory at the University of Missouri, a multi-disciplinary team of physicians, veterinarians, engineers, and basic scientists dedicated to translational orthopaedic research, which has now been endowed and moved into its own 12,000 sq ft facility as the Thompson Laboratory for Regenerative Orthopaedics. He has over 200 peer-reviewed publications, over \$20 million in research funding, received numerous awards including America's Best Veterinarian (2007), holds 16 patents and has seen 4 biomedical devices through FDA approval to human clinical trials.

He is currently Director of the Mizzou BioJoint Center, Director of The Thompson Laboratory for Regenerative Orthopaedics and the William and Kathryn Allen Distinguished Chair in Orthopaedic Surgery, and serves as Chief of the Division of Research for the Department of Orthopaedics at the University Hospital's Missouri Orthopaedic Institute. He is also co-founder of Be The Change Volunteers –a NGO dedicated to building schools in remote villages in the developing world whose teams have built 39 educational facilities in 16 countries, providing educational opportunities to more than 6,700 students.

## ORAL PRESENTATIONS

### SESSION 1A

### WEST SUITE 210

<b>Moderator:</b>	Deb Taubel, MD; Obstetrics & Gynecology
8:30-8:45 am	<b>The Role of Structural and Interpersonal Discrimination in Birth Outcomes.</b> Catherine L. Kothari, PhD; Grace Lubwama, DPP; Terra Bautista, BS; Arthur James, MD; Alyssa Woodwyk, MS; Lisa Graves, MD
8:45-9:00 am	<b>Differential Pathways to Infant Health, by Race and by Income.</b> Charlene Lin; Catherine L. Kothari, PhD; Terra Bautista, BS; Duncan Vos, MS; Lisa Graves, MD
9:00-9:15 am	<b>Maternal Care Coordination and Program Triage.</b> Heather Rauch; Catherine L. Kothari, PhD; Richard Brandt, BS
9:15-9:30 am	<b>Impact of Race on Postpartum Reproductive Health Choices.</b> Kathryn Jones; Laura Bauler, PhD; Kailin Kuo; Terra Bautista, BS; Catherine L. Kothari, PhD
9:30-9:45 am	<b>Natural Language Processing as a Tool for Screening Depression in Postpartum Women Suffering from Intimate Partner Violence.</b> Duncan Vos, MS; Catherine L. Kothari, PhD; Joseph Costello, MS; Richard Brandt, BS; Angie Moe, PhD

### SESSION 1B

### WEST SUITE 209

<b>Moderator:</b>	Mark Loehrke, MD; Internal Medicine
8:30-8:45 am	<b>Incidence of Aortic Stenosis in Obese Patients: An Analysis Using the NIS Database.</b> Raphael M. Szymanski, MS; Duncan Vos, MS; Peter Hoeksema; Ansh Chaudhary; Vishal Gupta, MD
8:45-9:00 am	<b>Ten-Years Trend in Hospitalization Rates of Intra-Hepatic Cholangiocarcinoma in the United States.</b> Ransome Eke, MD PhD; Tooba Tariq, MD; Tong Li; Gitonga Munene, MD
9:00-9:15 am	<b>National Trends in Surgery for Intraheptic Cholangiocarcinoma: 2004-2014.</b> Jesse Chou; Jairo Espinosa, MD; Ransome Eke, MD PhD; Gitonga Munene, MD
9:15-9:30 am	<b>Opioid Consumption after Elective Shoulder Arthroscopy Surgery.</b> Alexander Connaughton, MD; John Livingstone; Rebecca Sigourney; Keith Kenter, MD; Matt Jaykel, MD
9:30-9:45 am	<b>Factors Influencing Length of Hospital Stay and Hospital Charges in Patients with Inflammatory Bowel Disease: a Five-Year Population Based Study.</b> Ransome Eke, MD PhD; Tooba Tariq, MD; Tong Li; Jay Patel, MD; Keshav Patel, BS

## ORAL PRESENTATIONS (cont.)

### SESSION 1C

### WEST SUITE 208

<b>Moderator:</b>	Robert Baker, MD; Orthopaedic Surgery
8:30-8:45 am	<b>A Stochastic Finite Element Method for Simulating Patient Specific Trabecular Bone.</b> Saif Alrafeek, MS; James Jastifer, MD; Peter Gustafson, PhD
8:45-9:00 am	<b>The Effect of Pitch Variation and Diameter Variation on Screw Pullout in 3D Printed Screws.</b> Joshua Veenstra, MD; Peter Gustafson, PhD; Cody Bearden, MD; James Jastifer, MD
9:00-9:15 am	<b>Mechanics of Progressive Failure of No. 2 FiberWire Suture.</b> Arz Qwam Alden, MS; Andrew Geeslin, MD; Peter Gustafson, PhD
9:15-9:30 am	<b>Injury Prevention Based on Computer Modeling of Cleat Traction.</b> Justin Rittenhouse, BS; Peter Gustafson, PhD
9:30-9:45 am	<b>Correlation of Pre-Operative Radiographic Analysis with Intra-Operative Competency of the Spring Ligament for Flat Foot Reconstruction.</b> Justin Roberts, MD; Patrick Albright; Jacob Hall, BS; Matthew Pate, BS; Donald Bohay, MD; John Anderson, MD

### SESSION 1D

### MLK ROOM

<b>Moderator:</b>	Kristi VanDerKolk, MD; Family and Community Medicine
8:30-8:45 am	<b>Fifteen-Month Anxiety and Depression Symptom Screenings of Caregivers and Patients with Cystic Fibrosis (CF).</b> Sheryl Lozowski-Sullivan, MPH PhD; Myrtha Gregoire-Bottex, MD; Andrea Caskey, LMSW
8:45-9:00 am	<b>Improving the Retrieval Rate of Inferior Vena Cava Filters: Impact of Inferior Vena Cava Filter Retrieval in the Office Endovascular Center.</b> Nathan VanderVeen; Jeffrey Friedman; Mark Rummel, MD; Daniel Johnston, MD; Syed Alam, MD; John Munn, MD; Chris Longton, BSN; Krishna Jain, MD
9:00-9:15 am	<b>Efficacy of Enhanced Recovery After Surgery in a Community Hospital Setting.</b> Gulrez Mahmood, MD; Edward Itawi, MD
9:15-9:30 am	<b>Emergency Department Utilization of CAT Scans in Embolism (EDUCATE).</b> Kathryn Redinger, MD; David Gibbons, DO; Mauli Shah, DO; Lovita Scrimshaw, DO; Daniel Scrimshaw, DO; Ramya Venigalla, DO; Nour Sinno, MD; Collin Sabatini, DO; Will Schaeffer, DO; Paul Cohen, MD; Aaron Rumburg, MD
9:30-9:45 am	<b>Comparison of Pre-Hospital Survival of Manual and Mechanical CPR Using the LUCAS-2: a Retrospective Study.</b> Raphael M. Szymanski, MS; Kristina Le; Joshua Mastenbrook, MD; Tyler Vaughn, MD; Ron Slagell, EMT-P; Cheryl Dickson, MD



## ORAL PRESENTATIONS (cont.)

### SESSION 2A

### WEST SUITE 210

- Moderator:** Karen Bovid, MD; Orthopaedic Surgery
- 11:00-11:15 am **Surgical Reconstruction Technique of Two Patients with Tarsal Type Preaxial Polydactyly: Two True Prehalluces.** Daniel Ferman; Karen Bovid, MD; Laura Bauler, PhD
- 11:15-11:30 am **Survival After a Severe Case of Metformin-Associated Lactic Acidosis.** Anita Shallal, MD; Matthew Kelly, MD; Michael Reaume, MD; William Nichols, DO
- 11:30-11:45 am **Death Due to Atypical Urinothorax Following Percutaneous Nephrolithotomy: Case Report and Review of Literature.** Ray-Young Tsao; Thomas Duong; Minhaj Khaja, MD; Joseph Prahlow, MD
- 11:45 am-12:00 pm **First Reported Delayed Repair of Paravalvular Leak Post Transcatheter Aortic Valve Replacement (TAVR).** Raphael M. Szymanski, MS; Christopher Rogers, DO; Alphonse DeLucia III, MD
- 12:00-12:15 pm **Proximal Biceps Tenodesis Incorporated into Rotator Cuff Repair.** Joshua Veenstra, MD; Andrew Geeslin, MD; Christopher Uggen, MD

### SESSION 2B

### WEST SUITE 209

- Moderator:** Joanne Baker, DO; Medicine
- 11:00-11:15 am **Psychiatric Manifestations of Adult-Onset Still's Disease and Treatment Considerations.** Randall Kirk, DO; Anish Desai, MD
- 11:15-11:30 am **Improving Point-of-Care Ultrasound Proficiency of Primary Care Residents Through a Formal, Faculty-Led Training Course.** Michael Reaume, MD; Nicholas George, MD; Dagan Hammar; Thomas Melgar, MD
- 11:30-11:45 am **Analysis of Dosing Errors Made by Paramedics During Simulated Pediatric Patient Scenarios After Implementation of State-Wide Pediatric Drug Dosing Reference.** John Hoyle, MD; Glenn Ekblad, DO; Bill Fales, MD; Tracy Hover, BS; Richard Lammers, MD; Dena Smith, MS; Richard Brandt, BS; Alyssa Woodwyk, MS
- 11:45 am-12:00 pm **Creation of a Longitudinal Elective Training for Medical Students to Address Health Inequities: A Focus on Social Determinants of Health, Anti-Racism, and Implicit Bias.** Gina Bravata; Ryan D'Mello; Cheryl Dickson, MD MPH
- 12:00-12:15 pm **Developing a Residency Wellness Curriculum Utilizing Self-Care Plans.** Emily Cordes, DO; Joanne Baker, DO; Jayne Barr, MD

## ORAL PRESENTATIONS (cont.)

### SESSION 2C

### WEST SUITE 208

- Moderator:** Maria Sheakley, PhD; Biomedical Sciences
- 11:00-11:15 am **Olfactory Bulb Astroglial Response to Olfactory Organ Damage in Adult Zebrafish.** Jackson Scheib; Christine Byrd-Jacobs, PhD
- 11:15-11:30 am **A Stress-Enhanced Model for Discovery of Disease-Modifying Gene: Ece1-Suppresses the Toxicity of Alpha-Synuclein A30P.** Alex Chen; Tim Tully, PhD
- 11:30-11:45 am **Sequence and Structural Determinants of Polycystic Kidney Disease.** Monica Ellis; Emma Swayze; Aaron Zebolsky; Gregory Vanden Heuvel, PhD; Erik Larson, PhD
- 11:45 am-12:00 pm **Histologic Characterization of the Anterior Intermeniscal Ligament (AIML) in the Human Knee: Characteristic of a Potential New Cell Type.** Conner Ahlgren; Keith Kenter, MD
- 12:00-12:15 pm **The Diagnosis and Pathogenesis of Diamond-Blackfan Anemia: Validation of a Novel RPL5 Mutation.** Katie Udenberg, MD; Nicholas George, MD; Sharon Singh, MD; Katie Scott, MD

### SESSION 2D

### MLK ROOM

- Moderator:** Roua Azmeh, MD; Pediatric and Adolescent Medicine
- 11:00-11:15 am **Emergence of Idiopathic Mast Cell Activation Syndrome Status Post Hysterectomy in a 44 y.o. Caucasian Woman.** Patricia Choi; Roua Azmeh, MD; Andrey Leonov, MD; Jesse Duranceau, MD
- 11:15-11:30 am **Myocardial Abscess Complicated by Communication with the Right Atrium: A Source of Sepsis and Thrombotic Events.** Kim Aldy, DO; Sean Barkan, MD; Kelly Halt, DO; Padma Chandika, MD
- 11:30-11:45 am **A Rare Occurrence of Pacemaker Infection with Mycobacterium Abscessus: A Case Report.** Alison Radigan, MD; Susan Jevort-Eichorn, DO
- 11:45 am-12:00 pm **Barriers to HPV Vaccination at Kalamazoo, Michigan's Federally-Qualified Health Center.** Nathan VanderVeen; Arike Wieneke; Samantha Tran; Amie Kim; Kathryn Davis; Richard Brandt, BS; Duncan Vos, MS; Debra Taubel, MD
- 12:00-12:15 pm **Assessment of Oral Antibiotic Prescribing Practices in WMed Outpatient Clinics.** Alyssa Woodwyk, MS; Heather Rauch; Mark Schauer, MD; Shun Yi Felix Wan; Glenn Dregansky, DO; Michael Klepser, PharmD

## 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

### EAST BALLROOM

<b>Moderator:</b>	Craig Beam, PhD; Biomedical Sciences
2:15-2:30 pm	<b>Clinical Synergism: Combined Fungal and Bacterial Intra-Abdominal Infections Associated with Increased Mortality.</b> Elizabeth Krebs, MD; Taryn Hassinger, MD; Nathan Elwood, MD; Zachary Dietch, MD; Kimberly Popovsky, RN; Traci Hedrick, MD; Robert Sawyer, MD
2:30-2:45 pm	<b>Monetary Impact and Geographic Distribution of Cybersecurity Breaches on Health Records in the United States.</b> Kamil Cwikla; J. Erik Winterholler; Jay G. Ronquillo, MD
2:45-3:00 pm	<b>Assessment of Student Perceptions on Skills Required for Optimal Collaboration on Service-Learning Teams.</b> Laura Bauler, PhD; Ransome Eke, MD PhD MPH; Cheryl Dickson, MD MPH
3:00-3:15 pm	<b>Crime Victimization of Individuals with Mental Illness: Response by the Criminal Justice System.</b> Nikki Nguyen; Kristi VanDerKolk, MD; Alyssa Woodwyk, MS; Bob Butkiewicz, MA LPC; Jeff Patton, MSW; Rebecca Sherwood, MD; Jeff Getting, JD; Catherine L. Kothari, PhD
3:15-3:30 pm	<b>Lisfranc Fixation Revisited: Is Joint Sparing Bone Fixation Possible? An Anatomic and Computational Study.</b> Eric Christianson, MD; Daniel VanZweden; James Jastifer, MD
3:30-3:45 pm	<b>An Ethical Review Concerning the Use of Physical Restraints on Intubated Patients in the ICU.</b> Daniel Ferman; John Livingstone; Tyler Gibb, JD PhD; Parker Crutchfield, PhD

## POSTER PRESENTATIONS

### CLINICAL RESEARCH POSTERS

1. **Infective Endocarditis as the Presenting Sign of an Underlying Immunodeficiency in a 3-year-old Male.** Aisha Shakoor, MD; Ahmed Elisa, MD; Elizabeth Kinsella; Ryan Halas, MD; Andrey Leonov, MD
2. **An Atypical Case of Varicella-Zoster Meningitis Presenting as Chest Pain, Impaired Memory and Seizure.** An Nguyen; David King, MD; Ramya Venigalla, DO; Laura Bauler, PhD; Joshua Mastenbrook, MD
3. **Gelfoam Embolization of Cystic Artery Pseudoaneurysm in the Setting of Cholecystoenteric Fistulas and Emphysematous Cystitis.** Benjamin Roush; Michelle Knapp; Andrew Forsyth, MD; Matthew Smetts, MD; Jonathan Olsen, MD
4. **Fecal Impaction with Stercoral Colitis Complicated by Emphysematous Cystitis: A Case Report.** Benjamin Roush; J. Erik Winterholler; Melissa Olken, MD
5. **A Case of Adult Onset Pyloric Stenosis.** Cayleigh Blumrick, MD; Jayne Barr, MD
6. **Simultaneous Presentation of Thyroid Storm and Diabetic Ketoacidosis in a Previously Healthy 21-year-old Male.** David Wallington; Mark Schauer, MD; Laura Bauler, PhD
7. **Osseous Sarcoidosis: a Peculiar Presentation of a Familial Disease.** Jon Vaux, DO; Guston Zervoudakis; Anne Rose, PA-C; Joel Post, DO
8. **PDE4 Subtypes in Cancer.** Guston Zervoudakis; Samuel Lai; Kelly Quesnelle, PhD  
(Basic Sciences Research)
9. **Rates and Risk Factors of Ventral Incisional Hernia Following Hepatobiliary and Pancreatic Surgery.** Jairo Espinosa, MD; Peter White; Nathaniel Balmert; Sydney Spitler; Richa Khatri, MD; Alyssa Woodwyk, MS; Gitonga Munene, MD
10. **A Quality Improvement Project to Evaluate the Impact of a Pharmacist-Driven Stewardship Initiative to Utilize Procalcitonin Levels to Discontinue Antibiotics in a Community Teaching Hospital.** James Vaillant, MD; Tracey Mersfelder, PharmD; Anandbir Bath, MD; Tooba Tariq, MD; Guramrinder Thind, MD; Kevin Kavanaugh, MD; Rebecca Maynard, PharmD
11. **A Case of Malarial Hepatitis.** Jasreen Kaur, MD; Katherine Bolton, DO; Anandbir Bath, MD, Natascha Tuznik, DO
12. **Total Endovascular Iliocaval Reconstruction Using Polytetrafluoroethylene Stent-Graft Placement for the Treatment of Inferior Vena Cava Resection.** Jordan Fenlon, BS; Kyle Cooper, MD; Jeffrey Chick, MD; Charles Brewerton, BS

## POSTER PRESENTATIONS (cont.)

13. **A Case Report: Candida Albicans Endocarditis in a Native Aortic Valve.** Joshua Fainsod, MD; Lauren Vocke, DO; Kristi VanDerKolk, MD
14. **A Case of Right Atrial Thrombus 'In-Situ' During Patent Foramen Ovale Closure: A Clinical Dilemma.** Joshua Hekmatjah, Hemraj Makwana, MD
15. **Successful Intubation of a Difficult Airway Using a suction Yankauer.** Keshav Patel; Aaron Pfeifer, MD; Joshua Mastenbrook, MD; Laura Bauler, PhD
16. **Pontine Infarct Presents as Hematemesis and Vertigo with Unilateral Facial Nerve Palsy.** Kyle VanDommelen; Mauli Shah, DO; Joshua Mastenbrook, MD; Laura Bauler, PhD
17. **Homicidal Abuse by Neglect in Cerebral Palsy.** Mariyam Sheidu; Joseph A. Prahlow, MD
18. **Pseudo-CPM (Central Pontine Myelinolysis).** Matthew Rumschlag; Amanda Fisher-Hubbard, MD; Rudolph Castellani, MD; Joseph A. Prahlow, MD
19. **Beneficial Effects of Volunteering in a Student Run Clinic on Cultural Awareness and Preparation for Clinical Rotations.** Michael Chavarria; Raphael M. Szymanski, MS; Gina Bravata; Joshua Vandeburgh; Kristina Le; Joaquin Peralta; Cheryl Dickson, MD
20. **Blind After Bingeing: Purtscher-Like Retinopathy in Acute Alcoholic Pancreatitis.** Michael Reaume, MD; Andrew Selles; Mark Schauer, MD
21. **Candida Endocarditis: A Diagnostic Challenge with a Fatal Outcome.** Michael Reaume, MD; Anita Shallal, MD; Pimpawan Boapimp, MD
22. **A Case of Flecainide Induced Cardiac Arrhythmia Due to Polypharmacy.** Mohamed Mortagy, MD; Lokesh Yadav, MD
23. **A Unique Presentation of Papillary Renal Cell Cancer.** Muhammad Danish Saleem, MD; Muhammad Hameed, MD
24. **Choking on Cocaine: A Rare Case of Cocaine Induced Angioedema.** Muhammad Danish Saleem, MD; Mark Schauer, MD
25. **Dapsone Induced Aplastic Anemia with Early Signs of Response to Treatment with Eltrombopag.** Muhammad Danish Saleem, MD; Samuel Lai; Don Park, MD PhD; Mark Schauer, MD
26. **Death Related to Acute Esophageal Necrosis ('Black Esophagus').** Ola Jandali; Joseph A. Prahlow, MD
27. **Fighting Diagnostic Confirmation Bias: ABPA, CF, or Both?** Patricia Choi; Myrtha Gregoire-Bottex, MD; Jesse Duranceau, MD

## POSTER PRESENTATIONS (cont.)

28. **Familial Idiopathic Hemopericardium with Tamponade Physiology.** Patrick Staso, MD; Anna Jain, MD
29. **Littoral Cell Angioma - A Case Report.** Philip Bystrom; Jairo Epinosa, MD; Gitonga Munene, MD
30. **Primary Hepatic Sarcomatoid Carcinoma - A Case Report.** Philip Bystrom; Jairo Epinosa, MD; Gitonga Munene, MD
31. **Pattern and Predictors of Colorectal Cancer Screening Among Hospitalized Patients: Results from the US National Inpatient Sample Data, 2010 – 2014.** Ransome Eke, MD PhD, Tooba Tariq, MD; Tong Li; Irfan Furqan, MD PhD
32. **Exudative Pleural Effusion with Negative Cytology: A Case of Malignant Mesothelioma.** Rheanne Maravelas, MD; Anmol Hans; Mark Schauer, MD
33. **Retroperitoneal Mass.** Rheanne Maravelas, MD; Anna Hoekstra, MD
34. **Cryptococcosis in a Non-Immunocompromised Woman.** Sandra Koehn, DO; Thomas Flynn, MD
35. **Novel Use of Sternal Zip Ties Secondary to Metal Allergy.** Shivan Saith, MS; Jerry Pratt, MD
36. **Forensic Radiology in Medicolegal Autopsy Practice.** Thomas Duong; Ray-Young Tsao; Sheila Spotswood, MD; Carolyn Isaac, PhD; Jered Cornelison, PhD; Joseph A. Prahlow, MD
37. **Intraosseous Administration of Hydroxocobalamin (Cyanokit<sup>®</sup>) after Enclosed Structure Fire Smoke Exposure and Cardiac Arrest: A Case Report.** Thomas Olsen, MD; Nathan Brunken, MD; Joshua Mastenbrook, MD
38. **Branched Retinal Vein Occlusion in the Context of Primary Sclerosing Cholangitis: A Case Report.** Thu Nguyen; Jeff Johnson; Carrie Sandborn, DO
39. **Crime Scene Analysis Using DNA Testing of Dog Feces--A Case Report.** Vishal Somnay; Thomas Duong; Ray-Young Tsao; Joseph A. Prahlow, MD
40. **Asymptomatic Echordosis Physaliphora Tumor, A Case Report and Review of Literature.** Yoad Porat; Amanda Fisher-Hubbard, MD; Rudolph Castellani, MD; Joseph A. Prahlow, MD
41. **A Rare Case of Abdominal Wall Recurrence of Cervical Cancer.** Jesse Chou; Anna Hoekstra, MD
42. **Pyoderma Gangrenosum: A Case of a Rapidly Enlarging Ulcer.** Aydin Tavakoli, MD; Satya Dalavayi; Steven M. Pollens, MD; Pimpawan Boapimp, MD

## POSTER PRESENTATIONS (cont.)

43. **Ehrlichiosis Presenting with Syncope: A Diagnostic Dilemma.** Anita Shallal, MD; Jasreen Kaur, MD; Pimpawan Boapimp, MD

### QUALITY IMPROVEMENT POSTERS

44. **Getting with the Guidelines: A Quality Improvement Project to Improve Rates of Code Blue Debriefing.** Anita Shallal, MD; Chris Jacob, DO; Prashant Patel, DO; Russell Van Maele, DO; Amar Jaswa, DO; Richard Roach, MD
45. **Improving Office-Based Procedures in an Academic Family Medicine Residency: A Quality Improvement Project.** Aydin Tavakoli, MD; Steven M. Pollens, MD; Glenn V. Dregansky, DO; Kristi VanDerKolk, MD
46. **Should I Stay or Should I Go: The Community Patient's Decision-Making Process for Hepato-Pancreato-Biliary Surgery.** Jesse Chou; Gitonga Munene, MD
47. **Battling the Opioid Epidemic: Minimizing Risk with Naloxone Intranasal Spray.** Carleigh Zahn, DO; Susan Bannon, MD; Lauren Lamie, DO; Jasreen Kaur, MD; David Lee; Wylie DeVera, MD; Amber Fausneacht, DO; Shanna Cole, PharmD
48. **Elder Abuse Identification and Reporting in the Emergency Department.** Janani Ahmed; John Becker; Conner Holthaus; Kyle VanDommelen; Yoad Porat; Duncan Vos, MS; Richard Brandt, BS; Samantha Mix, MD; Cheryl Dickson, MD; Catherine L. Kothari, PhD
49. **Using Informatics Approaches to Understand and Visualize National Cybersecurity Threats Affecting Healthcare Providers.** Tong Li; Abigail Wen-Yu Cheng; Alex Paschke; Tyler Ulrich; Jay G. Ronquillo, MD
50. **Effectiveness of Root Cause Analysis in an Interprofessional 'Improv for Education' Event Taught by Medical Students.** Amy Rechenberg; Stephanie Van Alsten; Mark Schauer, MD; Cheryl Dickson, MD; Duncan Vos, MS; Richard Brandt, BS
51. **Deserts, Swamps, Mirages, and Oases: Reconciling the Spectrum of Food Environments.** David Lee; Cheryl Dickson, MD

### COMMUNITY RESEARCH POSTERS

52. **Cocaine Abuse, Complications and Deaths as Depicted Through a Case Series.** Jennifer RaaeNielsen; Joseph A. Prahlow, MD
53. **The Impact of a Group Intervention on Adult Survivors of Childhood Trauma Using a Psychoeducational Model.** Jennifer Foster, PhD; Kenneth Schmidt, PhD; Whitney Decamp, PhD

## POSTER PRESENTATIONS (cont.)

### EDUCATION RESEARCH POSTERS

54. **Increasing Cultural Competency and Reducing Victim-Blaming Through Antiracism Workshops.** Fernando Ospina, MA; Eric Hall, PhD
55. **Facilitating Peer Collaboration with PA Students in Patient Centered Care Using an Integrated TBL: A Medical Student Driven Experience in Interdisciplinary Engagement.** Gisella Newbery; Wendy Lackey-Cornelison, PhD
56. **Pediatric Emergency Simulation Lab Performance using Preparatory Education.** Glenn Ekblad, DO; Mark Kerschner, MD; Natalie Reynolds, DO; Rick Griffith, DO; Mark Radigan, MD; Kurt Schelling, DO; Jorge Morales, DO; Ben Litman, DO; Daniel Piedmonte, MD; Cyle Rogotzke, MD; Michael Patlajan, MD
57. **Orthopaedic Resident Experience with Hand Surgery Consultations at a Level 1 Trauma Center: Data Collection to Improve Education.** Christine Bowman, MD; Tyler Snoap, MD; Patrick Albright; Joseph Walbridge; Keith Kenter, MD

### BASIC SCIENCES RESEARCH POSTERS

58. **The Relationship Between Neurotrauma and Proteinopathy in Former Military Service Members.** Arushi Tripathy; Kristi Bailey, HTL; Abigail Grande, MPH; Joanne Catania, MPA; Joyce de Jong, DO; Rudolph Castellani, MD
59. **Deregulated Cell Proliferation is a Key Feature of Two Different Mouse Models of Polycystic Kidney Disease.** Conner Halthaus; Matthew Rumschlag; Erik Larson, PhD; Greg Vanden Heuvel, PhD
60. **The Need for Fast, Accurate and Broad Spectrum Opioid Drug Screening to Combat the Opioid Crisis.** Francisca Coughlin, BS; Paul Moorman, TC-NRCC MS; Greg Cavey, BS; Prentiss Jones, PhD
61. **Postmortem Drug Screening in Medical Examiner Casework using High-Resolution Mass Spectrometry (nanoUPLC-MSE-TOF).** Greg Cavey, BS; Francisca Coughlin, BS; Paul Moorman, TC-NRCC MS; Prentiss Jones, PhD
62. **Levels of Persistent Organic Pollutants in Breast Milk Samples Representing Finnish and Danish boys with and without Hypospadias.** Marie Tysman; Helena E. Virtanen, MD PhD; Katharina M. Main, MD PhD; Anika Adamsson, PhD; Christine Wohlfahrt-Veje, MD PhD; Jean-Phillippe Antignac, PhD; Bruno Le Bizec, PhD; Niels Erik Skakkebak, MD PhD; Jorma Toppari, MD PhD
63. **Microglial Response Patterns Following Various Forms of Olfactory Bulb Damage in Zebrafish.** Susanna Var, BS; Christine Byrd-Jacobs, PhD



## POSTER PRESENTATIONS (cont.)

64. **Differential Response of Zebrafish Olfactory Sensory Neuron Subtypes After Intranasal Infusion with Detergent.** Tara Maser, BS; Christine Byrd-Jacobs, PhD

### TOP AWARDED POSTERS

65. **Impact of Knot Configuration on Suture Performance: Experiments and Numerical Models.** Arz Qwam Alden, MS; Andrew Geeslin, MD; Peter Gustafson, PhD
66. **A Case of Agammaglobulinemia Associated with a Novel BTK Mutation of Unknown Significance.** Ahmed Elisa, MD; Aisha Shakoor, MD; Jasmine Alsukhon, MD; Ryan Halas, DO; Elizabeth Kinsella; Andrey Leonov, MD
67. **The Non-Dichotomy Between Malignant Catatonia and NMS: A Case Presentation.** Anish Desai, MD; Jay Patel, MD; Matthew LaCasse, DO; Peter Longstreet, MD

## INDEX

Adamsson, Annika: 16  
Ahlgren, Conner: 10  
Ahmed, Janani: 15  
Alam, Syed: 8  
Albright, Patrick: 8, 16  
Aldy, Kim: 10  
Alrafeek, Saif: 8  
Alsukhon, Jasmine: 17  
Anderson, John: 8  
Antignac, Jean-Philippe: 16  
Apple, Roger: 3  
Azmeah, Roua: 3, 10  
Bailey, Kristi: 16  
Baker, Joanne: 9  
Baker, Robert: 3  
Balmert, Nathaniel: 12  
Bannon, Susan: 15  
Barkan, Sean: 10  
Barr, Jayne: 3, 9, 12  
Bath, Anandbir: 12  
Bauler, Laura: 3, 7, 9, 11, 12, 13  
Bauler, Tim: 3  
Bautista, Terra: 7  
Bearden, Cody: 8  
Becker, John: 15  
Blumrick, Cayleigh: 12  
Boapimp, Pimpawan: 13, 14, 15  
Bohay, Donald: 8  
Bolton, Katherine: 12  
Bovid, Karen: 3, 9  
Bowman, Christine: 16  
Brandt, Richard: 7, 9, 10, 15  
Bravata, Gina: 9, 13  
Brewerton, Charles: 12  
Brunken, Nathan: 14  
Butkiewicz, Bob: 11  
Byrd-Jacobs, Christine: 10, 16, 17  
Bystrom, Philip: 14  
Caskey, Andrea: 8  
Castellani, Rudolph: 13, 16  
Catania, Joanne: 16  
Cavey, Greg: 16  
Chandika, Padma: 10  
Chaudhary, Ansh: 7  
Chavarria, Michael: 13  
Chen, Alex: 10  
Cheng, Abigail Wen-Yu: 15  
Chick, Jeffrey: 12  
Choi, Patricia: 10, 13  
Chou, Jesse: 7, 14, 15  
Christianson, Eric: 11  
Cohen, Paul: 8  
Cole, Shanna: 15  
Connaughton, Alexander: 7  
Cooper, Kyle: 12  
Cordes, Emily: 9  
Cornelison, Jered: 14  
Costello, Joseph: 7  
Coughlin, Francisca: 16  
Crutchfield, Parker: 11  
Cwikla, Kamil: 11  
D'Mello, Ryan: 9  
Dalavayi, Satya: 14  
Davis, Kathryn: 10  
de Jong, Joyce: 16  
Decamp, Whitney: 15  
DeLucia III, Alphonse: 9  
Desai, Anish: 9, 17  
DeVera, Wylie: 15  
Diaz, Mireya: 3  
Dickson, Cheryl: 8, 9, 11, 13, 15  
Dietch, Zachary: 11  
Draznin, Martin: 3  
Dregansky, Glenn V.: 3, 10, 15  
Duong, Thomas: 9, 14  
Duranceau, Jesse: 10, 13  
Ekblad, Glenn: 9, 16  
Eke, Ransome: 3, 7, 11, 14  
Elisa, Ahmed: 12, 17  
Ellis, Monica: 10  
Elwood, Nathan: 11  
Espinosa, Jairo: 7, 12, 14  
Fainsod, Joshua: 13  
Fales, Bill: 9  
Fausneucht, Amber: 15  
Fenlon, Jordan: 12  
Ferman, Daniel: 9, 11  
Fisher-Hubbard, Amanda: 13  
Flynn, Thomas: 14  
Forsyth, Andrew: 12  
Foster, Jennifer: 15  
Friedman, Jeffrey: 8  
Furqan, Irfan: 14  
Geeslin, Andrew: 8, 9, 17  
George, Nicholas: 9, 10  
Getting, Jeff: 11

Gibb, Tyler: 11  
Gibbons, David: 8  
Grande, Abigail: 16  
Graves, Lisa: 7  
Gregoire-Bottex, Myrtha: 3, 8, 13  
Griffith, Rick: 16  
Gupta, Vishal: 7  
Gustafson, Peter: 8, 17  
Halas, Ryan: 12, 17  
Hall, Eric: 16  
Hall, Jacob: 8  
Halt, Kelly: 10  
Hameed, Muhammad: 13  
Hammar, Dagan: 9  
Hans, Anmol: 14  
Hassingier, Taryn: 11  
Hedrick, Traci: 11  
Hekmatjah, Joshua: 13  
Hoeksema, Peter: 7  
Hoekstra, Anna: 14  
Holthaus, Conner: 15, 16  
Hover, Tracy: 9  
Hoyle, John: 9  
Isaac, Carolyn: 14  
Itawi, Edward: 8  
Jacob, Chris: 15  
Jain, Anna: 14  
Jain, Krishna: 3, 8  
James, Arthur: 7  
Jandali, Ola: 13  
Jastifer, James: 8, 11  
Jaswa, Amar: 15  
Jaykel, Matt: 7  
Jevert-Eichorn, Susan: 10  
Johnson, Jeff: 14  
Johnston, Daniel: 8  
Jones, Kathryn: 7  
Jones, Prentiss: 16  
Kaur, Jasreen: 12, 15  
Kavanaugh, Kevin: 12  
Kelly, Matthew: 9  
Kenter, Keith: 3, 7, 10, 16  
Kerschner, Mark: 16  
Khaja, Minhaj: 9  
Khatri, Richa: 12  
Kim, Amie: 10  
King, David: 12  
Kinsella, Elizabeth: 12, 17  
Kirk, Randall: 9  
Klepser, Michael: 10  
Knapp, Michelle: 12  
Koehn, Sandra: 14  
Kothari, Catherine L.: 7, 11, 15  
Krebs, Elizabeth: 11  
Kuo, Kailin: 7  
LaCasse, Matthew: 17  
Lackey-Cornelison, Wendy: 16  
Lai, Samuel: 12, 13  
Lamie, Lauren: 15  
Lammers, Richard: 3, 9  
Larson, Erik: 10, 16  
Le Bizec, Bruno: 16  
Le, Kristina: 8, 13  
Lee, David: 15  
Leonov, Andrey: 10, 12, 17  
Li, Tong: 7, 14, 15  
Lin, Charlene: 7  
Linares, Silvia: 3  
Litman, Ben: 16  
Livingstone, John: 7, 11  
Loehrke, Mark: 3  
Longstreet, Peter: 17  
Longton, Chris: 8  
Lorbeer, Liz: 3  
Lozowski-Sullivan, Sheryl: 8  
Lubwama, Grace: 7  
Mahmood, Gulrez: 8  
Main, Katharina M.: 16  
Makwana, Hemraj: 13  
Maravelas, Rheanne: 12, 14  
Maser, Tara: 17  
Mastenbrook, Joshua: 3, 8, 12, 13, 14  
Maynard, Rebecca: 12  
Melgar, Thomas: 9  
Mersfelder, Tracey: 3, 12  
Mix, Samantha: 15  
Moe, Angie: 7  
Moorman, Paul: 16  
Morales, Jorge: 16  
Mortagy, Mohamed: 13  
Munene, Gitonga: 7, 12, 14, 15  
Munn, John: 8  
Newbery, Gisella: 16  
Nguyen, An: 12  
Nguyen, Nikki: 11  
Nguyen, Thu: 14  
Nichols, William: 9  
Olken, Melissa: 12  
Olsen, Jonathan: 12  
Olsen, Thomas: 14  
Ospina, Fernando: 16  
Park, Don: 13  
Paschke, Alex: 15  
Pate, Matthew: 8  
Patel, Dilip: 3  
Patel, Jay: 7, 17  
Patel, Keshav: 7, 13  
Patel, Prashant: 15  
Patlajan, Michael: 16  
Patton, Jeff: 11  
Pazderka, Philip: 3  
Peralta, Joaquin: 13

Pfeifer, Aaron: 13  
Piedmonte, Daniel: 16  
Pollens, Steven M.: 14, 15  
Popovsky, Kimberly: 11  
Porat, Yoad: 14, 15  
Post, Joel: 12  
Prahlow, Joseph A.: 9, 13, 14, 15  
Pratt, Jerry: 14  
Quesnelle, Kelly: 12  
Qwam Alden, Arz: 8, 17  
RaaeNielsen, Jennifer: 15  
Radigan, Alison: 10  
Radigan, Mark: 16  
Rauch, Heather: 7, 10  
Reaume, Michael: 9, 13  
Rechenberg, Amy: 15  
Redinger, Kathryn: 8  
Reynolds, Natalie: 16  
Rittenhouse, Justin: 8  
Roach, Richard: 15  
Roberts, Justin: 8  
Rogers, Christopher: 9  
Rogotzke, Cyle: 16  
Ronquillo, Jay G.: 11, 15  
Rose, Anne: 12  
Roush, Benjamin: 12  
Rowe, Dale: 3  
Rumburg, Aaron: 8  
Rummel, Mark: 8  
Rumschlag, Matthew: 13, 16  
Sabatini, Collin: 8  
Saith, Shivan: 14  
Saleem, Muhammad Danish: 13  
Sandborn, Carrie: 3, 14  
Sawyer, Robert: 3, 11  
Schaeffer, Will: 8  
Schauer, Mark: 10, 12, 13, 14, 15  
Scheib, Jackson: 10  
Schelling, Kurt: 16  
Schmidt, Kenneth: 15  
Scott, Katie: 10  
Scrimshaw, Daniel: 8  
Scrimshaw, Lovita: 8  
Selles, Andrew: 13  
Shah, Mauli: 8, 13  
Shakoor, Aisha: 12, 17  
Shallal, Anita: 9, 13, 15  
Sheidu, Mariyam: 13  
Sherwood, Rebecca: 11  
Sigourney, Rebecca: 7  
Singh, Sharon: 10  
Sinno, Nour: 8  
Skakkebæk, Niels Erik: 16  
Slagell, Ron: 8  
Smetts, Matthew: 12  
Smith, Dena: 9  
Snoap, Tyler: 16  
Soares, Neelkamal: 3  
Somnay, Vishal: 14  
Spitler, Sydney: 12  
Spotswood, Sheila: 14  
Staso, Patrick: 14  
Swayze, Emma: 10  
Szymanski, Raphael M.: 7, 8, 9, 13  
Tariq, Tooba: 7, 12, 14  
Taubel, Debra: 3, 10  
Tavakoli, Aydin: 14, 15  
Thind, Guramrinder: 12  
Toppari, Jorma: 16  
Tran, Samantha: 10  
Trichler, Timothy: 3  
Tripathy, Arushi: 16  
Tsao, Ray-Young: 9, 14  
Tully, Tim: 10  
Tuznik, Natascha: 12  
Tysman, Marie: 16  
Udenberg, Katie: 10  
Uggen, Christopher: 9  
Ulrich, Tyler: 15  
Vaillant, James: 12  
Van Alsten, Stephanie: 15  
Van Maele, Russell: 15  
Vandeburgh, Joshua: 13  
Vanden Heuvel, Gregory: 10, 16  
VanDerKolk, Kristi: 3, 11, 13, 15  
VanderKooy, Erica: 3  
VanderVeen, Nathan: 8, 10  
VanDommelen, Kyle: 13, 15  
Vandre, Dale: 3  
VanZweden, Daniel: 11  
Var, Susanna: 16  
Vaughn, Tyler: 8  
Vaux, Jon: 12  
Veenstra, Joshua: 8, 9  
Venigalla, Ramya: 8, 12  
Virtanen, Helena E.: 16  
Vocke, Lauren: 13  
Vos, Duncan: 7, 10, 15  
Walbridge, Joseph: 16  
Wallington, David: 12  
Wan, Shun Yi Felix: 10  
Westerman, Perry: 3  
White, Peter: 12  
Wieneke, Arike: 10  
Winterholler, J. Erik: 11, 12  
Wohlfahrt-Veje, Christine: 16  
Woodhams, Priscilla: 3  
Woodwyk, Alyssa: 7, 9, 10, 11, 12  
Yadav, Lokesh: 13  
Zahn, Carleigh: 15  
Zebolsky, Aaron: 10  
Zervoudakis, Guston: 12

