

## Scientific Poster Presentations, III

**Monday, October 24**

Grand Ballroom

11:30 a.m. – 1:15 p.m.

### ENCORE PRESENTATIONS

Abstracts marked with an "E" are Encore Presentations. Encore Presentations have been presented elsewhere or published in abstract form before the 2016 ACCP Annual Meeting.

### ORIGINAL RESEARCH

These papers describe quantitative or qualitative findings in basic, clinical, translational, dissemination/implementation, or educational research.

### ADR/Drug Interactions

1E. Cardiac risk of concomitant levofloxacin with amiodarone.

*Benjamin Miao, Pharm.D. Candidate,<sup>1</sup> Luigi Brunetti, Pharm.D., MPH<sup>2</sup>; (1)Ernest Mario School of Pharmacy, Rutgers, State University of New Jersey, Piscataway, NJ; (2)Department of Pharmacy, Robert Wood Johnson University Hospital Somerset, Somerville, NJ*

2. Effects of multiple doses of lansoprazole on the pharmacokinetics of neratinib in healthy adult subjects.

*Kiana Keyvanjah, Pharm.D.,<sup>1</sup> Daniel DiPrimeo, M.S.,<sup>1</sup> Ai Li, Ph.D.,<sup>1</sup> Mohammad Obaidi, Ph.D.,<sup>2</sup> Dennis Swearingen, M.D.,<sup>2</sup> Alvin Wong, Pharm.D.;<sup>1</sup> (1)Puma Biotechnology Inc.; (2)Celerion*

### Adult Medicine

4. Assessment of heparin anticoagulation adequacy in the obese non-acute coronary syndrome patient population using aPTT and anti-Xa assays.

*Kelly Rudd, Pharm.D.,<sup>1</sup> Valerie Bush, Ph.D.,<sup>2</sup> Anush Patel, M.D.,<sup>3</sup> Melissa Scribani, M.S.,<sup>4</sup> Narmadha Panneerselvam, M.D.,<sup>3</sup> Kulothungan Gunasekaran, M.D.<sup>3</sup>; (1)Department of Pharmacy, Bassett Medical Center, Cooperstown, NY; (2)Department of Pathology, Bassett Medical Center, Cooperstown, NY; (3)Department of Medicine, Bassett Medical Center, Cooperstown, NY; (4)Statistical Center, Bassett Research Institute, Cooperstown, NY*

6E. Exploring the risk factors for community-acquired *Clostridium difficile*.

*Allison Bell, Pharm.D., M.Sc.,<sup>1</sup> Ethan Pippin, Pharm.D.<sup>2</sup>; (1)Department of Pharmacy Practice, University of Mississippi School of Pharmacy, Jackson, MS; (2)Department of Pharmacy, University of Mississippi Medical Center, Jackson, MS*

7. Review of enoxaparin doses greater than or equal to 150 mg.

*Erin Rogers, Pharm.D.,<sup>1</sup> Lisa Mostafavifar, Pharm.D.,<sup>1</sup> Kristin Brower, Pharm.D.,<sup>1</sup> Kyle Porter, Ph.D.<sup>2</sup>; (1) Department of Pharmacy, Ohio State University, Columbus, OH; (2)Center for Biostatistics, Ohio State University, Columbus, OH*

8. Evaluation of the chronic obstructive pulmonary disease exacerbation prescribing patterns at an academic medical center.

*Sarah Petite, Pharm.D., BCPS, Julie A. Murphy, Pharm.D., BCPS, FASHP, FCCP; College of Pharmacy and Pharmaceutical Sciences, University of Toledo, Toledo, OH*

9. A retrospective analysis of the relationship between health literacy and medication adherence.

*Anthony Zaki, B.S., Michael J. Gonyeau, BSPharm, Pharm.D., BCPS, FCCP; Northeastern University School of Pharmacy, Boston, MA*

10. Influence of an order set on the management of acute exacerbation of chronic obstructive pulmonary disease.

*Alyssa Thompson, Pharm.D.*,<sup>1</sup> Eli Deal, Pharm.D., FCCP, BCPS,<sup>1</sup> Jeffrey Atkinson, M.D.<sup>2</sup>; (1)Department of Pharmacy, Barnes-Jewish Hospital; (2)Division of Pulmonary and Critical Care Medicine, Washington University School of Medicine

### **Ambulatory Care**

16E. Clinical validation of R-T estimation for CoaguChek XS INR results.

*Christopher Richter, Pharm.D.*,<sup>1</sup> James Taylor, Pharm.D.,<sup>2</sup> Joyanna Wright, Pharm.D.,<sup>1</sup> Bradley Fletcher, M.D., Ph.D.<sup>3</sup>; (1)Department of Pharmacy, UF Health, Gainesville, FL; (2)Department of Pharmacotherapy and Translational Research, University of Florida College of Pharmacy, Gainesville, FL; (3)Department of Medicine, University of Florida College of Medicine, Gainesville, FL

22E. Assessing the effect of pharmacist care on diabetes-related outcomes in a rural outpatient clinic: a retrospective case-control study.

*Cynthia Moreau, Pharm.D.*,<sup>1</sup> Karen Sando, Pharm.D., BCACP, CDE,<sup>1</sup> Daniel Zambrano, Pharm.D.<sup>2</sup>; (1)Department of Pharmacotherapy and Translational Research, University of Florida College of Pharmacy, Gainesville, FL; (2)Department of Pharmaceutical Outcomes and Policy, University of Florida College of Pharmacy, Gainesville, FL

23. Impact of language preference on diabetes outcomes for patients referred to clinical pharmacy services.

*Brandon Nuziale, Pharm.D.*,<sup>1</sup> Edward Saito, Pharm.D., BCACP,<sup>1</sup> Melanie Foeppel, Pharm.D.<sup>2</sup>; (1)School of Pharmacy, Pacific University, Hillsboro, OR; (2)School of Pharmacy, Pacific University, Hillsboro, OR

24E. Evaluation of a collaborative care model with pharmacist-provided medication reviews for adults receiving hemodialysis.

*Paik Shia Lim, Pharm.D., BCPS*,<sup>1</sup> Bih Yee Chia, BScPharm (Hon),<sup>1</sup> Hua Heng McVin Cheen, BScPharm (Hon), BCACP, CGP,<sup>1</sup> Xin Yi Gwee, BScPharm (Hon),<sup>1</sup> Mee Yin Melissa Chow, BPharm, BCPS,<sup>1</sup> Giat Yeng Khee, Pharm.D., BCPS,<sup>1</sup> Wan Chee Ong, Pharm.D., CGP, BCPS,<sup>1</sup> Yu Ling Cheryl Lim, BScPharm (Hon), CGP,<sup>1</sup> Lina Hui Lin Choong, MBBS, M Med (Int Med), FAMS<sup>2</sup>; (1)Department of Pharmacy, Singapore General Hospital, Singapore, Singapore; (2)Department of Renal Medicine, Singapore General Hospital, Singapore, Singapore

25E. Impact of pharmacist telephone follow-up calls on patients with chronic obstructive pulmonary disease discharged from hospital to home.

*Luma Succar, Pharm.D.*,<sup>1</sup> Rejena Azad, Pharm.D.,<sup>1</sup> Rafael Felippi, Pharm.D., BCPS,<sup>2</sup> Katherine K. Perez, Pharm.D., BCPS,<sup>1</sup> Kayode Giwa, Pharm.D., BCPP,<sup>1</sup> April Moretto, RN, CMBC<sup>3</sup>; (1)Department of Pharmacy Services, Houston Methodist Hospital, Houston, TX; (2)Department of Pharmacy Services, Houston Methodist Hospital; Houston Methodist Physicians' Alliance for Quality, Houston, TX; (3) Houston Methodist Physicians' Alliance for Quality, Houston, TX

27. Clinical effectiveness of the improving health of at-risk rural patients (IHARP) pharmacist-physician collaborative care model.

*Gary R. Matzke, Pharm.D.*,<sup>1</sup> Karen Williams, Pharm.D.,<sup>2</sup> Leticia Moczygemba, Pharm.D., Ph.D.,<sup>3</sup> Michael Czar, Ph.D., RPh,<sup>2</sup> William Lee, BPharm, MPA<sup>4</sup>; (1)Department of Pharmacotherapy and Outcomes Sciences, Virginia Commonwealth University School of Pharmacy, Richmond, VA; (2)Department of Pharmacy, Carilion New River Valley Medical Center, Christiansburg, VA; (3)Department of Pharmacotherapy and Outcome Sciences, Virginia Commonwealth University School of Pharmacy, Richmond, VA; (4)Carilion Clinic, Roanoke, VA

28. Evaluation of a clinical pharmacy protocol to convert patients from warfarin to a non-vitamin K oral anticoagulant (NOAC) in a family medicine clinic.

*Marina Maes, B.S., Joseph J. Saseen, Pharm.D., Liza Wilson, Pharm.D.; Department of Clinical Pharmacy, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO*

### Cardiovascular

30E. Real-world comparison of major bleeding risk among non-valvular atrial fibrillation patients newly initiated on apixaban, warfarin, dabigatran or rivaroxaban: a 1:1 propensity-score matched analysis.

*Gregory Lip, M.D., Allison Keshishian, MPH, Shital Kamble, Ph.D., M.S., MBA, Xianying Pan, M.S., Leah Burns, MPH, Jack Mardekian, Ph.D., Cristina Masseria, Ph.D., Amanda Bruno, Ph.D., Hemant Phatak, Ph.D.; Bristol-Myers Squibb*

31. Intracoronary nicardipine as a safe and cost-effective alternative to nitroprusside for slow- or no-reflow during percutaneous coronary intervention.

*Adam Pennoyer, Pharm.D., Douglas Jennings, Pharm.D., Amisha Patel, M.D., Ajay Kirtane, M.D., Karlene Ma, Pharm.D.; New York Presbyterian Columbia University Medical Center*

32E. Major bleeding risk in elderly patients age  $\geq 75$  years with non-valvular atrial fibrillation initiating oral anticoagulants: a "real-world" comparison of warfarin, apixaban, dabigatran, or rivaroxaban.

*Gregory Lip, M.D., Allison Keshishian, MPH, Shital Kamble, Ph.D., M.S., MBA,<sup>2</sup> Xianying Pan, M.S., Leah Burns, MPH, Jack Mardekian, Ph.D., Ruslan Horblyuk, Ph.D., MBA, Melissa Hamilton, MPH; (1)Bristol-Myers Squibb*

34E. Real-world comparison of major bleeding and associated costs among treatment-naïve non-valvular atrial fibrillation patients initiating apixaban or warfarin.

*Alpesh Amin, M.D.,<sup>1</sup> Allison Keshishian, MPH, Lin Xie, MPH, Onur Baser, Ph.D., M.S., Kwanza Price, MPH, Lien Vo, Pharm.D., MPH,<sup>3</sup> Jack Mardekian, Ph.D., Mario Mendoza, M.D., M.S., Shalabh Singhal, M.D., Chad Patel, Pharm.D., Kevin Odell, Pharm.D., Jeffrey Trocio, MPH; (1)UC Irvine College of Medicine, Irvine, CA; (2)Bristol-Myers Squibb, Plainsboro, NJ*

35E. Eptifibatide in the treatment of pump thrombosis: what is the prescription?

*Lisa Peters, Pharm.D., David Majure, M.D., MPH, Maria Rodrigo, M.D., Farooq Sheikh, M.D., Mark Hofmeyer, M.D., Ezequiel Molina, M.D., Steven Boyce, M.D., Samer Najjar, M.D.; MedStar Washington Hospital Center, Washington, DC*

36E. Influence of progesterone administration on drug-induced torsades de pointes in AV node-ablated isolated perfused rabbit hearts.

*James Tisdale, Pharm.D.,<sup>1</sup> Heather Jaynes, MSN,<sup>1</sup> Brian Overholser, Pharm.D.,<sup>1</sup> Kevin Sowinski, Pharm.D.,<sup>1</sup> David Flockhart, M.D., Ph.D.,<sup>2</sup> Richard Kovacs, M.D.<sup>2</sup>; (1)College of Pharmacy, Purdue University, Indianapolis, IN; (2)School of Medicine, Indiana University, Indianapolis, IN*

37. Chronological changes and correlates of loop diuretic dose in left ventricular assist device patients.

*Kazuhiko Kido, Pharm.D., M.S.,<sup>1</sup> Richard Charnigo, Ph.D.,<sup>2</sup> Bennet George, M.D.,<sup>3</sup> Tracy Macaulay, Pharm.D.,<sup>4</sup> Sara Brouse, Pharm.D.,<sup>5</sup> Maya Guglin, M.D., Ph.D.<sup>3</sup>; (1)Pharmacy Practice, South Dakota State University College of Pharmacy, Sioux Falls, SD; (2)Department of Statistics, University of Kentucky, Lexington, KY; (3)Gill Heart Institute, University of Kentucky, Lexington, KY; (4)Pharmacy, University of Kentucky; (5)Pharmacy Services, University of Kentucky HealthCare, Lexington, KY*

38E. Trends in antihypertensive medication use among U.S. patients with resistant hypertension, 2008-2014.

*Steven Smith, Pharm.D., MPH,<sup>1</sup> Andrew Hwang, Pharm.D.,<sup>2</sup> Chintin Dave, Pharm.D.<sup>3</sup>; (1)University*

of Florida; (2)Departments of Pharmacotherapy & Translational Research and Community Health & Family Medicine, University of Florida Colleges of Pharmacy and Medicine; (3)Department of Pharmaceutical Outcomes & Policy, University of Florida College of Pharmacy

40. The role of plasma renin activity for improving precision of antihypertensive drug therapy in European Americans and African Americans.

*Mai Mehanna, BSPHarm, BCPS,<sup>1</sup> Yan Gong, Ph.D.,<sup>1</sup> Caitrin W. McDonough, Ph.D.,<sup>1</sup> Amber Beitelshes, Pharm.D., MPH,<sup>2</sup> John Gums, Pharm.D.,<sup>1</sup> Arlene B. Chapman, M.D.,<sup>3</sup> Julie Johnson, Pharm.D.,<sup>1</sup> Stephen Turner, M.D.,<sup>4</sup> Rhonda Cooper-DeHoff, Pharm.D., M.S.<sup>1</sup>; (1)Department of Pharmacotherapy and Translational Research and Center for Pharmacogenomics, College of Pharmacy, University of Florida, Gainesville, FL; (2)Department of Medicine, University of Maryland, Baltimore, MD; (3)Department of Medicine, University of Chicago; (4)College of Medicine, Mayo Clinic, Rochester, MN*

42E. Mortality following initiation or discontinuation of guideline-directed medical therapies in hospitalized heart failure patients in the Atherosclerosis Risk in Communities study.

*Richard Tran, Pharm.D.,<sup>1</sup> Jo E. Rodgers, Pharm.D., FCCP, BCPS-AQ Cardiology,<sup>1</sup> Ahmed Aldemerdash, Pharm.D.,<sup>1</sup> Patricia Chang, M.D., M.S.,<sup>2</sup> Carla Sueta, M.D., Ph.D.,<sup>2</sup> Josephine Asafu-Adjei, Ph.D.,<sup>3</sup> Anna Kucharska-Newton, Ph.D.,<sup>3</sup> Sally Stearns, Ph.D.,<sup>3</sup> Orly Vardeny, Pharm.D.,<sup>4</sup> Brystana Kaufman, MSPH,<sup>3</sup> Eliza Daubert, Pharm.D.<sup>1</sup>; (1)Division of Pharmacotherapy and Experimental Therapeutics, Eshelman School of Pharmacy, University of North Carolina, Chapel Hill, NC; (2)School of Medicine, University of North Carolina, Chapel Hill, NC; (3)School of Public Health, University of North Carolina, Chapel Hill, NC; (4)School of Pharmacy, University of Wisconsin, WI*

### Clinical Administration

49. Impact of shadow rounding on patient recall of medication indications and side effects.

*Lanh Dang, Pharm.D., Bernadette Belgado, Pharm.D., Denise Kelley, Pharm.D., Marci DeLos Santos, Pharm.D.; Department of Pharmacy, UF Health Jacksonville, Jacksonville, FL*

### Community Pharmacy Practice

50. Pharmacy interpretation and translation refugee services in the city of Buffalo.

*Gina M. Prescott, Pharm.D., BCPS, Sarah Dascanio, Pharm.D./MPH Candidate, Angela Pieprzak, Pharm.D./MPH Candidate; School of Pharmacy and Pharmaceutical Sciences, University at Buffalo, Buffalo, NY*

### Critical Care

52E. Evaluation of intravenous bumetanide versus intravenous furosemide in patients with heart failure with reduced ejection fraction and chronic kidney disease.

*Rachel Dobersztyn, Pharm.D., BCPS,<sup>1</sup> Kimberly Ackerbauer, Pharm.D., BCCCP, BCPS,<sup>2</sup> Joshua DeMott, Pharm.D., BCCCP, BCPS<sup>2</sup>; (1)Midwestern University Chicago College of Pharmacy, Downers Grove, IL; (2)Rush University Medical Center, IL*

54E. International survey of pharmacologic VTE prophylaxis practice in critically ill obese patients.

*Abigail Antigua, Pharm.D.,<sup>1</sup> Stacy Voils, Pharm.D.<sup>2</sup>; (1)Department of Pharmacy, North Florida Regional Medical Center, Gainesville, FL; (2)College of Pharmacy, UF College of Pharmacy, Gainesville, FL*

57E. Enhanced renal clearance in patients with aneurysmal subarachnoid hemorrhage.

*Kathryn Morbitzer, Pharm.D.,<sup>1</sup> Dedrick Jordan, M.D.,<sup>2</sup> Casey Olm-Shipman, M.D., M.S.,<sup>2</sup> Kelly Sullivan, Pharm.D.,<sup>3</sup> Emily Durr, Pharm.D.,<sup>3</sup> Denise Rhoney, Pharm.D.<sup>1</sup>; (1)Division of Practice Advancement and Clinical Education, UNC Eshelman School of Pharmacy, Chapel Hill, NC; (2)UNC School of Medicine; (3)UNC Hospitals Department of Pharmacy*

58E. Enhanced renal clearance in patients with intracerebral hemorrhage.

*Kathryn Morbitzer, Pharm.D.*,<sup>1</sup> Dedrick Jordan, M.D.,<sup>2</sup> Kelly Sullivan, Pharm.D.,<sup>3</sup> Emily Durr, Pharm.D.,<sup>3</sup> Casey Olm-Shipman, M.D., M.S.,<sup>2</sup> Denise Rhoney, Pharm.D.;<sup>1</sup>(1)Division of Practice Advancement and Clinical Education, UNC Eshelman School of Pharmacy, Chapel Hill, NC; (2)UNC School of Medicine; (3)UNC Hospitals Department of Pharmacy

60. The effects of albumin in patients with septic shock in intensive care units.

*Yi-yun Lee, Pharm.D.*,<sup>1</sup> Man-Tzu Wu, Pharm.D.;<sup>2</sup>(1)Department of Pharmacy, Wan Fang Hospital, Taipei Medical University;; (2)Department of Pharmacy, Wan Fang Hospital, Taipei Medical University

61. Analysis of the safety of adjunctive continuous infusion ketamine for maintenance sedation in critically ill patients.

*Jolie Gallagher, Pharm.D.*,<sup>1</sup> Peter Lyu, MSPH,<sup>2</sup> Deepa Patel, M.D.,<sup>3</sup> Mark Caridi-Sheible, M.D.,<sup>4</sup> David Grenda, M.D.,<sup>5</sup> James Blum, M.D., FCCM,<sup>6</sup> Christopher Paciullo, Pharm.D., BCCCP, FCCM;<sup>7</sup>(1)Department of Pharmacy, Emory University Hospital, Atlanta, GA; (2)Emory Healthcare; (3) Department of Anesthesiology, Emory University School of Medicine; (4)Department of Anesthesiology, Emory University School of Medicine; (5)Department of Anesthesiology, Emory University School of Medicine, Atlanta, GA; (6)Department of Anesthesiology, Emory University School of Medicine, Atlanta, GA; (7)Department of Pharmaceutical Services, Emory University Hospital, Atlanta, GA

63. Tolerance of enteral nutrition co-administered with vasopressors in surgical and trauma intensive care unit patients.

*Ben Pullinger, Pharm.D.*,<sup>1</sup> Kerry Mohrien, Pharm.D., BCPS,<sup>1</sup> Sharon Del Bono, RD, CNSC,<sup>2</sup> Elaine Chan, M.D.,<sup>3</sup> Kimberley Harris, Pharm.D., BCPS;<sup>1</sup>(1)Department of Pharmacy Services, Temple University Hospital, Philadelphia, PA; (2)Department of Hospitality and Nutrition Services, Temple University Hospital, Philadelphia, PA; (3)Department of Surgery, Temple University Hospital, Philadelphia, PA

## **Dermatology**

64E. Reduced pruritus and signs of atopic dermatitis in phase 3 trials with a nonsteroidal topical phosphodiesterase inhibitor, crisaborole.

*Adelaide Hebert, M.D.*,<sup>1</sup> Lawrence Eichenfeld, M.D.,<sup>2</sup> Mark Lebwohl, M.D.,<sup>3</sup> Amy Paller, M.D.,<sup>4</sup> Eric Simpson, M.D.,<sup>5</sup> Wynniss Tom, M.D.,<sup>2</sup> Mary Spellman, M.D.,<sup>6</sup> Matilda Hughes, M.S.,<sup>6</sup> Lee Zane, M.D., FAAD;<sup>5</sup>(1)University of Texas Health Science Center Houston, Houston, TX; (2)Rady Children's Hospital, San Diego, CA; (3)Icahn School of Medicine at Mount Sinai, New York, NY; (4)Northwestern University, Feinberg School of Medicine, Chicago, IL; (5)Oregon Health and Science University, Portland, OR; (6)Anacor Pharmaceuticals, Inc., Palo Alto, CA

65E. Two phase 3 studies in children and adult patients with mild to moderate atopic dermatitis with crisaborole ointment, a novel, nonsteroidal, topical anti-inflammatory, phosphodiesterase 4 inhibitor.

*Amy Paller, M.D.*,<sup>1</sup> Wynniss Tom, M.D.,<sup>2</sup> Mark Lebwohl, M.D.,<sup>3</sup> Robin Blumenthal, Ph.D.,<sup>4</sup> Mark Boguniewicz, M.D.,<sup>5</sup> Robert Call, M.D.,<sup>6</sup> Lawrence Eichenfeld, M.D.,<sup>2</sup> Douglass Forsha, M.D.,<sup>7</sup> William Rees, M.D.,<sup>8</sup> Eric Simpson, M.D.,<sup>9</sup> Linda Stein Gold, M.D.,<sup>10</sup> Andrea Zeanglein, M.D., FAAD,<sup>11</sup> Mary Spellman, M.D.,<sup>4</sup> Lee Zane, M.D., FAAD,<sup>4</sup> Adelaide Hebert, M.D.;<sup>12</sup>(1)Northwestern University, Feinberg School of Medicine, Chicago, IL; (2)Rady Children's Hospital, San Diego, CA; (3)Icahn School of Medicine at Mount Sinai, New York, NY; (4)Anacor Pharmaceuticals, Inc., Palo Alto, CA; (5)National Jewish Health, Denver, CO; (6)Clinical Research Partners, LLC, Richmond, VA; (7)Jordan Valley Dermatology & Research Center, West Jordan, UT; (8)PI-Coor Clinical Research, Burke, VA; (9) Oregon Health and Science University, Portland, OR; (10)Henry Ford Health System, Detroit, MI; (11) Pennsylvania State University, Hershey, PA; (12)University of Texas Health Science Center Houston, Houston, TX

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**Education/Training**

70. Differences in student evaluations of teaching between a main and a regional school of pharmacy.

*Kurt Wargo, Pharm.D., Lindsay Meadowcraft, Pharm.D.; Hendersonville Regional Campus, Wingate University School of Pharmacy, Hendersonville, NC*

75. Evaluating student success and confidence relating to Choose All That Apply (CATA) style questions.

*Krystal K.C. Riccio, Pharm.D., BCACP, CDE, C. Leiana Oswald, Pharm.D., David Kogan, Pharm.D. Candidate 2017; College of Pharmacy, Roseman University of Health Sciences, Henderson, NV*

77. Interprofessional collaborative practice through an adult medicine based simulation.

*Jon P. Wietholter, Pharm.D., BCPS<sup>1</sup>; Carl Grey, M.D.,<sup>2</sup> Aletha Rowlands, Ph.D., MSN, RNFA, CNOR<sup>3</sup>; (1) Department of Clinical Pharmacy, West Virginia University School of Pharmacy, Morgantown, WV; (2) West Virginia University School of Medicine, Morgantown, WV; (3) West Virginia University School of Nursing, Morgantown, WV*

78. Evaluation of a flipped classroom approach in a pharmacology-based anatomy and physiology course.

*Cody Moore, Pharm.D., Ashley Fancher, B.S., Heather J. Johnson, Pharm.D., Randall Smith, Ph.D., Thomas D. Nolin, Pharm.D., Ph.D., James Coons, Pharm.D., Michael Shullo, Pharm.D., Susan Parnell, B.S., Christopher Ensor, Pharm.D.; University of Pittsburgh, Pittsburgh, PA*

80. Do faculty and residents grade differently? Evaluation of grades in a therapeutics seminar course series.

*Michael Gonyeau, BSPHarm, Pharm.D., MEd, FNAP, FCCP, BCPS<sup>1</sup>; Francesca Napolitano, BSPHarm Studies,<sup>2</sup> Margarita V. DiVall, Pharm.D., MEd, BCPS<sup>1</sup>; (1) Department of Pharmacy and Health Systems Sciences, Northeastern University, Boston, MA; (2) School of Pharmacy, Northeastern University, Roxbury Crossing, MA*

84. Comparison of two didactic presentation methods on pharmacy student knowledge and confidence in smoking cessation.

*Jeanna Sewell, Pharm.D.,<sup>1</sup> Justin J. Sherman, MCS, Pharm.D.<sup>2</sup>; (1) Department of Pharmacy Practice, University of Mississippi School of Pharmacy, Jackson, MS; (2) School of Pharmacy, University of Mississippi School of Pharmacy, Jackson, MS*

86. Development and pilot of a standardized pharmacy residency in-service examination.

*Veena Venugopalan, Pharm.D., Evangelia Davanos, Pharm.D., Robert Digregorio, Pharm.D.; College of Pharmacy, University of Florida, Gainesville, FL*

95. Barriers to AAHIVP credentialing are connected to lack of reimbursement, not awareness, among HIV pharmacist specialists.

*Milena M. McLaughlin, Pharm.D., M.Sc.,<sup>1</sup> Lori Gordon, Pharm.D.,<sup>2</sup> Thomas J. Kleyn, Pharm.D.,<sup>3</sup> James Scott, Pharm.D., MEd<sup>4</sup>; (1) Department of Pharmacy Practice, Midwestern University Chicago College of Pharmacy, Downers Grove, IL; (2) Xavier University of Louisiana, New Orleans, LA; (3) Eskenazi Health, Indianapolis, IN; (4) Western University of Health Sciences, Pomona, CA*

96. Identifying health care perceptions among sub-Saharan African immigrants in the United States.

*Ferealem Assefa, Pharm.D., Lauren Jonkman, Pharm.D., MPH, Sharon Connor, Pharm.D., Martha Ndungu, Pharm.D. Candidate, Doreen Foy, Pharm.D. Candidate; University of Pittsburgh School of Pharmacy, Pittsburgh, PA*

97. Publication records of pharmacy practice chairpersons: a 5-year analysis.

*Hua Ling, Pharm.D.*,<sup>1</sup> Sri Topalli, Pharm.D. Student,<sup>1</sup> Fang Li, Ph.D.,<sup>2</sup> Francis Ndemo, Pharm.D.,<sup>1</sup> David Ombengi, Pharm.D.<sup>1</sup>; (1)Department of Pharmacy Practice, Hampton University, Hampton, VA; (2) School of Pharmacy, Yancheng Institute of Health Science, Yancheng, China

### Emergency Medicine

98. The relationship between diltiazem dosing, rate control and body composition in patients with atrial fibrillation and rapid ventricular response.

*Lindsey Jachim, Pharm.D. Candidate*,<sup>1</sup> Christine Brun, Pharm.D.,<sup>2</sup> Jordan R Covvey, Pharm.D., Ph.D., BCPS,<sup>1</sup> David E. Zimmerman, Pharm.D., BCPS<sup>2</sup>; (1)Duquesne University Mylan School of Pharmacy, Pittsburgh, PA; (2)Allegheny General Hospital, Pittsburgh, PA

99. Novel strategy to increase insulin initiation in the emergency department (ED).

Maryam Fazel, Pharm.D., BCPS, BCACP, CDE,<sup>1</sup> Anna Waterbrook, M.D.,<sup>2</sup> *Osamah Alfayez, Pharm.D.*,<sup>1</sup> Merri Pendergrass, M.D., Ph.D.<sup>3</sup>; (1)Department of Pharmacy Practice and Science, University of Arizona College of Pharmacy, Tucson, AZ; (2)Department of Emergency Medicine, University of Arizona College of Medicine, Tucson, AZ; (3)Department of Medicine/Endocrinology, University of Arizona College of Medicine, Tucson, AZ

100. The relationship between nicardipine dosing, blood pressure and body composition in patients with intracranial bleeding.

*Bridget Batykefer, Pharm.D. Candidate*, Jordan R Covvey, Pharm.D., Ph.D., BCPS, David E Zimmerman, Pharm.D., BCPS; Duquesne University Mylan School of Pharmacy, Pittsburgh, PA

101. Pharmacist-managed bacteremia treatment compared to the historical standard of care in a community hospital emergency department.

*Annie Torosyan, Pharm.D.*, Dustin Waters, Pharm.D., BCPS, Kevin Myers, Pharm.D., BCPS, Bryce Bitton, Pharm.D., BCPS; Department of Pharmacy, Intermountain Healthcare - McKay-Dee Hospital, Ogden, UT

102. Multicenter retrospective review comparing two different Kcentra dispensing practices.

Tameka Lewis, Pharm.D.,<sup>1</sup> *Abby Bailey, Pharm.D.*,<sup>2</sup> Regan Baum, Pharm.D.,<sup>2</sup> Amy Schultz, Pharm.D.,<sup>3</sup> Stephanie Thompson, Ph.D.,<sup>4</sup> Stephanie Justice, Pharm.D.<sup>5</sup>; (1)Department of Pharmacy, Charleston Area Medical Center; (2)Department of Pharmacy Services, University of Kentucky HealthCare, Lexington, KY; (3)Charleston Area Medical Center; (4)CAMC Health Education and Research Institute, Charleston Area Medical Center; (5)Department of Pharmacy, St. Claire Regional Medical Center

### Endocrinology

107. Comparable steady-state total testosterone exposure from intramuscular or subcutaneous administration in transgender males.

*Tony K.L. Kiang, BScPharm, Ph.D., ACPR*,<sup>1</sup> David Wilson, M.D.,<sup>2</sup> Mary Ensom, BSPHarm, Pharm.D., FASHP, FCCP, FCSHP, FCAHS<sup>3</sup>; (1)Department of Pharmacy, Vancouver General Hospital, Vancouver, British Columbia, Canada; (2)Vancouver Coastal Health; (3)Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver, British Columbia, Canada

### Family Medicine

114. Evaluating metformin based dual therapy of individuals with type 2 diabetes mellitus in a primary care clinic.

*Kimberly L. Zitko, Pharm.D.*,<sup>1</sup> Amy M. Drew, Pharm.D., BCPS,<sup>1</sup> Carmen B. Smith, Pharm.D., BCPS<sup>2</sup>; (1) Mercy Hospital St. Louis; (2)St. Louis College of Pharmacy, St. Louis, MO

115. Student pharmacist contributions in Rutgers student-run free clinics.

*Daniel Dipsia, Student*,<sup>1</sup> Megan Maroney, Pharm.D.,<sup>2</sup> Justin Lim, Student<sup>1</sup>; (1)Rutgers University, Ernest Mario School of Pharmacy, Piscataway, NJ; (2)Department of Pharmacy Practice, Rutgers University, Ernest Mario School of Pharmacy, Piscataway, NJ

116. Association of obesogenic medications with weight gain during a weight loss intervention.

*Ashley Crowl, Pharm.D., BCACP*,<sup>1</sup> Annie Harvey, Ph.D.<sup>2</sup>; (1)Pharmacy Practice Department, University of Kansas School of Pharmacy, Wichita, KS; (2)Via Christi Health Family Medicine Residency Program, Wichita, KS

117. Integration of clinical pharmacists in family medicine residency programs.

Jody Lounsbery, Pharm.D., BCPS,<sup>1</sup> Jennie Jarrett, Pharm.D., BCPS, MMedEd,<sup>2</sup> Lori Dickerson, Pharm.D., FCCP,<sup>3</sup> Stephen Wilson, M.D., MPH, FAAFP<sup>4</sup>; (1)Department of Pharmaceutical Care & Health Systems, University of Minnesota College of Pharmacy, Minneapolis, MN; (2)UPMC St. Margaret Family Medicine Residency Program, UPMC St. Margaret, Pittsburgh, PA; (3)Department of Family Medicine, Medical University of South Carolina; (4)UPMC St. Margaret Family Medicine Residency Program

## Gastroenterology

119. Clinical impact of acid suppressive therapy on hepatitis C treatment with ledipasvir/sofosbuvir.

*Jennifer Stark, Pharm.D., BCPS*,<sup>1</sup> Lauren Jindracek, Pharm.D.,<sup>1</sup> Johnny Henley, M.D.<sup>2</sup>; (1)Department of Pharmacy, Veterans Healthcare System of the Ozarks, Fayetteville, AR; (2)Department of Medicine, Veterans Healthcare System of the Ozarks, Fayetteville, AR

## Geriatrics

120. The relationship of cognitive function on disease outcomes in older Hispanics with type 2 diabetes: a pilot study.

*Joshua Caballero, Pharm.D.*,<sup>1</sup> Raymond Ownby, M.D., Ph.D.,<sup>2</sup> Robin Jacobs, Ph.D., MSW, M.S., MPH(c),<sup>3</sup> Naushira Pandya, M.D.,<sup>4</sup> Patrick Hardigan, Ph.D.<sup>5</sup>; (1)Nova Southeastern University, College of Pharmacy, Davie, FL; (2)Department of Psychiatry; College of Osteopathic Medicine, Nova Southeastern University, Ft. Lauderdale, FL; (3)Department of Psychiatry & Behavioral Medicine; Biomedical Informatics Program; Public Health Program, Nova Southeastern University College of Osteopathic Medicine, Ft. Lauderdale, FL; (4)Department of Geriatrics, College of Osteopathic Medicine, Nova Southeastern University, Ft. Lauderdale, FL; (5)Health Professions Division, Nova Southeastern University, Fort Lauderdale, FL

121. A prevalence study of potentially inappropriate medications use in hospitalized Pakistani elderly.

*Faizan Mazhar, Pharm.D., MPhil, BCPS*,<sup>1</sup> Shahzad Akram, Pharm.D., BCPS,<sup>2</sup> Nafis Haider, BPharm, Ph.D.,<sup>1</sup> Saima Mahmood Malhi, BPharm, Ph.D.<sup>3</sup>; (1)King Fahad Military Medical Complex, Dhahran, Saudi Arabia; (2)Pharmaceutical Care, King Abdulaziz Medical City, Riyadh, Saudi Arabia; (3)Pharmacy Practice, Dow College of Pharmacy, Karachi, Pakistan

125. Comparison of opioid-treated nursing home residents (NHR) with and without opioid-induced constipation (OIC).

*Barbara Zarowitz, Pharm.D.*,<sup>1</sup> Terrence O'Shea, Pharm.D.,<sup>2</sup> Carrie Allen, Pharm.D.,<sup>3</sup> Catherine Datto, M.D., M.S.,<sup>4</sup> Tope Olufade, Ph.D., MPH<sup>5</sup>; (1)Geriatric Center of Clinical Excellence, CVS Health, Livonia, MI; (2)Geriatric Center of Clinical Excellence, CVS Health, Englewood, OH; (3)Geriatric Center of Clinical Excellence, CVS Health, San Antonio, TX; (4)AstraZeneca Pharmaceuticals LP, Wilmington, DE; (5)Health Economics and Outcomes Research, Astra Zeneca, Delaware, RI



### Health Services Research

130. Physician-pharmacist collaborative management: narrowing the socioeconomic gap. *Tyler Gums, Pharm.D., M.S.*,<sup>1</sup> Barry Carter, Pharm.D.,<sup>2</sup> Maxwell Anderegg, B.S.,<sup>3</sup> Liz Uribe, M.S.,<sup>4</sup> Christopher Coffey, Ph.D.<sup>5</sup>; (1)Department of Pharmacy Practice & Science, University of Iowa College of Pharmacy, Iowa City, IA; (2)Pharmacy Practice and Science, University of Iowa College of Pharmacy, Iowa City, IA; (3)Pharmacy Practice and Science, University of Iowa; (4)Department of Biostatistics; (5) University of Iowa-Department of Biostatistics, Iowa City, IA

131. Evaluation of a multidisciplinary care transition program with pharmacist-provided home-based medication review for elderly Singaporeans at high risk of hospital readmissions.

*Hua Heng McVin Cheen, BScPharm (Hon), CGP, BCACP*;<sup>1</sup> Chong Ping Goon, BScPharm (Hon),<sup>1</sup> Giat Yeng Khee, Pharm.D., BCPS,<sup>1</sup> Wan Chee Ong, Pharm.D., CGP, BCPS,<sup>1</sup> Choon Nam Wan, BScPharm, CGP,<sup>1</sup> Mei Yan Leong, B.Sc. (Nursing), AdvDip (Gerontology),<sup>2</sup> Fei Qiu, B.Sc. (Nursing),<sup>2</sup> Paik Shia Lim, Pharm.D., BCPS<sup>1</sup>; (1)Department of Pharmacy, Singapore General Hospital, Singapore, Singapore; (2) Agency for Integrated Care, Nursing Division, Singapore General Hospital, Singapore, Singapore

132. Application of statin medication adherence trajectory models in an integrated financing and care delivery system.

*Caitlin K. Frail, Pharm.D., M.S., BCACP*;<sup>1</sup> Avis J. Thomas, M.S.,<sup>2</sup> Pamala A. Pawloski, Pharm.D.<sup>2</sup>; (1) Pharmaceutical Care and Health Systems, University of Minnesota College of Pharmacy, Minneapolis, MN; (2)HealthPartners Institute, Bloomington, MN

133. Attitudes and perceptions towards patient-centered mobile health applications that support dynamic, interdisciplinary interventions.

*Rowshan Chowdhury, Pharm.D. Candidate c/o 2017*,<sup>1</sup> Christopher Konig, Pharm.D. Candidate c/o 2018,<sup>1</sup> Aimon C. Miranda, Pharm.D., BCPS<sup>2</sup>; (1)University of South Florida College of Pharmacy, Tampa, FL; (2)Department of Pharmacotherapeutics and Clinical Research, University of South Florida, College of Pharmacy, Tampa, FL

134. Development of a predictive model for targeting clinical pharmacist intervention for high-risk patients in extended care facilities.

Linda Weffald, Pharm.D., Thomas Delate, Ph.D., M.S., *Lauren Heath, Pharm.D., Sheryl Herner, Pharm.D., Dwight Paulson, Pharm.D., Julia Sanchez, Pharm.D.*; Department of Pharmacy, Kaiser Permanente Colorado, Aurora, CO

### HIV/AIDS

145. Initiation of a treatment switch from a multiple-tablet ART regimen to a single-tablet ART regimen in a non-adherent HIV population.

*Sarah Lewter, B.S., Scott Sutton, Pharm.D., BCPS-AQ ID*; South Carolina College of Pharmacy-USC Campus, South Carolina College of Pharmacy - USC Campus, Columbia, SC

147E. Medication possession ratio predicts longitudinal HIV-1 viral suppression.

*R. Chris Rathbun, Pharm.D., FCCP, BCPS-AQ ID, AAHIVP*;<sup>1</sup> Michelle Liedtke, Pharm.D., BCPS, AAHIVP;<sup>1</sup> W. Cheng Yuet, Pharm.D.,<sup>2</sup> Jamie Miller, Pharm.D., BCPS, BCPPS,<sup>1</sup> Grant Skrepnek, Ph.D., RPh<sup>1</sup>; (1) Department of Clinical and Administrative Sciences, College of Pharmacy, University of Oklahoma Health Sciences Center, Oklahoma City, OK; (2)Department of Pharmacotherapy, University of North Texas Health Sciences Center College of Pharmacy, Fort Worth

148. Correlation of medication complexity index with adherence and HIV virologic outcomes.

*R. Chris Rathbun, Pharm.D., FCCP, BCPS-AQ ID, AAHIVP*;<sup>1</sup> Yao-Hua Lin, Pharm.D., BCPS,<sup>2</sup> Michelle Liedtke, Pharm.D., BCPS, AAHIVP;<sup>1</sup> Kevin Farmer, Ph.D., FAPhA,<sup>1</sup> Grant Skrepnek, Ph.D., RPh<sup>1</sup>; (1) Department of Clinical and Administrative Sciences, College of Pharmacy, University of Oklahoma Health Sciences Center, Oklahoma City, OK; (2)Department of Pharmacy, CHRISTUS St. Michael Health System, Texarkana, TX

**Infectious Diseases**

153. Synergistic effect of fluconazole and amlodipine against resistant *Candida albicans* mediated by disruption of calcium homeostasis.

*Shujuan Sun, Ph.D.*,<sup>1</sup> Shuyan Liu, M.S.,<sup>2</sup> Xiuyun Li, B.S.<sup>2</sup>; (1)Pharmacy Department, Qianfoshan Hospital Affiliated to Shandong University, Jinan, China; (2)Shandong University

155. Incidence of acute kidney injury during treatment with vancomycin in combination with piperacillin-tazobactam or cefepime.

*Julia Carrington, Pharm.D.*, James Beardsley, Pharm.D., John Williamson, Pharm.D., James Johnson, Pharm.D., Isai Bowline, M.D.; Wake Forest Baptist Health, Winston Salem, NC

158. Prescribing patterns of antimicrobials in UTIs pre- and post-intervention.

*Pramodini Kale-Pradhan, Pharm.D., FCCP*,<sup>1</sup> Nathan French, Pharm.D.,<sup>2</sup> Raymond Phung, Pharm.D.,<sup>2</sup> Susanna Szpunar, Ph.D.,<sup>3</sup> Leonard Johnson, M.D.<sup>4</sup>; (1)Department of Pharmacy Practice, Wayne State University, Eugene Applebaum College of Pharmacy & Health Sciences and St. John Hospital and Medical Center, Detroit, MI; (2)Pharmacy, St. John Hospital and Medical Center, Detroit, MI; (3) Medical Education, St. John Hospital and Medical Center, Grosse Pointe Woods, MI; (4)Department of Infectious Diseases, St. John Hospital and Medical Center and Wayne State University, Grosse Pointe, MI

160. Impact of a novel antimicrobial stewardship program on reducing the incidence of *Clostridium difficile* infection and the use of high-risk antibiotics in three university hospitals.

*Albina Ongari, Pharm.D.*,<sup>1</sup> Nikunj Vyas, Pharm.D.,<sup>1</sup> Shereef Ali, Pharm.D., BCPS,<sup>2</sup> Cindy Hou, DO, MBA<sup>3</sup>; (1)Pharmacy, Kennedy Health, Stratford, NJ; (2)Pharmacy, Kennedy Health, Cherry Hill, NJ; (3)Kennedy Health, Stratford, NJ

162E. Impact of an infectious diseases consult on *Staphylococcus aureus* bacteremia management.

John Edelstein, Pharm.D.,<sup>1</sup> *Jessica Pakulski, Pharm.D., BCPS*,<sup>1</sup> Lindsey Eitniear, Pharm.D., BCPS, AAHIVP,<sup>1</sup> William Helmink, MBA, MT, ASCP,<sup>2</sup> Claudiu Georgescu, M.D.,<sup>3</sup> Kelli Cole, Pharm.D., BCPS<sup>1</sup>; (1) Department of Pharmacy Services, University of Toledo Medical Center, Toledo, OH; (2)Department of Pathology, University of Toledo Medical Center; (3)Department of Infectious Diseases, University of Toledo Medical Center, Toledo, OH

164E. Evaluation of a 5-day course of levofloxacin in males with a urinary tract infection, a subgroup analysis of a previously published trial.

Geoffrey Mospan, Pharm.D.,<sup>1</sup> *Kurt Wargo, Pharm.D.*<sup>2</sup>; (1)School of Pharmacy, Wingate University School of Pharmacy, Hendersonville, NC; (2)Hendersonville Regional Campus, Wingate University School of Pharmacy, Hendersonville, NC

165. Effect of real-time *Mycoplasma pneumoniae* polymerase chain reaction testing on azithromycin use in a pediatric intensive care unit.

Ellie G. Hendricks, Pharm.D., Amanda L. Hurst, Pharm.D.; Department of Pharmacy, Children's Hospital Colorado, Aurora, CO

169. Clinical pharmacist intervention on procalcitonin (PCT) levels in an academic level one trauma center – do we make a difference?

*Karen Nguyen, Pharm.D.*, Eva Sullivan, Pharm.D., Harminder Sikand, Pharm.D., FCSHP, FASHP; Department of Pharmacy, Scripps Mercy Hospital, San Diego, CA

170. Effectiveness of a pharmacist to dose vancomycin consult service in attaining therapeutic trough levels in a teaching hospital.

*Ellen Robinson, Pharm.D.*, Kristi Traugott, Pharm.D., BCPS, Darrel W. Hughes, Pharm.D., BCPS,

Stephanie Younts, Pharm.D., BCPS, Daniel Gonzalez, Pharm.D.; Department of Pharmacy Services, University Health System, San Antonio, TX

172. Negative predictive value of nasal swab polymerase chain reaction screening test in hospitalized patients for methicillin-resistant *Staphylococcus aureus* culture positive pneumonia. *Scott Wilkie, Pharm.D.*,<sup>1</sup> John Phillips, Pharm.D.,<sup>2</sup> Lindsay Harris, Pharm.D.,<sup>2</sup> Jared Chiusano, Pharm.D.,<sup>1</sup> Clay Otto, Pharm.D.<sup>2</sup>; (1)Department of Pharmacy, Mission Hospital, Asheville, NC; (2)Pharmacy Department, Mission Hospital, Asheville, NC

### Medication Safety

198. Effect of a rivaroxaban patient assistance kit (R-PAK) for patients discharged with rivaroxaban: a randomized controlled trial.

Michelle Castelli, Pharm.D., Catherine Saint, Pharm.D., *Andrew J. Crannage, Pharm.D., BCPS*, Zachary A. Stacy, Pharm.D., BCPS, Jamie M. Pitlick, Pharm.D., BCPS; St. Louis College of Pharmacy/Mercy Hospital St. Louis, St. Louis, MO

200. Appropriate monitoring to improve sotalol safety.

*Kelly C. Rogers, Pharm.D.*,<sup>1</sup> Nicholas Elliott, Pharm.D.,<sup>2</sup> Lindsey Greiner, Pharm.D.,<sup>3</sup> Michael Brenner, Pharm.D., BCPS-AQ Cardiology,<sup>3</sup> Shannon W. Finks, Pharm.D.<sup>1</sup>; (1)Department of Clinical Pharmacy, University of Tennessee College of Pharmacy, Memphis, TN; (2)Department of Pharmacy, Veterans Affairs Medical Center, Memphis, Memphis, TN; (3)VA Ann Arbor Healthcare System, Ann Arbor, MI

201. Medication discrepancies in elderly patients admitted through emergency department in Korea.

*So-Youn Park, Ph.D. Candidate*,<sup>1</sup> Hyunah Kim, Pharm.D., BCPS,<sup>1</sup> Haesook Kim, M.S.<sup>2</sup>; (1)College of Pharmacy, Sookmyung Women's University, Seoul, Republic of Korea; (2)Department of Pharmacy, Gang Neung Asan Hospital, Seoul

202. Effect of nursing education and electronic medical record support on the appropriateness of vancomycin trough timing.

*Steven Smoke, Pharm.D., BCPS*,<sup>1</sup> Ruben Patel, Pharm.D.,<sup>2</sup> Sandy Moreau, Pharm.D., BCPS,<sup>3</sup> Maria Devivo, Pharm.D., MPA, BCPS, BCACP<sup>1</sup>; (1)Pharmacy Department, Jersey City Medical Center, Jersey City, NJ; (2)Pharmacy Department, Clara Maass Medical Center, Belleville, NJ; (3)Department of Pharmacy Practice and Administration, Ernest Mario School of Pharmacy, Rutgers, the State University of New Jersey, Piscataway, NJ

204. Frequency of toxicity monitoring in ambulatory patients on amiodarone and dofetilide.

*Joshua Rickard, Pharm.D., BCPS*,<sup>1</sup> Jenna Negrelli, Pharm.D., BCPS,<sup>2</sup> Jeffry Olson, Pharm.D., BCPS,<sup>1</sup> Travis Dick, Pharm.D., MBA, BCPS<sup>3</sup>; (1)Intermountain Healthcare, Midvale, UT; (2)Intermountain Medical Center; (3)University of Rochester Medical Center

205. Implementation of pharmacist-managed medication review and reconciliation service in orthopaedic wards in Queen Elizabeth Hospital.

*May Chung Yuet Yu, B. Pharm., MCLinPharm*, Wilson Yun Shing Leung, BPharm, Ph.D., BCPS, Kenneth Wing Fai Chung, BPharm, MCLinPharm, BCPS, Carmen Ka Man Kei, BPharm, M. Clin. Pharm.; Department of Pharmacy, Queen Elizabeth Hospital, Hong Kong

206. Identifying targets for quality improvement in the electronic prescribing process to reduce the burden of pharmacist phone calls to prescribers.

*Anzeela Schentrup, Pharm.D., Ph.D.*,<sup>1</sup> Omjoy Ganesh, Ph.D., Pharm.D.,<sup>2</sup> Angela Boyd, Pharm.D.,<sup>3</sup> Jessica Gonzalez, Pharm.D.,<sup>1</sup> Marvin Dewar, M.D., J.D.<sup>4</sup>; (1)Department of Pharmacotherapy and Translational Research, University of Florida, Gainesville, FL; (2)Clinical Risk Management, UF Health at Shands Hospital, Gainesville, FL; (3)University of Florida, Gainesville, FL; (4)College of Medicine, University of Florida, Gainesville

**Oncology**

215E. Retrospective analysis of probiotic effectiveness in acute myeloid leukemia and transplant patients receiving chemotherapy.

*Daniel Przybylski, Pharm.D.* Student, David Reeves, Pharm.D.; College of Pharmacy and Health Sciences, Butler University, Indianapolis, IN

**Pediatrics**

225. A retrospective review of the effectiveness of first-dose therapeutic drug monitoring of gentamicin in the pediatric population.

*Wen Bing Brandon Chua, BScPharm (Hon),<sup>1</sup> Wan Xuan Selina Lim, BScPharm (Hon),<sup>2</sup> Bao Hui Poh, BScPharm (Hon);<sup>1</sup>* (1)Department of Pharmacy, KK Women's and Children's Hospital, Singapore; (2) Department of Pharmacy, KK Women's and Children's Hospital, Singapore

226. Impact of adherence to an oral morphine dosing protocol for treatment of neonatal abstinence syndrome on length of stay.

*Sapna Bhambhani, Pharm.D.;* Pharmacy, Saint Peters University Hospital, New Brunswick, NJ

228. Excretion of hydroxychloroquine in milk of lactating patients.

*Rongji Liu, M.S.,<sup>1</sup> Lejia Zhang, M.S.,<sup>2</sup> Dan Mei, BScPharm,<sup>1</sup> Xiaoli Du, M.S.;<sup>1</sup>* (1)Department of Pharmaceutical Services, Peking Union Medical College Hospital, Beijing, China; (2)Department of Pediatrics, Peking Union Medical College Hospital, Beijing, China

230. Comparison of different methods for pediatric meningitis dosing alert creation.

*Jeremy Stultz, Pharm.D.,<sup>1</sup> Pery Taylor, Pharm.D.,<sup>2</sup> Sean McKenna, M.D.;<sup>3</sup>* (1)School of Pharmacy, Department of Pharmacotherapy and Outcomes Science, Virginia Commonwealth University, Richmond, VA; (2)Department of Pharmacy, Virginia Commonwealth University Health System, Richmond, VA; (3)General Pediatrics, Virginia Commonwealth University Medical Center and Children's Hospital of Richmond, Richmond, VA

**Pharmacoeconomics/Outcomes**

238. Diabetes-related costs in relation to glycemia and comorbidities.

*Melanie Siaw, BScPharm, Joyce Lee, Pharm.D., BCPS, BCACP;* Department of Pharmacy, Faculty of Science, National University of Singapore, Singapore

239. The association of benzodiazepine use with smoking cessation among hospitalized smokers in a clinical trial.

*Austin Wilson, M.S., BSPS, Pharm.D. Candidate 2017, Edward Ellerbeck, M.D., MPH, Niaman Nazir, M.D., MPH, Babalola Faseru, M.D., MPH, Taneisha Scheuermann, Ph.D., Kimber Richter, Ph.D., MPH;* University of Kansas Medical Center

240. Adherence and persistence with cyclosporine ophthalmic emulsion for treatment of dry eye disease in a large US healthcare system.

*Debra A. Schaumberg, ScD, OD, MPH;<sup>1</sup> John Bradley, OD, Ph.D.,<sup>2</sup> Annie Guérin, M.S.,<sup>3</sup> Irina Pivneva, Ph.D.,<sup>3</sup> Amber Evans, MPH,<sup>4</sup> Ipek Özer Stillman, M.S.,<sup>5</sup> Reza Dana, M.D., MPH, M.Sc.<sup>6</sup>;* (1)Ophthalmics, Shire, Lexington, MA; (2)Naval Medical Research Unit Dayton, OH; (3)Analysis Group, Inc., Montreal, QC, Canada; (4)Health ResearchTx LLC, Trevoise, PA; (5)Global HEOR & Epidemiology, Shire, Lexington, MA; (6)Massachusetts Eye and Ear, Boston, MA

241. Cost avoidance based on pharmacist interventions documented in a medical intensive care unit over a three-month period.

*Heather Flowers, B.S.,<sup>1</sup> Jacob Painter, Pharm.D., Ph.D., MBA,<sup>2</sup> Drayton Hammond, Pharm.D., MBA, BCPS, BCCCP<sup>3</sup>;* (1)University of Arkansas for Medical Sciences College of Pharmacy; (2)Division of

Pharmaceutical Evaluation and Policy, University of Arkansas for Medical Sciences, Little Rock, AR; (3) Department of Pharmacy Practice, University of Arkansas for Medical Sciences, Little Rock, AR

### Pharmacoepidemiology

242. Effect of medication adherence on health outcomes in patients with heart failure in a health information exchange.

*Michael Murray, Pharm.D., MPH,<sup>1</sup> Gwen Seamon, B.A.,<sup>2</sup> George Eckert, M.A.,<sup>3</sup> Katie Lane, M.S.,<sup>3</sup> Wanzhu Tu, Ph.D.<sup>4</sup>;* (1)Purdue University College of Pharmacy, Purdue University and Regenstrief Institute, Indianapolis, IN; (2)College of Pharmacy, Purdue University, West Lafayette, IN; (3) Department of Biostatistics, Indiana University, Indianapolis, IN; (4)Department of Biostatistics, Indiana University and Regenstrief Institute, Indianapolis, IN

### Pharmacogenomics/Pharmacogenetics

243. HLA-KIR interactions in heparin-induced thrombocytopenia.

*Jason Karnes, Pharm.D., Ph.D.,<sup>1</sup> Elizabeth Phillips, M.D.,<sup>2</sup> Christian Shaffer, B.S.,<sup>2</sup> Joshua Denny, M.D.,<sup>2</sup> Jonathan Mosley, M.D., Ph.D.,<sup>2</sup> Dan Roden, M.D.<sup>2</sup>;* (1)Department of Pharmacy Practice and Science, University of Arizona, Tucson, AZ; (2)Department of Medicine, Vanderbilt University, Nashville, TN

244. Identifying novel genetic predictors associated with heart rate response to beta-blockers.

*Mohamed Shahin, Ph.D.,<sup>1</sup> Daniela Conrado, Ph.D.,<sup>2</sup> Daniel Gonzalez, Pharm.D., Ph.D.,<sup>3</sup> Yan Gong, Ph.D.,<sup>1</sup> Maximilian Lobmeyer, Ph.D.,<sup>1</sup> Amber Beitelshes, Pharm.D., MPH,<sup>4</sup> Rhonda Cooper-DeHoff, Pharm.D., M.S.,<sup>1</sup> Eric Boerwinkle, Ph.D.,<sup>5</sup> Stephen Turner, M.D.,<sup>6</sup> Arlene Chapman, M.D.,<sup>7</sup> John Gums, Pharm.D.,<sup>1</sup> Julie Johnson, Pharm.D., BCPS, FCCP, FAHA<sup>1</sup>;* (1)Department of Pharmacotherapy and Translational Research and Center for Pharmacogenomics, College of Pharmacy, University of Florida, Gainesville, FL; (2)Department of Pharmaceutics, College of Pharmacy, University of Florida, Gainesville, FL; (3) Division of Pharmacotherapy and Experimental Therapeutics, UNC Eshelman School of Pharmacy, University of North Carolina, Chapel Hill, NC; (4)Department of Medicine, University of Maryland, Baltimore, MD; (5)Human Genetics Center and Institute of Molecular Medicine, University of Texas Health Science Center, Houston, TX; (6)College of Medicine, Mayo Clinic, Rochester, MN; (7) Department of Medicine, University of Chicago, Chicago, IL

245. ABCB1 gene variation effects on the early-phase oral absorption of losartan.

*Choong-Min Lee, B.S., Ji-Yeong Byeon, Ph.D. Candidate, Young-Hoon Kim, Ph.D. Candidate, Se-Hyung Kim, Ph.D. Candidate, Seok-Yong Lee, Ph.D.;* School of Pharmacy, Sungkyunkwan University, Suwon, Republic of Korea

246. Assessment of patient perceptions of genomic testing to inform pharmacogenomic implementation.

*Yee Ming Lee, Pharm.D.,<sup>1</sup> Ryan McKillip, B.S.,<sup>2</sup> Catherine Klammer, B.S.,<sup>1</sup> Brittany Borden, M.A.,<sup>1</sup> Mark Ratain, M.D.,<sup>3</sup> Peter O'Donnell, M.D.<sup>3</sup>;* (1)Center for Personalized Therapeutics, University of Chicago, Chicago, IL; (2)University of Chicago Pritzker School of Medicine, Chicago, IL; (3)Center for Personalized Therapeutics, Department of Medicine, Committee on Clinical Pharmacology and Pharmacogenomics, University of Chicago Medicine, Chicago, IL

### Pharmacokinetics/Pharmacodynamics/Drug Metabolism/Drug Delivery

252. Evaluating the appropriateness and clinical outcomes of antibiotics therapeutic drug monitoring service at a tertiary care hospital in Qatar.

*Ahmed Awaisu, Ph.D.,<sup>1</sup> Fatima Al-Sulaiti, M.Sc.,<sup>2</sup> Nadir Kheir, Ph.D.,<sup>1</sup> Ahmed Elzubair, M.Sc.<sup>3</sup>;* (1)Clinical Pharmacy and Practice Section, College of Pharmacy, Qatar University, Doha, Qatar; (2)College of Pharmacy, Qatar University, Doha, Qatar; (3)Al-Khor Hospital, Hamad Medical Corporation, Al-Khor, Qatar

253. Cardiovascular and stimulant effects of caffeine given orally (energy drink) or inspired (AeroShot).

*Steven Laizure, Pharm.D.,* Kembral Nelson, B.A., Feng Chen, Ph.D., Robert Parker, Pharm.D.; Department of Clinical Pharmacy, University of Tennessee Health Science Center, Memphis, TN

255. Co-administration of cyclosporine (CsA) increases plasma brincidofovir (BCV) exposure in healthy volunteers.

*Mary Wire, Pharm.D.,* Margaret Anderson, B.S., Thangam Arumugham, Ph.D., Marion Morrison, M.D., John Dunn, Ph.D., Odin Naderer, Pharm.D.; Chimerix, Durham, NC

## Psychiatry

262. Antagonistic psychotropic polypharmacy: concomitant sedative and stimulant prescriptions.

*Stephanie Nichols, Pharm.D., BCPS, BCPP;<sup>1</sup>* Kenneth McCall, Pharm.D., CGP;<sup>2</sup> Nicolette Centanni, Pharm.D., BCPS, CGP;<sup>3</sup> Min Jung Clare Ki, Pharm.D. Candidate 2017;<sup>1</sup> Dale Stewart, Pharm.D.,<sup>1</sup> Brian Piper, Ph.D.;<sup>4</sup> (1)School of Pharmacy, Husson University, Bangor, ME; (2)Department of Pharmacy Practice, College of Pharmacy, University of New England, Portland, ME; (3)Department of Pharmacy, Maine Medical Center, Portland, ME; (4)Department of Basic Sciences, Commonwealth Medical College, Scranton, PA

264. Effect of discharge antipsychotics on future substance-related readmission in patients with concurrent schizophrenia and substance abuse.

*Donna Phan, Pharm.D. Candidate,<sup>1</sup>* Lisa Pham, Pharm.D. Candidate,<sup>1</sup> Amy Huang, Pharm.D. Candidate,<sup>1</sup> Mark Richman, M.D.,<sup>2</sup> Patrick Chan, Pharm.D., Ph.D.<sup>3</sup>; (1)Western University of Health Sciences College of Pharmacy; (2)Long Island Jewish Medical Center, New Hyde Park, NY; (3) Department of Pharmacy Practice and Administration, Western University of Health Sciences, Pomona, CA

265. The prevalence and management of vitamin D insufficiency and deficiency in veterans admitted to an acute inpatient psychiatric unit.

*Caitlin Dirvonas, Pharm.D., Jennifer L. Easterling, Pharm.D., Jennifer R. Bean, Pharm.D., BCPP, BCPS;* Veterans Affairs Tennessee Valley Healthcare System, Murfreesboro, TN

266. Metabolic monitoring for patients on second-generation antipsychotics using electronic notifications as a reminder system for providers.

*Stephanie Parker, Pharm.D., Rachel Henderson, Pharm.D., Traci Dutton, Pharm.D., BCPP, BCPS, R. Jill Pate, M.D., Jennifer R. Bean, Pharm.D., BCPP, BCPS;* Veterans Affairs Tennessee Valley Healthcare System, Murfreesboro, TN

## Transplant/Immunology

277. Evaluation of clinical outcomes based on the early achievement of tacrolimus target trough levels in kidney recipients receiving rabbit antithymocyte globulin induction.

*Cassandra Dees, Pharm.D.,<sup>1</sup>* Heather Snyder, Pharm.D., BCPS,<sup>2</sup> Amy Krauss, Pharm.D., BCPS,<sup>2</sup> Sami Sakaan, Pharm.D., BCPS,<sup>2</sup> Benjamin T. Duhart Jr, M.S., Pharm.D.<sup>3</sup>; (1)Department of Clinical Pharmacy, Methodist University Hospital/University of Tennessee College of Pharmacy, Memphis, TN; (2) Department of Pharmacy, Methodist Le Bonheur Healthcare, Memphis, TN; (3)Department of Clinical Pharmacy, University of Tennessee College of Pharmacy, Memphis, TN

278. Does one size fit all? Outcomes in obese vs. non-obese kidney transplant patients under basiliximab induction immunosuppression.

*Jamie Benken, Pharm.D., BCPS,* Clare Kane, Pharm.D.; Department of Pharmacy Practice, University of Illinois Hospital and Health Sciences System, Chicago, IL

280. Efficacy of high-dose acyclovir for the prophylaxis of cytomegalovirus disease in a moderate risk abdominal solid organ transplant population not receiving lymphocyte-depleting induction. Erin McCreary, Pharm.D., Margaret Jorgenson, Pharm.D., BCPS, Jillian Descourouez, Pharm.D., BCPS, FAST, Glen Leverson, Ph.D., Jeannina Smith, M.D.; University of Wisconsin Hospitals and Clinics (UW Health), Madison, WI

284. Obese kidney donors: the impact of opioid-minimization using ketorolac-based pain management protocol following robotically assisted, laparoscopic living donor nephrectomy. Benito Valdepenas, B.S.,<sup>1</sup> Amin Virani, B.S.,<sup>1</sup> *Maya Campara, Pharm.D., BCPS<sup>2</sup>; (1)College of Pharmacy, University of Illinois at Chicago, Chicago, IL; (2)Department of Pharmacy Practice, University of Illinois Hospital and Health Sciences System, Chicago, IL*

285. Risk scoring system for predicting the risk of new-onset diabetes after transplantation in the renal allograft recipients.

Eunjoo Choi, BSPHarm, BCOP<sup>1</sup> Youngil Chang, M.S., Pharm.D.,<sup>2</sup> Tariq Shah, M.D.,<sup>3</sup> David Min, Pharm.D.,<sup>4</sup> *Jaewook Yang, Pharm.D., Ph.D., BCPS<sup>5</sup>; (1)Sahmyook University, Seoul, Republic of Korea; (2)Mendez National Institute of Transplantation Foundation, Mendez National Institute of Transplantation Foundation, Los Angeles, CA; (3)Multi-Organ Transplant Center, St Vincent Medical Center, Los Angeles, CA; (4)Western University of Health Sciences, College of Pharmacy and National Institute of Transplantation, Los Angeles, CO; (5)School of Pharmacy, Sahmyook University, Seoul, Republic of Korea*

## Urology

286E. Comparative effectiveness of anticholinergic agents for overactive bladder in U.S. veterans. Ali Goodson, Pharm.D.,<sup>1</sup> *Matthew Cantrell, Pharm.D., BCPS*,<sup>2</sup> Brian Lund, Pharm.D., M.S.,<sup>3</sup> Robert Shaw, Pharm.D., MPH, BCPS, BCNSP<sup>3</sup>; (1)Pharmacy Department, Iowa City VA Health Care System, Iowa City, IA; (2)Iowa City Veterans Affairs Health Care System, Iowa City, IA; (3)Iowa City Veterans Affairs Healthcare System

## Women's Health

287. The Women's Health PRN members and accomplishments.

*Kassandra Bartelme, Pharm.D., BCACP*<sup>1</sup> Nicole Lodise, Pharm.D., TTS,<sup>2</sup> Sally Rafie, Pharm.D.,<sup>3</sup> Kayce Shealy, Pharm.D., BCPS, BCACP<sup>4</sup> Rebecca Stone, Pharm.D.,<sup>5</sup> Veronica Vernon, Pharm.D., BCPS, BCACP, NCMF<sup>5</sup>; (1)Concordia University Wisconsin School of Pharmacy, Mequon, WI; (2)Albany College of Pharmacy and Health Sciences, Albany, NY; (3)University of California, San Diego, San Diego, CA; (4) Presbyterian College School of Pharmacy, Clinton, SC; (5)College of Pharmacy, University of Illinois at Chicago, Chicago, IL; (6)Richard L. Roudebush Veterans Affairs Medical Center, Indianapolis, IN

288. Inhaler technique in obstetric patients after pharmacist intervention.

Alicia B. Forinash, Pharm.D., FCCP, BCPS, BCACP<sup>1</sup> Philip J. Wenger, Pharm.D., BCPS,<sup>2</sup> Megan Bergstrom, Pharm.D., BCACP<sup>3</sup>; (1)St. Louis College of Pharmacy, St. Louis, MO; (2)St. Louis College of Pharmacy, Saint Louis, MO; (3)Boston Medical Center, Boston, MA

## ADVANCES IN INTERNATIONAL CLINICAL PHARMACY PRACTICE, EDUCATION, OR TRAINING

### Cardiovascular

289E. Observational study on medication errors in coronary care unit.

*Mohammed Adel, BSPHarm, Pharm.D., Islam Abdo, BSPHarm, Clinical Pharmacy Diploma, Fatma Ibrahim, BSPHarm, Clinical Pharmacy Diploma; Pharmacy Department/ Clinical Pharmacy Division, Al-Ahrar Zagazig Teaching Hospital, Zagazig, Egypt*

## Community Pharmacy Practice

290. The development and outcomes study of pharmaceutical care service model for community pharmacies in Korea.

Hyun-Taek Shin, Pharm.D.,<sup>1</sup> In-Chul Shin, Pharm.D., Ph.D. Candidate,<sup>1</sup> *So-Youn Park, Ph.D. Candidate,<sup>1</sup> Hee-Doo Kim, Ph.D.,<sup>1</sup> Ock-Hee Oh, Ph.D. Candidate,<sup>2</sup> Kyung-Eob Choi, Pharm.D.,<sup>2</sup> Yong-Sook Lee, Pharm.D.,<sup>3</sup> Bong-Kyu Yoo, Pharm.D., Ph.D.<sup>4</sup>; (1)College of Pharmacy, Sookmyung Women's University, Seoul, Republic of Korea; (2)College of Pharmacy, Cha University, Republic of Korea; (3)College of Pharmacy, Keimyung University, Republic of Korea; (4)College of Pharmacy, Gachon University, Republic of Korea*

## Critical Care

291. Role of clinical pharmacist inside operation rooms in pediatric oncology setting.

*Ibrahim Abdo, BCPS,<sup>1</sup> Sherif Kamal, M.Sc.,<sup>2</sup> Sara Mohamed, B.Sc.,<sup>3</sup> Magda Azer, Ph.D.,<sup>4</sup> Alaa Younes, Ph.D.<sup>4</sup>; (1)Children Cancer Hospital-Egypt 57357 CCHE, Cairo, Egypt; (2)Children Cancer Hospital Egypt 57357, Cairo, Egypt; (3)Children Cancer Hospital-Egypt 57357; (4)Children Cancer Hospital-Egypt 57357 (CCHE)*

## Geriatrics

302E. Implementation of ward-based pharmacist medication review in high risk geriatric patients. Observational study of drug-related problems.

*Kit Yee Chu, BPharm (Hon), MCP, BCPS,<sup>1</sup> Ying Ho Yuen, BPharm (Hon), MSc(Clin Pharm),<sup>1</sup> Wilson Yun Shing Leung, BPharm, Ph.D., BCPS,<sup>1</sup> Ying Fai Mak, MBBS(HK), MRCP(UK), FRCP(Edin), FHKCP, FHKAM(Medicine), PG Dip Pall Med (Cardiff); (1)Department of Pharmacy, Queen Elizabeth Hospital, Hong Kong; (2)Division of Geriatrics, Department of Medicine, Queen Elizabeth Hospital, Hong Kong*

## Oncology

303. The clinical pharmacist's role in clinical research: impact of oncology pharmacist on protocol deviation in anti-cancer drug clinical trial and patient care as well as administration of investigational drug.

*Mingxia Wang, Ph.D.; Department of Clinical Pharmacy, Fourth Hospital of Hebei Medical University, Shijiazhuang, China*

## Other

304. Pharmacist clinical service in an orthopedic rehabilitation ward in Hong Kong.

*Yu Yeung Wong, BPharm, MCP,<sup>1</sup> Pauline Chu, MPharm, MRPharmS<sup>2</sup>; (1)Pharmacy Department/Department of Orthopedics, Tuen Mun Hospital, Hong Kong, Hong Kong; (2)Department of Pharmacy, Tuen Mun Hospital, Hong Kong*

305. Using "Google Form" as a documentation tool for clinical pharmacy services in a public hospital in Alexandria, Egypt.

*Nahla Kandil, BPSc, M.Sc., BCPS; 431 Horreya Street, Roushdy, Ras El Teen, Alexandria, Egypt*

## CASE REPORTS

### ADR/Drug Interactions

463. Hypoglycemia resulting from delayed subcutaneous insulin absorption following substantial diuresis in a patient with a left ventricular assist device.

*Christopher Paciullo, Pharm.D., BCCCP, FCCM,<sup>1</sup> Lyndsay Head, M.D.,<sup>2</sup> Elrond Teo, M.D.,<sup>2</sup> (1)Department of Pharmaceutical Services, Emory University Hospital, Atlanta, GA; (2)Emory University School of Medicine*



465. Proton pump inhibitor-induced hypomagnesemia in a U.S. veteran: case report and population study.

*Jonathan Hughes, Pharm.D.,<sup>1</sup> Daniel Neu, Pharm.D. Candidate,<sup>2</sup> Brian Christman, M.D.,<sup>1</sup> M. Shawn McFarland, Pharm.D.<sup>1</sup>; (1)VA Tennessee Valley Healthcare System, Nashville, TN; (2)University of Tennessee College of Pharmacy, Memphis, TN*

### **Ambulatory Care**

467. Case report: nebivolol use in a patient with the Raynaud phenomenon and previous ST-elevated myocardial infarction.

*Jason Zupec, Pharm.D., Jennifer Smith, Pharm.D.; University of the Sciences Philadelphia College of Pharmacy*

### **Cardiovascular**

468. A case report of intravenous treprostinil conversion to oral selexipag in a patient with functional class IV chronic thromboembolic pulmonary hypertension (CTEPH).

*Kristina Thurber, Pharm.D.,<sup>1</sup> Breann Williams, Pharm.D.,<sup>2</sup> Ruth Bates, M.D.,<sup>2</sup> Robert Frantz, M.D.<sup>2</sup>; (1)Pharmacy Services, Mayo Clinic Hospital - Rochester, Rochester, MN; (2)Mayo Clinic Hospital - Rochester*

## **CLINICAL PHARMACY FORUM**

### **Ambulatory Care**

308. Student pharmacist post-hospital discharge telephone medication reconciliation service in a primary care clinic.

*Laura Challen, Pharm.D., MBA, BCPS, BCACP;<sup>1</sup> Stephanie Crist, Pharm.D., BCACP, CGP;<sup>2</sup> Christine Kelso, Pharm.D., BCPS, AE-C;<sup>3</sup> Heather Pautler, Pharm.D., BCPS;<sup>4</sup> Paul Stranges, Pharm.D., BCPS, BCACP;<sup>5</sup> (1) Department of Pharmacy Practice, St. Louis College of Pharmacy, St. Louis, MO; (2)St. Louis College of Pharmacy; (3)Barnes-Jewish Hospital; (4)Department of Pharmacy, Barnes-Jewish Hospital; (5) University of Illinois at Chicago*

309. Implementation of an anticoagulation clinic utilizing clinic video telehealth (CVT) technology at a community based outpatient clinic.

*Ashley Kelley, Pharm.D., BCPS, Amanda Sturges, Pharm.D.; Lebanon VA Medical Center, Lebanon, PA*

310. 2016 Updates on the accomplishments and initiatives of the ACCP Ambulatory Care Practice and Research Network (PRN).

*James Lee, Pharm.D., BCACP;<sup>1</sup> Sweta Patel, Pharm.D., BCPS;<sup>2</sup> Lydia Newsom, Pharm.D., BCPS;<sup>2</sup> Jennifer Carrillo, Pharm.D., BCACP;<sup>3</sup> (1)University of Illinois at Chicago College of Pharmacy, Chicago, IL; (2) Department of Pharmacy Practice, Mercer University College of Pharmacy, Atlanta, GA; (3)University of Florida Health Jacksonville, Jacksonville, FL*

311. Developing and refining residency orientation to facilitate pharmacist-physician collaboration in a family medicine residency program.

*Ann Yapel, Pharm.D.,<sup>1</sup> Danielle Macdonald, Pharm.D.,<sup>2</sup> Keri Hager, Pharm.D.<sup>3</sup>; (1)Essentia Health Ambulatory Pharmacy Services, Essentia Health, Duluth, MN; (2)Essentia Health Ambulatory Pharmacy Services, Essentia Health, Duluth, MN; (3)Department of Pharmacy Practice and Pharmaceutical Sciences, University of Minnesota College of Pharmacy, Duluth, MN*

312. Development of disease-specific self-management kits for at-home use: a report from the ACO Research Network, Services and Education (ACORN SEED).

*My-Oanh Nguyen, Pharm.D. Candidate 2017;<sup>1</sup> Leah Loeffler, Pharm.D., BCPS;<sup>1</sup> Tina Joseph, Pharm.D., BCACP;<sup>1</sup> Genevieve Hale, Pharm.D., BCPS;<sup>2</sup> Renee Jones, Pharm.D., CPh,<sup>1</sup> Stephanie Gernant, Pharm.D.,*

M.S.,<sup>1</sup> Matthew Seamon, Pharm.D., J.D.<sup>1</sup>; (1)Department of Pharmacy Practice, Nova Southeastern University College of Pharmacy, Fort Lauderdale, FL; (2)Department of Pharmacy Practice, Nova Southeastern University College of Pharmacy, Palm Beach Gardens, FL

313. Integration of clinical pharmacy in a chronic care management team within an accountable care organization (ACO): a report from the ACO Research Network, Services and Education (ACORN SEED).

*Tina Joseph, Pharm.D., BCACP*,<sup>1</sup> Genevieve Hale, Pharm.D., BCPS,<sup>2</sup> Renee Jones, Pharm.D., CPh,<sup>1</sup> Stephanie Gernant, Pharm.D., M.S.,<sup>1</sup> Matthew Seamon, Pharm.D., J.D.<sup>1</sup>; (1)Department of Pharmacy Practice, Nova Southeastern University College of Pharmacy, Fort Lauderdale, FL; (2)College of Pharmacy, Nova Southeastern University, Palm Beach Gardens, FL

314. Reducing anticoagulation-related hospitalizations and emergency room visits through implementation of a pharmacist-nurse managed anticoagulation management service in a rural integrated health care network.

*Amanda Winans, Pharm.D.*,<sup>1</sup> Kelly Rudd, Pharm.D.,<sup>2</sup> John Heney, RN<sup>3</sup>; (1)Bassett Medical Center, Cooperstown, NY; (2)Department of Pharmacy, Bassett Medical Center, Cooperstown, NY; (3) Anticoagulation Management Services, Bassett Healthcare

315. Collaborative care model with clinical pharmacist care manager for depression remission optimization in primary care.

*Lauren J. Heath, Pharm.D.*,<sup>1</sup> Danielle Loeb, M.D., MPH,<sup>2</sup> Isabella Dai, Student,<sup>3</sup> Rachel Griffin, NP,<sup>2</sup> Sarah J. Billups, Pharm.D.,<sup>1</sup> Katy E. Trinkley, Pharm.D.<sup>1</sup>; (1)University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences; (2)University of Colorado School of Medicine; (3)Purdue University College of Pharmacy

316. Pharm to farm: on-site farmstead medication management to improve the health and medication safety of farmers.

*Kelly Cochran, Pharm.D., BCPS*; Division of Pharmacy Practice & Administration, University of Missouri-Kansas City School of Pharmacy at MU, Columbia, MO

## Endocrinology

330. Inpatient diabetes management team – clinical pharmacist-led, interdisciplinary team.

*Anees Kanorwala, Pharm.D., BCPS, BC-ADM*, Phil Ayers, Pharm.D., BCNSP, FASHP, Andrew Mays, Pharm.D., Tripp Dixon, Pharm.D., Christina York, Pharm.D., BCPS, Matthew Chambers, Pharm.D., BCNSP; Mississippi Baptist Medical Center, Jackson, MS

## Family Medicine

331. A population health intervention by PGY2 pharmacy residents to optimize medication management in patients with atherosclerotic cardiovascular disease (ASCVD).

*Michael Kelly, Pharm.D.*,<sup>1</sup> Jessica L. Norman, Pharm.D.,<sup>1</sup> Alvin Oung, Pharm.D.,<sup>1</sup> Sara Wettergreen, Pharm.D.,<sup>1</sup> Joseph J. Saseen, Pharm.D.,<sup>2</sup> Joseph Vande Griend, Pharm.D.<sup>3</sup>; (1)University of Colorado Anschutz Medical Campus; (2)Department of Clinical Pharmacy, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO; (3)University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO

## Nutrition

340. Creation and implementation of an interdisciplinary parenteral nutrition dosing service in a community hospital.

*Amanda Hembree, Pharm.D., BCPS*,<sup>1</sup> Laura Brunson, RD/LD, CNSC<sup>2</sup>; (1)Department of Pharmacy, Saint Francis Hospital, Tulsa, OK; (2)Department of Nutrition, Saint Francis Hospital, Tulsa, OK

## Other

341. Why your OR needs YOU - stories from our journey with integrating clinical pharmacy into perioperative services.

Sara Jordan, Pharm.D., BCPS, *Brian Kramer, Pharm.D.*, Elise Weyrauch, Pharm.D., BCPS, Adam Trimble, Pharm.D., Lauren Wood, Pharm.D.; Grant Medical Center (OhioHealth)

## Pain Management/Analgesia

342. A novel, validated smart phone application to quantify opioid overdose probability for justification of in-home naloxone.

*Jeffrey Fudin, B.S., Pharm.D., FCCP, FASHP*,<sup>1</sup> Mena Raouf, Pharm.D.,<sup>2</sup> Nadia Shahzad, Pharm.D.,<sup>3</sup> Nicholas Jarrett, B.S., M.A., M.S., Ph.D.,<sup>3</sup> Erica Wegrzyn, B.A., B.S., Pharm.D.;<sup>4</sup> (1)Stratton Veteran Affairs Medical Center; (2)VA Tennessee Valley Healthcare System, Nashville, TN; (3)Remitgate, LLC; (4) Department of Pharmacy (119), Stratton VA Medical Center, Albany, NY

## SYSTEMATIC REVIEWS/META-ANALYSIS

### Infectious Diseases

491. Antimicrobial treatment of preoperative asymptomatic bacteriuria prior to orthopedic arthroplasty and postoperative infectious complications: a systematic review.

*Ryan Dull, Pharm.D.*,<sup>1</sup> Kailin Crowley, Pharm.D.,<sup>2</sup> Carmen Frerichs, Pharm.D.,<sup>2</sup> Kim Pham, Pharm.D.,<sup>2</sup> Allyson Cord, Pharm.D.;<sup>2</sup> (1)Department of Pharmacy Practice, Creighton University School of Pharmacy and Health Professions, Omaha, NE; (2)Creighton University

492. Fecal microbiota transplantation for the treatment of recurrent *Clostridium difficile* infection.

*Jennifer Mijares, Pharm.D.*, Patricia Gonzalez-Abreu, Pharm.D., Shara Parrish, Pharm.D., Kristina Contreras, Pharm.D.; Gregory School of Pharmacy, Palm Beach Atlantic, West Palm Beach, FL

493. Simeprevir for the treatment of chronic hepatitis C infection: a systematic review.

*Andrea Mezentsef, Pharm.D. Candidate*, Mara Poulakos, Pharm.D.; Palm Beach Atlantic University, Lloyd L. Gregory School of Pharmacy, West Palm Beach, FL

### Nephrology

494. Prevalence of vitamin D inadequacy in chronic kidney disease and patients on dialysis: a systematic review and meta-analysis.

*Rajiv Ahlawat, MPharm, RPh*,<sup>1</sup> Pramil Tiwari, Ph.D.,<sup>2</sup> Sanjay D'Cruz, M.D., DNB, DM, MAMS, FISN,<sup>3</sup> Ruchi Singhal, MPharm;<sup>4</sup> (1)Department of Pharmacy Practice, National Institute of Pharmaceutical Education & Research (NIPER), S.A.S. NAGAR, Punjab 160062, India; (2)Department of Pharmacy Practice, National Institute of Pharmaceutical Education & Research (NIPER), S.A.S. Nagar, Punjab 160062, India; (3)Department of General Medicine, Government Medical College & Hospital, Chandigarh 160 030, India; (4)Department of Pharmacy Practice, National Institute of Pharmaceutical Education & research (NIPER), S.A.S. NAGAR, Punjab 160062, India

### Oncology

498. Clinical pharmacist impact in outpatient oncology practices: a systematic review.

*Justin Gatwood, Ph.D., MPH*,<sup>1</sup> Katie Gatwood, Pharm.D.,<sup>2</sup> Ezra Gabre, Pharm.D.,<sup>3</sup> Maurice Alexander, Pharm.D.;<sup>4</sup> (1)Clinical Pharmacy, University of Tennessee College of Pharmacy, Nashville, TN; (2) Pediatric Stem Cell Transplant, Monroe Carell Jr. Children's Hospital at Vanderbilt, Nashville, TN; (3) University of Tennessee College of Pharmacy, Memphis, TN; (4)Oncology, UNC Medical Center, Chapel Hill, NC

**Pediatrics**

499. Burden of invasive pneumococcal pneumonia among Indian children: a systematic review and meta-analysis of observational studies.

*Pramil Tiwari, Ph.D.,<sup>1</sup> Rajiv Ahlawat, MPharm, RPh,<sup>2</sup> Ruchi Singhal, MPharm<sup>3</sup>; (1)Department of Pharmacy Practice, National Institute of Pharmaceutical Education & Research (NIPER), S.A.S. Nagar, Punjab 160062, India; (2)Department of Pharmacy Practice, National Institute of Pharmaceutical Education & Research (NIPER), S.A.S. NAGAR, Punjab 160062, India; (3)Department of Pharmacy Practice, National Institute of Pharmaceutical Education & Research (NIPER), S.A.S. NAGAR, Punjab 160062, India*

**Pulmonary**

500. Selexipag in pulmonary arterial hypertension: a comprehensive review.

David Dakwa, B.A.; Palm Beach Atlantic University, West Palm Beach, FL

