

## **Scientific Poster Presentations, II**

**Tuesday, October 23**

**Great Halls 4–6**

**8:00 a.m.–10:00 a.m.**

### **ENCORE PRESENTATIONS**

Abstracts marked with an "E" are Encore Presentations. Encore Presentations undergo the same peer-review process as all other presentations, but they may have been presented elsewhere or published in abstract form before the 2012 Annual Meeting. For presentations, the abstract title, authors, and original citation (if provided) are published.

### **AWARDS COMPETITION**

The award winner for the Best Paper will be announced at 9:45 a.m. on Tuesday, October 23, in Great Halls 4–6.

### **ORIGINAL RESEARCH**

These papers describe original research in therapeutics, pharmacokinetics, pharmacodynamics, pharmacoeconomics, and pharmacoepidemiology.

#### **ADR/Drug Interactions**

1. Observed Incidence of Linezolid-Associated Serotonin Syndrome During Concomitant Serotonergic Therapy.

*Melanie R. Woytowish, Pharm.D.<sup>1</sup> Lena Maynor, Pharm.D.<sup>2</sup>; (1)West Virginia University Healthcare, Morgantown, WV; (2)West Virginia University School of Pharmacy, Morgantown, WV*

- 2E. A Comparative Study of Patients with Acute Promyelocytic Leukemia Receiving All-trans Retinoic Acid with and without Voriconazole: Effect on Differentiation Syndrome.

*Jason N. Barreto, Pharm.D., BCPS, John C. Kuth, Pharm.D., BCOP, Candy S. Peskey, Pharm.D., BCPS, Mrinal M. Patnaik, MBBS; Mayo Clinic, Rochester, MN*

3. Converting Between Glycine-Stabilized Intravenous Immune Globulin Products: Incidence of Adverse Events.

*Ginger Morris, Pharm.D., Eric M. Tichy, Pharm.D., BCPS; Yale-New Haven Hospital, New Haven, CT*

4. Characterization of Dabigatran Discontinuation in the Community Setting.

*Amanda Kerr, Pharm.D., Tina G. Hipp, Pharm.D., Becky J. Szymanski, Pharm.D.; Carolinas Medical Center - NorthEast, Concord, NC*

#### **Adult Medicine**

- 6E. Dabigatran and Warfarin: Comparative Analysis of Safety and Cost.

*Niyati H. Vakil, Pharm.D., Molly Leber, Pharm.D., BCPS, Gina Bliss, Pharm.D., Marina Yazdi, Pharm.D., BCPS; Yale-New Haven Hospital, New Haven, CT*

8. Evaluation of a Pharmacy-Driven Erythropoiesis-Stimulating Agent Utilization Program.

*Erin K. Hennessey, Pharm.D.,<sup>1</sup> Andrew J. Crannage, Pharm.D., BCPS,<sup>1</sup> Joy R. Abu-Shanab, Pharm.D., BCPS,<sup>2</sup> Matthew J. Korobey, Pharm.D., BCPS,<sup>2</sup> Julie A. Murphy, Pharm.D., FASHP, BCPS<sup>1</sup>; (1)St. Louis College of Pharmacy/Mercy Hospital St. Louis, St. Louis, MO; (2)Mercy Hospital St. Louis, St. Louis, MO*

## **Ambulatory Care**

9. Evaluation of Missed Opportunities for Pharmacotherapy Management of Heart Failure in Primary Care.  
*Kristyn Mulqueen, Pharm.D., Shawn Anderson, Pharm.D.; Department of Veterans Affairs, Gainesville, FL*

10E. Effect of Intrathecal Bupivacaine Lidocaine Combination on Motor Block and Analgesia Period.  
*Sara El-Adawy, Master and Board of Pharmacotherapy; Ain Shams University, Faculty of Pharmacy, Cairo, Egypt*

11. Implications on Vaccine Compliance Rates in an Internal Medicine Outpatient Clinic with the Implementation of a Pharmacist-Driven Vaccination Assessment: Phase 2.

*Jamie M. Pitlick, Pharm.D., BCPS,<sup>1</sup> Abigail Yancey, Pharm.D.,<sup>2</sup> Alicia B. Forinash, Pharm.D., BCPS, BCACP<sup>3</sup>; (1)St. Louis College of Pharmacy, St. Louis, MO; (2)St. Louis College of Pharmacy, St. Louis, MO; (3)St. Louis College of Pharmacy, St. Louis, MO*

12. Association Between Venous Thromboembolism and Air Pollution in an Industrial North American City: Implications for Anticoagulation Management.

*Holly H. Chiu, Pharm.D.,<sup>1</sup> Peter Whittaker, Ph.D.<sup>2</sup>; (1)Beaumont Hospital, Royal Oak, MI; (2)Wayne State University School of Medicine, Cardiovascular Research Institute and Department of Emergency Medicine, Detroit, MI*

13. Comparison of Cefpodoxime versus Cefuroxime Axetil for Acute Sinusitis.

*Scot E. Walker, Pharm.D., M.S., BCPS, BCACP; Facts & Comparisons, St. Louis, MO*

14. Group Clinic Evaluation of Diabetes-Related Measures of Control in Veterans with Poorly Controlled Type 2 Diabetes.

*Lauralee C. Gordon, Pharm.D., Melaina K. Perry, Pharm.D., Rebecca J. Cripps, Pharm.D., BCPS, Regina F. Cassidy, Pharm.D., BCPS, CDE, Amy S. Wilson, Pharm.D., M. Shawn McFarland, Pharm.D., BCPS, BC-ADM; VA Tennessee Valley Healthcare System, Nashville, TN*

15. Decreasing Inappropriate Prescribing in Elderly Patients.

*Regina Ginzburg, Pharm.D., Nicole Ng, Pharm.D.; St. John's University, Queens, NY*

17. Upper Extremity Deep Vein Thrombosis: A Retrospective Cohort Evaluation at a University Teaching Hospital Antithrombosis Clinic.

*Rebecca H. Stone, Pharm.D., Edith A. Nutescu, Pharm.D., Nancy L. Shapiro, Pharm.D.; University of Illinois at Chicago College of Pharmacy, Chicago, IL*

18. Implications on Vaccine Compliance Rates with the Implementation of a Pharmacist-Driven Vaccination Assessment: Phase 2.

*Abigail Yancey, Pharm.D., Jamie Pitlick, Pharm.D., Alicia Forinash, Pharm.D.; St. Louis College of Pharmacy, St. Louis, MO*

19. Effect of Pharmacy Team Interventions on Monitoring Rates for Second-Generation Antipsychotics in a Correctional Setting.

*Philip J. Wenger, Pharm.D., BCPS, Kyle R. Mays, Pharm.D.; St. Louis College of Pharmacy, St. Louis, MO*

20. Pharmacist Interventions and Health Care Outcomes in a Novel Heart Failure Medication Adherence Clinic.

*Jennifer L. Johnson, Pharm.D.,<sup>1</sup> Lynette R. Moser, Pharm.D.,<sup>2</sup> Candice L. Garwood, Pharm.D.,<sup>3</sup> Melissa Lipari, Pharm.D.<sup>4</sup>; (1)Detroit Medical Center – Harper University Hospital, Detroit, MI; (2)Wayne State University, Detroit, MI; (3)Wayne State University, Eugene Applebaum College of Pharmacy and Health Sciences, Detroit, MI; (4)Harper University Hospital, Detroit, MI*

**21E. Effects of a Pharmacist-Initiated Outreach Program on Controller Medication Use and Asthma Control in Non-adherent Asthmatics.**

*Kelly A. Gibas, Pharm.D., Amy M. Kramer, Pharm.D., Mary Ann Dzurec, Pharm.D., Paul R. Bandfield, Pharm.D.; Kaiser Permanente, Parma, OH*

## **Community Pharmacy Practice**

**43. Coaching to Better Medication Adherence: The Pharmacist as a Health Coach.**

*CoraLynn B. Trewet, Pharm.D., M.S.,<sup>1</sup> Jennifer R. Moulton, R.Ph.<sup>2</sup>; (1)University of Iowa College of Pharmacy, Des Moines, IA; (2)Collaborative Education Institute, Des Moines, IA*

## **Critical Care**

**44. Y-Site Physical Compatibility of Intensive Care Unit Admixtures with Cisatracurium.**

*Jaime A. Foushee, Pharm.D., BCPS, Laura M. Fox, Ph.D., Lyndsay R. Gormley, Pharm.D. Candidate, Megan D. Sumner, Pharm.D. Candidate; Presbyterian College School of Pharmacy, Clinton, SC*

**45. Effect of Sedation Medication and Daily Awakening on Delirium in the Mechanically Ventilated Critically Ill Patient: A Descriptive Pilot Study.**

*Trevor L. Perry, Pharm.D., Julie Moon, Pharm.D., BCPS, Harminder Sikand, Pharm.D.; Scripps Mercy Hospital, San Diego, CA*

**46. Evaluation of Procalcitonin (PCT) Use for Antibiotic Discontinuation in Medical Intensive Care Patients at a Community Teaching Hospital.**

*Sara E. Jordan, Pharm.D., Lauren M. Flannery, Pharm.D., Rodney K. Kusumi, M.D., Shiva D. Rahamanian, M.D., Kiran Devulapally, M.D., Bradley R. Harrold, M.D., Phillip C. Hawley, M.D., Amy Creighton, M.S., James J. Jenkins II, Ph.D., Lauren A DiBenedetto, B.S., Janelle Hartman, B.A., Vivek S. Trivedi, B.S.; Grant Medical Center, Columbus, OH*

**47. Dexmedetomidine as Adjunctive Therapy in Alcohol Withdrawal Syndrome Patients in an Intensive Care Unit.**

*Jennifer L. Grelle, Pharm.D., Shawna E. King, Pharm.D., BCPS, Krystal K. Haase, Pharm.D., FCCP, BCPS; Texas Tech University Health Sciences Center School of Pharmacy, Amarillo, TX*

## **Emergency Medicine**

**81. Heparin Therapy for Venous Thromboembolism: Are Morbidly Obese Patients Treated Differently?**

*Suprat Saely, Pharm.D., BCPS,<sup>1</sup> Brian Badgley, Pharm.D.,<sup>1</sup> Peter Whittaker, Ph.D.<sup>2</sup>; (1)Detroit Receiving Hospital, Detroit, MI; (2)Wayne State University School of Medicine, Cardiovascular Research Institute and Department of Emergency Medicine, Detroit, MI*

## **Gastroenterology**

88. Comparison of Polyethylene Glycol-Electrolyte Solution vs. Polyethylene Glycol-3350 for the Treatment of Fecal Impaction in Pediatric Patients.

*Erin Boles, Pharm.D.<sup>1</sup> Emma M. Tillman, Pharm.D.<sup>2</sup>; (1)Le Bonheur Children's Hospital, Memphis, TN; (2)University of Tennessee Health Science Center, Memphis, TN*

89E. Efficacy, Safety and Tolerability of HZT-501, Including Users of Low-Dose Aspirin (LDA), a Single-Tablet Combination of Ibuprofen-Famotidine: Results of Two Phase 3 Trials.

*Michael Weinblatt, M.D.,<sup>1</sup> Mark C. Genovese, M.D.,<sup>2</sup> Alan Kivitz, M.D.,<sup>3</sup> Alfonso E. Bello, M.D.,<sup>4</sup> Amy Grahn, M.S.,<sup>5</sup> Jeffrey W. Sherman, M.D., FACP,<sup>5</sup> Michael H. Schiff, M.D.,<sup>6</sup> Merrell Magelli, Pharm.D.<sup>5</sup>; (1)Brigham and Women's Hospital, Division of Rheumatology, Immunology and Allergy, Boston, MA; (2)Stanford University Medical Center, Stanford, CA; (3)Altoona Center for Clinical Research, Duncansville, PA; (4)Illinois Bone & Joint Institute, Glenview, IL; (5)Horizon Pharma, Inc., Northbrook, IL; (6)Rheumatology Division, University of Colorado, Denver, CO*

90. Risk Factors Associated with Hospital-Origin vs. Community-Origin *Clostridium difficile*-Associated Diarrhea.

*Bonnie Dean, Ph.D.,<sup>1</sup> Rebecca S. Campbell, M.D., MPH,<sup>1</sup> Brian H. Nathanson, Ph.D.,<sup>2</sup> Tracy Haidar, M.S.,<sup>1</sup> Marcie E. Strauss, MPH,<sup>3</sup> Sheila Thomas, Pharm.D.<sup>3</sup>; (1)Cerner LifeSciences Consulting, Culver City, CA; (2)OptiStatim, LLC, Longmeadow, MA; (3)Optimer Pharmaceuticals, Inc., Jersey City, NJ*

## **Infectious Diseases**

109. Reducing Fluoroquinolone Use in the Adult Emergency Department of a Community Hospital.

*Yesenia Camero, Pharm.D., Erika Dittmar, Pharm.D., BCPS, Radhan Gopalani, Pharm.D., BCPS, Heidi Clarke, Pharm.D.; Baptist Hospital of Miami, Miami, FL*

110E. Evaluating the Use of Procalcitonin as a Biomarker for Infection in a Medical Intensive Care Unit.

*Chung-Shien Lee, Pharm.D., Rubiya Azmiree, Pharm.D., BCPS, Rehana Jamali, Pharm.D.; North Shore University Hospital, Manhasset, NY*

111. Implementing Antimicrobial Stewardship in a Community Hospital.

*Jordan Walter, Pharm.D., Radhan Gopalani, Pharm.D., BCPS, Heidi Clarke, Pharm.D.; Baptist Hospital of Miami, Miami, FL*

112. Protease Inhibitors: Beyond Anti-viral Property.

*Talia Mazidi, Pharm.D., Khandaker Anwar, M.D., Richard M. Novak, M.D., Mahmood Ghassemi, Ph.D.; University of Illinois at Chicago, Chicago, IL*

113. Inhibition of Mitochondrial Oxidative Phosphorylation with Anidulafungin.

*Kayla R. Stover, Pharm.D., BCPS,<sup>1</sup> Jonathan P. Hosler, Ph.D.,<sup>2</sup> John D. Cleary, Pharm.D.,<sup>2</sup> (1)The University of Mississippi School of Pharmacy, Jackson, MS; (2)University of Mississippi Medical Center, Jackson, MS*

115. Retrospective Review of Antimicrobial Selection for Treatment of *Enterobacter* in a Teaching Hospital.

*Maria Pompili, Pharm.D., Aaron Cumpston, Pharm.D., Michael Sweet, Pharm.D., Arif Sarwari, M.D.; West Virginia University Healthcare, Morgantown, WV*

116E. Population Pharmacokinetic (PPK) Analysis of Ceftaroline (CPT) in Patients with Complicated Skin and Skin Structure Infection (cSSSI) or Community-Acquired Pneumonia (CAP).

*Scott A. Van Wart, M.S.,<sup>1</sup> Alan Forrest, Pharm.D.,<sup>1</sup> Tatiana Khariton, Ph.D.,<sup>2</sup> Christopher M. Rubino, Pharm.D., BCPS,<sup>1</sup> Sujata M. Bhavnani, Pharm.D., M.S.,<sup>1</sup> Todd Riccobene, Ph.D.,<sup>2</sup> Paul G. Ambrose, Pharm.D., FIDSA<sup>1</sup>; (1)Institute for Clinical Pharmacodynamics, Latham, NY; (2)Forest Research Institute, Inc., Jersey City, NJ*

117E. A Single- and Multiple-Dose Study to Determine the Safety, Tolerability, and Pharmacokinetics (PK) of Ceftaroline Fosamil Plus Avibactam (CXL) Administered by Intravenous (IV) Infusion to Healthy Subjects.  
*Todd Riccobene, Ph.D.*<sup>1</sup> *Sheng Fang Su, Ph.D.*<sup>1</sup> *Douglas R. Rank, M.D.*<sup>2</sup>; (1)Forest Research Institute, Inc., Jersey City, NJ; (2)Cerexa, Inc. (a wholly owned subsidiary of Forest Laboratories, Inc., New York, NY), Oakland, CA

118E. Efficacy and Safety of Tedizolid Phosphate for 6 Days vs. Linezolid for 10 Days in a Phase 3 Study in Patients with ABSSSI Using the New FDA Primary Outcome Measure.  
*Carisa De Anda, Pharm.D.*<sup>1</sup> *Edward Fang, M.D.*<sup>1</sup> *Purvi Mehra, M.D.*<sup>2</sup> *Sinikka Green, M.D.*<sup>2</sup> *Philippe Prokocimer, M.D.*<sup>1</sup>; (1)Trius Therapeutics, San Diego, CA; (2)eStudySite, San Diego, CA

119E. Effects of Tedizolid Phosphate and Linezolid on Platelet Counts in a Phase 3 ABSSSI Study.  
*Edward Fang, M.D.*<sup>1</sup> *Carisa De Anda, Pharm.D.*<sup>1</sup> *Anita F. Das, Ph.D.*<sup>2</sup> *Philippe Prokocimer, M.D.*<sup>1</sup>; (1)Trius Therapeutics, San Diego, CA; (2)AxiStat, Inc., San Francisco, CA

120E. Favorable Adverse Event Profile of Tedizolid Phosphate Compared to Linezolid in a Phase 3 ABSSSI Study.

*Edward Fang, M.D.*<sup>1</sup> *Carisa De Anda, Pharm.D.*<sup>1</sup> *Anita F. Das, Ph.D.*<sup>2</sup> *Philippe Prokocimer, M.D.*<sup>1</sup>; (1)Trius Therapeutics, San Diego, CA; (2)AxiStat, Inc., San Francisco, CA

121. Appropriate Use of In Vitro Susceptibility Testing in the Selection of Antifungal Therapy.

*Shaily Arora, Pharm.D.*, *Rebecca Gayle, Pharm.D.*, *B. Joseph Guglielmo, Pharm.D.*; University of California at San Francisco, San Francisco, CA

122E. Comparative Potency of Oxazolidinones Tedizolid (TR-700) and Linezolid Against Target Gram-positive Pathogens in the US from 2009-2010.

*Chris Pillar, Ph.D.*<sup>1</sup> *Daniel Sahm, Ph.D.*<sup>1</sup> *Ken Bartizal, Ph.D.*<sup>2</sup>; (1)Eurofins Medinet, Chantilly, VA; (2)Trius Therapeutics, San Diego, CA

123. Therapeutic Drug Monitoring of Posaconazole in Adults: A Retrospective Analysis.

*Timothy J. Jancel, Pharm.D.*<sup>1</sup> *Scott R. Penzak, Pharm.D.*<sup>1</sup> *Pamela A. Shaw, Ph.D.*<sup>2</sup> *Claire W. Hallahan, M.S.*<sup>2</sup> *Harry L. Malech, M.D.*<sup>3</sup> *Alexandra F. Freeman, M.D.*<sup>4</sup> *Kenneth N. Olivier, M.D.*<sup>4</sup> *Steven M. Holland, M.D.*<sup>4</sup>; (1)National Institutes of Health, Bethesda, MD; (2)National Institute of Allergy and Infectious Diseases (BRB), Bethesda, MD; (3)National Institute of Allergy and Infectious Diseases (LHD), Bethesda, MD; (4)National Institute of Allergy and Infectious Diseases (LCID), Bethesda, MD

124E. An Evaluation of the Absorption, Metabolism, and Excretion of Orally Administered [<sup>14</sup>C]-TR-701 FA in Healthy Subjects.

*Howard Dreskin, M.S.*, *Teresa Boyea, Pharm.D.*, *Jeff Barker, B.S.*, *Edward Fang, M.D.*, *Shawn Flanagan, Ph.D.*, *Philippe Prokocimer, M.D.*; Trius Therapeutics, San Diego, CA

125E. Improved Pharmacokinetics of the Novel Oxazolidinone Antibiotic Tedizolid Phosphate Compared with Linezolid in Healthy Subjects.

*Shawn Flanagan, Ph.D.*<sup>1</sup> *Kelly A. Munoz, M.A., B.A.*<sup>1</sup> *Sonia Minassian, Pharm.D.*<sup>1</sup> *Claudette Bethune, Ph.D.*<sup>2</sup> *John Bohn, B.S.*<sup>2</sup> *Robert Wright, B.S.*<sup>2</sup> *Paul Bien, M.S.*<sup>1</sup> *Philippe Prokocimer, M.D.*<sup>1</sup>; (1)Trius Therapeutics, San Diego, CA; (2)Covance, Madison, WI

126. Correlation of Cefpodoxime Susceptibility with Cephalothin, Cefuroxime, and Ceftriaxone for Urinary Tract Isolates.

*David A. Bookstaver, Pharm.D.*, *Christopher M. Bland, Pharm.D.*, *Mitchell W. Woodberry, Ph.D.*, *Karon B. Mansell, M.T.(ASCP)SM*; Eisenhower Army Medical Center, Fort Gordon, GA

127. Vancomycin Dosing Requirements in Obese Patients.

*Mitchell S. Buckley, Pharm.D.*,<sup>1</sup> Julie A. McIndoo, Pharm.D.,<sup>1</sup> Aundrea R. Linn, Pharm.D.,<sup>1</sup> Marianna Yanashyan, Pharm.D.,<sup>2</sup> Douglas N. Fish, Pharm.D.<sup>2</sup>; (1)Banner Good Samaritan Medical Center, Phoenix, AZ; (2)University of Colorado School of Pharmacy, Aurora, CO

128. Vancomycin Doses of  $\geq 4$  Grams/Day Are Not Associated with Nephrotoxicity in Obese Patients Dosed to Trough Concentrations of 15–20 mg/L.

*Mitchell S. Buckley, Pharm.D.*,<sup>1</sup> Julie A. McIndoo, Pharm.D.,<sup>1</sup> Aundrea R. Linn, Pharm.D.,<sup>1</sup> Marianna Yanashyan, Pharm.D.,<sup>2</sup> Douglas N. Fish, Pharm.D.<sup>2</sup>; (1)Banner Good Samaritan Medical Center, Phoenix, AZ; (2)University of Colorado School of Pharmacy, Aurora, CO

130E. Clinically Derived Mutations in *ERG11* Caused Decreased Fluconazole Susceptibility When Expressed in a Susceptible Strain of *C. albicans*.

*Stephanie A. Flowers, Pharm.D.*,<sup>1</sup> Katherine S. Barker, Ph.D.,<sup>2</sup> P. David Rogers, Pharm.D., Ph.D.<sup>2</sup>; (1)University of Tennessee, Memphis, TN; (2)University of Tennessee College of Pharmacy, Memphis, TN

131. Transcriptional Regulation of Fluconazole Susceptibility in *Candida parapsilosis*.

*Eileen Wanamaker, B.S.*,<sup>1</sup> Minlu Zhang, Ph.D.,<sup>2</sup> Long J. Lu, Ph.D.,<sup>2</sup> Phillip J. Dexheimer, M.S.,<sup>2</sup> *Kelly E. Caudle, Pharm.D., Ph.D.*,<sup>1</sup>; (1)University of Cincinnati James L. Winkle College of Pharmacy, Cincinnati, OH; (2)Cincinnati Children's Hospital Medical Center, Cincinnati, OH

132. Doripenem Pharmacokinetics and Pharmacodynamics in Obese Patients Hospitalized in an Intensive Care Unit.

*Michael B. Kays, Pharm.D.*,<sup>1</sup> Megan R. Fleming, Pharm.D.,<sup>2</sup> S. Christian Cheatham, Pharm.D.,<sup>3</sup> Christina E.K. Chung, Pharm.D.,<sup>1</sup> JoEtta Juenke, B.S., C(ASCP)<sup>4</sup>; (1)Purdue University College of Pharmacy, Indianapolis, IN; (2)Methodist Dallas Medical Center, Dallas, TX; (3)Franciscan St. Francis Health—Indianapolis, Indianapolis, IN; (4)ARUP Institute for Clinical and Experimental Pathology, Salt Lake City, UT

133. Comparative Pharmacokinetics and Pharmacodynamics of Doripenem and Meropenem in Obese Patients.

*Michael B. Kays, Pharm.D.*,<sup>1</sup> Megan R. Fleming, Pharm.D.,<sup>2</sup> S. Christian Cheatham, Pharm.D.,<sup>3</sup> Christina E.K. Chung, Pharm.D.,<sup>1</sup> JoEtta Juenke, B.S., C(ASCP)<sup>4</sup>; (1)Purdue University College of Pharmacy, Indianapolis, IN; (2)Methodist Dallas Medical Center, Dallas, TX; (3)Franciscan St. Francis Health – Indianapolis, Indianapolis, IN; (4)ARUP Institute for Clinical and Experimental Pathology, Salt Lake City, UT

134. Population Pharmacokinetics and Pharmacodynamics of Piperacillin, Administered with Tazobactam by Prolonged Infusion, in Morbidly Obese and Non-obese Patients.

*Christina E.K. Chung, Pharm.D.*,<sup>1</sup> S. Christian Cheatham, Pharm.D.,<sup>2</sup> Megan R. Fleming, Pharm.D.,<sup>3</sup> Michael B. Kays, Pharm.D.,<sup>1</sup>; (1)Purdue University College of Pharmacy, Indianapolis, IN; (2)Franciscan St. Francis Health — Indianapolis, Indianapolis, IN; (3)Methodist Dallas Medical Center, Dallas, TX

135. Evaluation of Compatibility and Stability of Daptomycin in an Antibiotic-Anticoagulant Lock Solution. *P. Brandon Bookstaver, Pharm.D., BCPS (AQ-ID), AAHIVe*, Padmavathy N. Premnath, MSPharm, Ph.D. Candidate, Julie M. Edwards, Pharm.D. Candidate; South Carolina College of Pharmacy-USC Campus, Columbia, SC

136. Recurrent *Clostridium difficile* Infection (rCDI) Is a Risk Factor for Rehospitalization.

*Marya D. Zilberberg, M.D., MPH*,<sup>1</sup> Kimberly Reske, MPH,<sup>2</sup> Kerry Bommarito, MPH,<sup>2</sup> Margaret Olsen, Ph.D., MPH,<sup>2</sup> Yan Yan, M.D., Ph.D.,<sup>1</sup> *Marcie E. Strauss, MPH*,<sup>3</sup> Erik Dubberke, M.D., MSPH<sup>1</sup>; (1)EviMed Research Group, LLC, Goshen, MA; (2)Washington University School of Medicine, St. Louis, MO; (3)Optimer Pharmaceuticals, Inc., Jersey City, NJ

137E. Comparison of Bacterial Pneumonia Etiology in Dialysis versus Non-dialysis Patients.

*Nicole C. Farrell, Pharm.D., Jason M. Cota, Pharm.D., M.S., Cheryl K. Horlen, Pharm.D., Russell T. Attridge, Pharm.D., M.S.; University of the Incarnate Word – Feik School of Pharmacy, San Antonio, TX*

**138. Daptomycin Outcomes by Duration of Methicillin-Resistant *Staphylococcus aureus* Bacteremia with Vancomycin MIC > 1 mg/L.**

*Kenneth C. Lamp, Pharm.D., Maria I. Amodio-Groton, Pharm.D., Min J. Yoon, MPH; Cubist Pharmaceuticals, Lexington, MA*

## **Managed Care**

**139. Assessment and Evaluation Efficacy of a Clinical Pharmacist–Led Inpatient Warfarin Knowledge Education Program and Follow-up at a Chinese Tertiary Referral Teaching Hospital.**

*Guy-Armel Bounda, BSPharm, M.S.(Clin Pharm), Ph.D. Candidate(Clin Pharm),<sup>1</sup> Cosette Ngarambe, B.S.(Med),<sup>2</sup> Wei Hong GE, BSPharm, M.S. (Clin Pharm),<sup>3</sup> Feng Yu, B.S. (Med), M.S., Ph.D.<sup>1</sup>; (1)China Pharmaceutical University, Nanjing, China; (2)Southeast University, Nanjing, China; (3)The Affiliated Drum Tower Hospital of Nanjing University Medical School, Nanjing, China*

## **Neurology**

**147. ANCHOR-CD (AbobotulinumtoxinA Neurotoxin: Clinical & Health Economics Outcomes Registry in Cervical Dystonia): A Multicenter, Observational Study of Dysport in Cervical Dystonia: Baseline Data and Cycle One Outcomes Data.**

*Jack J. Chen, Pharm.D.,<sup>1</sup> Richard M. Trosch, M.D.,<sup>2</sup> Cynthia L. Comella, M.D.,<sup>3</sup> Steven B. Hall, R.Ph.,<sup>4</sup> Yavuz Silay, M.D., MBA,<sup>4</sup> Chandra M. Coleman, Ph.D.,<sup>4</sup> Stephen F. Chang, Ph.D.,<sup>4</sup> Dominic Marchese, R.Ph.<sup>4</sup>; (1)Loma Linda University, Loma Linda, CA; (2)Oakland University, William Beaumont School of Medicine, Southfield, MI; (3)Rush University Medical Center, Chicago, IL; (4)Ipsen Biopharmaceuticals, Basking Ridge, NJ*

**148. Relationship Between the Metabolic Syndrome and C-Reactive Protein with Stroke Prevalence.**

*Stacy A. Voils, Pharm.D.; Virginia Commonwealth University Health System, Richmond, VA*

## **Pediatrics**

**166E. Success of a Methadone Treatment Protocol in Neonatal Drug Withdrawal Following In Utero Exposure to Substances of Abuse.**

*Varsha Bhatt-Mehta, Pharm.D., M.S. (CRDSA), FCCP, Robert E. Schumacher, M.D., Chee M. Ng, Pharm.D., Ph.D., FCP; University of Michigan, Ann Arbor, MI*

**167. Characterization and Evaluation of Clinical Decision Support Dosing Alerts for Medications Prescribed Among Pediatric Patients.**

*Jeremy S. Stultz, Pharm.D.,<sup>1</sup> Karl A. Matuszewski, Pharm.D., M.S.,<sup>2</sup> Gregory H. Dorn, M.D., MPH,<sup>2</sup> Milap C. Nahata, Pharm.D., M.S.<sup>1</sup>; (1)Ohio State University College of Pharmacy, Columbus, OH; (2)First Databank, Inc., South San Francisco, CA*

**168. Vancomycin Pharmacologic Modeling in Critically Ill Children Following Modified IDSA Guidelines.**

*Christopher L. Shaffer, Pharm.D., M.S., BCPS; University of Nebraska Medical Center, Omaha, NE*

**169. Lack of Association of Late-Onset Sepsis with Ranitidine Use in Neonates.**

*Chasity M. Shelton, Pharm.D., Jasmine K. Sahni, Pharm.D., Ramsubbareddy Dhanireddy, M.D., Michael L. Christensen, Pharm.D.; The University of Tennessee Health Science Center & Le Bonheur Children's Hospital, Memphis, TN*

170E. Don't Leave Without Them: Dispensing Asthma Medications to Pediatric Patients upon Discharge Is Associated with Decreased Hospital Readmissions.

*Kelly J. Hiteshew, Pharm.D.<sup>1</sup> Thaddeus Franz, Pharm.D.<sup>1</sup> Kristen Lamberjack, Pharm.D.<sup>2</sup> Aleda M.H. Chen, Pharm.D., Ph.D.<sup>1</sup>; (1)Cedarville University School of Pharmacy, Cedarville, OH; (2)Nationwide Children's Hospital, Columbus, OH*

171. Effectiveness of Alprostadil Dose Titration in Neonates with Congenital Heart Disease.

*Marcia L. Buck, Pharm.D., D. Scott Lim, M.D., Joshua Attridge, M.D.; University of Virginia Children's Hospital, Charlottesville, VA*

172. The Impact of a Training Program on Pharmacists' Comfort with Pediatric Pharmacy Concepts and Basic Pediatric Knowledge.

*Elizabeth A. Riney, Pharm.D.<sup>1</sup> Andrew J. Crannage, Pharm.D., BCPS<sup>1</sup> Nausheen Hasan, Pharm.D.<sup>2</sup> Rachel M. Tanner, Pharm.D., BCPS<sup>2</sup> Julie A. Murphy, Pharm.D., FASHP, BCPS<sup>1</sup>; (1)St. Louis College of Pharmacy/Mercy Hospital St. Louis, St. Louis, MO; (2)Mercy Hospital St. Louis, St. Louis, MO*

173. Evaluation of a Trace Element Dosing Protocol During Trace Element Product Shortages.

*Catherine M. Crill, Pharm.D., Rebecca F. Chhim, Pharm.D., Chasity M. Shelton, Pharm.D.; The University of Tennessee Health Science Center, Memphis, TN*

174. Evaluation of Premixed Parenteral Nutrition Solutions in Children.

*Rebecca F. Chhim, Pharm.D., Ryan O'Neal, B.S., Catherine M. Crill, Pharm.D.; The University of Tennessee Health Science Center, Memphis, TN*

175E. Evaluation of Microbial Contamination Associated with Pharmacy Preparation of Intravenous Fat Emulsion.

*Kelly Walls, Pharm.D.<sup>1</sup> Rebecca F. Chhim, Pharm.D.<sup>2</sup> Catherine M. Crill, Pharm.D.<sup>2</sup>; (1)Le Bonheur Children's Hospital, Memphis, TN; (2)The University of Tennessee Health Science Center, Memphis, TN*

## **Pharmacoconomics/Outcomes**

176. Using Observational Data to Inform the Design of a Prospective Effectiveness Study for a Novel Insulin Delivery Device.

*Yong Chen, Ph.D.<sup>1</sup> Matthew Nguyen, Pharm.D.<sup>2</sup> Michael Grabner, Ph.D.<sup>1</sup> Ralph Quimbo, M.A.<sup>1</sup>; (1)HealthCore, Inc., Wilmington, DE; (2)Valeritas, Inc., Bridgewater, NJ*

177. Risk of Venous Thromboembolism Complications Associated with Recurrent Venous Thromboembolism.

*Patrick Lefebvre, M.A.<sup>1</sup> François Laliberté, M.A.<sup>1</sup> Edith A. Nutescu, Pharm.D.<sup>2</sup> Mei Sheng Duh, MPH, ScD<sup>3</sup> Joyce C. LaMori, MHS, MBA,<sup>4</sup> Brahim Bookhart, MBA, MPH,<sup>4</sup> William H. Olson, Ph.D.,<sup>4</sup> Katherine Dea, M.A.,<sup>1</sup> Yvonnick Hossou, B.A.,<sup>1</sup> Jeff Schein, Pharm.D., MPH,<sup>4</sup> Scott Kaatz, D.O.<sup>5</sup>; (1)Groupe d'Analyse, Ltée., Montreal, QC, Canada; (2)University of Illinois at Chicago College of Pharmacy, Chicago, IL; (3)Analysis Group, Inc., Boston, MA; (4)Janssen Scientific Affairs, LLC, Raritan, NJ; (5)Henry Ford Hospital, Detroit, MI*

178E. Incremental Economic Burden of *Clostridium difficile*-Associated Diarrhea Among Hospitalized Patients at High Risk of Recurrent Infection.

*Swetha Rao Palli, M.S.,<sup>1</sup> Ralph A. Quimbo, M.A.,<sup>1</sup> Joseph R. Singer, M.D.,<sup>1</sup> Marcie E. Strauss, MPH,<sup>2</sup> Sheila Thomas, Pharm.D.<sup>2</sup>; (1)HealthCore Inc., Wilmington, DE; (2)Optimer Pharmaceuticals, Inc., Jersey City, NJ*

179E. Post-hospitalization Discharge Economic Burden of *Clostridium difficile*-Associated Diarrhea Among High-Risk Patient Sub-groups in a Managed Care Setting.

*Swetha Rao Palli, M.S.,<sup>1</sup> Sheila Thomas, Pharm.D.,<sup>2</sup> Ralph A. Quimbo, M.A.,<sup>1</sup> Marcie E. Strauss, MPH<sup>2</sup>; (1)HealthCore Inc., Wilmington, DE; (2)Optimer Pharmaceuticals, Inc., Jersey City, NJ*

180. Use of a Medication Access and Adherence Tool (MAAT) to Identify Patients at High Risk for Medication-Related Problems.

*Kim C. Coley, Pharm.D.<sup>1</sup> Amy C. Donihi, Pharm.D.,<sup>1</sup> Rima A. Mohammad, Pharm.D.,<sup>1</sup> Jenny Kim, Pharm.D.,<sup>2</sup> Patricia D. Kroboth, Ph.D.<sup>1</sup>; (1)University of Pittsburgh School of Pharmacy, Pittsburgh, PA; (2)Bernard J. Dunn School of Pharmacy, Shenandoah University, Winchester, VA*

181. Evaluation of Medication Adherence in a Medically Underserved Population.

*Bradley M. Wright, Pharm.D., BCPS,<sup>1</sup> Karen Marlowe, Pharm.D., BCPS,<sup>1</sup> Errol Crook, M.D.<sup>2</sup>; (1)Auburn University, Harrison School of Pharmacy, Mobile, AL; (2)University of South Alabama – Department of Internal Medicine, Mobile, AL*

182. Economic Evaluations of Clinical Pharmacy Services: 2006-2010.

*Daniel R. Touchette, Pharm.D., M.A., FCCP,<sup>1</sup> Fred Doloresco, Pharm.D., M.S.,<sup>2</sup> Katie J. Suda, Pharm.D., M.S.,<sup>3</sup> Alexandra Perez, Pharm.D.,<sup>4</sup> Stuart Turner, BSPharm, MPH,<sup>5</sup> Yash J. Jalundhwala, BSPharm, M.S.,<sup>1</sup> Maria C. Tangonan, B.S., Pharm.D. Candidate,<sup>1</sup> James M. Hoffman, Pharm.D., M.S., BCPS<sup>6</sup>; (1)University of Illinois at Chicago, Chicago, IL; (2)SUNY: University at Buffalo, Buffalo, NY; (3)University of Tennessee Health Science Center, College of Pharmacy, Memphis, TN; (4)Nova Southeastern University, Ft. Lauderdale, FL; (5)University at Buffalo, Buffalo, NY; (6)St. Jude Children's Research Hospital, Memphis, TN*

## **Pharmacogenomics/Pharmacogenetics**

189. Community Pharmacists' Attitudes Towards Pharmacogenetic Testing.

*Sony Tuteja, Pharm.D., BCPS,<sup>1</sup> Kevin Haynes, Pharm.D.,<sup>1</sup> Cara Zayac, MPH,<sup>1</sup> Jon E. Sprague, Ph.D.,<sup>2</sup> Barbara Bernhardt, M.S.,<sup>1</sup> Reed Pyeritz, M.D., Ph.D.<sup>1</sup>; (1)University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; (2)Ohio Northern University Raabe College of Pharmacy, Ada, OH*

192. Effects of CYP2C9 Genetic Polymorphism on the Pharmacokinetics of Zafirlukast.

*Mi-Jung Kim, Ph.D. Candidate, Choon-Gon Jang, Ph.D., Seok-Yong Lee, Ph.D.; School of Pharmacy, Sungkyunkwan University, Suwon, South Korea*

193. Effects of CYP2C19 Genetic Polymorphism on the Disposition of Atomoxetine and its Major Metabolites.

*Mi-Jung Kim, Ph.D. Candidate, Choon-Gon Jang, Ph.D., Seok-Yong Lee, Ph.D.; School of Pharmacy, Sungkyunkwan University, Suwon, South Korea*

194. Pharmacokinetics and Pharmacodynamics of Meloxicam in Relation to CYP2C9 Genotype.

*Mi-Jung Kim, Ph.D. Candidate, Choon-Gon Jang, Ph.D., Seok-Yong Lee, Ph.D.; School of Pharmacy, Sungkyunkwan University, Suwon, South Korea*

195. CYP2C9 Genetic Polymorphism Significantly Affected the Pharmacokinetics of Candesartan and its Metabolite.

*Ji-Yeong Byeon, B.S., Jung-In Park, B.S., Choon-Gon Jang, Ph.D., Seok-Yong Lee, Ph.D.; School of Pharmacy, Sungkyunkwan University, Suwon, South Korea*

196. Effects of ABCC2 C-24T Genetic Variant on the Pharmacokinetics of Valsartan in Healthy Koreans.

*Ji-Yeong Byeon, B.S., Jung-In Park, B.S., Choon-Gon Jang, Ph.D., Seok-Yong Lee, Ph.D.; School of Pharmacy, Sungkyunkwan University, Suwon, South Korea*

197. Effects of CYP2C9\*3 and CYP2C9\*13 Alleles on the Pharmacokinetics of Celecoxib and its Carboxylic Metabolite.

*So-Young Park, B.S., Hye-In Lee, Ph.D. Candidate, Chang-Ik Choi, Ph.D.; School of Pharmacy, Sungkyunkwan University, Suwon, South Korea*

198. Dose Adjustment of Celecoxib Based on CYP2C9 Genotype in Healthy Koreans.

*So-Young Park, B.S., Hye-In Lee, Ph.D. Candidate, Chang-Ik Choi, Ph.D.; School of Pharmacy, Sungkyunkwan University, Suwon, South Korea*

**201. CYP2C19 Genotype: A Moving Target?**

*Tracy N. Zembles, Pharm.D., Charles J. Marcuccilli, Ph.D., M.D., Tara L. Sander, Ph.D., Pippa Simpson, Ph.D.; Children's Hospital of Wisconsin, Milwaukee, WI*

**202. Effects of CYP3A5 Genetic Polymorphism on the Pharmacokinetics of Tamsulosin in Subjects with CYP2D6\*10/\*10.**

*Ji-Yeong Byeon, B.S., Choon-Gon Jang, Ph.D., Seok-Yong Lee, Ph.D.; School of Pharmacy, Sungkyunkwan University, Suwon, South Korea*

**203. NOTCH3: A Potential Predictive Biomarker in Malignant Glioma.**

*Mohammad A.Y. Alqudah, Pharm.D.<sup>1</sup> Supreet Agarwal, B.S.,<sup>1</sup> Maha S. Al-Keilani, Pharm.D.,<sup>1</sup> Zita Sibenaller, Ph.D.,<sup>2</sup> Timothy C. Ryken, M.D.,<sup>2</sup> Mahfoud Assem, Ph.D.<sup>1</sup>; (1)University of Iowa, Pharmaceutics and Translational Therapeutics, Iowa, IA; (2)University of Iowa, Neurosurgery Department, Iowa, IA*

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

**204. Improvement of Vancomycin Utilization in a Community Teaching Hospital.**

*Brenda Gitman, Pharm.D., Rani Patel, Pharm.D., Joseph Gugliotta, M.D.; Hunterdon Medical Center, Flemington, NJ*

**205. Evaluation of Digoxin Pharmacokinetics in a Patient Undergoing Continuous Venovenous Hemofiltration.**

*Scott T. Benken, Pharm.D., Bryan D. Lizza, Pharm.D.; Northwestern Memorial Hospital, Chicago, IL*

**206. Is a Standard Vancomycin Dosing Protocol Appropriate to Achieve Therapeutic Trough Levels in Adult Neutropenic Patients?**

*Kellye A. Donovan, Pharm.D., Julie Sklenicka, Pharm.D.; Naval Medical Center San Diego, San Diego, CA*

**207. Pharmacokinetics of Vancomycin in Patients with Continuous Flow Left-Ventricular Assist Devices.**

*Charles T. Makowski, Pharm.D.,<sup>1</sup> Rachel M. Chambers, Pharm.D., BCPS (AQ-ID),<sup>2</sup> Douglas L. Jennings, Pharm.D., BCPS (AQ-CV)<sup>2</sup>; (1)Wayne State University Eugene Applebaum College of Pharmacy, Detroit, MI; (2)Henry Ford Hospital, Detroit, MI*

**208. Linagliptin Fixed-Dose Combination with Metformin Is Bioequivalent to Free-Pill Combination Therapy.**

*Susanne Buschke, Ph.D., Arne Ring, M.D., Christian Friedrich, M.D., Katrin Metzmann, M.D., Thomas Meinicke, M.D.; Boehringer Ingelheim, Biberach, Germany*

**209. Drug-Drug Interaction Between Tamsulosin and Diltiazem, a Moderate CYP3A4 Inhibitor.**

*Ji-Yeong Byeon, B.S., Jung-In Park, B.S., Choon-Gon Jang, Ph.D., Seok-Yong Lee, Ph.D.; School of Pharmacy, Sungkyunkwan University, Suwon, South Korea*

**210. Food and Tablet Dissolution Characteristics Do Not Affect the Bioavailability of Linagliptin Fixed-Dose Combination with Metformin.**

*Katrin Metzmann, M.D.,<sup>1</sup> David Schnell, Ph.D.,<sup>2</sup> Arvid Jungnik, M.D.,<sup>1</sup> Arne Ring, M.D.,<sup>1</sup> Rudolf Theodor, M.D.,<sup>3</sup> Kathrin Hohl, Ph.D.,<sup>1</sup> Thomas Meinicke, M.D.,<sup>1</sup> Christian Friedrich, M.D.,<sup>1</sup>; (1)Boehringer Ingelheim, Biberach, Germany; (2)SocraMetrics GmbH, Erfurt, Germany; (3)ClinPharm Reform GmbH, Ulm, Germany*

**211. Impact of Hispanic Ethnicity on Tacrolimus Dosing in Liver Transplant Patients.**

*Annelise M. Nelson, Pharm.D., BCPS, Christina T. Doligalski, Pharm.D., BCPS, Angela T. Logan, Pharm.D., Andrew Silverman, Pharm.D., Angel Alsina, M.D.; Tampa General Hospital, Tampa, FL*

212. Modeling of Aceclofenac Metabolism to Major Metabolites in Healthy Volunteers.

*Eunyoung Kim, Pharm.D., Ph.D.<sup>1</sup> Wonku Kang, Ph.D.<sup>2</sup>; (1)Chungnam National University, Daejeon, South Korea; (2)Yeungnam University, Kyoungsan, South Korea*

213. Cytochrome P450 3A4 Drug Interaction Profile of Tofacitinib.

*Sriram Krishnaswami, Ph.D.<sup>1</sup> Manisha Lamba, Ph.D., MSPPharm<sup>1</sup> Pankaj Gupta, Ph.D.<sup>1</sup> Liza Takiya, Pharm.D., BCPS<sup>2</sup> Ronnie Wang, MPH,<sup>1</sup> Irina Kaplan, Ph.D.,<sup>1</sup> Joanne Salageanu, Ph.D.,<sup>1</sup> Sanelia Tarabar, M.D.,<sup>1</sup> Christine Alvey, B.S.,<sup>1</sup> Marie-Noella Ndongo, M.D.<sup>3</sup>; (1)Pfizer, Groton, CT; (2)Pfizer, Collegeville, PA; (3)Pfizer, Brussels, Belgium*

214. Ethanol Inhibits the Metabolism of Oseltamivir to its Active Metabolite.

*Robert B. Parker, Pharm.D.,<sup>1</sup> Bernd Meibohm, Ph.D.,<sup>2</sup> Zheyi Hu, Ph.D.,<sup>1</sup> S. Casey Laizure, Pharm.D.<sup>1</sup>; (1)University of Tennessee Department of Clinical Pharmacy, Memphis, TN; (2)University of Tennessee Department of Pharmaceutical Sciences, Memphis, TN*

215. Three Cases of Iatrogenic Adrenal Insufficiency Due to Concomitant Administration of Posaconazole and Budesonide.

*Timothy J. Jancel, Pharm.D.,<sup>1</sup> Scott R. Penzak, Pharm.D.,<sup>1</sup> Kenneth N. Olivier, M.D.,<sup>2</sup> Gulbu Uzel, M.D.,<sup>2</sup> Steven M. Holland, M.D.<sup>2</sup>; (1)National Institutes of Health, Bethesda, MD; (2)National Institute of Allergy and Infectious Diseases (LCID), Bethesda, MD*

217E. In Vitro Activity of Colistin Alone and in Combination with Doripenem Against KPC-Producing *K. pneumoniae* Isolates.

*Grace C. Lee, Pharm.D., BCPS, David S. Burgess, Pharm.D., FCCP; University of Texas at Austin College of Pharmacy and University of Texas Health Science Center School of Medicine, San Antonio, TX*

## Pulmonary

221E. Indacaterol 75 mcg Once Daily Improves Health Status in Patients with Moderate-to-Severe COPD: Responder Analysis.

*Donald A. Mahler, M.D.,<sup>1</sup> Leonard J. Dunn, M.D.,<sup>2</sup> Mark H. Gotfried, M.D.,<sup>3</sup> James Williams, M.D.,<sup>4</sup> David Lawrence, Ph.D.,<sup>5</sup> Danny McBryan, M.D.<sup>6</sup>; (1)Dartmouth-Hitchcock Medical Center, Lebanon, NH; (2)Clinical Research of West Florida, Clearwater, FL; (3)Pulmonary Associates, Phoenix, AZ; (4)Novartis Pharmaceuticals Corporation, East Hanover, NJ; (5)Novartis Pharmaceuticals UK Limited, Horsham, West Sussex, United Kingdom; (6)Novartis Pharma AG, Basel, Switzerland*

222E. Efficacy and Safety of Indacaterol 75 mcg Once Daily in Patients with Moderate-to-Severe COPD: Pooled Analysis of Two Phase III Trials.

*James F. Donohue, M.D.,<sup>1</sup> Thomas Siler, M.D.,<sup>2</sup> Edward M. Kerwin, M.D.,<sup>3</sup> James Williams, M.D.,<sup>4</sup> Farid Kianifard, Ph.D.,<sup>4</sup> Danny McBryan, M.D.<sup>5</sup>; (1)University of North Carolina, School of Medicine, Chapel Hill, NC; (2)Midwest Chest Consultants, PC, St. Charles, MO; (3)Allergy & Asthma Center of Southern Oregon, Medford, OR; (4)Novartis Pharmaceuticals Corporation, East Hanover, NJ; (5)Novartis Pharma AG, Basel, Switzerland*

223E. Chronic Obstructive Pulmonary Disease Outcomes Based on Level of Short-acting  $\beta$ 2-agonist Use.

*Amir Sharafkhaneh, M.D., Ph.D.,<sup>1</sup> Nicola A. Hanania, M.D., M.S., FCCP, FRCP(C), FACP,<sup>2</sup> Gene L. Colice, M.D.,<sup>3</sup> James D. Donahue, M.D.,<sup>4</sup> Aylin Riedel, Ph.D.,<sup>5</sup> Jonathan Kurlander, M.S.,<sup>5</sup> Pablo R. Altman, M.D., MBA,<sup>6</sup> John Howard, Pharm.D.,<sup>6</sup> Joe Harper, Pharm.D.<sup>6</sup>; (1)Michael E. Debakey VA Medical Center, Houston, TX; (2)Baylor College of Medicine, Houston, TX; (3)Washington Hospital Center, Washington, DC; (4)University of North Carolina School of Medicine, Chapel Hill, NC; (5)OptumInsight, Eden Prairie, MN; (6)Mylan Specialty L.P., Basking Ridge, NJ*

## **CLINICAL PHARMACY FORUM**

These abstracts describe the delivery, development, justification, or documentation of an innovative clinical pharmacy service; they may be descriptive only and need not contain an evaluative component.

### **ADR/Drug Interactions**

246. Identification of Serious Iatrogenic Opioid-Related Adverse Events in Hospitalized Patients.  
Michelle R. Huber, Pharm.D., Monica Hanson, Pharm.D., *Bob Lobo, Pharm.D.*; Vanderbilt University Medical Center, Nashville, TN

### **Adult Medicine**

247. Hospitalist-Pharmacist Collaboration: A Novel Approach to Improving Patient Care.  
*Jonathan D. Edwards, Pharm.D.*, Zia Hassan, M.D., Sudheer Kantharajpur, M.D., Akshai Janak, M.D., Samuel Myers, Pharm.D., Adam Sawyer, Pharm.D., Suzanne Morrow, Pharm.D., Ryan Novosad, Pharm.D., Jacqueline Runnels, Pharm.D., Christopher Newlin, Pharm.D.; Huntsville Hospital, Huntsville, AL

248. Management of Hyponatremia in the Hospital: Interim Results of a Disease-Based Registry.  
*Joseph Dasta, M.S.*<sup>1</sup> Jun Chioing, M.D.,<sup>2</sup> Sandra Chase, Pharm.D.,<sup>3</sup> Alpesh Amin, M.D.<sup>4</sup>; (1)The University of Texas College of Pharmacy, Austin, TX; (2)Loma Linda University, Loma Linda, CA; (3)Otsuka America Pharmaceuticals, Ada, MI; (4)UC Irvine College of Medicine, Irvine, CA

249. Impact of Clinical Pharmacy Services on the Surgical Care Improvement Project Measures in a Community Hospital.  
*Estela M. Trimino, Pharm.D.*, BCPS, Marta Benitez, Pharm.D., Ann-Lori Perez, Pharm.D., John Lamarque, Pharm.D., BCPS; Mercy Hospital, Miami, FL

### **Ambulatory Care**

250. Pharmacist-Physician Collaboration for Diabetes Care: The Diabetes Initiative Program.  
*Michelle Z. Farland, Pharm.D.*, BCPS, CDE,<sup>1</sup> Jeremy L. Thomas, Pharm.D., CDE,<sup>2</sup> Debbie C. Byrd, Pharm.D., BCPS,<sup>1</sup> M. Shawn McFarland, Pharm.D., BCPS, BC-ADM,<sup>3</sup> Andrea S. Franks, Pharm.D., BCPS,<sup>1</sup> Christa M. George, Pharm.D., BCPS, CDE,<sup>4</sup> Alexander B. Guirguis, Pharm.D., BCPS,<sup>1</sup> Benjamin N. Gross, Pharm.D., BCPS, BCACP, BC-ADM, CDE,<sup>5</sup> Katie J. Suda, Pharm.D., M.S.<sup>4</sup>; (1)University of Tennessee Health Science Center College of Pharmacy, Knoxville, TN; (2)University of Arkansas for Medical Sciences College of Pharmacy, Little Rock, AR; (3)Alvin C. York Veterans Administration, Murfreesboro, TN; (4)University of Tennessee Health Science Center College of Pharmacy, Memphis, TN; (5)University of Tennessee Health Science Center College of Pharmacy, Kingsport, TN

251. Pharmacists Providing Disease State Self-Management Education in the Patient-Centered Medical Home.  
*Kira B. Harris, Pharm.D.*, BCPS, Cassie Boland, Pharm.D.; Wingate University School of Pharmacy, Wingate, NC

252. Evaluating a Multi-disciplinary Approach in a Primary Care Setting to Decrease Hospital Readmission Rates and Medication-Related Issues After Hospital Discharge.  
*Radha S. Vanmali, Pharm.D.*,<sup>1</sup> Shelley H. Otsuka, Pharm.D.,<sup>1</sup> Lache T. Wilkins, B.S.,<sup>2</sup> Kristin G. Christensen, M.D.,<sup>2</sup> Susan C. Day, M.D.<sup>2</sup>; (1)Philadelphia College of Pharmacy, Philadelphia, PA; (2)University of Pennsylvania Perelman School of Medicine, Philadelphia, PA

253. Role of the Clinical Pharmacist in the Successful Implementation of an Electronic Medical Record in an Interdisciplinary Diabetes Education and Research Center.

Amy Henneman, Pharm.D., BCPS, Seena Haines, Pharm.D., FASHP, FAPhA, BCACP, BC-ADM, CDE; Palm Beach Atlantic University, West Palm Beach, FL

254. Comparing Change in Hemoglobin A1C of Patients in Pharmacist-Managed Telehealth Clinic versus In-person Clinic.

Khyati Patel, Pharm.D.<sup>1</sup> Danielle Alsip, Pharm.D.,<sup>1</sup> Roshani Raval, Pharm.D.,<sup>1</sup> Todd Lee, Pharm.D., Ph.D.<sup>2</sup>; (1)Edward Hines, Jr. VA Hospital, Hines, IL; (2)University of Illinois at Chicago College of Pharmacy, Chicago, IL

255. Challenges in Implementing an Interdisciplinary Cardiometabolic Risk Reduction Clinic.

Cara Liday, Pharm.D., BCPS, CDE; Idaho State University, Pocatello, ID

256. A Reimbursement Model Through a University's Self-Insurance for Ambulatory Care Clinical Pharmacy Services.

Katy E. Trinkley, Pharm.D., Gina Moore, Pharm.D., MBA, Kavita V. Nair, Ph.D., Steven M. Smith, Pharm.D., MPH; University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO

257. Patient Acceptance of STI Screening Services by Pharmacists.

Sara J. Deppe, Pharm.D.,<sup>1</sup> Brooke Y. Patterson, Pharm.D.,<sup>2</sup> Mark T. Sawkin, Pharm.D.,<sup>3</sup> Chessa R. Nyberg, Pharm.D.<sup>4</sup>; (1)University of Missouri-Kansas City School of Pharmacy, Kansas City, MO; (2)Janssen Services Inc., Kansas City, MO; (3)University of Missouri-Kansas City School of Pharmacy, Kansas City, MO; (4)University of Illinois at Chicago, Chicago, IL

258. Implementing a Medication Management Pilot to Decrease Polypharmacy Within a Medical Home.

Erin B. Neal, Pharm.D., BCPS, David F. Gregory, Pharm.D., FACHE, BCPS, Walt R. Woods, BSPharm, MMHC; Vanderbilt University Medical Center, Nashville, TN

259E. Establishment of a Pharmacist-Run Dofetilide Initiation Clinic.

Sarah Land, Pharm.D.,<sup>1</sup> Jackie Roh, R.Ph., BCPS,<sup>1</sup> Sally Putt, Pharm.D., BCPS, CPP<sup>2</sup>; (1)Cone Health, Greensboro, NC; (2)LeBauer HeartCare, Greensboro, NC

260. ACTion: An Interdisciplinary Approach to Outpatient-Based Transitions of Care.

Zachariah M. Deyo, Pharm.D., BCPS, CPP,<sup>1</sup> Mark Gwynne, D.O.,<sup>2</sup> Amy Prentice, MSW, P-LCSW,<sup>2</sup> Gretchen Tong, Pharm.D., CPP,<sup>2</sup> Sam Weir, M.D.<sup>2</sup>; (1)University of North Carolina Hospitals and Clinics, Chapel Hill, NC; (2)University of North Carolina Department of Family Medicine, Chapel Hill, NC

261. Collaborative Hypertension Case Management by Clinical Pharmacy Specialists and Registered Nurses in a VA Primary Care Clinic.

Jessica O'Neill, Pharm.D., Tori Cunningham, Pharm.D., Emily Bartley, Pharm.D., Wyndy Wiitala, Ph.D.; VA Ann Arbor Healthcare System, Ann Arbor, MI

262. Patient Education, Lifestyle Modification, and Medication Therapy Management (MTM) with a Diabetes Focus in an Underserved Population Within a Primary Care Setting.

Krystal K.C. Riccio, Pharm.D., BCACP; Roseman University of Health Sciences, Henderson, NV

263. Development and Implementation of a Pharmacist-Managed Clinic for the Titration of Medications in Chronic Heart Failure Patients.

Vicki L. Groo, Pharm.D.,<sup>1</sup> Mayank Kansal, M.D.,<sup>2</sup> George T. Kondos, M.D.<sup>1</sup>; (1)University of Illinois at Chicago, Chicago, IL; (2)University of Illinois at Chicago, Chicago, IL

264. Pharmacist-Managed Diabetes Care in a Medically Underserved Population.

*Jennifer L. Rosselli, Pharm.D., J. Christopher Lynch, Pharm.D.; Southern Illinois University Edwardsville School of Pharmacy, Edwardsville, IL*

## **Critical Care**

274. Pharmacist and Provider Perceptions of the Clinical and Financial Impact of Pharmacy Services in the ICU.

*Robert MacLaren, Pharm.D., R. Brett McQueen, M.A., Jon Campbell, Ph.D.; University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO*

## **Gastroenterology**

286. Immunization Rates of Inflammatory Bowel Disease Patients Receiving TNF- $\alpha$  Inhibitor Therapy.

*Bryan L. Love, Pharm.D., BCPS, Jackson Murphy, Pharm.D. Candidate, Justin Goette, Pharm.D. Candidate; South Carolina College of Pharmacy, Columbia, SC*

## **Infectious Diseases**

291. Nitrofurantoin: Great for Cystitis, but Appropriate for Everyone?

*Andrea G. Centi, Pharm.D., BCPS, Rachel M. Chambers, Pharm.D.; Henry Ford Hospital, Detroit, MI*

292. Evaluation of Pharmacist-Managed Vancomycin Therapy Compared to Physician-Managed Dosing in Establishing Timely and Therapeutic Vancomycin Serum Concentrations at a Community Hospital.

*Rachel Sussman, Pharm.D.<sup>1</sup> Andras Farkas, Pharm.D.<sup>2</sup> Andrea H. Lee, Pharm.D. Candidate<sup>3</sup>; (1)Nyack Hospital, Nyack, NY; (2)Optimum Dosing Strategies, Teaneck, NJ; (3)Touro College of Pharmacy, New York, NY*

293E. Integrating a Clinical Pharmacy Specialist into an Existing Hepatitis C Clinic.

*Bryan L. Love, Pharm.D., BCPS<sup>1</sup> Helen Woods, R.Ph.<sup>2</sup> Steedman A. Sarbah, M.D., MBA<sup>2</sup>; (1)South Carolina College of Pharmacy, Columbia, SC; (2)Dorn Veterans Medical Center, Columbia, SC*

294. Comparison of Two Pharmacy Practice Models for Pharmacokinetic Management of Vancomycin at an Academic Medical Center.

*Zhe Han, Pharm.D., Heath R. Jennings, Pharm.D., Natasha N. Pettit, Pharm.D., Emily Landon, M.D., Benjamin D. Brielmaier, Pharm.D.; University of Chicago Medicine, Chicago, IL*

## **Managed Care**

295E. Descriptive Analysis of Quality Outcomes for Primary Care Clinical Pharmacy Service (PCCPS) Interventions.

*Rachel M.F. Heilmann, Pharm.D., Stephanie Campbell, Pharm.D.; Kaiser Permanente Colorado, Denver, CO*

296. Evaluation of Clopidogrel, Prasugrel and Ticagrelor in the Department of Defense: Applying Cost-effectiveness Analyses to Formulary Decisions.

*Olaitan Ojo, Pharm.D., MBA, BCPS<sup>1</sup> Angela A. Allerman, Pharm.D., BCPS<sup>2</sup> Bradley Clarkson, Pharm.D.<sup>2</sup> Josh Devine, Pharm.D., BCPS<sup>2</sup>; (1)University of Illinois at Chicago, Chicago, IL; (2)Department of Defense Pharmacoeconomic Center, Fort Sam Houston, TX*

## **Medication Safety**

297. The Impact of Insulin Sliding Scale Standardization.

*Nora Albanyan, B.S. Clinical Pharmacy Residency; King Fahad Medical City, Riyadh, Saudi Arabia*

298. Structured Safety Rounds: An Effective Forum for Discussion of Medication Safety Issues.

*Salma Satchu, Pharm.D.<sup>1</sup> Heather Kertland, Pharm.D.,<sup>2</sup> Clarence Chant, Pharm.D.,<sup>3</sup> Jill Garland, BSPharm,<sup>1</sup> Elaine Tom, BSPharm<sup>1</sup>; (1)St. Michael's Hospital, Toronto, ON, Canada; (2)St. Michael's Hospital and Leslie Dan Faculty of Pharmacy, Toronto, ON, Canada; (3)St. Michael's Hospital and Li Ka Shing Knowledge Institute, Toronto, ON, Canada*

299. Thrombophlebitis Associated with Peripheral Amiodarone Infusions.

*May Achi, Pharm.D., BCPS, Janet Hudkins, RN, ACNP, Nadim D. Nasir, M.D., FACC; The Methodist Hospital, Houston, TX*

300. Making "Smart Pumps" Smarter: Utilizing Electronic Medical Administration Record Information to Optimize Dose Error Reduction Software on Large-Volume Infusion Devices.

*Amanda C. Chuk, Pharm.D., BCPS, Colin L. Skinner, MBA, Robert W. Maloney, Pharm.D., BCPS, Joyce A. Gawron, Pharm.D., BCPS, Mary Catherine Rawls, M.S., BSN, RN-BC, ONC; Dartmouth-Hitchcock Medical Center, Lebanon, NH*

301. Pharmacist Intervention for Medication Safety in Elderly According to Screening Tool of Older Persons' Potentially Inappropriate Prescriptions (STOPP) Criteria.

*Chia-shan Tsai, M.S., Yeo Loo Chang, M.S., Wuan-Jin Leu, M.S., You-Meei Lin, M.S., Hui-Ping Liu, M.S.; Department of Pharmacy, Taipei Medical University – Shuang Ho Hospital, New Taipei City, Taiwan*

302E. Bridging the Gap Between FDA Safety Warnings and Patients: Are Pharmacists the Appropriate Messengers?

*McKay Robinson, Pharm.D.,<sup>1</sup> Karen Gunning, Pharm.D.,<sup>2</sup> Karly Pippitt, M.D.,<sup>3</sup> Carrie McAdam-Marx, Ph.D., R.Ph.,<sup>1</sup> Brandon T. Jennings, Pharm.D.<sup>1</sup>; (1)University of Utah College of Pharmacy, Salt Lake City, UT; (2)University of Utah College of Pharmacy and School of Medicine, Salt Lake City, UT; (3)University of Utah School of Medicine – Department of Family & Preventive Medicine, Salt Lake City, UT*

303. Can a Culture of Safety Be Enhanced in a Department of Pharmacy?

*Heather Kertland, Pharm.D., Clarence Chant, Pharm.D., Salma Satchu, Pharm.D., BSPharm, Jill Garland, BSPharm, Elaine Tom, BSPharm; St Michael's Hospital, Toronto, ON, Canada*

304. Making the Case for Early Medication Reconciliation by Clinical Pharmacists.

*Rasha Z. Al Anany, Pharm.D.,<sup>1</sup> Hoda M. Badran, M.S. (Clin Pharm),<sup>2</sup> Halima Y. Al Tamimi, BSPharm,<sup>1</sup> Maha M. El Hamid, BSPharm,<sup>1</sup> Imran F. Khudair, BSPharm, MBA,<sup>1</sup> Omer AlAbad, BSPharm<sup>1</sup>; (1)Hamad Medical Corporation, Doha, Qatar; (2)HMC, Doha, Qatar*

## **Neurology**

305. Alteplase Cost Containment Initiative.

*Erika Dittmar, Pharm.D., BCPS, Sylvia Marrero, Pharm.D.; Baptist Hospital of Miami, Miami, FL*

## **Pediatrics**

311. Assessing the Medication Ordering Process: Are We Complying with Our Own Medication Policy?

*Nancy Simon, Pharm.D.,<sup>1</sup> Karen Pasternac, MSW, Pharm.D.,<sup>2</sup> Raul L. Pino, Pharm.D.<sup>3</sup>; (1)Jackson Memorial Hospital at the Holtz Center for Maternal & Child Health, Department of Pediatric Pharmacy, Miami, FL; (2)Assistant Director of Pharmacy Operations & Pediatrics, Jackson Health System, Miami, FL; (3)Director of Pharmacy Services, Jackson Health System, North Medical Center, Miami, FL*

312E. Frequency and Severity of Errors Related to Neonatal and Pediatric Parenteral Nutrition.

*Laura Broome, Pharm.D.,<sup>1</sup> Sadie J. Cox, Pharm.D., M.S., MHA,<sup>1</sup> Catherine M. Crill, Pharm.D.<sup>2</sup>; (1)Le Bonheur Children's Hospital, Memphis, TN; (2)The University of Tennessee Health Science Center, Memphis, TN*

## **Pharmacoconomics/Outcomes**

313. Cost-effectiveness of Pharmacist Managed Medication Therapy Adherence Clinic (MTAC) on Type 2 Diabetes Patients in a Tertiary Hospital in Malaysia.

*Navin K. Loganadan, MClinPharm, Kah Y. Lim, MSPharm, Noorulashikin Mohd Nur, MSPharm, Fudziah Ariffin, MSPharm; Department of Pharmacy, Hospital Kuala Lumpur, Kuala Lumpur, Malaysia*

315. Improving Patient Outcomes and Decreasing Length of Stay Through Pharmacist Participation in Case Management Rounds.

*Ann-Lori Perez, Pharm.D., Estela M. Trimino, Pharm.D., BCPS, Michaela Christian, Pharm.D.; Mercy Hospital, Miami, FL*

## **Pharmacogenomics/Pharmacogenetics**

316. Implementation of a Multidisciplinary Warfarin Pharmacogenetics Service at the University of Illinois Hospital & Health Sciences System (UI-Health).

*Edith A. Nutescu, Pharm.D.,<sup>1</sup> Larisa Cavallari, Pharm.D.,<sup>1</sup> William Galanter, M.D.,<sup>2</sup> Shrihari Kadkol, M.D., Ph.D.,<sup>3</sup> Carol Dodge, CT, ASCP,<sup>3</sup> Thomas Stamos, M.D.,<sup>4</sup> Jerry Krishnan, M.D., Ph.D.,<sup>5</sup> Bryan Becker, M.D.,<sup>6</sup> Darabi Houshang, Ph.D.,<sup>7</sup> Joe G.N. Garcia, M.D., Ph.D.<sup>5</sup>; (1)University of Illinois at Chicago College of Pharmacy, Department of Pharmacy Practice, Chicago, IL; (2)University of Illinois at Chicago, Section of General Internal Medicine, Department of Medicine, Chicago, IL; (3)University of Illinois at Chicago, Department of Pathology, Molecular Pathology, Chicago, IL; (4)University of Illinois at Chicago, Section of Cardiology, Department of Medicine, Chicago, IL; (5)University of Illinois at Chicago, Pulmonary, Critical Care, and Sleep Medicine, Chicago, IL; (6)University of Illinois at Chicago, Section of Nephrology, Department of Medicine, Chicago, IL; (7)University of Illinois at Chicago, Department of Mechanical and Industrial Engineering, Chicago, IL*

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

317. Improvement of Vancomycin Utilization in a Community Teaching Hospital.

*Brenda Gitman, Pharm.D., Rani Patel, Pharm.D., Mini Varghese, Pharm.D., BCPS, Sonia D. Patel, Pharm.D., BCPS, Ashmi A. Philips, Pharm.D., Joseph Gugliotta, M.D.; Hunterdon Medical Center, Flemington, NJ*

318. Pharmacokinetic (PK) and Pharmacodynamic Effects of Immediate-Release Niacin.

*Sony Tuteja, Pharm.D., BCPS,<sup>1</sup> Gaurav Bajaj, Ph.D.,<sup>2</sup> Jeffrey S. Barrett, Ph.D.,<sup>2</sup> Richard L. Dunbar, M.D.,<sup>1</sup> Muredach P. Reilly, MBBCH,<sup>1</sup> Daniel J. Rader, M.D.<sup>1</sup>; (1)University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; (2)Children's Hospital of Philadelphia, Division of Clinical Pharmacology, Philadelphia, PA*

## **LATE BREAKERS**

These papers describe original research in therapeutics, pharmacokinetics, pharmacodynamics, pharmacoconomics, and pharmacoepidemiology.

## **Drug Safety**

451. Economic Evaluation of the Impact of Medication Errors.

*Jennifer Samp, Pharm.D.,<sup>1</sup> Daniel R. Touchette, Pharm.D., M.A.,<sup>2</sup> Jacqueline S. Marinac, Pharm.D.,<sup>3</sup> and Grace M. Kuo, Pharm.D., MPH, Ph.D.<sup>4</sup>*

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