

PRESIDENT'S COLUMN

The Value of Implementation Science and Implementation Research to ACCP PRN Members

What Is Implementation Science?

In my incoming president's address during the 2015 ACCP Global Conference on Clinical Pharmacy in San Francisco last October, I shared my "theme" for this year—"Closing the Gap: Implementing Policies, Programs, and Evidence-Based Practices." The essence of my theme is "making the good better." At its epicenter is my strong and genuine desire to promote the adoption of dissemination and implementation (D&I) science (see definitions in Box), also known as "knowledge translation," within the field of pharmacy. My purpose in this issue of the ACCP PRN Report, taking the baton from my introductory President's Column in the November 2015 ACCP Report, is to provide PRN members with the key fundamentals of implementation science (IS) so that they can incorporate the principles into their personal clinical practice and research/scholarship.

Box. Definitions from the Health Services Resources Information Central at the National Library of Medicine^a

Implementation science—The study of methods to promote the integration of research findings and evidence into health care policy and practice. It seeks to understand the behavior of health care professionals and other stakeholders as a key variable in the sustainable uptake, adoption, and implementation of evidence-based interventions.

Dissemination science—The purposive distribution of information and intervention materials to a specific public health or clinical practice audience. The intent is to spread information and the associated evidence-based interventions. Research on dissemination addresses how information about health promotion and care interventions is created, packaged, transmitted, and interpreted among a variety of important stakeholder groups.

^aU.S. National Library of Medicine. Dissemination and Implementation Science. Available at https://www.nlm.nih.gov/hsrinfo/implementation_science.html.

Why Does IS Exist?

It has long been recognized that there is a gap, and, in some cases, a crevasse, between knowledge and practice. IS facilitates the closing of this gap efficiently and effectively. Clinical pharmacists are commonly responsible for implementing new clinical programs, drug-related policies, and clinical practice guidelines within the health care delivery system where they work. Although applying IS to the practice of implementation is becoming commonplace in many health-related disciplines, the field of pharmacy has been slow to take advantage of its full potential. Below, I have summarized a stepwise process of systematically applying IS to your own practice. For PRN members who wish to pursue a scholarly approach to their implementation, there is a tremendous opportunity to contribute to the existing biomedical literature.

Step 1—Determine the evidence-based practice that will serve as the targeted intervention to implement. It sounds quite elementary, but this step really is the most important of all the steps. Note that, in most cases, there must be a solid evidence base for the program, policy, or clinical practice guideline. Yes, evidence-based medicine is just the beginning; it's not the end! Your choice of an intervention should be made collectively by all involved stakeholders so that there is optimal buy-in and support within the health-system system.

Step 2—Specify a contextual framework that is informed by an established model and theory. This is the single most crucial phase that uniquely differentiates a run-of-the-mill implementation from one that intentionally uses true IS. This important step harnesses the powerful potential to optimize the efficiency and effectiveness of the implementation. To gain the best possible understanding of the value of a contextual framework, please take the time to review in detail the Consolidated Framework

for Implementation Research (CFIR) at www.cfirguide.org/. CFIR is broadly applicable to many types of implementation in the health care setting. The development of CFIR in 2009 created some much-needed consistency and standardization in the field of IS. CFIR contains 29 constructs in five major domains that cover the intervention characteristics, outer setting, inner setting, characteristics of the individuals involved, and process of implementation. Take some time to familiarize yourself with the standardized constructs, and think about them as they pertain to a recent implementation in your own practice setting or research environment. I think you will find that they open up an entirely new and comprehensive way of approaching an implementation. Once you have mastered the general concepts in a framework, you can explore others that have been modified for specific contexts such as patient-centered medical homes or care transitions (<http://effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productid=1882>). For a highly comprehensive and searchable website on D&I models, use www.dissemination-implementation.org/ to find exactly what you need.

Step 3—Conduct implementation research. For PRN members involved in the practice of implementing “stuff,” steps 1 and 2 are necessary and sufficient. For PRN members who aspire to conduct implementation research (IR), however, there are some additional steps. As with any research project, it is important to identify an answerable research question and develop specific research aims. Because IR commonly uses qualitative research techniques, there may be no definable hypotheses. The next step is to select a study design. Although randomized controlled trials are occasionally done, they are certainly not the norm in IR. Observational study designs and other unique adaptive designs, such as the “stepped-wedge,” are more commonly used. Most commonly, however, is a mixed-methods approach. “Hybrid” describes designs that aim to evaluate various combinations of effectiveness and implementation outcome measures. After determining your study design, you should identify your outcome measures. There are many measures to choose from, and <https://www.gem-beta.org/Public/Home.aspx> is an excellent searchable database. For information technology-related surveys, <https://healthit.ahrq.gov/health-it-tools-and-resources/health-it-survey-compendium> is a fantastic resource. Until you develop proficiency in IR, I highly recommend collaborating with experienced IR experts, who can provide mentorship and guidance. Although IR has its own vernacular and conventions, it is very attainable and highly innovative in the field of clinical pharmacy!

In summary, I encourage all PRN members to learn the rapidly growing and fascinating fields of IS and IR. In my opinion, these are the next frontiers for clinical pharmacy, and their potential is unlimited. If any PRN would like to explore the possibility of developing programming at an upcoming ACCP Annual Meeting, please let me know if I can assist in any way.

PRNS PREPARE FOR ELECTIONS



Introduction

It is time for the PRNs to begin the process of determining who will serve as officers in the coming year. If you are interested in being a PRN

officer or in nominating someone, please contact your PRN's chair.

Election Process

The Nominations Committee will consist of at least two individuals appointed by the PRN's chair. These individuals may be the PRN's current elected officers. Those who are on the Nominations Committee of a PRN will be ineligible to run for office in that PRN's election that year. The Nominations Committee should prepare a slate of candidates and shall provide information related to election procedures to each candidate. The Nominations Committee shall also provide a timeline and list of expected duties. When possible, two or three candidates for each office shall be up for election. If only one candidate can be identified, an election will still be held, with voters given the option of identifying a write-in candidate. When there are more than three possible candidates, the PRN's Nominations Committee will be responsible for narrowing the slate to three candidates. The Nominations Committee will obtain a brief (250 words) biographical sketch or candidate statement from each candidate.

Voting

As in previous years, PRN elections will be held online. PRN members will receive an e-mail from ACCP that outlines the voting procedure. Members will use their log-in and password to access the ACCP website. Each member will then be able to access the ballot for each PRN of which he or she is a current member.



2016 Election Timetable

PRN call for nominations	March 2016
Submission of slates and candidate biographies to ACCP	June 10, 2016
Electronic balloting opens	July 8, 2016
Electronic balloting closes	August 15, 2016
Committee contact notified of results	August 19, 2016
Nominations Committee notifies all candidates of election results	August 26, 2016
ACCP staff notifies new officers of meeting date and time at the Annual Meeting	September 20, 2016

As the election draws closer, members should review their e-mail and the ACCP website for further news about online voting.

NETWORKING BREAKFASTS AT UPDATES IN THERAPEUTICS®

Networking mornings return to Updates in Therapeutics®. Join ACCP and your fellow meeting attendees in Phoenix, Arizona, for networking sessions with clinical pharmacists having common interests and needs in practice, research, and education. Complimentary coffee and pastries will be served each day, Saturday through Monday, 7:00–8:00 a.m. (MST), at the Sheraton Grand Phoenix hotel. Each group will have a designated table where attendees can meet PRN representatives and learn how to become involved. A listing of the groups hosting tables during each session follows.

Friday, April 8

- Ambulatory Care PRN
- Cardiology PRN
- Endocrine and Metabolism PRN
- Global Health PRN
- HIV PRN
- Immunology/Transplantation PR
- Pharmacokinetics/Pharmacodynamics/Pharmacogenomics PRN

Saturday, April 9

- Ambulatory Care PRN
- Emergency Medicine
- Endocrine and Metabolism PRN
- Geriatrics PRN
- Global Health PRN

Sunday, April 10

- Ambulatory Care PRN
- Cardiology PRN
- Critical Care PRN
- Geriatrics PRN
- Global Health PRN

SAVE THE DATE ANNUAL MEETING

Make Plans Now to Attend the 2016 ACCP Annual Meeting in Hollywood, Florida



Mark your calendar and make plans to join your colleagues and friends for the 2016 ACCP Annual Meeting, October 23–26, at the Diplomat Resort & Spa Hollywood, one of South

Florida's premier beachfront destinations.

Located just steps from the beach, the Diplomat Resort & Spa provides attendees with state-of-the-art meeting facilities, stylish beachfront accommodations, a variety of dining and nightlife options, and countless leisure and spa activities. Bring your family and stay a few extra days to enjoy all the amenities the Diplomat Resort & Spa has to offer while exploring Hollywood's one-of-a-kind oceanfront promenade, the Hollywood Beach Broadwalk.

The Annual Meeting provides attendees with outstanding educational programming on the most topical issues, cutting-edge Practice and Research Network (PRN) focus sessions, exceptional workshops on professional development, and unmatched opportunities for networking.

The meeting facilities and guest accommodations of the Diplomat Resort & Spa together with the educational programming, focus sessions, and networking opportunities offered by ACCP make the 2016 Annual Meeting a must-attend!

Registration for the 2016 ACCP Annual Meeting, including hotel reservations, will open in June. Watch the ACCP website for details.

PRN NEWS BRIEFS

Adult Medicine PRN

Introduction

The Adult Medicine PRN is one of the largest and most diverse PRNs, encompassing pharmacists who practice in inpatient and outpatient settings, academia, and the pharmaceutical industry. The Adult Medicine PRN consists of practitioners, residents, and students who share an interest in shaping the practice of adult medicine through research and practice.

The 2015 ACCP Annual Meeting was well represented by the Adult Medicine PRN, with 67 attendees at the business meeting. The Adult Medicine PRN Programming Committee hosted a joint focus session with the Ambulatory Care PRN on "Transitions of Care Management: Best Practices," which was well attended and successful. The committee appreciates the efforts of the speakers: Zachary Lane Cox, Pharm.D., BCPS, and Julianna L. Burton, Pharm.D., BCPS.

Our members are very active within the PRN and ACCP, especially with working on one of our many PRN committees. We appreciate all of their hard work and their accomplishments. The Archives Committee has been revising online content for our members. The Training/Travel and Nominations Committee worked on reviewing applications and giving awards to our members, as detailed below, at the 2015 Global Conference. The Walk-Rounds Committee reviewed 93 posters at the 2015 Global Conference. The Newsletter Committee has worked on creating the biannual newsletter for our members. Our Programming Committee has been developing content for the upcoming 2016 ACCP Annual Meeting. The newly created Research Committee has been developing a research project in conjunction with the ACCP Research Institute (RI). This is one of the first collaborations between a PRN and the RI, and together, they are currently working to obtain IRB approval and creating the electronic platform for this survey study. We look forward to seeing the results from this research project and to establishing future research partnerships with the ACCP RI.

Promotions

- **Donald Moore:** Oncology Pharmacy Manager at SoutheastHEALTH Cancer Center in Cape Girardeau, Missouri.
- **Larry Segars:** Associated Dean for the College of Biomedical Sciences graduate program at Kansas City University of Medicine and Biosciences (KCU) in Kansas City, Missouri.

- **Jon P. Wietholter:** Clinical Associate Professor at West Virginia University.

Awards

- **Eunice Boo:** 2015 Adult Medicine ACCP PRN Resident Travel Award.
- **Jennifer Brown:** 2015 Adult Medicine ACCP PRN Student Travel Award.
- **Craig D. Cox:** Texas Tech University Health Sciences Center Chancellor's Council Distinguished Teaching Award.
- **Leigh Anne Hylton Gravatt:** 2015 Virginia Society of Health-System Pharmacy Clinical Pharmacy Practice Achievement Award.
- **Antoine Jenkins:** 2015 Adult Medicine ACCP PRN Practitioner Registration Award.
- **Rima Mohammed:** 2015 Research Institute Mentored Research Investigator Training (MeRIT) Scholarship.
- **Ifeanyi Onor:** 2015 Xavier University of Louisiana College of Pharmacy Preceptor of the Year Award.
- **Charles F. Seifert:** Several awards including the 2015 TTUHSC President's Excellence in Team Teaching Award, the 2015 TTUHSC School of Pharmacy P3 Teacher of the Year by the Class of 2016, and the 2015 ACCP Adult Medicine PRN Paper of the Year Award.
- **Mate M. Soric:** 2015 ASHP Best Practices Award.
- **Linda Spooner:** 2015 Adult Medicine ACCP PRN Mentoring Award.
- **Jennifer Austin Szwak:** Residency Advancement Award.
- **Jon P. Wieholter:** Faculty Inductee from the Academy of Excellence in Teaching and Learning: Faculty.

Grants

- **Sally Arif:** Scholarship of Teaching and Learning (SoTL) grant from the MWU Center for Teaching Excellence. Funding: \$2600.
- **Ifeanyi Onor:** Intramural Grant from the Center for Undergraduate Research Title II Grant. Amount funded: \$2500.
- **Jon P. Wietholter:** "Interprofessional Collaboration for Vulnerable Acute Care Patients: An Academic-Service Partnership." U.S. Department of Health and Human Services Health Resources and Services Administration (HRSA) for the project. Funding: \$1,394,069 over 3 years.

Publications

- **Anderson SL**, Trujillo JT. Lixisenatide in type 2 diabetes: latest evidence and clinical usefulness. *Ther Adv Chronic Dis* 2016;7:4-17.
- Rhyne D, **Anderson SL**. Suvorexant in insomnia: efficacy, safety and place in therapy. *Ther Adv Drug Saf* 2015;6:189-95.
- Rhyne DN, **Anderson SL**, Gedde M, Borgelt LM. The effect of medical marijuana on migraine headache frequency in an adult population. *Pharmacotherapy* 2016. In press.
- Wobeter BR, **Anderson SL**, Marrs JC. Characterization of diastolic dysfunction heart failure following an acute hospitalization for heart failure in an urban, underserved population. *Ther Adv Cardiovasc Dis* 2015;9:267-74.
- **Arif SA**, Drury R, Ader P. Impact of food and drug administration hepatotoxicity warning on prescribing and monitoring of dronedarone in a tertiary teaching hospital. *Int J Pharm Pract* 2015;23:456-60.
- **Arif SA**, D'Souza J, Gil M, Gim S. Vorapaxar for reduction of thrombotic cardiovascular events in myocardial infarction and peripheral artery disease. *Am J Health Syst Pharm* 2015;72:1615-22.
- Plakogiannis R, **Arif SA**. Women versus men: is there equal benefit and safety from statins? *Curr Atheroscler Rep* 2016;18:6.
- **Austin JH**, Mieure KD, Weber LM, McCarthy BC. National characteristics of residency program interview processes. *AJHP* 2015;72:1085-6.
- McCarthy BC, McConeghy K, **Austin JH**. Remeasuring job satisfaction among pharmacy residents. *AJHP* 2015;72:997-9.
- **Brunetti L**, Kagan L, Forrester G, Aleksunes LM, Buyske S, Nahass RG. Cefoxitin plasma and subcutaneous adipose tissue concentration in patients undergoing sleeve gastrectomy. *Clin Ther* 2015 Dec 11. [Epub ahead of print]
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- **Brunetti L**, Poustchi S, Cunningham D, Toscani M, Nguyen J, Lim J, Ding Y, Nahass R. Clinical and cost impact of empiric extended infusion piperacillin-tazobactam in a community medical center. *Ann Pharmacother* 2015;49:754-60.
- Bridges K, Pereira-da-Silva L, Tou JC, Ziegler J, **Brunetti L**. Bone metabolism in very preterm infants receiving parenteral nutrition: do intravenous lipid emulsions have an impact? *Nutr Rev* 2015;12:823-36.
- Srikonda A, Rule B, Toascani M, Adams CD, **Brunetti L**. Selecting a target specific anticoagulant in the geriatric population. *J Clin Outcome Manage* 2015;22:550-64.
- **Davis K**, Morrison C. Ticagrelor for neurointerventional procedures; a case series. Abstract 100. Presented at: Neurocritical Care Society Annual Meeting; October 2015; Phoenix, AZ.
- **Davis KA**, Miyares MA, Dietrich E. Dual antiplatelet therapy with clopidogrel and aspirin after ischemic stroke: a review of the evidence. *Am J Health Syst Pharm* 2015;72:1623-9.
- **Flurie RW**, Brophy DF. New medications to treat hyperkalemia. In: DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey L, eds. *Updates: Pharmacotherapy: A Pathophysiologic Approach*, 9th ed. New York: McGraw-Hill, 2014. <http://access-pharmacy.mhmedical.com/updatesContent.aspx?bookid=536&Sectionid=98653266>.
- **Flurie RW**, Gonzales JP, **Tata AL**, Millstein LS, Gulati M. Hospital delirium treatment: Continuation of antipsychotic therapy from the intensive care unit to discharge. *Am J Health Syst Pharm* 2015;72(23 suppl 3):S133-9.
- **Fulco PP**. Being an acidic part-time pharmacist. *Am J Health Syst Pharm* 2015;72:604-5.
- **Fulco PP**. HIV-positive-to-HIV-positive kidney transplantation. *N Engl J Med* 2015;372:2069-70.
- **Good BL**, Gomes DC, **Fulco PP**. An unexpected interaction between warfarin and cobicistat-boosted elvitegravir. *AIDS* 2015;29:985-6.
- Smith K, Gomes D, Nixon D, **Fulco PP**. The use of unboosted darunavir in the setting of ritonavir intolerance: three case reports. *Int J Clin Pharmacol Ther* 2016;54:52-7.
- Donohoe KL, Dane KE, Varghese D, **Hylton Gravatt LA**. Evaluation of student-led journal clubs. *Curr Pharm Teach Learn*. In press.
- **Knauss M**, Bonner CL, Patka J, Abraham P. Evaluation of pharmacy resident alertness in an overnight on-call program. *Am J Health Syst Pharm* 2015;72:1215-20.
- **Murray TS**, Rice TW, Wheeler AP, et al. Medication desensitization: characterization of outcomes and risk factors for reactions. *Ann Pharmacother*. Pre-published January 18, 2016.

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- Boyle JA, **Soric MM**. Impact of tranexamic acid in total knee and hip replacement. *J Pharm Pract* 2015. [Epub ahead of print]
- **Seifert CF**, Brown AT. IDSA or ACG guidelines for treatment for Clostridium difficile infection: which one to follow? The reply [letter]. *Am J Med* 2015;128:e19.
- **Seifert CF**, Brown AT. Proton pump inhibition may promote Clostridium difficile recurrences. The reply [letter]. *Am J Med* 2015;128:e15.
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- Hong MT, **Seifert CF**. Clinical impact of discordant prescribing of fluoroquinolones and alternative treatment in E. coli pyelonephritis. *J Pharm Pract* 2015.
- Robles J, Pinal DI, **Seifert CF**. Hospitalist impact in antibiotic selection in pediatric community-acquired Staphylococcus aureus skin infection. *Pediatr Ther* 2015;5:2.
- Wagner LA, **Tata AL**, Fink JC. Patient safety issues in CKD: core curriculum 2015. *Am J Kidney Dis* 2015;66:156-69.
- **Thurber KM**, Dierkhising RA, Reiland SA, Pearson KK, Smith SA, O'Meara JG. Mealtime insulin dosing by carbohydrate counting in hospitalized cardiology patients: a retrospective cohort study. *Diabetes Technol Ther* 2016;18:15-21.
- Coetzee R, **Wietholter JP**, Schwinghammer TL. International APPE rotations: journey to sustainable clinical pharmacy services. *Curr Pharm Teach Learn* 2015;7:726-7.
- Cherry LN, **Yunker NS**, **Lambert ER**, Vaughan D, Lowe DK. Vedolizumab: an $\alpha 4\beta 7$ integrin antagonist for ulcerative colitis and Crohn's disease. *Ther Adv Chronic Dis* 2015;6:224-33.

Presentations

- **Davis K**, Morrison C. Ticagrelor for neurointerventional procedures; a case series. Abstract 100. Presented at: Neurocritical Care Society Annual Meeting; October 2015; Phoenix, AZ.

New ACCP Fellows

- Eli N. Deal
- Michelle L. Hilaire
- Diane W. May

Other Notable Achievements

- **Melanie Michael**: ACCP Teaching and Learning Certificate Program graduate.
- **Luigi Brunetti**: Inducted into the Rutgers Biomedical and Health Sciences Master Educator's Guild.

Ambulatory Care PRN

Promotions

- **Mary Amato**: Professor of Pharmacy Practice, MCPHS University, Boston, MA
- **Mary Amato**: Director of the MS in Clinical Research Program, MCPHS University.
- **Elizabeth A. Stone**: Promotion from Clinical Pharmacist (level II) to CDTM Pharmacist (level III).

Awards

- **Alka Bhalla**: Collaborative Service Award, Ontario Pharmacists Association.
- **Dave Dixon**: Outstanding Contribution in Reviewing Journal of Clinical Lipidology.
- **Dave Dixon**: Appointed to Cardiovascular Team Section Editorial Board for ACC.org.
- **Shannon Reidt**, Kristin Janke, **Keri Hager**, and James Beattie: American Association of Colleges of Pharmacy Innovations in Teaching Award for "When Drug Literature Evaluation Isn't Enough: Implementation of a Longitudinal Evidence-Based Medicine (EBM) Sequence with a First-Year Milestone EBM Assessment."
- **Mate Soric**: ASHP Best Practices Award 2015.

Grants

- **Dave Dixon**: "Primary Care Training Collaborative Educational Program": Awarded by the Martin Health System Foundation. Award amount: \$100,000. (Co-P)

Publications

- Her QL, Seger DL, **Amato MG**, Beeler PE, Dalleur O, Slight SP, Dykes PC, Bates DW. Development of an algorithm to assess appropriateness of override of non-formulary medication alerts in a computerized provider order entry system. *Am J Health Syst Pharm* 2016;73:e34-45.
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- **Dixon DL**. Taking medications (module 4). In: Miller D, ed. *Diabetes Education Curriculum: A Guide to Successful Self-Management*, 2nd ed. Chicago: American Association of Diabetes Educators, 2015.
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- **Goldman JD**, White J. New insulin glargine 300 U/ml for the treatment of type 1 and type 2 diabetes mellitus. *Ann Pharmacother* 2015;49:1153-61.
- Patel D, Charkoudian M, **Goldman JD**, Couris R. Focus on hypoglycemia: patient education, disease management and prevention. *Nutr Today* 2015;50:277-81.
- **Hager KD**, Gosser RA. Retrospective analysis of billing at a stand-alone medication therapy management clinic. *Am J Health Syst Pharm* 2015;73:77-81.
- **Hill LG**. Compounded vancomycin solution for *Clostridium difficile* infection. *Evid Based Pract* 2015;18:2.

- **Hill LG**. Effect of time of day on lipoprotein measurement. *Evid Based Pract* 2015;18:11.
- **Hutchison RW Jr**. Transforming pain management and the role of the clinical pharmacist. *Hosp Pharm* 2016;51:6-8.
- **Ip EJ**, Yadao MA, Shah BM, Lau B. Infectious disease, injection practices, and risky sexual behavior among anabolic steroid users. *AIDS Care* 2016;28:294-9.
- Lindfelt TA, **Ip EJ**, Barnett MJ. Career satisfaction, work-life balance and stress among United States pharmacy school faculty: snapshot from a comprehensive survey. *Am J Health Syst Pharm* 2015;72:1573-8.
- Perry PJ, Fredriksen K, Chew S, **Ip EJ**, Lopes I, Doroudgar S, Thomas K. The effects of dextromethorphan on driving performance and the standardized field sobriety test. *J Forensic Sci* 2015;60:1258-62.
- **Minze MG**, **Koffarnus RL**, Bailey TA, Diec S, **Edwards KL**. Sodium-glucose co-transporter 2 inhibitors: evidence and place in therapy. *Expert Rev Endocrinol Metab* 2015;10:645-61.
- **Minze MG**, Kwee Y, Hall RG III. Low-molecular-weight heparin prophylaxis dosing: is weight an issue? *J Pharm Technol*. [Published online November 18, 2015]
- **Rudd KM**, **Winans ARM**, Panneerselvam N. Possible rivaroxaban failure during the postpartum period. *Pharmacotherapy* 2015;35:e164-e168.
- Boyle JA, **Soric MM**. Impact of tranexamic acid in total knee and hip replacement. *J Pharm Pract* 2015. [Epub ahead of print]
- **Winans ARM**, Pawasauskas J, Sera L. Symptom management overview: opioid-induced constipation. *J Hematol Oncol Pharm* 2015. [Epub ahead of print]

New ACCP Fellows

- Mary Amato
- Michelle Hilaire

Other Notable Achievements

- Amanda Winans: Certified Anticoagulation Provider (CACP) recognition.

Cardiology PRN

Promotions

- **Craig J. Beavers:** Clinical Pharmacy Coordinator, Cardiology at UK HealthCare.
- **James Hollands:** Vice Chair of Clinical Pharmacy at Philadelphia College of Pharmacy.
- **Benjamin Van Tassell:** Associate Professor with Tenure (VCU School of Pharmacy).
- **Benjamin Van Tassell:** Vice Chair for Research (VCU School of Pharmacy, Department of Pharmacotherapy & Outcomes Science).
- Awards
- **Toby Trujillo:** Best Paper – Second Runner-up at the 2015 ACCP Global Conference on Clinical Pharmacy for “Evaluation of the Safety and Tolerability of Target Specific Oral Anticoagulants at a Large University Setting.”
- **Benjamin Van Tassell:** Blick Scholar (VCU).
- **Benjamin Van Tassell:** Teaching Excellence Award (VCU School of Pharmacy).

Grants

- **Dave L. Dixon:** \$100,000 grant from Martin Health System Foundation for “Primary Care Training Collaboration Education Program.” (Co-P)

Publications

- **Baker WL,** Bennetts M, Coleman CI, Cappelleri JC. Appraising evidence. In: Biondi-Zoccai G, ed. Umbrella Reviews – Evidence Synthesis with Overviews of Reviews and Meta-epidemiologic Studies. Springer, 2016.
- **Baker WL,** Saulsberry WJ, Elliot K, Parker MW. Cardiac magnetic resonance imaging-confirmed mesalamine-induced myocarditis. *BMJ Case Rep* 2015 Sep 4.
- Linder KE, **Baker WL,** Rochon C, May ST, Sheiner PA, Martin ST. Evaluation of new-onset diabetes post-liver transplantation: assessment of insulin administration as a risk factor. *Ann Pharmacother.* In press.
- **Beavers CJ,** Carris NW, Ruf KM. Clopidogrel hypersensitivity: consideration for interventionist. *Drugs* 2015;75:999-1007.
- **Beavers CJ,** Heron PA, Smyth SS, Bain JA, Macaulay TE. Obesity and antiplatelets – does one size fit all? *Thromb Res* 2015;136:712-6.
- Pabs LA, Schuler P, **Beavers CJ.** The impact of

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- **Buckley L,** Reardon DP, Camp PC, Weinhouse GL, Silver DA, Couper GS, Connors JM. Aminocaproic acid for the management of bleeding in patients on extracorporeal membrane oxygenation: four adult case reports and a review of the literature. *Heart Lung.* In press.
- Fanikos J, **Buckley L,** Aldemerdash A, Terry K, Piazza G, Connors J, Goldhaber S. Legislative, regulatory and policy updates with anticoagulant use. *J Thromb Thrombolysis* 2015;39:273-87.
- Hedges A, **Coons JC,** Saul M, Smith RE. Clinical effectiveness and safety outcomes associated with prothrombin complex concentrates. *J Thromb Thrombolysis* 2015 Dec 19.
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- Bishop S, Stewart K, **Dixon D,** Sicat B, Wolver S. Interprofessional Team-Based Learning Series: Obesity Module. MedEdPORTAL Publications. 2015. Available at <https://www.mededportal.org/publication/10125>.
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Presentations

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New ACCP Fellows

- William L. Baker
- Benjamin Van Tassell

Other Notable Achievements

- **Dave Dixon**: Appointed to the Cardiovascular Team Section Editorial Board for ACC.org.
- **Dave Dixon**: Outstanding contribution in review for the *Journal of Clinical Lipidology*.
- **Paul P. Dobesh, Robert J. DiDomenico, and Cynthia Sanoski**: Served as guest editors on the *Journal of Pharmacy Practice cardiovascular issue*.

Central Nervous System (CNS) PRN

Introduction

The CNS PRN members have been very active during the past 6 months, receiving promotions, publishing scholarly work, receiving local and national awards, and completing advanced research education. A summary of some highlights of this productivity follows.

Promotions

- **Jack Chen**: Full Professor in his secondary appointment in the Department of Neurology at the Loma Linda University School of Medicine.
- **Cynthia Kirkwood**: Executive Associate Dean for Academic Affairs at Virginia Commonwealth University.

Publications

- **Alexander B**, Lund BC, Bernardy NC, Christopher MLD, Friedman MJ. Early discontinuation and suboptimal dosing of prazosin: a potential missed opportunity for veterans with PTSD. *J Clin Psychiatry* 2015;76:e639-e644.
- Abrams TE, Lund BC, **Alexander B**, Bernardy NC, Friedman MJ. Geographical diffusion of prazosin

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- Brown JT, **Bishop JR**. Atomoxetine pharmacogenetics: associations with pharmacokinetics, treatment response and tolerability. *Pharmacogenomics* 2015;16:1513-20.
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- **Jann J, Cohen L**. Editors of the textbook *Applied Clinical Pharmacokinetics and Pharmacodynamics of Psychopharmacological Agents*; newly available. Other CNS PRN members who are contributing authors include **Ellingrod V, Lee K, VanDenBerg C**, and **Kennedy K**.
- Collier M, **Nichols SD**, Campbell J. In your dreams – a case of presumed rapid eye movement behavior disorder in the inpatient psychiatric unit. *J Sleep Disord Manage*. In press.
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Other Notable Achievements

- **Stephanie Nichols**: Serving as the Psychiatric Pharmacist for an American Academy of Family Physicians project funded by the U.S. Food and Drug Administration (FDA) under Award/Contract No. HHSF223201510130C (the “Award Agreement”) to conduct a study titled “Safe Stimulant Medication Prescribing for Adult Attention Deficit Hyperactivity Disorder (ADHD)” (the “ADHD Study”). This connection was achieved through the ACCP RI.

Clinical Administration PRN

Introduction

The CADM PRN has developed a topic for the 2016 ACCP Annual Meeting and submitted a proposal focused on integrating an established performance improvement method for accelerating change in health care systems using examples such as providing medication reconciliation, granting clinical dosing authorities to pharmacists, and engaging patients in post-discharge comprehensive medication reviews. The CADM PRN has had a 14% growth in membership during the past year, a reflection of members' increasing interest in leadership within health systems and health care organizations. The CADM PRN donated to the Research Institute Frontiers Fund and is evaluating partnership with the Leadership and Management Academy to offer financial support this year because this Academy track supports the PRN's mission to promote leadership.

Promotions

- **Richard J. Artymowicz:** Administrative Director of the Center for Wound Healing at Cape Regional Medical Center; Cape May Court House, NJ.
- **Harminder Sikand:** Full Clinical Professor at the University of California, San Francisco School of Pharmacy.

Awards

- **Harminder Sikand:** Pharmacist of the Year Award, San Diego Society of Health-System Pharmacists.

Publications

- Poveromo L, **Michalets E**, Sutherland S. Midodrine for the weaning of vasopressor infusions. *J Clin Pharm Ther* 2016. Accepted for publication.
- **Parrish RH II.** Positioning a pediatric compounded non-sterile product electronic repository (pCNPeRx) within the health information technology infrastructure. *Pharmacy (Special Edition – Pharmacy Paediatrics)* 2016;4:Article 2 (refereed). Available at www.mdpi.com/2226-4787/4/1/2.
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- Gunther M, Ginther S, Chan A, **Parrish RH II.** Development of a surgery pharmacists community of practice in Alberta: combining technology with tacit knowledge. *Pharmacotherapy* 2015;35:e245 (abstract) (refereed).

Other

- **Richard Parrish:** Elected as Secretary of the Perioperative Care PRN.
- **Bethany Bryant:** Led an interdisciplinary team addressing inpatient delirium in a community hospital. The team was accepted to present a symposium at the upcoming annual meeting of the American Delirium Society in June 2016: Childress BC, Bryant W, Bowman S, Enoch D, Jones DN, Wilson E. A multi-disciplinary approach to addressing delirium in the acutely ill. Presented at: American Delirium Society Annual Meeting; June 2016; Nashville, TN.

Critical Care PRN

Introduction

The Critical Care PRN Recognition Committee has been completing its charges for the year. Several members from the Critical Care PRN were nominated for ACCP offices and awards. This PRN honors its members by presenting its own awards every year. Nominations are currently open for these awards and will close in August 2016. PRN members were recognized for their achievements throughout the past year at the PRN business meeting at the 2015 Global Conference.

Promotions

- **Alexander Flannery:** PGY2 Program Director, Critical Care Pharmacy Residency.
- **Leslie Hamilton:** Associate Professor, University of Tennessee Health Science Center College of Pharmacy.
- **Megan Rech:** PGY2 Critical Care Residency Program Director.
- **Pamela Smithburger:** Associate Professor.
- **Kristan Vollman:** Co-Coordinator, PGY1 Pharmacy Residency Program.

Awards

- **Leslie Hamilton:** Most Influential Professor, University of Tennessee Health Science Center College of Pharmacy.
- **Drayton Hammond:** SCCM Presidential Citation,

ACCP Critical Care Practice and Research Member Grant, UAMS Women's Giving Circle Foundation Award, AAHP Research Award (second place – student section).

- **Mojdeh Heavner:** Pharmacist of the Year (Connecticut Society of Health-System Pharmacists).
- **Juan Maldonado:** Star Medical Award at Medical Division, Eli Lilly, PR.
- **Rachel Park:** MHS President's Award of Excellence.
- **Sid Patanwala:** Drake University Alumni Achievement Award.
- **Denise Rhoney:** ACCP Critical Care PRN Education Award, Presidential Service Award, Neurocritical Care Society – October 2015, Presidential Citation, Neurocritical Care Society – October 2015.
- **Pamela Smithburger:** Lambda Kappa Sigma National Advisor of the Year.

Grants

- **Sandy Bartlett:** Husson University School of Pharmacy (HUSOP) Starter Grant.
- **Denise Rhoney:** "Optimizing Drug Doses to Improve Outcomes of Critically Ill Patients." Funded (2015–2016) MCTSA005, CTSA Consortium Multi-institutional Collaborative Translational Research Pilot Grant. (PI)

Publications

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- Torbic H, Szumita PM, **Anger KE**, Nuccio P, LaGambina S, Weinhouse G. Clinical and economic impact of formulary conversion from inhaled Flolan to inhaled Veletri for refractory hypoxemia in critically ill patients. *Ann Pharmacother* 2016;50:106-12.
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- **Bartlett SC**. Clinical pearl – Holy Grail of NOAC reversal agent may be in the pipeline. *MSHP Bull* 2015;1:3.
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- **Brophy A**, Ray S. Chapter 29: corticotrophins, corticosteroids, and prostaglandins. In: Ray S, ed. *Side Effects of Drugs Annual, Vol. 37*. Oxford, UK: Elsevier, 2015:491-8.
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- Smithburger PL, **Buckley MS**, Lat I, Culver MA, Handler SM, Kirisci L, Sokol S, Kane-Gill SL. A multicenter evaluation of off label medication use and associated adverse drug reactions in adult medical intensive care units. *Crit Care Med* 2015;43:1612-21.
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- Gosselin RC, Francart SJ, Hawes EM, Moll S, **Dager WE**, Adcock DM. Heparin-calibrated chromogenic anti-Xa activity measurements in patients receiving rivaroxaban: can this test be used to quantify drug level? *Ann Pharmacother* 2015;49:777-83.
- Ragucci KR, O'Bryant CL, Campbell KB, Buck ML, **Dager WE**, Donovan JL, Emerson K, Gubbins PO, Haight RJ, Jackevicius C, Murphy JE, Prohaska E. The need for PGY2-trained clinical pharmacy specialists. *Pharmacotherapy* 2014;34:e65-73.
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- **Flannery AH**, Willey MD, Thompson-Bastin ML, Buch KP, Bensadoun ES. Eosinophilia and fever with levetiracetam: a case report. *Pharmacotherapy* 2015;35:e131-5.
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- **Groth CM**, Dodds Ashley ES. Infection critical care I: fungal infections in the ICU. *CCSAP* 2016.
- Gashlin LZ, **Groth CM**, Wiegand TJ, Dodds Ashley ES. Comparison of alcohol withdrawal outcomes in patients treated with benzodiazepines alone versus adjunctive phenobarbital: a retrospective cohort study. *Asia Pacific J Med Toxicol* 2015;4:24-8.
- **Hammond DA**, Garner SS, Linder MA, Cousins WB, Bookstaver PB. Mentor involvement with pharmacy students pursuing post-graduate residency training. *Curr Pharm Teach Learn* 2016;8:18-23.
- **Hammond DA**, Thano E, Bohnenberger K, McAllister M, Wannenburg T, Hsu S, Gurley B, Kim R. Ventricular tachycardia precipitated by the use of diet supplement Hydroxycut® Gummies™. *Hosp Pharm* 2015;50:615-8.
- **Michaud CJ**, Bullard HM, Harris SA, Thomas WL. Impact of quetiapine treatment on duration of hypoactive delirium in critically ill adults: a retrospective analysis. *Pharmacotherapy* 2015;35:731-9.
- **Mo Y**, Nehring F, Jung AH, Housman ST. Possible hepatotoxicity associated with daptomycin: a case report and literature review. *J Pharm Pract* 2016 Jan 13.
- **Mo Y**, Thomas MC, Karras GE Jr. Barbiturates for the treatment of alcohol withdrawal syndrome: a systematic review of clinical trials. *J Crit Care* 2015 Dec 8.
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- Droege CA, **Mueller EW**. Fentanyl pharmacokinetics in critically ill patients: a demonstration of mixed effects. *Crit Care Med* 2016;44:240-2.
- Droege ME, Van Fleet S, **Mueller EW**. Practical application of antibiotic pharmacodynamics and dosing principles in patients with sepsis. *Crit Care Nurse*. In press.
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- **Park RE**, Chelemer S, Varghese J, et al. Safety and efficacy of lean body weight based heparin dosing in obese and morbidly obese patients. *Chest* 2015;148:1010A-1010B.
- **Peters NA**, Paciullo CP. Alteplase for the treatment of pulmonary embolism: a review. *Adv Emerg Nurs J* 2015;37:258-72.

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- Czeck EE, Quinn AL, **Rech MA.** Opioid and common co-ingestant antidotes, drug overdoses and alcohol withdrawal: prevalence, trends and prevention. In: Morales DP, ed. ISBN: 978-1-63483-873-3. https://www.novapublishers.com/catalog/product_info.php?products_id=56133.
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- **Smithburger PL,** Buckley MS, Sokol S, Culver MA, Lat I, Handler SM, Kirisci L, Kane-Gill SL. A multi-center evaluation of off label medication use and adverse drug reactions in adult medical intensive care units. *Crit Care Med* 2015;43:1612-21.
- Farina NM, **Smithburger PL,** Kane-Gill SL. Screening and management of delirium in critically ill patients. *Hosp Pharm* 2015;50:667-71.
- Liput SA, Kane-Gill SL, Seybert AL, **Smithburger PL.** Attitudes and perceptions of healthcare providers and family members towards family involvement in active patient care in the intensive care unit. *Crit Care Med* 2016. Accepted for publication.
- Lyons P, Nery J, Rivosecchi R, **Smithburger PL,** Kane-Gill SL. Fentanyl induced hyperalgesia in acute pain management. *J Pain Palliat Care Pharmacother* 2015;29:153-60.
- Rivosecchi R, Kane-Gill SL, Svec S, Campbell S, **Smithburger PL.** The implementation of a non-pharmacologic protocol to prevent intensive care delirium. *Crit Care* 2016;31:206-11.
- Wong A, **Smithburger PL,** Kane-Gill SL. Review of adjunctive dexmedetomidine in the management of acute alcohol withdrawal syndrome. *Am J Drug Alcohol Abuse* 2015;41:382-91.
- **Vollman KE,** Adams CB, Shah MN, Acquisto NM. Survey of emergency medicine pharmacy education opportunities for students and residents. *Hosp Pharm* 2015;50:690-9.
- Adams CB, **Vollman KE,** Leventhal EL, Acquisto NM. Emergent pediatric anticoagulation reversal using a 4-factor prothrombin complex concentrate. *Am J Emerg Med* 2015 [Epub ahead of print]
- Dickerson RN, **Voss JR,** Schroepfel TJ, et al. Feasibility of jejunal enteral nutrition for patients with severe duodenal injuries. *Nutrition* 2016;32. In press.

New ACCP Fellows

- Sid Patanwala

Other Notable Achievements

- **Jonathan Bain:** Organizational Affairs Committee Vice Chair, American College of Clinical Pharmacy, Adult Board Review Item Writing for MCCBRC, Society of Critical Care Medicine.
- **Trisha Branam:** Georgia Society of Health-System Pharmacists – Secretary.
- **Mitchell Buckley:** ACCP 2017 Annual Program Committee.
- **William Dager:** Elected Reagent – American College of Critical Care Medicine.
- **Alexander Flannery:** Executive Committee (New Practitioners Forum) – American Society of Health-System Pharmacists.
- **Leslie Hamilton:** Chair, Awards Committee, AACP Pharmacy Practice Section.

- **Drayton Hammond:** Secretary/Treasurer for Critical Care PRN of ACCP, President-Elect for Arkansas chapter of ACCP.
- **Eric W. Mueller:** Critical Care Pharmacotherapy Trials Network (CCPTN), 2011 – Present, Executive Committee, 2012 – Present, Chair, Operations and Funding Committee, 2012 – Present.
- **Nicholas A. Peters:** ACCP – Critical Care PRN Recognition Committee Chair, SCCM In-Training Section Member-at-Large.
- **April Miller Quidley:** North Carolina Association of Pharmacists – Acute Care Forum.
- **Megan Rech:** SCCM CCP Research Committee Critical Care Pharmacotherapy Literature Update (CCPLU) Charge Leader.
- **Denise Rhoney:** Chair, ACCP Research Institute Board of Trustees Board of Directors, Neurocritical Care Society.
- **Pamela Smithburger:** Vice Chair of the SCCM Quality and Safety Committee, Chair of the Critical Care PRN.
- **Ann Spry:** Education Committee, state organization KCHP.
- **Antonia Vilella:** Chair – Student, Resident, Fellow Crit Care PRN Committee.
- **Johnathan Voss:** Secretary/Treasurer of the GI/Liver/Nutrition PRN of ACCP.
- **Craig Whitman:** Treasurer, Mid-Atlantic College of Clinical Pharmacy.

Other

- **Jonathan Bain:** American College of Clinical Pharmacy Member Spotlight.
- **Christine Groth:** RSI abstract chosen to be presented at SCCM in February 2016 in the Research Snapshot Theatre.
- **Christopher Michaud:** Certificate of Achievement and Appreciation from Spectrum Health for performing 20 minutes of out-of-hospital CPR/BLS before ambulance arrival to a patient who ultimately underwent emergency catheterization and four-vessel CABG. Patient made a full cardiac and neurological recovery.

Drug Information PRN

Awards

- **Sherrill Brown:** Kappa Epsilon Career

Achievement Award 2015.

- **Dianne May:** Outstanding Committee Chair from the Georgia Society of Health-System Pharmacists.

Publications

- Mantovani EH, Naples JG, Rothrock-Christian T, **Brown JN.** Assessment of postgraduate year two pharmacy residency programs within the Veterans Affairs healthcare system. 2015 ASHP National Residency Preceptors Conference; Washington, DC.
- Naples JG, Mantovani EH, Rothrock-Christian T, **Brown JN.** Assessment of postgraduate year two pharmacy residency programs within the Veterans Affairs healthcare system. *J Pharm Pract* 2016 Jan 21. [Epub ahead of print]
- Wolff ML, Cruz JL, Vanderman AJ, **Brown JN.** The effect of angiotensin II receptor antagonists on hyperuricemia. *Ther Adv Chronic Dis* 2015;6:339-46.
- Zullig LL, Sanders LL, Thomas S, **Brown JN,** Danus S, McCant F, Bosworth HB. Health beliefs and desire to improve cholesterol levels among patients with hyperlipidemia. *Patient Educ Couns* 2015 Nov 27. [Epub ahead of print]
- Gross AE, **Bryson ML.** Oral ribavirin for the treatment of noninfluenza respiratory viral infections: a systematic review. *Ann Pharmacother* 2015;49:1125-35.
- **Gosser RA,** Arndt RF, Schaafsma K, Dang CH. Pharmacist impact on ischemic stroke care in the emergency department. *J Emerg Med* 2016.
- Hager K, **Gosser RA.** Retrospective analysis of billing at a standalone medication therapy management clinic. *AJHP* 2016.
- **May DW,** Bryant J. How to prepare an effective journal club. In: Gabay M, ed. *The Clinical Practice of Drug Information*, 1st ed, Burlington, MA: Jones & Bartlett, 2015:291-309.
- Landi M, Springer S, Estus E, **Ward K.** The impact of a student-run journal club on pharmacy students' self-assessment of critical appraisal skills. *Consult Pharm* 2015;30:356-60.
- **Ward KE,** Cohen LB. Promoting safe use of medications: providing medication education to seniors receiving meals on wheels. *Consult Pharm* 2015;30:616-22.
- Gomes DM, **Ward KE,** LaPlante KL. Clinical implications of vancomycin heteroresistant and intermediately susceptible *Staphylococcus aureus*. *Pharmacotherapy* 2015;35:424-32.

- Phillips J, **Ward KE**. Descriptive statistics. In: Gabay MP, ed. The clinical practice of drug information, 1st ed. Burlington, MA: Jones & Bartlett, 2015:141-52.

Other Notable Achievements

- **Andrew Abe**: Started a new position as a Clinical Pharmacist at AlohaCare.
- **Sherrill Brown**: Appointed Chair of the Library and Information Sciences Section of AACP.
- **Conor Hanrahan**: Appointed Manager of Drug Information Services for Intermountain Healthcare.
- **Dianne May**: Named Fellow of the American College of Clinical Pharmacy. Also promoted to Clinical Professor for the University of Georgia College of Pharmacy.
- **Ryan Rodriguez**: Appointed to Residency Program Director, PGY2 Drug Information Residency, University of Illinois at Chicago/ Takeda Pharmaceuticals.
- **James Wall** (Pharm.D. Candidate 2016): Rutgers Pharmaceutical Industry Post-Doctoral Fellow, Clinical Operations – Oncology at Genentech (San Francisco); first place at the CSHP Clinical Skills Competition (San Diego, California) in October 2015.

Education and Training PRN

Introduction

The EDTR PRN had a successful 2015 Global Conference. Together with our program on maximizing learner assessment and developing metacognitive skills, we hosted the Student and Resident Mock Interviews during our business meeting. We also held a silent auction, which raised more than \$600. The officers would like to thank all the members who participated in these events and welcome new members to the PRN. In addition, we thank the members who volunteered to be on committees for the year. The EDTR PRN would like to acknowledge and congratulate all of its members on their accomplishments during the past 6 months.

Awards

- **Amelia Sofjan**: 2016 AACP New Investigator Award.
- **Mate M. Soric**: ASHP Best Practices Award 2015.

Grants

- **P. Brandon Bookstaver**: Interprofessional education in HIV. Funding agency: Human Resources and Services Administration.

Publications

PEER REVIEWED

- **Benavides S**, Madzhidova S, Hernandez A, Le T, Palma SM, Stephen S. Establishment of pediatric medication therapy management: a proposed model. *Pharmacy* 2016;4(1). [Epub ahead of print]
- **Bookstaver PB**, Foster J, Lu ZK, Mann J, Ambrose C, Grant A, Burgess S. Hepatitis B virus seroconversion rates among health sciences students in the southeastern United States. *J Am Coll Health* 2016;64:69-73.
- Hammond D, Garner S, Linder M, Cousins W, **Bookstaver PB**. Assessment of mentor involvement with pharmacy students pursuing post-graduate residency training. *Curr Pharm Teach Learn*. January – February 2016.
- Yanicak A, Mohorn P, Monterroyo P, Furgieule G, Waddington L, **Bookstaver PB**. Public perception of pharmacists: film and television portrayals from 1970 to 2013. *J Am Pharm Assoc* 2015;55:578-86.
- **Caballero J**, Ownby RL, Rey JA, Clauson KA. Cognitive and performance enhancing medication use to improve performance in poker. *J Gambling Stud* 2015 Oct 8. [Epub ahead of print]
- Thomas JE, **Caballero J**, Harrington CA. The incidence of akathisia in the treatment of schizophrenia with aripiprazole, asenapine and lurasidone: a meta-analysis. *Curr Neuropharmacol* 2015;13:681-91.
- Buckley LF, Carter DM, Matta L, **Cheng JW**, Stevens C, Belenkiy RM, Burpee LJ, Young MA, Weiffenbach CS, Smallwood JA, Stevenson LW, Desai AS. Intravenous diuretic therapy for the management of heart failure and volume overload in a multidisciplinary outpatient unit. *JACC Heart Fail* 2015 Dec 1. [Epub ahead of print]
- **Peeters MJ**. Practical significance: moving beyond statistical significance. *Curr Pharm Teach Learn* 2016;8:83-9.
- **Peeters MJ**. Measuring rater judgments within learning assessments—part 1: why the number of categories matters in a rating scale. *Curr Pharm Teach Learn* 2015;7:656-61.
- **Peeters MJ**. Measuring rater judgments within learning assessments—part 2: a mixed approach

to creating rubrics. *Curr Pharm Teach Learn* 2013;7:662-8.

- **Peeters MJ**, Gundrum TE, Murphy JA. Comparing vertical and horizontal screening methods for pharmacy resident candidates before interviews. *Inov Pharm* 2015;6:Article 206.
- Boyle JA, **Soric MM**. Impact of tranexamic acid in total knee and hip replacement. *J Pharm Pract* 2015. [Epub ahead of print]
- Martin SL, **Williams E**, Huerth B, Robinson JD. A pharmacy student facilitated interprofessional diabetes clinic with the Penobscot Nation. *Prev Chronic Dis* 2015;12:150295.

NON-PEER REVIEWED

- **Peeters MJ**, Harpe S, Cor MK, Janke KK. Announcing a new journal section: methodology matters. *Curr Pharm Teach Learn* 2015;7:563-4.
- **Peeters MJ**, Kelly CP, Cor MK. Summative evaluations when using an objective structured teaching exercise. *Am J Pharm Educ* 2015;79:Article 60.
- **Peeters MJ**, Whitner JB, Bale AO. More evidence of professionalism and professional engagement. *Inov Pharm* 2015;6:Article 219.
- Hoover MJ, **Peeters MJ**. Does discussion of learning assessments belong in postgraduate teaching and learning curricula? *Am J Health Syst Pharm* 2015;72:687-8.
- Righi AM, **Peeters MJ**, Dotson B. Electrolyte and acid-base disturbances in patients with diabetes mellitus. *N Engl J Med* 2015;373:2481-2.

Abstracts

- **Peeters MJ**. Developing critical thinking: one institution's experience. *Am J Pharm Educ* 2015;79:Article S4.
- **Peeters MJ**, Chen Y. Validation of the SPICE-R. *Am J Pharm Educ* 2015;79:Article S4.
- King PK, Schneiderman JF, Salama HG, **Peeters MJ**. Phase 2 of interprofessional high-fidelity code blue simulation: effect of repeated scenarios and modified debriefing formats. *Am J Pharm Educ* 2015;79:Article S4.
- Lengel AJ, Mauro LS, Schroeder MN, **Peeters MJ**. Facilitating personal development in PharmD students. *Am J Pharm Educ* 2015;79:Article S4.
- Metz A, Chen Y, Sexton M, **Peeters MJ**. Interprofessional education: assessment outcomes. Presented at: Collaboration Across Borders V 2015 International Conference.

- Reale M, Witt BA, Riche DM, Baker WL, **Peeters MJ**. Development of critical thinking among health professions students: a meta-analysis of longitudinal studies. *Am J Pharm Educ* 2015;79:Article S4.
- Sexton M, Ohlinger MO, Masterson M, **Peeters MJ**. Interprofessional education: course implementation. Presented at: Collaboration Across Borders V 2015 International Conference.
- Vaidya VA, Peeters MJ. Development of professionalism: one institution's experience. *Am J Pharm Educ* 2015;79:Article S4.

New ACCP Fellows

- Michelle L. Hilaire

Other Notable Achievements

- **Sandra Benavides** (Guest Editor), with Richard Parrish, for special issue "Pharmacy Pediatrics" in *Pharmacy* (see www.mdpi.com/journal/pharmacy/special_issues/pharmacy-paediatrics).
- **Thad McGinness**: Resident member of the PRN received a position as Assistant Professor of Clinical Pharmacy at Philadelphia College of Pharmacy.

Emergency Medicine PRN

Introduction

Congratulations to members of the EMED PRN for the many achievements listed in this news brief. Recently, PRN members have been engaged in a national survey of emergency medicine pharmacy practice in the United States. The survey provides information regarding the training, activities, staffing, and hours of coverage of EM pharmacists nationally. Stay tuned for this important article and the accompanying editorial, to be published in the March issue of the *American Journal of Health-System Pharmacy*.

Promotions

- **Erica Merritt**: PGY2 Emergency Medicine Residency Director.
- **Megan Rech**: PGY2 Critical Care Residency Program Director.
- **Kristan Vollman**: PGY1 Pharmacy Residency Co-Coordinator for Owensboro Health (program started in 2014; awarded full 6-year ASHP accreditation in fall 2015).
- **Kyle Weant**: Emergency Medicine Clinical Pharmacy Specialist, Medical University of South Carolina.

Awards

- **Megan Musselman:** ACCP 2015 New Clinical Practitioner Award.
- **Sid Patanwala:** Drake University Alumni Achievement Award.
- **Suprat Saely Wilson:** ASHP New Preceptor Award.

Grants

- **Sandy Bartlett:** Husson University School of Pharmacy (HUSOP) Starter Grant: "Oritavancin Assay Development Pilot Study," 07/01/15 – 06/30/16, direct costs \$4000. (PI)

Publications

- **Acquisto NM,** Hays DP. Emergency medicine pharmacy: still a new clinical frontier. *Am J Health Syst Pharm* 2015;72:2092-6.
- **Adams CB, Vollman KE,** Leventhal EL, **Acquisto NM.** Emergent pediatric anticoagulation reversal using a 4-factor prothrombin complex concentrate. *Am J Emerg Med* 2015 Oct 26. [Epub ahead of print]
- **Bartlett SC.** Clinical pearl – Holy Grail of NOAC reversal agent may be in the pipeline. *MSHP Bull* 2015;1:3.
- **Bartlett SC.** A cup of cool water. *Am J Health Syst Pharm* 2015;72:1496-8.
- **Barton CA,** Johnson NB, Case J, Warden B, Hughes D, Zimmerman J, Roberti G, McMillian WD, Schreiber M. Risk of thromboembolic events after protocolized warfarin reversal with 3-factor PCC and factor VIIa. *Am J Emerg Med* 2015;33:1562-66.
- **Barton CA,** Johnson N, Mah N, Beauchamp GA, Hendrickson R. Successful treatment of a massive metoprolol overdose using intravenous lipid emulsion and hyperinsulinemia/euglycemia therapy. *Pharmacotherapy* 2015.
- Shenk E, **Barton CA,** Mah ND, Ran R, Hendrickson RG, Watters J. Respiratory depression in the intoxicated trauma patient: are opioids to blame? *Am J Emerg Med.* In press.
- Minejima E, **Bensman J,** She RC, Mack WJ, Tuan Tran M, Ny P, Lou M, Yamaki J, Nieberg P, Ho J, Wong-Beringer A. A dysregulated balance of pro-inflammatory and anti-inflammatory host cytokine response early during therapy predicts persistence and mortality in *Staphylococcus aureus* bacteremia. *Crit Care Med* 2015 Nov 4. [Epub ahead of print]
- Moise PA, Culshaw DL, Wong-Beringer A, **Bensman J,** Lamp KC, Smith WJ, Bauer K, Goff DA, Adamson R, Leuthner K, Virata MD, McKinnell

JA, Chaudhry SB, Eskandarian R, Lodise T, Reyes K, Zervos MJ. Comparative effectiveness of vancomycin versus daptomycin for MRSA bacteremia with vancomycin MIC >1 mg/L: a multicenter evaluation. *Clin Ther* 2016;38:16-30.

- **Corrigan M, Wilson SS, Hampton J.** Review of intranasally administered medications in the emergency department and prehospital setting. *Am J Health Syst Pharm* 2015;72:1544-54.
- Dellay B, **Groth ME.** Emergency management of malignancy-associated hypercalcemia. *Adv Emerg Nurs J* 2016;38:15-25.
- Redfern J, Wasilko SM, **Groth ME,** McMillian WD, Bartlett CS. Evaluation of infection rates among patients who received piperacillin/tazobactam versus cefazolin plus gentamicin for type III open fracture prophylaxis in a rural medical center. *J Orthoped Trauma.* [Published online ahead of print]
- **Musselman ME.** Potassium disorder. In: Canada T, Tajchman SK, Tucker A, et al., eds. *ASPEN Fluids, Electrolytes, and Acid-base Disorders Handbook*, 1st ed. Silver Spring, MD: American Society for Parental and Enteral Nutrition.
- Harbison AF, Polly D, **Musselman ME.** Safe and effective use of anti-infectives in pregnancy and lactation in the emergency department. *Am J Health Syst Pharm* 2015;72:189-97.
- **Patanwala AE,** Kurita A, Truong E. Low-dose levetiracetam for seizure prophylaxis after traumatic brain injury. *Brain Inj* 2015;30:1-3. [Epub ahead of print]
- **Patanwala AE,** Martin JR, Erstad BL. Ketamine for analgosedation in the intensive care unit: a systematic review. *J Intensive Care Med* 2015 Dec 8. [Epub ahead of print]
- Aljuhani O, Kopp BJ, **Patanwala AE.** Effect of methocarbamol on acute pain after traumatic injury. *Am J Ther* 2015 Oct 8. [Epub ahead of print]
- Altyar A, Bakhsh HT, Mohammed A, Skrepnek G, **Patanwala AE.** Administration of first dose antibiotic in the ED in patients with minor skin and soft tissue infections. *Am J Emerg Med* 2015;33:1225-8.
- Amini R, Stolz LA, **Patanwala AE,** Adhikari S. Coronal axis measurement of the optic nerve sheath diameter using a linear transducer. *J Ultrasound Med* 2015;34:1607-12.
- Rhodes SM, **Patanwala AE,** Cremer JK, Marshburn ES, Herman M, Shirazi FM, Harrison-Monroe P, Wendel C, Fain M, Mohler J, Sanders AB. Predictors of prolonged length of stay and adverse events among older adults with behavioral

health-related emergency department visits: a systematic medical record review. *J Emerg Med* 2016;50:143-52.

- Sakles JC, Mosier JM, **Patanwala AE**, Dicken JM, Kalin L, Javedani PP. The C-MAC® video laryngoscope is superior to the direct laryngoscope for the rescue of failed first-attempt intubations in the emergency department. *J Emerg Med* 2015;48:280-6.
- **Radosevich JJ, Patanwala AE**, Erstad BL. Norepinephrine dosing in obese and nonobese patients with septic shock. *Am J Crit Care* 2016;25:27-32.
- **Radosevich JJ, Patanwala AE**, Frey PD, Lee YG, Paddock H, Erstad BL. Higher insulin infusion rate but not 24-h insulin consumption is associated with hypoglycemia in critically ill patients. *Diabetes Res Clin Pract* 2015;110:322-7.
- **Rech MA**, Bennett S, Chaney W, Sterk E. Risk factors for mortality in septic patients who received etomidate. *Am J Emerg Med* 2015;33:1340-3.
- **Rech MA**, Day SA, Kast, JA, et al. Major publications in the critical care pharmacotherapy literature: January 2013 through December 2013. *Am J Health Syst Pharm* 2015;72:224-36.
- **Rech MA**, Wittekindt L, Friedman SD, Kling K, Ubogy D. Prothrombin complex concentrate for intracerebral hemorrhage secondary to vitamin K deficiency bleeding in a 6-week-old child. *J Pediatr* 2015;167:1443-4.
- Czeck EE, Quinn AL, **Rech MA**. Opioid and common co-ingestant antidotes, drug overdoses and alcohol withdrawal: prevalence, trends and prevention. In: Morales DP, ed. ISBN: 978-1-63483-873-3. https://www.novapublishers.com/catalog/product_info.php?products_id=56133.
- Day S, Cucci M, Droege M, Erdman M, Holzhausen J, Kram B, Kram S, Pajoumand M, Parker C, Patel M, Peitz G, Poore A, Turck C, Van Berkel M, Wong A, Zomp A, **Rech MA**. Major publications in the critical care pharmacotherapy literature: January 2014 through December 2014. *Am J Health Syst Pharm* 2015;72:1974-85.
- **Robey-Gavin E, Abuakar L**. Impact of clinical pharmacists on initiation of postintubation analgesia in the emergency department. *J Emerg Med* 2016;50:308-14.
- **Thomas MC**. Health maintenance/public health I. In: Bainbridge JL, Branham A, Coyle EA, et al. *Updates in Therapeutics®: The Ambulatory Care Pharmacy Preparatory Review and Recertification Course*, 2015 ed. Lenexa, KS: American College of Clinical Pharmacy, 2015:2-673-2-705.
- **Thomas MC, Acquisto NM, Shirk MB, Patanwala AE**. A national survey of pharmacy practice in the United States. *Am J Health Syst Pharm* 2016. In press.
- **Thomas MC, Shewmaker J, Musselman M**. Droperidol for the treatment of acute migraine headaches. *Ann Pharmacother* 2015;49:223-40.
- **Thomas MC**, Sun S. Advanced pharmacy practice experiences for pharmacy students in emergency department settings. *Curr Phar Teach Learn* 2015;7:378-81.
- Macias-Moriarity LZ, Fetterman JW, **Thomas MC**, Stajich GV. Residency program director's perception of PGY-1 applicants: results of the national 35½ second survey. *Curr Phar Teach Learn* 2015;7:465-9.
- Mo Y, **Thomas MC**, Karras GE. Barbiturates for the treatment of alcohol withdrawal syndrome: a systematic review of clinical trials. *J Crit Care* 2016.
- Mo Y, Zimmermann AE, **Thomas MC**. Practice patterns and opinions on current clinical practice guidelines regarding the management of delirium in the intensive care unit. *J Pharm Pract* 2016.
- Ware KB, **Thomas MC**, Stajich Macias-Moriarity LZ. Learning new tricks: an assessment of novel versus traditional patient counseling strategies. *Curr Phar Teach Learn* 2015;7:584-9.
- Johnson EG, Meier A, Shirakbari A, **Weant K**, Baker Justice S. Impact of rocuronium and succinylcholine on sedation initiation after rapid sequence intubation. *J Emerg Med* 2015;49:43-9.
- Bailey AM, Stephan M, **Weant KA**, Baker Justice S. Dosing of appropriate antibiotics and time to administration of first doses in the pediatric emergency department. *J Pediatr Pharmacol Ther* 2015;20:309-15.
- Schultz AE, Lewis T, Reed BS, **Weant KA**, Baker Justice S. That's a phat antidote: intravenous fat emulsions and toxicological emergencies. *Adv Emerg Nurs J* 2015;37:162-75.
- **Wilson SS**, Ayaz SI, Levy PD. Relaxin: a novel agent for the treatment of acute heart failure. *Pharmacotherapy* 2015;35:315-27.
- Kumar VA, **Wilson SS**, Ayaz SI, Levy PD. Targeted biological therapies reach the heart: the case of serelaxin for heart failure. *Drugs Today* 2015;51:591-7.
- O'Connor JM, Nefcy A, **Wilson SS**. Severe mucositis after acute substance ingestion. *Clin Toxicol* 2015;53:578-9.

- Raub JN, Thurston TM, Fiorvento AD, Mynatt RP, **Wilson SS**. Implementation and outcomes of a pharmacy residency mentorship program. *Am J Health Syst Pharm* 2015;72:S1-S5.
- **Zimmerman DE**. Anti-epileptics. In: Shank BR, Zimmerman DE, eds. *Demystifying Drug Dosing in Obese Patients*. Bethesda, MD: American Society of Health-System Pharmacists, 2016:97-107.
- Shank BR, **Zimmerman DE**, eds. *Demystifying Drug Dosing in Obese Patients*. Bethesda, MD: American Society of Health-System Pharmacists, 2016.

New ACCP Fellows

- Sid Patanwala
- Michael C. Thomas

Other Notable Achievements

- **Sarah Barlow**: Board Certified Critical Care Pharmacist (BCCCP).
- **Sandy Bartlett**: Board Certified Critical Care Pharmacist (BCCCP).
- **Cassie A. Barton**: Board Certified Critical Care Pharmacist (BCCCP).
- **Molly Mason**: Board Certified Critical Care Pharmacist (BCCCP).
- **Megan Musselman**: Board Certified Critical Care Pharmacist (BCCCP).
- **Kristan Vollman**: Board Certified Pharmacotherapy Specialist (BCPS)

Endocrine and Metabolism PRN

Promotions

- **Molly Minze**: Associate Professor at Texas Tech University Health Sciences Center School of Pharmacy, effective September 2015.
- **Heather Whitley**: Co-Director of Research at Montgomery Family Medicine Residency Program at Baptist Health in Montgomery, Alabama. Also fully employed by Auburn University.

Awards

- **Amy C. Donihi**: Selected as a 2015 recipient of the Richard L. Simmons Speak Up for Patient Safety Award at the University of Pittsburgh Medical Center. Donihi received this award in recognition of the work she has done during the past 15 years as a member of the Diabetes Patient Safety Committee to improve the glycemic management and safety of people with diabetes or newly recognized hyperglycemia in the hospital setting.

Grants

- **Whitley HP**, Green P. "Multidisciplinary and Diabetes Classes Program in an Outpatient Family Medicine Clinic." 2015–2016. Baptist Health Care Foundation. \$12,868.50 on November 10, 2015. Status: Funded. (Co-PI)
- **Whitley HP**, Green P. Baptist Health DSME Program. 2015–2016: Alabama Department of Public Health. \$10,000 on September 2015. Status: Funded. (Co-PI)

Publications

- **Clements J, Whitley HP, D'Souza JJ, Gross B, Hess R, Reece S, Gentry C, Shealy K**. Sodium glucose co-transporter inhibitors for the management of diabetes mellitus: An opinion paper from the Endocrine and Metabolism Practice and Research Network of the American College of Clinical Pharmacy. *Curr Med Res Opin* 2015;31:1733-41.
- Sobel SI, Augustine M, **Donihi AC**, Reider J, Forte P, Korytkowski M. Safety and efficacy of a peri-operative protocol for patients with diabetes treated with continuous subcutaneous insulin infusion who are admitted for same-day surgery. *Endocr Pract* 2015;21:1269-76.
- **Goldman JD**, White JR. New insulin glargine 300 U/ml for the treatment of type 1 and type 2 diabetes mellitus. *Ann Pharmacother* 2015;49:1153-61.
- Patel D, Charkoudian M, **Goldman JD**, Couris R. Focus on hypoglycemia: patient education, disease management and prevention. *Nutr Today* 2015;50:277-81.
- **Minze MG**, Koffarnus RL, Bailey TA, Diec S, **Edwards KL**. Sodium-glucose co-transporter 2 inhibitors: evidence and place in therapy. *Expert Rev Endocrinol Metabol* 2015;10:645-61.
- **Minze MG**, Kwee Y, Hall RG III. Low-molecular-weight heparin prophylaxis dosing: is weight an issue? *J Pharm Technol*. [Published online November 18, 2015]

- Elliott JE, **Reece SW**. Insulin therapy: new options. *Pract Diabetol* 2015;34:15-7.
- **Whitley HP**, Hanson C, Parton JM. Improving the undiagnosed rate of diabetes mellitus using a point-of-care A1C device. *J Diabetes Metab Disord Control* 2015;2:00025.
- **Whitley HP**, Yong EV, Rasinen C. Selecting an A1C point-of-care instrument. *Diabetes Spectr* 2015;28:201-8.

Presentations

- Stamm PL, **Andrus MR**. Has the smoked cleared? Debating eCigarettes. Presented at: American Society of Health-System Pharmacists Midyear Clinical Meeting; December 2015; New Orleans, LA.

New ACCP Fellows

- Michelle L. Hilaire
- Daniel Riche

Other Notable Achievements

- **Kayley Will**: Board Certification in Advanced Diabetes Management, December 5, 2015.

Geriatrics PRN

Introduction

The Geriatrics PRN reports a successful 2015 Global Conference. Forty-two posters were presented by PRN members; the PRN gave three student awards and one resident travel award; and new officers for 2015–2016 were introduced. The PRN is proud of the recent accomplishments of its members, including the following.

Promotions

- **Gregory Hughes**: Associate Clinical Professor, Clinical Health Professions, St. John's University College of Pharmacy and Health Sciences.
- **Jeannie Lee**: Assistant Head, Pharmacy Practice and Science, University of Arizona College of Pharmacy.

Awards

- **Rejena Azad**: 2015 Texas Society of Health-System Pharmacists Innovative Collaborative Practice Award: Houston Methodist Hospital System's "Implementing Systematic Pharmacy

Initiatives for Delirium Mitigation by Reducing High-risk Medication Use."

- **Rejena Azad**: 2015 American Society of Health-System Pharmacists Award for Excellence in Medication-Use Safety: Houston Methodist Hospital System's "Clinical Management of High-Risk Medication Use to Mitigate the Incidence of Hospital-Acquired Delirium in the Geriatric Population."
- **Ashley Campbell, Jason Corbo, Heather Sakely**: First-place awardee for Resident and Fellow Abstract, Models of Care Category, AGS 2015: **Campbell A**, Coley K, Thorpe C, **Corbo J**, McGivney M, Klatt P, Zaharoff J, Cox-Vance L, **Sakely H**. The impact of pharmacists caring for geriatric patients across the healthcare continuum on the identification, resolution, and prevention of drug therapy problems: a subset of the PIVOTS (Pharmacist-led Interventions on the Transitions of Seniors) group. *J Am Geriatr Soc* 2015;63(suppl 1):S265.
- **Kalin Clifford**: 2014–2015 Dallas Faculty Preceptor of the Year.
- **Jason Corbo** and **Heather Sakely**: Second-place awardee for Resident and Fellow Abstract, Models of Care Category, AGS 2015: Breslin T, Durigan R, Payette N, Bacci J, Klatt P, McGivney M, **Corbo J**, Coley K, Thorpe C, Cox-Vance L, Zaharoff J, **Sakely H**. Physician perceptions of pharmacists integrated within their practice: a mixed methods analysis of effects on patient care and non-patient care activities. *J Am Geriatr Soc* 2015;63(suppl 1):S270.
- **Jason Corbo** and **Heather Sakely**: Third-place awardee for Resident and Fellow Abstract, Models of Care Category, AGS 2015: Higbea AM, Thorpe C, Cox-Vance L, McGivney M, Coley K, Schleiden L, Zaharoff J, **Corbo J**, Klatt P, **Sakely H**. Improving care of older adults within a novel practice: patient perceptions and self-efficacy analysis of Pharmacist-led Interventions On Transitions of Seniors (PIVOTS) by patient surveys. *J Am Geriatr Soc* 2015;63(suppl 1):S265.
- **Jeannie Lee**: Arizona Geriatrics Society 2015 Geriatrician of the Year.
- **Patricia Slattum**: American Society of Consultant Pharmacists 2015 Armon Neel Senior Care Pharmacist Award.
- **Barbara Zarowitz**: American Society of Consultant Pharmacists 2015 George F. Archambault Award.

Grants

- **Gregory Hughes:** St. John's University SBIRT-Student Training, around \$900,000 over 3 years, a Substance Abuse and Mental Health Services Administration Grant-Funded Program.
- **Jeannie Lee:** Health Resources and Services Administration UIQHP28721 for "Arizona Geriatric Workforce Enhancement Program" to develop a capable, diverse, and culturally competent Arizona health professions workforce focused on ensuring the improved health outcomes of Arizona's older adult population including function and quality of life; 09/01/15 – 08/31/18. (Co-I)
- **Jeannie Lee:** Banner Health Innovations Grant for "Supporting Function in At-Risk Elders: Early Identification of Frailty in an Ambulatory Setting" to confirm a sensitive low-cost intervention to accurately identify clinical and physical characteristics predictive of the risk of frailty and identify a clinical intervention (e.g., systematic medication reduction) to prevent or reduce frailty; 01/16 – 05/16. (Co-I)
- **Emily Peron:** White J, Richards M, **Peron EP**, Finucane S, Williams T, Rubin S. PALETTE in Motion; 07/01/2015 – 06/30/2016. Virginia Commonwealth University Council for Community Engagement: \$19,070.
- **Katie L. Taylor:** American Society of Health-System Pharmacists Research and Education Foundation Pharmacy Resident Practice-Based Research Grant for "Aspirin Prescribing Practices for Primary Stroke Prevention in Elderly Women Following Monthly Population-Based Clinical Pharmacist Evaluation."

Publications

- Richards R, **Azad R**, Adeola M, Clark B. Delirium: the 21st century health care challenge for bedside clinicians. *J Nurs Educ Pract* 2016;6:8-16.
- **Caballero J**, Ownby RL, Rey JA, Clauson KA. Cognitive and performance enhancing medication use to improve performance in poker. *J Gamb Stud* 2015. [Epub ahead of print]
- Thomas JE, **Caballero J**, Harrington CA. The incidence of akathisia in the treatment of schizophrenia with aripiprazole, asenapine and lurasidone: a meta-analysis. *Curr Neuropharmacol* 2015;13:681-91.
- **Clifford KM**, Dy-Boarman EA, Haase KK, Maxvill K, Pass SE, Alvarez CA. Challenges with diagnosis and managing sepsis in older adults. *Expert Rev Anti Infect Ther* 2016;14:231-41.

- Bradley-Baker LR, Taylor CT, Adams AJ, Albert EL, Cardello EA, Clifford KM, Currie JD, Gonyeau M, Nelson SP. Report of the 2014–2015 Professional Affairs Standing Committee: producing practice-ready pharmacy graduates in an era of value-based health care. *Am J Pharm Educ* 2015;79:S12.
- **Duncan NA, Clifford KM**, Shvarts OM. Mirtazapine-associated hypertriglyceridemia and hyperglycemia. *Consult Pharm* 2015;30:657-63.
- **Eisenhower C, Koronkowski M**, Marcum Z. Implications of recent drug approvals for older adults. *Ann Longterm Care* 2016;24:25-30.
- Pauff BR, Jiroutek MR, **Holland MA**, Sutton BS. Statin prescribing patterns: an analysis of data from patients with diabetes in the national hospital ambulatory medical care survey outpatient department and national ambulatory medical care survey databases, 2005-2010. *Clin Ther* 2015;37:1329-39.
- Payk SL, Drew RH, Smith JD, Jiroutek MR, **Holland MA**. Sulfonyleurea prescribing patterns after the introduction of DPP-4 inhibitors and GLP-1 receptor agonists. *Clin Ther* 2015;37:1477-82.
- **Hutchison L:** The American Geriatrics Society Expert Panel on Post-operative Delirium in Older Adults. American Geriatrics Society abstracted clinical practice guideline for postoperative delirium in older adults. *J Am Geriatr Soc* 2015;63:142-50.
- **Hutchison LC, Sleeper-Irons RB**, eds. *Fundamentals of Geriatric Pharmacotherapy: An Evidence-Based Approach*, 2nd ed. Bethesda, MD: American Society of Health-System Pharmacists, 2015.
- Berryman SN, Huff DC, **Hutchison LC**, Bilbruck TJ, Ragsdale PS, Jennings JE, Greenfield TM. Integrating collaborative interprofessional simulation into pre-licensure healthcare programs. *Nurs Educ Perspect* 2015;36:396-7.
- Brown J, **Hutchison LC**, Li CH, Painter JT, Martin BC. Predictive validity of the Beers and STOPP criteria to detect adverse drug events, hospitalizations, and emergency department visits in the United States. *J Am Geriatr Soc*. In press.
- King A, Erickson S, Payakachat N, **Hutchison LC**, Said Q. Self-reported plan switching in Medicare Part D: 2006-2010. *Am J Pharm Benefits* 2015;6:e157-68.
- Richards KC, Bost JE, Rogers VE, **Hutchison LC**, Beck CK, Bliwise D, Kovach CR, Cuellar N, Allen RP. Diagnostic accuracy of behavioral, activity, ferritin, and clinical indicators of restless legs syndrome. *Sleep* 2015;38:371-80.

- **Lee JK**, Alshehri S, Kutbi H, Martin J. Optimising pharmacotherapy in elderly patients: the role of pharmacists. *Integrat Pharm Res Pract* 2015;4:101-11.
- Karmegam S, **Lee JK**. Management of persistent pain in older adults. *Ariz Geriatr Soc J* 2015;20:29-30.
- Kligler B, Brooks AJ, Maizes V, Goldblatt E, Klatt M, Koithan MS, Kreitzer MJ, **Lee JK**, Lopez AM, McClafferty H, Rhode R, Sandvold I, Saper R, Taren D, Wells E, Lebensohn P. Interprofessional competencies in integrative primary healthcare. *Glob Adv Health Med* 2015;4:33-9.
- Mohler J, Fain M, Chen Z, **Lee JK**, Thienhaus OJ. Letter to the editor: comment/responses depression, antidepressants, and bone health in older adults: a systematic review. *J Am Geriatr Soc* 2015;63:623-4.
- Lam S, **Mondiello T**. Discontinuation of memantine standard release and its impact on patient therapy. *Consult Pharm* 2015;30:283-6.
- Rubin SE, Gendron TL, Wren CA, Ogbonna KC, Gonzales EG, **Peron EP**. Challenging gerontophobia and ageism through a collaborative intergenerational art program. *J Intergen Rel* 2015;13:241-54.
- Ahmed-Sarwar N, **Pierce DP**, Holub DC. COPD: optimizing treatment. *J Fam Pract* 2015;64:610-23.
- **Reidt S**, Sibicky S, Yarabinec A. Transitional care units: expanding the role of pharmacists providing patient care. *Consult Pharm* 2016;31:44-8.
- Schafer KM, **Reidt S**. Herpes zoster vaccine in the long-term care setting: a clinical and logistical conundrum. *Consult Pharm* 2016;31:33-7.
- Harris IM, **Reidt SL**, Lounsbery JL, et al. Assessment of core knowledge during ambulatory care advanced pharmacy practice experiences using online modules and pre- and post-testing. *Curr Pharm Teach Learn* 2016;8:213-9.
- **Sakely H**, Corbo J, Coley M, Thorpe C, Klatt P, Schleiden L, Zaharoff J, Cox-Vance L, Balestrino V, McGivney MS. Pharmacist-led collaborative practice for older adults. *Am J Health Syst Pharm* 2015;72:606-9.
- **Semla T, Beizer J, Linnebur S**. The American Geriatrics Society 2015 Beers Criteria Update Expert Panel. American Geriatrics Society 2015 updated Beers Criteria for potentially inappropriate medication use in older adults. *J Am Geriatr Soc* 2015;63:2227-46.
- Min Y, Kirkwood CK, Mays DP, **Slattum PW**. The effect of sleep medication use and poor sleep quality on risk of falls in community-dwelling older

adults in the US: a prospective cohort study. *Drugs Aging* 2016;33:151-8.

- Blaszczyk AT, **Sleeper-Irons RB, Bailey TA, Duncan NA, McCarrell JL, Clifford KM**. Workarounds during the transcription of medication orders in the long-term care setting. *Ann Longterm Care* 2015;23:33-7.
- **Traylor KL**, Babin J, Witt D. Laboratory monitoring of low-molecular-weight heparin and fondaparinux. *Semin Thromb Hemost*. In press.
- **Traylor KL**, Gunning K, Pippitt K. Team-based care: relationships, not algorithms. *J Am Board Fam Med*. In press.
- **Vouri SM**, Stranges PM, Burke JM, Micek S, Pittlick MK, Wenger P. The importance of research during pharmacy residency training. *Curr Pharm Teach Learn* 2015;7:892-8.
- **Vouri SM**, Stranges PM, Nissen J. Comment on: validity and reliability of a systematic database search strategy to identify publications resulting from pharmacy residency research projects. *J Pharm Pract* 2015;28:497-8.
- Stranges PM, **Vouri SM**, Bergfeld F, Crain M, Jindal N, Landrum M, Lindauer S, Mueller Z, Reich A. Pharmacy resident publication success: factors of success based on abstracts from a regional meeting. *Curr Pharm Teach Learn* 2015;7:780-6.

New ACCP Fellows

- Dianne W. May
- Joseph P. Vande Griend

Other Notable Achievements

- **Nicolette Centanni**: Certified Geriatric Pharmacist.
- **Stephanie (Seaton) Crist**: President-Elect, Missouri Chapter of American Society of Consultant Pharmacists.
- **Jeannie Lee**: National Leadership Development Program in Aging – Tideswell at University of California San Francisco, American Geriatrics Society, and Association of Directors of Geriatrics Academic Programs: www.tideswellucsf.org/tideswell-ags-adgap-national-leadership-development-program/.
- **Emily Peron**: Member, Phi Kappa Phi Honor Society.
- **Scott Vouri**: Fellow, American Society of Consultant Pharmacists.

GI/Liver/Nutrition PRN

Introduction

The GILN PRN would like to congratulate members on the following accomplishments from September 2015 to February 2016. We hope to see you at the spring ACCP meeting if you are planning to attend!

Publications

- **Dickerson RN**, Voss JR, Schroepfel TJ, et al. Feasibility of jejunal enteral nutrition for patients with severe duodenal injuries. *Nutrition* 2016;32:309-14.
- Deming P, **Martin M**, Chan J, et al. Therapeutic advances in HCV genotype 1 infection. *SIDP Newsletter* 2015;Fall:17-34.
- **Smith MA, Regal RE, Mohammad RA**. Daclatasvir: a NS5A replication complex inhibitor for hepatitis C infection. *Ann Pharmacother* 2016;50:39-46.
- **Smith MA, Love BL, Mohammad RA**. The changing landscape of adverse drug events associated with chronic hepatitis C virus therapy. *Expert Opin Drug Saf* 2015;14:1649-52.

Presentations

- **Martin MT**. Advances in hepatitis C virus treatment. Developed and presented a 1-hour CE program for pharmacists, physicians, and nurses for: 2016 Winter Milwaukee Conference: Updates in Specialty Pharmacy: Managing Chronic Diseases with Complex Pharmaceuticals. University of Wisconsin Division of Pharmacy Professional Development; January 31, 2016; Brookfield, WI.
- **Martin MT**. The role of a pharmacist in liver clinic, hepatitis C virus, hepatitis B virus, and the management of advanced liver disease. Developed and presented a 6.5-hour CE program for pharmacists at: Singapore General Hospital; November 15, 2015; Singapore.
- **Martin MT**. Advances in hepatitis C virus treatment. Developed and presented a 1-hour CE program for pharmacists and nurses at: Singapore General Hospital; November 13, 2015; Singapore.
- **Martin MT**. Advances in hepatitis C virus. 2015 Carle Foundation Day. Developed and presented a 45-minute CE presentation and developed and led a 75-minute case presentation and interdisciplinary panel discussion program; November 5, 2015; Champaign, IL.
- **Smith AN**. Understanding the use of obesity

medications: when, why and how. Invited faculty. Obesity Week (combined annual meeting of the Obesity Society and the American Society for Metabolic & Bariatric Surgery); November 3, 2015; Los Angeles, CA.

- **Smith AN**. VTE prophylaxis strategies. Invited faculty. Obesity Week (combined annual meeting of the Obesity Society and the American Society for Metabolic & Bariatric Surgery); November 3, 2015; Los Angeles, CA.
- **Smith AN**. Weight loss medications in a post-op bariatric surgery patient. Invited faculty. Obesity Week (combined annual meeting of the Obesity Society and the American Society for Metabolic & Bariatric Surgery); November 2, 2015; Los Angeles, CA.
- **Smith AN**. Integrated health pharmacology course. Moderator and course developer. Invited faculty. Obesity Week (combined annual meeting of the Obesity Society and the American Society for Metabolic & Bariatric Surgery); November 3, 2015; Los Angeles, CA.

Awards

- **Katherine Chessman**: PLS Alumni Award from the MUSC chapter of SCCP.

Other Notable Achievements

- **Katherine Chessman**: Chair of the first Pediatric Specialty Council, which administered the first pediatric board certification examination in October 2015.
- **Johnathan Voss**: Became a Board Certified Critical Care Pharmacist (BCCCP) during the first testing period for this certification.

Global Health PRN

Introduction

The Global Health PRN has been organizing its 2016 committees. In its second year, the PRN is focused on defining global health pharmacy for the health care community, engaging its members in global health activities through networking and research, and initiating interagency relations to keep members informed about global health opportunities.

Awards

- **Michelle Holm:** 2016 Consortium of Universities for Global Health (CUGH) Velji Emerging Leader in Global Health Award.

Grants

- **Kim Scarsi** (PI) and **Kristin Darin** (Co-I). Pharmacological strategies to use the levonorgestrel implant in HIV-infected women. NIH/NICHD. 12/1/15 – 11/30/20.

Publications

- Gilbert EM, **Darin KM**, **Scarsi KK**, McLaughlin M. A review of antiretroviral pharmacokinetics during pregnancy. *Pharmacotherapy* 2015;35:838-55.
- Parikh S, Fehintola F, Huang L, Olson A, Adedeji WA, **Darin KM**, Morse GD, Murphy RL, Taiwo BO, Akinyinka OO, Adewole IF, Aweeka FT, **Scarsi KK**. Artemether-lumefantrine exposure in HIV-infected Nigerian subjects on nevirapine-containing antiretroviral therapy. *Antimicrob Agents Chemother* 2015;59:7852-6.
- **Holm MR**, Burkhartzmeyer HL. Implementation of a phased educational approach in a developing country. *Glob Health Action* 2015;11:29882.
- Deming P, **Martin M**, Chan J, et al. Therapeutic advances in HCV genotype 1 infection. *SIDP Newsletter* 2015;Fall:17-34.
- Gleason SE, Covvey JR, Abrons JP, Dang Y, Seo SW, Tofade T, Prescott GM, **Peron EP**, Masilamani S, Alsharif NZ. Connecting global/international pharmacy education to the CAPE 2013 outcomes: a report from the global pharmacy education special interest group. 56 p. Located at: AACP Center for the Advancement of Pharmacy Education, Alexandria, VA. www.aacp.org/RESOURCES/EDUCATION/CAPE/Pages/default.aspx.
- **Scarsi KK**, **Darin KM**, Nakalema S, Back DJ, Byakika-Kibwika P, Else LJ, Dilly-Penchala S, Buzibye A, Cohn SE, Merry C, Lamorde M. Unintended pregnancies observed with combined use of the levonorgestrel contraceptive implant and efavirenz-based antiretroviral therapy: a three-arm pharmacokinetic evaluation over 48 weeks. *Clin Infect Dis* 2015 Dec 8. [Epub ahead of print]
- **Scarsi KK**, Eisen G, **Darin KM**, Meloni ST, Rawizza HE, Tchetgen Tchetgen EJ, Agbaji OO, Onwujekwe DI, Gashau W, Nkado R, Okonkwo P, Murphy RL, Kanki PJ; Harvard/APIN PEPFAR team. Superior effectiveness of zidovudine compared with tenofovir when combined with nevirapine-based antiretroviral

therapy in a large Nigerian cohort. *Clin Infect Dis* 2015 Nov 10. [Epub ahead of print]

Other Notable Achievements

- **Martin MT.** Advances in hepatitis C virus treatment. Developed and presented a 1-hour CE program for pharmacists, physicians, and nurses for: 2016 Winter Milwaukee Conference: Updates in Specialty Pharmacy: Managing Chronic Diseases with Complex Pharmaceuticals. University of Wisconsin Division of Pharmacy Professional Development; January 31, 2016; Brookfield, WI.
- **Martin MT.** The role of a pharmacist in liver clinic, hepatitis C virus, hepatitis B virus, and the management of advanced liver disease. Developed and presented a 6.5-hour CE program for pharmacists at Singapore General Hospital in Singapore; November 15, 2015.
- **Martin MT.** Advances in hepatitis C virus treatment. Developed and presented a 1-hour CE program for pharmacists and nurses at Singapore General Hospital in Singapore; November 13, 2015.
- **Martin MT.** Advances in hepatitis C virus. 2015 Carle Foundation Day. Developed and presented a 45-minute CE presentation and developed and led a 75-minute case presentation and interdisciplinary panel discussion program; November 5, 2015; Champaign, IL.

Other

- **Renee Holder:** Appointed to ACCP Organizational Affairs Committee.

Hematology/Oncology PRN

Introduction

The Hematology/Oncology PRN continues to provide a forum for hematology/oncology pharmacists to network and collaborate on scientific, educational, and political issues affecting clinical practice, teaching, and research. We have grown to 1048 members, with trainees (students and residents) making up more than 50% of the PRN membership. The largest increase in overall members was among students with an 82% increase.

At the 2015 ACCP Annual Meeting, the PRN hosted resident and student travel awardees. Because of the increase in student membership and desire for more opportunities to connect, the second half of the PRN meeting served as a networking session focused on clinical and research

activities of the membership. One committee of the PRN is dedicated to developing student/resident trainees.

The PRN has made plans to donate to the Frontiers Fund, and nominations for 2016 awards have been submitted. Plans for PRN collaboration are under way for the 2016 PRN focus session.

Grants

- **Ninh (Irene) La-Beck:** NIH/NCI R15CA192097-01A1 (\$453,173) awarded 8/6/2015 for grant titled "Abrogating Nanoparticle-Induced Immunosuppression in Tumor Microenvironment." (PI)

Awards

The following individuals were selected as Fellows of the Hematology/Oncology Pharmacy Association 2016 (FHOPA):

- Barry Goldspiel
- Donald Harvey
- Lisa Holle
- Kelly Weddle
- Casey Williams

Publications

- **Afifi S,** Adel NG, Devlin S, Duck E, Vanak J, Landau H, Chung DJ, Lendvai N, Lesokhin A, Korde N, Reich L, Landgren O, Giral S, Hassoun H. Upfront plerixafor plus G-CSF versus cyclophosphamide plus G-CSF for stem cell mobilization in multiple myeloma: efficacy and cost analysis study. *Bone Marrow Transplant* 2016 Jan 4. [Epub ahead of print]
- **Afifi S,** Michael A, Azimi M, Rodriguez M, Lendvai N, Landgren O. Role of histone deacetylase inhibitors in relapsed refractory multiple myeloma: a focus on vorinostat and panobinostat. *Pharmacotherapy* 2015;35:1173-88.
- **Buie LW,** Pecoraro JJ, Horvat TZ, Daley RJ. Blinatumomab: a first-in-class bispecific T-cell engager for precursor B-cell acute lymphoblastic leukemia *Ann Pharmacother* 2015;49:1057-67.
- **Corkins MR.** Oncology, hematopoietic transplant, gastrointestinal supportive care medications, and survivorship. *The ASPEN Pediatric Nutrition Supportive Care Core Curriculum, 2nd ed.* Silver Spring, MD: American Society for Parenteral and Enteral Nutrition, 2015:459-64.
- Clark SM, Clemmons AB, Schaack L, Garren J,

DeRemer DL, Kota VK. Fosaprepitant for the prevention of nausea and vomiting in patients receiving BEAM or high-dose melphalan before autologous hematopoietic stem cell transplant. *J Oncol Pharm Pract* 2015 May 7. [Epub ahead of print]

- Hartranft ME, Clemmons AB, **DeRemer DL,** Kota V. Evaluation of romiplostim for the treatment of secondary failure of platelet recovery among allogeneic hematopoietic stem cell transplant patients. *J Oncol Pharm Pract* 2015 Oct 14. [Epub ahead of print]
- **Eiland LS, Todd TJ.** Chemotherapy dosing controversies. In: *Advanced Pediatric Therapeutics, 1st ed.* Memphis: Pediatric Pharmacy Advocacy Group, 2015:882-900.
- Baz R, Lin HM, Hui AM, **Harvey RD,** Colson K, Gallop K, Swinburn P, Laubach J, Berg D, Richardson P. Development of a conceptual model to illustrate the impact of multiple myeloma and its treatment on health-related quality of life. *Support Care Cancer* 2015 Feb 24. [Epub ahead of print]
- Jagirdar N, **Harvey RD,** Nooka A, Flowers C, Kaufman J, Lonial S, Lechowicz MJ, Langston A, Lipscomb C, Gaylor C, Waller EK. Plerixafor in combination with granulocyte-colony-stimulating factor after chemotherapy increases mobilization efficiency in patients with lymphoma or myeloma: results of a phase II clinical trial. *Transfusion* 2015 Sep 2. [Epub ahead of print]
- Owonikoko TK, Ramalingam SS, Miller DL, Force SD, Sica GL, Mendel J, Chen Z, Rogatko A, **Harvey RD.** Adverse event recognition and management in practice and on clinical trials: translating the Common Terminology Criteria for Adverse Events (CTCAE) [editorial]. *J Hematol Oncol Pharm* 2015;5:6-7.
- Sarantopoulos J, Shapiro GI, Cohen RB, Clark JW, Kauh JS, Weiss GJ, Cleary JM, Mahalingam D, Pickard MD, Faessel H, Berger AJ, Burke K, Mulligan G, Dezube BJ, **Harvey RD.** Phase I study of the investigational NEDD8-activating enzyme inhibitor pevonedistat (TAK-924/MLN4924) in patients with advanced solid tumors. *Clin Cancer Res* 2015 Sep 30. [Epub ahead of print]
- Tighiouart M, **Harvey RD,** Kim S, Saba NF, Pickens A, Behera M, Fu R, Rossi M, Auffermann WF, Torres WE, Bechara R, Deng X, Sun SY, Fu H, Gal AA, Khuri FR. A translational, pharmacokinetic and pharmacodynamic phase IB clinical study of everolimus in resectable non-small cell lung cancer. *Clin Cancer Res* 2015 Feb 11. [Epub ahead of print]
- Bray WM, Bivona C, Rockey M, **Henry D,** Grauer D, Abhyankar S, Aljitawi O, Ganguly S, McGuirk

J, Singh A, Lin TL. Outcomes for newly diagnosed patients with acute myeloid leukemia dosed on actual or adjusted body weight. *Cancer Chemother Pharmacol* 2015;76:691-7.

- **Holle LM, Harris CS, Chan A, Fahrenbruch RJ, Labdi BA, Mohs JE, Norris LB, Perkins J, Vela CM.** Pharmacists' roles in oncology pharmacy services: results of a global survey. *J Oncol Pharm Pract* 2016 Feb 6. [Epub ahead of print]
- **Holle LM, Puri S, Clement JM.** Physician-pharmacist collaboration for oral chemotherapy monitoring: insights from an academic genitourinary oncology practice. *J Oncol Pharm Pract* 2015 Apr 21. [Epub ahead of print]
- **Patel JM, Holle LM, Clement JM, Bunz T, Niemann C, Chamberlin KW.** Impact of a pharmacist-led oral chemotherapy-monitoring program in patients with metastatic castrate-resistant prostate cancer. *J Oncol Pharm Pract* 2015 Oct 22.
- **Pherwani N, Ghayad JM, Holle LM, Karpiuk EL.** Outpatient management of febrile neutropenia associated with cancer chemotherapy: risk stratification and treatment review. *Am J Health Syst Pharm* 2015;72:619-31.
- **Gee JR, Saltzstein DR, Messing E, Kim K, Kolesar J, Huang W, Havighurst TC, Harris L, Wollmer BW, Jarrard D, House M, Parnes H, Bailey HH.** Phase Ib placebo-controlled, tissue biomarker trial of diindolymethane (BR-DIMNG) in patients with prostate cancer who are undergoing prostatectomy. *Eur J Cancer Prev* 2015 Aug 26.
- **Bruce JY, Scully PC, Carmichael LL, Eickhoff JC, Perlman SB, Kolesar JM, Heideman JL, Jeraj R, Liu G.** Pharmacodynamic study of axitinib in patients with advanced malignancies assessed with (18)F-3'deoxy-3'fluoro-L-thymidine positron emission tomography/computed tomography. *Cancer Chemother Pharmacol* 2015;76:187-95.
- **Hanna NH, Dahlberg SE, Kolesar JM, Aggarwal C, Hirsch FR, Ramalingam SS, Schiller JH.** Three-arm, randomized, phase 2 study of carboplatin and paclitaxel in combination with cetuximab, cixutumumab, or both for advanced nonsmall cell lung cancer (NSCLC) patients who will not receive bevacizumab-based therapy: an Eastern Cooperative Oncology Group (ECOG) study (E4508). *Cancer* 2015 Mar 4.
- **Wisinski KB, Cantu CA, Eickhoff J, Osterby K, Tevaarwerk AJ, Heideman J, Liu G, Wilding G, Johnston S, Kolesar JM.** Potential cytochrome P-450 drug-drug interactions in adults with metastatic solid tumors and effect on eligibility for

phase I clinical trials. *Am J Health Syst Pharm* 2015;72:958-65.

- **La-Beck NM, Jean GW, Huynh C, Alzghari SK, Lowe DB.** Immune checkpoint inhibitors: new insights and current place in therapy. *Pharmacotherapy* 2015;35:963-76.
- **Gabizon A, La-Beck NM.** Optimizing nanoparticle delivery of chemotherapeutics. In: *Cancer Nanotechnology Plan 2015*. National Cancer Institute. Available at <http://nano.cancer.gov/about/plan/>.
- **Golan T, Grenader T, Ohana P, Amitay Y, Shmeeda H, La-Beck NM, Tahover E, Berger R, Gabizon AA.** Pegylated liposomal mitomycin C prodrug enhances tolerance of mitomycin C: a phase 1 study in advanced solid tumor patients. *Cancer Med* 2015;4:1472-83.
- **Moore DC, Moore A.** Abiraterone-induced rhabdomyolysis: a case report. *J Oncol Pharm Pract* 2015 Dec 3. [Epub ahead of print]
- **Biganzoli L, Lichtman S, Michel JP, Papamichael D, Quoix E, Walko C, Apro M.** Oral single-agent chemotherapy in older patients with solid tumours: a position paper from the International Society of Geriatric Oncology (SIOG). *Eur J Cancer* 2015;51:2491-500.
- **Shea TC, Walko C, Chung Y, Ivanova A, Sheets J, Rao K, Gabriel D, Comeau T, Wood W, Coghill J, Armistead P, Sarantopoulos S, Serody J.** Phase I/II trial of dose-escalated busulfan delivered by prolonged continuous infusion in allogeneic transplant patients. *Biol Blood Marrow Transplant* 2015;21:2129-35.
- **Hertz DL, Snavely AC, McLeod HL, Walko CM, et al.** In vivo assessment of the metabolic activity of CYP2D6 diplotypes and alleles. *Br J Clin Pharmacol* 2015;80:1122-30.
- **Ward MA, Fang G, Richards KL, Walko CM, et al.** Comparative evaluation of patients newly initiating first-generation versus second-generation tyrosine kinase inhibitors for chronic myeloid leukemia and medication adherence, health services utilization, and healthcare costs. *Curr Med Res Opin* 2015;31:289-97.
- **Dey N, Williams C, Leyland-Jones B, De P.** A critical role for HER3 in Her2-amplified and non-amplified breast cancers: function of a kinase-dead RTK. *Am J Transl Res* 2015;7:733-50.
- **Williams CB, McMahon C, Ali SM, et al.** A metastatic colon adenocarcinoma harboring BRAF V600E has a durable major response to dabrafenib/

trametinib and chemotherapy. *Onco Targets Ther* 2015;8:3561-4.

Invited Talks

- **Ninh (Irene) La-Beck:** Invited speaker. Mechanisms and barriers in nanomedicine conference. Colorado Center for Nanomedicine and Nanosafety; July 15, 2016; Breckenridge, CO.
- **Casey Williams:** Updates in the treatment of chemotherapy-induced nausea and vomiting. CME lectures sponsored by Educational Concept Group. Dallas, TX; Milwaukee, WI; Omaha, NE; Denver, CO; Portland, OR; Seattle, WA; and Phoenix, AZ. 2014–2015.
- **Casey Williams:** Precision oncology on the frontier. Osher Lifelong Learning Institute (OLLI) CE Program; February 2015; Sioux Falls, SD.

HIV PRN

Introduction

The HIV PRN presented its inaugural focus session, “HIV Across the Ages,” at the 2015 Global Conference. This session focused on perinatal prevention, transmission, and management of HIV as well as HIV management in the pediatric and older adult populations.

HIV PRN members are encouraged to share their diverse clinical practices, research, education, and training experiences in order to network with other members. As a newer PRN, we hope to continue to recruit new trainees and members as well as expand education and networking opportunities. If you know other individuals (including trainees) interested in learning more about or joining the HIV PRN, please encourage them to do so!

The PRN has been advancing clinical practice, education, and research. Notable achievements are as follows.

Awards

- **Melanie R. Nichol:** Powell Center Research Scholar from the Deborah E. Powell Center for Women’s Health.

Grants

- **Sarah Michienzi:** ASHP Foundation Pharmacy Resident Practice-Based Research Grant.
- **Melanie R. Nichol:** “Identifying Determinants of Efficacy in Female Genital Tissues to Optimize HIV Prevention.” Funded by Deborah E. Powell Center

for Women’s Health.

- **Kimberly Scarsi (PI) and Kristin Darin (Co-PI):** NIH, NICHD R01 (1R01HD085887): “Pharmacologic Strategies to Use the Levonorgestrel Implant in HIV-Infected Women.”

Publications

- **Adams JL,** Byrne D, Pepe R, Gray A, Baxter JD. Virological failure in two patients with HIV-1 RNA viral loads >1,000,000 copies/ml initiated on elvitegravir/cobicistat/emtricitabine/tenofovir disoproxil fumarate. *Antivir Ther* 2015 Aug 26. [Epub ahead of print]
- **Badowski ME,** Perez SE. Clinical utility of dronabinol in the treatment of weight loss associated with HIV and AIDS [invited review]. *HIV/AIDS Res Palliat Care* 2016;8:37-45.
- Biagi M, **Badowski M,** Chiampas T, Young J, Vaughn P, Shicker L, Patel M. Administration of tenofovir disoproxil fumarate-based antiretroviral therapy in an HIV-infected patient following unilateral nephrectomy. *Int J STD AIDS*. 2015 Sep 16. [Epub ahead of print]
- Billedo J, Berkowitz L, **Cha A.** Evaluating the impact of a pharmacist-led antiretroviral stewardship program on reducing drug interactions in HIV-infected patients. *J Int Assoc Provid AIDS Care* 2016;15:84-8.
- Cope R, Berkowitz L, Arcebedo R, Yeh JY, Trustman N, **Cha A.** Evaluating the effects on an interdisciplinary practice model with pharmacist collaboration on HIV patient co-morbidities. *AIDS Patient Care STDS* 2015;29:445-53.
- Crutchley RD, Guduru RC, **Cheng AM.** Evaluating the role of atazanavir/cobicistat and darunavir/cobicistat fixed-dose combinations for the treatment of HIV-1 infection. *HIV/AIDS Res Palliat Care* 2016;7:1-19.
- Gilbert EM, **Darin KM, Scarsi KK,** McLaughlin MM. Antiretroviral pharmacokinetics in pregnant women. *Pharmacotherapy* 2015;35:838-55.
- Parikh S, Fehintola F, Huang L, Olson A, Adedeji WA, **Darin KM,** Morse GD, Murphy RL, Taiwo BO, Akinyinka OO, Adewole IF, Aweeka FT, **Scarsi KK.** Artemether-lumefantrine exposure in HIV-infected Nigerian subjects on nevirapine-containing antiretroviral therapy. *Antimicrob Agents Chemother* 2015;59:7852-6.
- Date AD, **Destache CJ.** Natural polyphenols: potential in the prevention of sexually transmitted viral infections. *Drug Discov Today* 2015 Nov 4.

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- Kovarova M, Council OD, Date AA, Long J, Nochii T, Belshan M, Shibata A, Vincent H, Baker CE, Thayer WO, Kraus G, Lachaud-Durand S, Williams P, **Destache CJ**, Garcia JV. Nanoformulations of rilpivirine for topical pericoital and systemic coital-independent administration efficiently prevent HIV transmission. *PLoS Pathogen* 2015;11:e1005075.
- Mandal S, Zhou Y, Shibata A, **Destache CJ**. Confocal fluorescence microscopy: an ultra-sensitive tool used to evaluate intracellular antiretroviral nano-drug delivery in HeLa cells. *AIP Adv* 2015;5:084803.
- **McLaughlin MM**, Skoglund E, Bergman S, Scheetz MH. Development of a pharmacy student research program at a large academic medical center. *Am J Health Syst Pharm* 2015;72:1885-9.
- **McLaughlin MM**, Skoglund EW, Ison MG. Peramivir: an intravenous neuraminidase inhibitor. *Expert Opin Pharmacother* 2015;16:1889-900.
- Bookstaver PB, Bland CM, Griffin B, Stover KR, Eiland LS, **McLaughlin M**. A review of antibiotic use in pregnancy. *Pharmacotherapy* 2015;35:1052-62.
- Gilbert EM, Darin KM, Scarsi KK, **McLaughlin MM**. Antiretroviral pharmacokinetics in pregnant women. *Pharmacotherapy* 2015;35:838-55.
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- **Sawkin MT**, Deppe SJ, Thelen J, Stoner, SC, Dietz CA, Rasu RS. Health literacy and medication adherence among patients treated in a free health clinic: a pilot study. *Health Serv Res Manag Epidemiol* 2015;2:1-7.
- **Scarsi KK**, **Darin KM**, Nakalema S, Back DJ, Byakika-Kibwika P, Else LJ, Dilly-Penchala S, Buzibye A, Cohn SE, Merry C, Lamorde M. Unintended pregnancies observed with combined use of the levonorgestrel contraceptive implant and efavirenz-based antiretroviral therapy: a three-arm pharmacokinetic evaluation over 48 weeks. *Clin Infect Dis* 2015 Dec 8. [Epub ahead of print]
- **Scarsi KK**, Eisen G, **Darin KM**, Meloni ST, Rawizza

HE, Tchetgen Tchetgen EJ, Agbaji OO, Onwujekwe DI, Gashau W, Nkado R, Okonkwo P, Murphy RL, Kanki PJ. Superior effectiveness of zidovudine compared with tenofovir when combined with nevirapine-based antiretroviral therapy in a large Nigerian cohort. *Clin Infect Dis* 2016;62:512-8.

- **Scarsi KK**, Prinz EA, Snyder HK, Olsen KM, Zhang L, Zeng L, Gui G. Development and practice of clinical pharmacy in the United States. *China Pharmacy* 2015;26:3601-11.
- Bares SH, Sandkovsky US, Talmon GA, Hutchins GF, Swindells S, **Scarsi KK**. Dolutegravir-induced colitis in an HIV-infected patient. *J Antimicrob Chemother* 2016;71:281-2.
- Hernandez J, **Segarra-Newnham M**. Evaluation of eradication rates for macrolide-based treatment of *Helicobacter pylori* infection in an era of increasing resistance. *Ann Pharmacother* 2015;49:1265-66.

New ACCP Fellows

- E. Kelly Hester
- R. Chris Rathbun

Other Notable Achievements

- **Mark Shaefer**: Has changed jobs from Head of North American Medical Affairs at ViiV Healthcare to Global Medical Lead for Cabotegravir at ViiV.

Immunology/Transplantation PRN

Grants

- **Ninh (Irene) La-Beck**: NIH/NCI R15CA192097-01A1 (\$453,173) awarded August 6, 2015, for grant titled, "Abrogating Nanoparticle-Induced Immunosuppression in Tumor Microenvironment." (PI)
- **David I. Min** (PI) and **Youngil Chang** (Research Fellow) (Co-I): "Glycosylation Pattern of Donor-Specific Antibody as a Novel Diagnostic Marker for Antibody-Mediated Rejection in Kidney Transplant Patients" – \$49,500 funded by Mendez National Institute of Transplantation, 2015–2016.

Publications

- Freeman CM, Woodle ES, Shi J, Alexander JW, Leggett PL, Shah SA, Paterno F, Cuffy MC, Govil A, Mogilishetty G, **Alloway RR**, Hanseman D, Cardi M, Diwan TS. Addressing morbid obesity as a barrier

to renal transplantation with laparoscopic sleeve gastrectomy. *Am J Transplant* 2015;15:1360-8. Epub 2015 Feb 23.

- Krisl JC, **Alloway RR**, Shield AR, Govil A, Mogilishetty G, Cardi M, Diwan T, Abu Jawdeh BG, Girnita A, Witte D, Woodle ES. Acute rejection clinically defined phenotypes correlate with long-term renal allograft survival. *Transplantation* 2015;99:2167-73.
- Mittal T, Dedhia P, Roy-Chaudhury P, Abu Jawdeh BG, Mogilishetty G, Cuffy MC, **Alloway RR**, Woodle ES, Govil A. Complete remission of post-transplantation recurrence of focal segmental glomerulosclerosis with the use of adrenocorticotrophic hormone gel: case report. *Transplant Proc* 2015;47:2219-22.
- Revollo JY, Cuffy MC, Abu Jawdeh BG, Paterno F, Girnita A, Brailey P, **Alloway RR**, Woodle ES. Case report: successful living donor kidney transplantation in a highly human leukocyte antigen-sensitized recipient with a positive cytotoxic crossmatch using bortezomib-based desensitization without intravenous immunoglobulin. *Transplant Proc* 2015;47:2254-7.
- Revollo JY, Cuffy MC, Witte DP, Paterno F, **Alloway RR**, Woodle ES. Case report: hemolytic anemia following deceased donor renal transplantation associated with tranexamic acid administration for disseminated intravascular coagulation. *Transplant Proc* 2015;47:2239-42.
- Sadaka B, Ejaz NS, Shields AR, Cardi MA, Wadih G, Witte D, Abu Jawdeh BG, **Alloway RR**, Woodle ES. A Banff component scoring-based histologic assessment of bortezomib-based antibody-mediated rejection therapy. *Transplantation* 2015;99:1691-9.
- Shokati T, Bodenberger N, Gadpaille H, Schniedewind B, Vinks AA, Jiang W, **Alloway RR**, Christians U. Quantification of the immunosuppressant tacrolimus on dried blood spots using LC-MS/MS. *J Vis Exp* 2015;(105).
- Stegall MD, Morris RE, **Alloway RR**, Mannon RB. Developing new immunosuppression for the next generation of transplant recipients: the path forward. *Am J Transplant* 2016 Jan 5. [Epub ahead of print]
- **Doligalski CT, Jennings DL**. Device-related thrombosis in continuous-flow left ventricular assist device support. *J Pharm Pract* 2016;29:58-66.
- **Doyle IC**, Malhotra A. Polymer-based augmentation of immunosuppressive formulations: application of polymer technology in transplant medicine. In: Thakur VK, Thakur MK, eds. *Handbook of Polymers for Pharmaceutical Technologies: Processing and Applications*, Vol. 2. Hoboken, NJ: John Wiley & Sons, 2015.
- Vacha M, Gommer J, Rege A, Sanoff, S, Sudan D, **Harris M**. **Effects** of ideal versus total body weight dosage of rabbit antithymocyte globulin on outcomes of kidney transplant patients with high immunologic risk. *Exp Clin Transplant* 2016 Jan 8. [Epub ahead of print]
- DePalma R, **Knorr JP**, Navarro V. Immunology of liver transplantation. In: Cataldo D, ed. *Contemporary Liver Transplantation: The Successful Liver Transplant Program*. Springer International Publishing, 2015. http://link.springer.com/referenceworkentry/10.1007/978-3-319-05543-5_20-1.
- **La-Beck NM**, Jean GW, Huynh C, Alzghari SK, Lowe DB. Immune checkpoint inhibitors: new insights and current place in cancer therapy. *Pharmacotherapy* 2015;35:963-76.
- Gabizon AA, **La-Beck NM**. Optimizing nanoparticle delivery of chemotherapeutics. In: *Cancer Nanotechnology Plan 2015*. National Cancer Institute. Available at <http://nano.cancer.gov/about/plan/>.
- Golan T, Grenader T, Ohana P, Amitay Y, Shmeeda H, **La-Beck NM**, Tahover E, Berger R, Gabizon AA. Pegylated liposomal mitomycin-C prodrug enhances tolerance of mitomycin C: a phase 1 study in advanced solid tumor patients. *Cancer Med* 2015;4:1472-83.
- Lenhard JR, Brown T, Rybak MJ, **Meaney CJ**, Norgard NB, Bulman ZP, Brazeau D, Gill SR, Tjusi BT. Sequential evolution of vancomycin-intermediate resistance alters virulence in *Staphylococcus aureus*: PK/PD targets for vancomycin exposure. *Antimicrob Agents Chemother* 2015 Dec 28. [Epub ahead of print]
- Venuto RC, **Meaney CJ**, Chang S, Leca N, Consiglio JD, Wilding GE, Brazeau D, Gundroo A, Nainani N, Morse SE, Cooper LM, Tornatore KM. Association of extrarenal adverse effects of immunosuppression with sex and ABCB1 haplotypes. *Medicine (Baltimore)*. 2015;94:e1315.
- Woodruff AE, **Meaney CJ**, Hansen E, Prescott GM. Azithromycin-induced, biopsy-proven acute interstitial nephritis in an adult successfully treated with low-dose corticosteroids. *Pharmacotherapy* 2015;35:e169-74.
- Doyle IC, Maldonado AQ, Heldenbrand S, Tichy EM, **Trofe-Clark J**. Non-adherence to therapy after adult solid organ transplantation: a focus on risks and mitigation strategies. Accepted for publication.

- Sawinski D, Kaur N, Ajeti A, **Trofe-Clark J**, Lim M, Bleicher M, Goral S, Forde KA, Bloom RD. Successful treatment of hepatitis C in renal transplant recipients with direct-acting antiviral agents. Am J Transplant 2015 Nov 25. [Epub ahead of print]

Presentations

- Casale J, Logan AT, **Doligalski CT**. Early acute kidney injury in lung transplantation is associated with significant mortality. Accepted for presentation at: International Society for Heart and Lung Transplantation Annual Meeting and Scientific Sessions; April 2016.
- Casale J, Logan AT, **Doligalski CT**. Early post-operative acute kidney injury in heart transplant recipients: who gets it, and does it matter? Accepted for presentation at: International Society for Heart and Lung Transplantation Annual Meeting and Scientific Sessions; April 2016.
- **Doyle IC**, Marcus K, Elbarbry FA, Marlow C, Fuentes D. Mini session: mapping exam questions to curricular outcomes. American Association of Colleges of Pharmacy Annual Meeting; July 2015.
- **Hammad S**, Shah L, Restivo M, Robbins H, **Scheffert J**. Outcomes associated with ganciclovir-resistant cytomegalovirus in lung transplant recipients. Accepted for presentation at: International Society for Heart and Lung Transplantation Annual Meeting and Scientific Sessions; April 2016.
- **La-Beck NM**. Nanomedicine and nanosafety. Invited speaker. Mechanisms and Barriers in Nanomedicine Conference; July 2016.
- **Trofe-Clark J**. Collaboration at its finest: a case-based approach highlighting the significance of the multi-disciplinary team – pre-transplant phase: effective pharmacologic evaluation of transplant candidates. Invited faculty member and premeeting member speaker. American Transplant Congress; June 2016.

Promotions

- **Ian Doyle**: Assistant Dean for Pharmacy Practice at Pacific University School of Pharmacy

Other Notable Accomplishments

The following individuals were selected as Fellows of the American Society of Transplantation 2015 (FAST):

- Barrett Crowther
- Steven Gabardi

- Nicole Pilch
- Lisa Potter
- Christin Rogers
- Lonnie Smith
- Eric Tichy
- Jennifer Trofe-Clark

Infectious Diseases PRN

Introduction

The ID PRN is one of the largest PRNs, with just over 2500 members, more than one-third of whom are residents and students. The ID PRN became the first PRN to add residents to the executive committee, with Sarah Tennant and Erin McCreary joining this past October. The ID PRN has four active committees (Programming, Nominations, Awards, and Publications), which are working diligently to support and encourage membership involvement through educational session development, development of new awards and recognition categories for our members, and publication of a PRN newsletter. The ID PRN continues to support research and scholarly activity, with consistent donations to the Frontiers Fund and support for members with scholarships to the Focused Investigator Training (FIT) or Mentored Research Investigator Training (MeRIT) program.

In fall/winter 2015, the ID PRN increased its social media presence by forming a Twitter account with almost 400 followers (@accpindprn), as well as broadcasting the 2015 ID PRN business meeting live by Periscope.

Promotions

- Jolie Jantz: Antimicrobial Stewardship Coordinator.

Awards

- **Chris Frei**: P3 Class Teaching Award, UT Austin College of Pharmacy.
- **Chris Frei**: Outstanding Faculty Member of the Year, Phi Lambda Sigma (national pharmacy leadership society), UT Austin College of Pharmacy Student Chapter UT Austin College of Pharmacy.
- **Polly Jen**: NJSHP (New Jersey Society of Health-System Pharmacists) Pharmacist Practitioner Award.
- **Amelia Sofjan**: 2016 American Association of Colleges of Pharmacy New Investigator Award.

Grants

- **Chris Bland** and **Bruce Jones**: “The Use of Penicillin Skin Testing as an Antimicrobial Stewardship Initiative in a Not-for-profit Community Health System.” 2016–2017. (Co-PIs)
- **Chris Frei**: NIH/NCATS (National Center for Advancing Translational Sciences) 5UL1 TR001120 and 8KL2 TR000118 (2013–2018): “Institute for Integration of Medicine and Science (IIMS): A Partnership to Improve Health.” Role: Program Director, Translational Science Ph.D. Program.
- **Chris Frei**: Establishing the Veterans Administration chronic lymphocytic leukemia (CLL) and mantle cell lymphoma (MCL) populations and establishing cancer drug usage over a 5-year period. (Co-PI)
- **Warren Rose**: NIH/NIAID “Identification of Evolved Molecules That Provide Defense Against Infection in a Natural System.” (Co-I)
- **Doug Slain**: “Choosing Wisely in West Virginia Initiative to Reduce Avoidable Antibiotic Prescriptions in Outpatient Settings.” From: West Virginia Clinical and Translational Science Institute. (Co-I)

Publications

- **Aitken SL**, Alam MJ, Khaleduzzuman M, Walk ST, **Musick WL**, Pham VP, Christensen JL, Atmar RL, Xie Y, **Garey KW**. In the endemic setting, *Clostridium difficile* ribotype 027 is virulent but not hypervirulent. *Infect Control Hosp Epidemiol* 2015;36:1318-23.
- **Aitken SL**, Zhou J, Ghantaji SS, Kontoyiannis DP, Jones RB, Tam VH, Chemaly RF. Pharmacokinetics and safety of intravesicular cidofovir in allogeneic HSCT recipients. *J Antimicrob Chemother* 2015 Nov 26. [Epub ahead of print]
- Pham VP, Luce AM, Ruppelt SC, Wei W, **Aitken SL**, **Musick WL**, Roux RK, **Garey KW**. Age-stratified treatment response rates in hospitalized patients with *Clostridium difficile* infection treated with metronidazole. *Antimicrob Agents Chemother* 2015;59:6113-6.
- **Beardsley JR**, Jones CM, Williamson J. Pharmacist involvement in a multidisciplinary initiative to reduce sepsis-related mortality. *Am J Health Syst Pharm* 2016;73:143-9.
- **Bland CM**, **Bookstaver PB**. Editorial commentary: double gram-positive coverage for acute bacterial skin and skin structure infections: has the eagle landed? *Clin Infect Dis* 2015;61:1155-6.

- **Bookstaver PB**, **Bland CM**, Griffin B, **Stover KR**, Eiland LS, **McLaughlin M**. A review of antibiotic use in pregnancy. *Pharmacotherapy* 2015;35:1052-62.
- **Bookstaver PB**, Foster JL, Lu ZK, Mann JR, Ambrose C, Grant A, Burgess S. Hepatitis B virus seroconversion rates among health sciences students in the southeastern United States. *J Am Coll Health* 2016;64:69-73.
- Brigmon MM, **Bookstaver PB**, Kohn J, Albrecht H, Al-Hasan MN. Impact of fluoroquinolone resistance in gram-negative bloodstream infections on health-care utilization. *Clin Microbiol Infect* 2015;21:843-9.
- Cox C, Hashem NG, Tebbs J, **Bookstaver PB**, Iskersky V. Evaluation of caffeine and the development of necrotizing enterocolitis. *J Neonatal Perinatal Med* 2015;8:339-47.
- **Cleary JD**, **Stover KR**. Antifungal-associated cardiac drug-induced disease. *Clin Infect Dis* 2015;61(suppl 6):S662-8.
- **Day SA**, **Cucci M**, Droege ME, et al. Major publications in the critical care pharmacotherapy literature: January-December 2014. *Am J Health Syst Pharm* 2015;72:1974-85.
- Dixon B, Zhang Y, **Ei-Beyrouty C**, Bonanni S, Hess B. Bad to the bone: ceftolozane/tazobactam for osteomyelitis: two case reports. ASHP 50th Annual Midyear Clinical Meeting; December 2015.
- Kachur E, Mitchell M, **Ei-Beyrouty C**, **Peahota M**. Evaluation of the efficacy and safety of high dose tigecycline in 3 critically ill patients. ASHP 50th Annual Midyear Clinical Meeting December 2015.
- Cadena J, Richardson AM, **Frei CR**. Risk factors for methicillin-resistant *Staphylococcus aureus* skin and soft tissue infection in MRSA-colonized patients discharged from a Veterans Affairs hospital. *Epidemiol Infect* 2015:1-5.
- **Garey KW**, **Aitken SL**, Gschwind L, Goddu S, Xie Y, Duff C, Barbut F, **Shah DN**, DuPont HL. Development and validation of a *Clostridium difficile* health-related quality-of-life questionnaire. *J Clin Gastroenterol* 2016 Jan 19. [Epub ahead of print]
- **Gilbert EM**, **Darin KM**, Scarsi KK, **McLaughlin MM**. Antiretroviral pharmacokinetics in pregnant women. *Pharmacotherapy* 2015;35:838-55.
- **Grim SA**, Layden JE, Roth P, Gallitano S, Adams W, Clark NM. Latent tuberculosis in abdominal transplant patients: a review of treatment practices and outcomes. *Transplant Infect Dis* 2015;17:768-77.
- Clark NM, **Grim SA**, Lynch JP III. Posaconazole: use in the prophylaxis and treatment of

fungal infections. *Semin Respir Crit Care Med* 2015;36:767-85.

- **Gibble AM, Gross AE, Huang AM.** Examining the clinical effectiveness of non-carbapenem β -lactams for the treatment of extended-spectrum β -lactamase-producing Enterobacteriaceae. *Antibiotics* 2015;4:653-66.
- **Dan S, Shah A, Justo JA, Bookstaver PB, Kohn J, Albrecht H, Al-Hasan MN.** Prediction of fluoroquinolone resistance in gram-negative bloodstream infections. *Antimicrob Agents Chemother* 2016 Feb 1. [Epub ahead of print]
- **Gross AE, Bryson ML.** Oral ribavirin for the treatment of noninfluenza respiratory viral infections: a systematic review. *Ann Pharmacother* 2015;49:1125-35.
- **Guarascio AJ, Slain D.** Review of the new oral tablet and intravenous dosage forms of posaconazole. *Pharmacotherapy* 2015;35:208-19.
- **Gubbins PO, Li C.** Influence of influenza and pneumococcal vaccines on CAP outcomes among the elderly. *Curr Infect Dis Rep* 2015;17:49.
- **Pariser JJ, Anderson BB, Pearce SM, Han Z, Rodriguez JA 3rd, Landon E, Pisano J, Smith ND, Steinberg GD.** The effect of broader, directed antimicrobial prophylaxis including fungal coverage on perioperative infectious complications after radical cystectomy. *Urol Oncol* 2015 Nov 10.
- **Jeffres MN, Narayanan PP, Shuster JE, Schramm GE.** Consequences of avoiding β -lactams in patients with β -lactam allergies. *J Allergy Clin Immunol* 2015. [Epub in press]
- **Jen SP, Zucker J, Buczynski P, et al.** Medication errors with antituberculosis therapy in an inpatient, academic setting: forgotten but not gone. *J Clin Pharm Ther* 2016;41:54-8.
- **Zucker J, Mittal J, Jen SP, et al.** Impact of stewardship interventions on antiretroviral medication errors in an urban medical center: a three year, multi-phase study. *Pharmacotherapy* 2016. [Epub ahead of print]
- **Kullar R, Sakoulas G, Deresinski S, van Hal SJ.** When sepsis persists: a review of MRSA bacteremia salvage therapy. *J Antimicrob Chemother* 2015 Nov 12. [Epub ahead of print]
- **Kullar R, Vassallo A, Turkel S, Chopra T, Kaye KS, Dhar S.** Degowning the controversies of contact precautions for methicillin-resistant *Staphylococcus aureus*: a review. *Am J Infect Control* 2016;44:97-103.
- **Labreche MJ, Graber CJ, Nguyen HM.** Recent

updates on the role of pharmacokinetics-pharmacodynamics in antimicrobial susceptibility testing as applied to clinical practice. *Clin Infect Dis* 2015;61:1446-52.

- **Lacy MK, Stryjewski ME, Wang W, Hardin TC, Nogid B, Luke DR, Shorr AF, Corey GR, Barriere SL.** Telavancin hospital-acquired pneumonia trials: impact of gram-negative infections and inadequate gram-negative coverage on clinical efficacy and all-cause mortality. *Clin Infect Dis* 2015;61:S87-S93.
- **Lee YR, Hounque C, Hall RG.** Treatment of community-acquired pneumonia. *Expert Rev Anti Infect Ther* 2015;13:1109-21.
- **Lee YR, McMahan D, McCall C, Perry GK.** Complicated intra-abdominal infections: the old antimicrobials and the new players. *Drugs* 2015;75:2097-117.
- **McCreary EK, Hayney MS.** Adult vaccines for individuals with human immunodeficiency virus infection. *J Am Pharm Assoc* 2015;55:560-2.
- **Nichols K, Chung EK, Knoderer CA, Dees J, Healy DP, Buenger LE, Crumby AS, Kays MB.** Population pharmacokinetics and pharmacodynamics of extended-infusion piperacillin and tazobactam in critically ill children. *Antimicrob Agents Chemother* 2016;60:522-31.
- **Peahota M, Shah B, El-Beyrouy C, Schafer J.** Healthcare-associated pneumonia: who is truly at risk for multidrug resistant pathogens? *Am J Health Syst Pharm* 2015;72:e65-72.
- **Percival KM, Brock JT, Peterson ND.** Delivery of antifungal agents from bone cement. *Curr Fungal Infect Rep.* Available online.
- **Percival KM, Valenti KM, Schmittling SE, Strader BD, Lopez RR, Bergman SJ.** Impact of an antimicrobial stewardship intervention on urinary tract infection treatment in the ED. *Am J Emerg Med* 2015;33:1129-33.
- **Reveles KR, Mortensen EM, Attridge RT, Frei CR.** Comparative-effectiveness of vancomycin and linezolid as part of guideline-recommended empiric therapy for healthcare-associated pneumonia. *BMC Res Notes* 2015;8:450.
- **Rhodes NJ, O'Donnell JN, Lizza BD, McLaughlin MM, Esterly JS, Scheetz MH.** Tree-based models for the prediction of mortality in gram-negative bacteremia: avoid putting the CART before the horse. *Antimicrob Agents Chemother* 2015 Nov 23. [Epub ahead of print]
- **Rokas KE, Johnson JW, Beardsley JR, et al.** The addition of intravenous metronidazole to oral vancomycin is associated with improved mortality

in critically ill patients with *Clostridium difficile* infection. *Clin Infect Dis* 2015;60:934-41.

- Berti AD, Theisen E, Sauer JD, Nonejuie P, Olson, J, Pogliano J, Sakoulas G, Nizet V, Proctor RA, **Rose WE**. Penicillin binding protein 1 is important in the compensatory response of *Staphylococcus aureus* to daptomycin-induced membrane damage and is a potential target for β -lactam-daptomycin synergy. *Antimicrob Agents Chemother* 2016;60:451-8.
- Shukla SK, **Rose WE**, Schrodi SJ. Complex host genetic susceptibility to *Staphylococcus aureus* infections. *Trends Microbiol* 2015;23:529-36.
- Hernandez J, **Segarra-Newnham M**. Evaluation of eradication rates for macrolide-based treatment of *Helicobacter pylori* infection in an era of increasing resistance. *Ann Pharmacother* 2015;49:1265-66.
- **Shah PJ, Bergman SJ**, Graham DR, Glenn S. Monitoring of outpatient parenteral antimicrobial therapy and implementation of clinical pharmacy services at a community hospital infusion unit. *J Pharm Pract* 2015;28:462-8.
- **Slain D**. Chapter 30: invasive fungal infections. In: Sutton SS, ed. *McGraw-Hill's NAPLEX Review Guide*, 2nd ed. New York: McGraw-Hill, 2015.
- **Slain D, Cleary JD**. Isavuconazonium sulfate: a novel antifungal agent. *Curr Fungal Infect Rep* 2015;9(4).
- Jacobson SM, **Slain D**. Evaluation of ATLAS score in predicting clinical cure and recurrence of *Clostridium difficile* infection. *Am J Health Syst Pharm* 2015;72:1871-5.
- Venci DP, **Slain D**, Elswick BM, Sarwari AR, Ross AL, Smithmyer A, Hare JT, Briggs F. Inclusion of social media-based strategies in a health care worker influenza immunization campaign [research letter]. *Am J Infect Control* 2015;43:902-3.
- **Stover KR, Cleary JD**. Cardiac response to centrally administered echinocandin antifungals. *J Pharm Pharmacol* 2015;67:1279-83.
- Chastain DB, Henderson H, **Stover KR**. Epidemiology and management of antiretroviral-associated cardiovascular disease. *Open AIDS J* 2015;9:23-37.
- **Tennant SJ, Burgess DR, Rybak JM**, Martin CA. Utilizing Monte Carlo simulations to optimize institutional empiric antipseudomonal therapy. *Antibiotics* 2015;4:643-52.
- **Tesh LD, Shaeer KM, Cho JC, Estrada SJ, Huang V, Bland CM, DiMondi VP**, Potter AN, Hussein G, **Bookstaver PB**. *Neisseria gonorrhoeae*

and fosfomycin: past, present and future. *Int J Antimicrob Agents* 2015;46:290-6.

- **Teshome BF**, Lee GC, **Reveles KR**, Attridge RT, Koeller J, Wang CP, Mortensen EM, **Frei CR**. Application of a methicillin-resistant *Staphylococcus aureus* risk score for community-onset pneumonia patients and outcomes with initial treatment. *BMC Infect Dis* 2015;15:380.
- **Timbrook T**, Maxam M, **Bosso J**. Antibiotic discontinuation rates associated with positive respiratory viral panel and low procalcitonin results in proven or suspected respiratory infections. *Infect Dis Ther* 2015;4:297-306.
- **Wargo KA, McCreary EK**, English TM. Vancomycin combined with clindamycin with the treatment of acute bacterial skin and skin-structure infections. *Clin Infect Dis* 2015;61:1148-54.
- **Zeitler K, Joshi R**. Optimize antimicrobial stewardship. *Pharmacy Purchasing & Products* 2015;12:18.
- **Zemles TN**, Thompson NE, Huppler AR, Havens PL. Development of a voriconazole clinical practice guideline at a pediatric institution. *J Pharm Soc Wis* 2016;19:31-3.

Other Notable Achievements

- **Brandon Dionne**: AAHIVP Certification.
- **Dana Fleischman**: Hospital Pharmacy Manager.
- **Zhe Han**: BCPS Certification.
- **Brian Hughes**: SIDP Antimicrobial Stewardship Certification.
- **Dave Luke**: National Director of MSLS at Melinta Therapeutics.
- **Jessica Sobnosky**: BCPS Certification.
- **Lauren Tesh**: Became Designated Federal Officer for the FDA, CDER, Antimicrobial Drugs Advisory Committee.

Nephrology PRN

Introduction

Our Nephrology PRN members have been participating in teaching, scholarship, and clinical and professional service. We are proud to share the many accomplishments of our members.

Promotions

- **Linda Awdishu:** Associate Clinical Professor of Pharmacy and Medicine, UC San Diego Skaggs School of Pharmacy.
- **Ruth Ann Subach:** Senior Director, Clinical Operations at Trevena.
- **Tran Tran:** Associate Professor, Midwestern University College of Pharmacy.
- **Mary Vilay:** Associate Professor, University of New Mexico College of Pharmacy.

Awards

- **Bruce Mueller:** Michigan Institute for Clinical & Health Research Distinguished Clinical and Translational Research Mentor Award, 2015.
- **Bruce Mueller:** 65th Annual University of Wisconsin Kremers Lecturer, 2015.
- **Bruce Mueller:** University of Michigan Provost's Teaching Innovation Prize (Faculty Team Lead: Burgunda Sweet), 2015.
- **Ifeanyi Onor:** 2015 Preceptor of the Year Award, Xavier University of Louisiana College of Pharmacy.
- **Lori Wazny:** Journal Article Award, Canadian Association of Nephrology Nurses and Technologists (CANNT) Journal, 2015.
- **Lori Wazny:** Award of Excellence, Canadian Society of Hospital Pharmacists (CSHP) Manitoba Branch, 2015.

Grants

- **Mueller BA** (PI), Gharibian KN, Lewis SJ. "Regadenoson Clearance During Hemodialysis: An In Vitro Investigation." Astellas.
- **Mueller BA** (PI), Heung M. "Role of Phosphate Replacement in Patients Receiving CRRT."
- **Mueller BA** (PI), Lewis SJ, Gharibian KN. "Ceftolozane/Tazobactam Clearance During Continuous Renal Replacement Therapy (CRRT): An In Vitro Investigation." Merck.
- **Mueller BA** (PI), Shaw A, Chaijamorn W, Clark J. "Time Motion Study of CRRT Solution Preparation."
- **St. Peter W:** "Refining Population Management Criteria to Optimize Return on Investment of Medication Management Services in Care Transitions." Kam-Chen Award. University of Minnesota College of Pharmacy.

Publications

- **Awdishu L**, Coates CR, Lyddane A, Tran K, Daniels CE, Lee J, El-Kareh R. The impact of real-time alerting on appropriate prescribing in kidney disease: a cluster randomized controlled trial. *J Am Med Inform Assoc* 2015 Nov 27. [Epub ahead of print]
- Mehta RL, **Awdishu L**, Davenport A, Murray PT, Macedo E, Cerda J, Chakaravarthi R, Holden AL, Goldstein SL. Phenotype standardization for drug-induced kidney disease. *Kidney Int* 2015;88:226-34.
- Malkinska M, **El Nekidy WS**, El-Masri MM, Kadri A, Donaldson C, Soong D. Outcomes associated with conventional accelerated versus once-weekly IV iron therapy in outpatients undergoing hemodialysis. *Can J Hosp Pharm* 2015;68:304-10.
- **Flurie RW, Brophy DF.** New medications to treat hyperkalemia. In: DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey L, eds. *Updates: Pharmacotherapy: A Pathophysiologic Approach*, 9th ed. New York: McGraw-Hill, 2014. <http://access-pharmacy.mhmedical.com/updatesContent.aspx?bookid=536&Sectionid=98653266>. Accessed February 15, 2016.
- **Flurie RW**, Gonzales JP, Tata AL, Millstein LS, Gulati M. Hospital delirium treatment: Continuation of antipsychotic therapy from ICU to discharge. *Am J Health Syst Pharm.* 2015;72:S133-S139.
- **Foote EF**, Clarke V, Szarek JL, Waters SK, Walline V, Shea D, Goss S, Farrell M, Easton D, Dunleavy E, Arscott K. Development and evaluation of a regional, large-scale interprofessional collaborative care summit. *J Allied Health* 2015;44:e23-e28.
- **Hudson JQ, Wazny LD.** Chronic kidney disease. In: DiPiro JT, Talbert RL, Yee GC, et al., eds. *Pharmacotherapy: A Pathophysiologic Approach*, 10th ed. New York: McGraw Hill. In press.
- Lenhard JR, Brown T, Rybak MJ, **Meaney CJ**, Norgard NB, Bulman ZP, Brazeau D, Gill SR, Tjusti BT. Sequential evolution of vancomycin-intermediate resistance alters virulence in *Staphylococcus aureus*: PK/PD targets for vancomycin exposure. *Antimicrob Agents Chemother* 2015 Dec 28. [Epub ahead of print]
- Venuto RC, **Meaney CJ**, Brazeau DB, Consiglio J, Wilding G, **Tornatore KM.** Association of extrarenal adverse effects of immunosuppression with sex and ABCB1 haplotypes. *Medicine* 2015;94:e1315.
- Woodruff AE, **Meaney CJ**, Hansen E, Prescott GM. Biopsy-confirmed azithromycin-induced acute interstitial nephritis successfully treated with low dose corticosteroids. *Pharmacotherapy* 2015;35:e169-e174.

- Jamal JA, **Mueller BA**, Choi GYS, Lipman J, Roberts JA. How can we ensure effective antibiotic dosing in critically ill patients receiving different types of renal replacement therapy? *Diagn Microbiol Infect Dis* 2015;82:92-103.
- Lewis SJ, Switaj L, **Mueller BA**. Tedizolid adsorption and transmembrane clearance during in vitro continuous renal replacement therapy (CRRT). *Blood Purif* 2015;40:66-71.
- Mei JP, Ali-Moghaddam, A, **Mueller BA**. Survey of pharmacists' antibiotic dosing recommendations for sustained low-efficiency dialysis. *Int J Clin Pharm* 2015 Oct 24. [Epub ahead of print]
- **Nguyen T**. Keeping up with safety warnings of oral antidiabetic drugs. *J Nurse Pract* 2016;12:61-2.
- **Nguyen T**, Liu X, Patel P. Ready for oral fecal microbiota pill in clinical practice? *J Nurse Pract* 2015;11:839-40.
- **Nguyen T**, Sin B. A case of an older adult patient and drugs associated with serotonin syndrome. *Consult Pharm* 2015;30:455-8.
- Stirling DL, **Onor IO**, Sarpong DF, Rapp KI, Crawford LD. Prescribing patterns of metformin in high-risk prediabetic patients. *J La State Med Soc* 2015;167:257-63.
- **Pierce D**. The use of alteplase for clearing peritoneal dialysis catheter occlusion. *Hosp Pharm* 2016. [Accepted for publication]
- **Pierce DA**, Russell G, Pirkle JL Jr. Incidence of hypoglycemia in patients with low eGFR treated with insulin and dextrose for Hyperkalemia. *Ann Pharmacother* 2015;19:1322-6.
- Viscusi ER, Webster L, Kuss M, Daniels S, Bolgnese JA, Zuckerman S, Soergel DG, **Subach RA**, Cook E, Skobieranda F. A randomized, phase 2 study investigating TRV130, a biased ligand of the μ -opioid receptor, for the intravenous treatment of acute pain. *Pain* 2016;157:264-72.
- Hui-Yuen J, **Tran TH**, Taylor J, Truong K, Li X, Bermudez L, Starr A, Eichenfield A, Imundo L, Askanase A. Use of glucuronidated mycophenolic acid levels for therapeutic monitoring in pediatric lupus nephritis patients. *J Clin Rheum* 2016. Accepted for publication.
- **Wazny LD**, Davis CJ, Ariano R. Acid-base disorders. In: Tisdale JE, Miller DA, eds. *Drug-Induced Diseases: Prevention, Detection, and Management*, 3rd ed. Bethesda, MD: American Society of Health-System Pharmacists. In press.
- **Wazny LD**, Orsulak C, Nadurak S, Tangri N. The efficacy and safety of megestrol acetate in protein

energy wasting due to chronic kidney disease: a systematic review. *J Ren Nutr* Jan 5. [Epub ahead of print]

Other Notable Achievements

- **Tim Nguyen**: Serves as Editor of the Prescription Pad Department for *Journal for Nurse Practitioners*.
- **Wendy St. Peter**: Appointed December 2015 to the Board of Directors, Kidney Health Initiative for a 3-year term.
- **Wendy St. Peter**: Appointed to the Kidney Care Quality Alliance Feasibility/Testing Workgroup to develop specifications for medication management quality measures for dialysis facilities in the United States (fall 2015).
- **Wendy St. Peter**: Selected to participate as a member of a Technical Expert Panel (TEP) for an evidence synthesis of "Metformin Use in Patients with Contraindications." This review was commissioned by the Department of Veterans Affairs, Health Services Research and Development (fall 2015).
- **Lori Wazny**: Appointed as a pharmacist member of the Kidney Foundation of Canada National Programs and Public Policy Committee (2016).

Other

- **Bruce Mueller**: Susan Lewis, Katherine Gharibian, Alex Shaw, and Weerachai Chaijamorn are completing research fellowships under the mentorship of Dr. Mueller.

Pain and Palliative Care PRN

Introduction

The Pain and Palliative Care PRN has endorsed the "Statement of Consensus on the Proper Utilization of Urine Testing in Identifying and Treating Substance Use Disorders." This consensus guideline was developed by a diverse group of experienced addiction treatment professionals, with support from the Center for Lawful Access and Abuse Deterrence (CLAAD). This statement, intended as a resource for clinicians in any health care practice area, documents the clinical consensus in an area of medicine for which no clinical consensus otherwise exists. The document was approved by a favorable vote of the PRN members.

Promotions/Appointments

- **Stephanie Abel:** Palliative Medicine Clinical Pharmacy Specialist at the Ohio State University Wexner Medical Center – James Cancer Hospital.
- **Mary Lynn McPherson:** Executive Director, Advanced Post-Graduate Education in Palliative Care.
- **Victoria Tutag-Lehr:** Wayne State University Investigational Review Board-Scientist M1 Member September 2015–2017; Wayne State University Investigational Review Board-Scientist M4-Alternate September 2015–2017; State of Michigan Department of Community Health Pharmacy & Therapeutics Committee Chair 2015–2017.

Awards

- **Jeffrey Bratberg:** 2016 Generation Rx Award of Excellence (national).

Publications

- **Cimino NM, Lockman K, McPherson ML.** Safe and effective use of methadone. *Pract Pain Manage* 2015;42-9.
- **Cimino NM, McPherson ML.** The pharmacist's role in advancing opioid safety: preventing and treating opioid overdose. *Pharmacy Times* 2015;75-81.
- Rennick A, Atkinson T, **Cimino NM, Strassels SA, McPherson ML, Fudin J.** Variability in opioid equivalence calculations. *Pain Med.* [Published online ahead of print, September 2015]
- **Fudin J, Pham TC.** Dodging elusive and miscalculated opioid risks. *PainWeek J* 2015:56-63.
- **Fudin J.** New Naloxone Technologies to Reduce Opioid Overdose Fatalities. *Medscape.* July 31, 2015. Available at www.medscape.org/viewarticle/844947.
- **Fudin J.** The economics of opioids: abuse, REMS, and treatment benefits. Part 3 of continuing education module – use of opioid analgesics in managed care practice: challenges, controversies, REMS, and optimizing patient management for your review. 2015;21:S165-S196.
- **Fudin J, Pham T, Pratt J.** Abuse Deterrent Formulations: Clinical Applications and Utility in Chronic Pain. *Postgraduate Healthcare Education, LLC ("PHE") Continuing Education.*
- **Fudin J, Pratt J, Raouf M.** Are You Kidding Me? Guest blog article. Posted September 18, 2015. <http://paindr.com/are-you-kidding-me/>.
- **Fudin J, Pratt P, Brooks A, Kominek C, Pham T.**

Screening tools when using opioids for chronic pain. In: *American Society of Addiction Medicine Pain and Addiction Manual.* Oxford: Oxford Press.

- **Fudin J, Pratt Cleary J, Raouf M.** Risk Tool Helps Pharmacists Qualify Patients for Take-Home Naloxone. [Published online 12/18/2015]. www.pharmacytimes.com/contributor/jeffrey-fudin/2015/12/risk-tool-helps-pharmacists-qualify-patients-for-take-home-naloxone.
- Ahmed N, Horlacher RJ, **Fudin J.** Opioid withdrawal: a new look at medication options. *Pract Pain Manage* 2015;15:58-66.
- Argoff CE, Brennan MJ, Camilleri M, Davies A, **Fudin J, Galluzzi KE, Gudin J, Lembo A, Stanos SP, Webster LR.** Consensus recommendations on initiating prescription therapies for opioid-induced constipation. *Pain Med* 2015;16:2324-37.
- Brooks A, Kiminek C, Pham T, **Fudin J.** Exploring the use of chronic opioid therapy for chronic pain: when, how, and for whom? *Med Clin* 2015;100:81-102.
- Chambers J, Gleason RM, Kirsh KL, Twillman R, Webster L, Berner J, **Fudin J, Passik SD.** An online survey of patients' experiences since the rescheduling of hydrocodone: the first 100 days. *Pain Med* 2015. In press.
- Gudin J, **Fudin J, Laitman A, Kominek C.** Opioid-Induced Constipation: new and emerging therapies. *Pract Pain Manage* 2015;15:38-45.
- Gudin J, **Fudin J, Nalamachu S.** Levorphanol use: past, present and future. *Postgraduate Med* 2016;128:46-53.
- Linares O, Michel T, **Fudin J, Boston RC, Daly AM.** Letter to the editor in *Pain Physician.* Integrating clinical pharmacokinetics, pharmacogenetics, and quantitative cytochrome P450 Linares OA, Fudin J, Daly-Linares A, Schiesser WE, Boston RC. Methadone recycling sustains drug reservoir in tissue. *J Pain Palliat Care Pharmacother* 2015:261-71.
- Linares OA, Schiesser WE, **Fudin J, Pham TC, Bettinger JJ, Mathew RO, Daly-Linares A.** In silico ordinary differential equation/partial differential equation hemodialysis model estimates methadone removal during dialysis. *J Pain Res* 2015;8:417-29.
- Pham TC, **Fudin J, Raffa RB.** Is levorphanol a better option than methadone? *Pain Med* 2015:1673-9.
- Schneider J, **Fudin J.** Should I discharge a patient on Percocet (oxycodone/acetaminophen) for chronic back pain with unexpected oxymorphone Q detected in her urine drug screen? *Pract Pain Manage* 2015;15:16-7.

- **Pawasauskas J.** Opioid rotation: a case report using methadone in spinal cord injury. *J Opioid Manage* 2015;11:443-8.
- **Pratt Cleary J:** RIOSORD response to 2015 highlights in pain. Submitted for publication.
- Dunleavy K, Kava K, Goldberg A, Malek M, Talley SA, **Tutag-Lehr V**, Hildreth JA. Comparative effectiveness of Pilates and Yoga group exercise for chronic mechanical neck pain. *Physiotherapy* 2015 Aug 13.
- **Winans ARM, Pawasauskas J, Sera L.** Symptom management overview: opioid-induced constipation. *J Hematol Oncol Pharm* 2015;5:2-5.

Presentations

- **Fudin J.** Two lectures: Understanding and interpreting unexpected urine drug tests and naloxone: access, pharmacology, practicality, and politics. As part of Day Long Opioid Symposium. Controversies in Pain Management Opioids: Misconceptions in Pain Management. Presented at: Quillen College of Medicine at Millennium Center; November 13, 2013; Johnson City, TN.
- **Fudin J.** Day Long Opioid Symposium. Presented at: New Jersey Society of Oral and Maxillofacial Surgeons at Hotel Woodbridge MetroPark; November 4, 2015; Iselin, NJ.
- **Fudin J.** Two lectures: 1. Dodging elusive and miscalculated opioid risks. 2. Non-opioid analgesics: anticonvulsants, antidepressants, and skeletal muscle relaxants. Presented at: PAINWeekEnd 2015 at Baltimore Marriott Waterfront Hotel; October 24, 2015; Baltimore, MD.
- **Fudin J.** Pain and Palliative Care PRN Focus Session: best practices in prevention and treatment of opioid overdose. Identifying patients at risk for serious, unintended opioid-related adverse events. Presented at: 2015 ACCP Global Conference on Clinical Pharmacy; October 20, 2015; San Francisco, CA.
- **Fudin J.** Two lectures: 1. Dodging elusive and miscalculated opioid risks. 2. Non-opioid analgesics: anticonvulsants, antidepressants, and skeletal muscle relaxants. Presented at: PAINWeekEnd 2015 at Hilton Woodcliff; October 3, 2015; Woodcliff Lake, NJ.
- **Fudin J.** Case studies in pain management: avoiding medical errors in prescribing appropriate analgesia. Albany Medical College's Current Topics in Primary Care and Neurology. Update for the Primary Care Practitioner. Presented at:

Conference Center at Lake Placid; September 19, 2015; Lake Placid, NY.

- **Fudin J.** PAINWeek 2015 at the Cosmopolitan Hotel; Las Vegas, NV:
- September 12, 2015 – Could levorphanol levitate above methadone misadventure? (with Drs. Courtney Kominek and Abigail Brooks)
- September 11, 2015 – Naloxone kudos vs kinetics: a debate on emergency response and comparative routes of administration (IN, IM, Auto-IM) (with Drs. Courtney Kominek and Abigail Brooks).
- September 10, 2015 – Fudin vs Gudín: the gloves come off (with Dr. Jeffrey Gudín).
- September 8, 2015 – State dosage thresholds and their potential impacts on pain and overdose prevention (with Dr. Stephen Zielger).
- **Fudin J, Argoff C, Camilleri M, Snodgrass B.** Recommendations on initiating prescription therapies for opioid-induced constipation. American Academy of Pain Medicine Webinar Parts I and II; January 13 and 21, 2016.
- Cleary JH, Raouf M, Nguyen U, Carpenter MR, **Fudin J.** Automated software platform to assess pre-validated risk for opioid-induced respiratory depression to qualify patients for in-home naloxone (Poster: 394). American Society of Health-System Pharmacists (ASHP) 2015 Midyear Clinical Meeting and Exhibition; New Orleans, LA.
- Leung N, **Pawasauskas J**, Kelly M. Liposomal bupivacaine in total knee arthroplasty. Poster presented at: American Society of Health-System Pharmacy Midyear Meeting; 2015; New Orleans, LA.
- **Pratt J**, Raouf M, Carpenter M, Fudin J. Risk analysis of potential opioid-induced respiratory depression by RIOSORD to qualify veteran patients and their caregivers for naloxone auto-injectors and risk mitigation. PAINWeek; September 2015; Las Vegas, NV.
- **Pratt Cleary JP**, Raouf M, Nguyen U, Carpenter C, Fudin J. Automated software platform to assess pre-validated risk for opioid-induced respiratory depression to qualify patients for in-home naloxone. American Society of Health-System Pharmacists; December 2015; New Orleans, LA.
- **Tutag-Lehr V.** Appropriate opioid use and abuse risk assessment. Invited presentation at: Michigan Pharmacist Association Annual Meeting; February 27, 2016; Detroit, MI.
- **Tutag-Lehr V**, Divine G, Pitts D, McElmurry S, Burghardt K. Psychoactive medication use in youth. Poster presented at: 2015 Eugene Applebaum College of Pharmacy and Health Sciences 12th Annual Research Forum; November 4, 2015; Detroit, MI.

Peer Review Activities

- **Fudin J.** August 2015 to present: Editorial Board, Journal of Pharmacy Practice (JPP) in the area of Pain Management.

Pediatrics PRN

Introduction

The Pediatrics PRN continues to develop programs and resources for members. We currently have 1184 members, 541 of whom are students, residents, or fellows. This is a continued increase from last year's record growth. Our committee work has been phenomenal for the past 6 months, and we are particularly excited to announce our new initiatives.

The Research Committee, under the guidance of Bob John and the addition of Vice Chair Hanna Phan, is beginning new initiatives in addition to the PBRN study, including developing an annual review article submitted to Pharmacotherapy to assist members with their clinical practices. The committee is also developing formal feedback for residents and students presenting posters at the 2016 ACCP Annual Meeting in Hollywood, Florida, as well as supporting member research through poster rounds. To expand on a long-term goal of professional development with research design and execution, the committee is identifying resources within ACCP to assist practitioners at every level. The PBRN study is still going through the IRB process, and we will engage the PRN when the study is ready for enrollment sites.

The Education Committee has been working toward a great session for the 2016 Annual Meeting and is making progress to establish a spring journal club program. This new program will allow a platform for residents and practitioners to review up-to-date and relevant literature. This is an exciting advancement in the provision of additional programming for our members.

The Nominations Committee is establishing timelines for officer nominations for this upcoming spring. A call for nominations will be announced in March 2016. The committee is also working with the Pediatric PRN officers to establish new awards recognizing the accomplishments of some of our outstanding members. These new awards and their selection process will be announced later.

One of our most visible committees, Social Media, has been working hard to increase activity on several venues, including Twitter. Be sure to get all the latest practice and PRN updates by following us on Facebook and Twitter! Have feedback for Facebook? Contact Chephra McKee (TTUHSC), who has been appointed vice chair of the

committee and taken over many of the Facebook posting responsibilities. Also, watch for our new webpage.

Our Travel Award Committee is transitioning to different leadership, with Elizabeth Farrington as our new chair. We also welcome former award recipient Lola Afolabi as our new vice chair. This committee is actively engaged in promoting and selecting travel awards for students and residents to attend the Annual Meeting. Please consider supporting these efforts by encouraging your students and residents to apply.

We are extremely excited about the continued growth and progress of our PRN during the past year, and with your efforts, we will continue to provide and enhance the benefits to members.

Promotions

- **Collin Hovinga:** Director of Research Seton Healthcare Family Hospitals.

Grants

- **Collin Hovinga:** "Patient, Family and Healthcare Provider Prospective on the Care of Hydrocephalus: A Multi-model Study." Inaugural Hydrocephalus Research Grant from HydroAngels of America Foundation. Award amount: \$30,000.
- **Hanna Phan:** "Feasibility of a Mobile Medication Plan Application in Cystic Fibrosis Patient Care." Success with Therapies Research Consortium, Cystic Fibrosis Foundation Pilot Grant. Award Amount: \$815,000. (PI)

Publications

- **Cox C,** Hashem NG, Tebbs J, Bookstaver PB, Iskersky V. Evaluation of caffeine and the development of necrotizing enterocolitis. *J Neonatal Perinatal Med* 2015;8:339-47.
- Benefield EC, **Hagemann TM,** Allen HC, Farmer KC, **Burton ME,** Chavez-Bueno S, **Johnson PN.** Vancomycin dosing and pharmacokinetics in post-operative pediatric cardiothoracic surgery patients. *J Pediatr Pharmacol Ther* 2016;21:66-74.
- Schwartz M, Wrobel J, **Huntley J,** Zeilmann C. Protocol versus non-protocol dosing of vancomycin in neonates: a single-center evaluation of steady state trough levels. *Am J Perinatol.* [Online publication February 10, 2016]
- Boucher EA, Burke MM, **Johnson PN,** Klein KC, **Miller JL.** Minimum requirements for core competency in pediatric pharmacy practice. *J Pediatr Pharmacol Ther* 2015;20:458-61.

- **LaRoche JM.** Book Review. Sandra Benavides, Hanna Phan, Milap Nahata. Pediatric Pharmacotherapy Self-Assessment. *Curr Pharm Teach Learn* 2016;8:139-40.
- **LaRoche JM,** Desselle B. Critical care pharmacotherapy: description of an innovative pediatric residency elective experience utilizing clinical pharmacy faculty as preceptor. *Crit Care Shock* 2015;18:52-4.
- **Matson KL,** Shaffer CL, Beck GL, Simonsen KA. A multicenter assessment of serum vancomycin trough concentrations and the association with standard initial vancomycin dosing and nephrotoxicity in children. *Pharmacotherapy* 2015;35:337-43.
- Capino AC, **Miller JL,** Hughes KM, Miller MJ, **Johnson PN.** Caregiver perception, self-efficacy, and knowledge of methadone tapers for children with iatrogenic opioid abstinence syndrome. *J Pharm Technol* 2015;1-12.
- Golding CL, **Miller JL,** Gessouroun MR, **Johnson PN.** Ketamine continuous infusions in critically ill children. *Ann Pharmacother* 2016;50:234-41.
- Thomas AN, **Miller JL,** Couloures K, **Johnson PN.** Non-intravenous sedatives and analgesics for procedural sedation for imaging procedures in pediatric patients. *J Pediatr Pharmacol Ther* 2015;20:418-30.
- **Parrish RH II.** Positioning a pediatric compounded non-sterile product electronic repository (pCNPeRx) within the health information technology infrastructure. *Pharmacy (Special Issue – Pharmacy Paediatrics)* 2016;4:Article 2. Available at www.mdpi.com/2226-4787/4/1/2.
- Bhatt-Mehta V, MacArthur RB, Löbenberg R, Cies JJ, Cernak I, **Parrish II RH.** An algorithm that identifies compounded non-sterile products that can be formulated on a commercial scale or imported to promote safer medication use in children. *Pharmacy (Special Issue – Pharmacy Paediatrics)* 2015;3:284-94. Available at www.mdpi.com/2226-4787/3/4/284.
- **Phan H,** Brown MA. Fluticasone furoate for the treatment of childhood asthma. *Expert Rev Respir Med* 2015;9:391-404.
- Mueller EW, Bishop JR, Kanaan AO, Kiser TH, **Phan H,** Yang KY. Research fellowship programs as a pathway for training independent clinical pharmacy scientists. *Pharmacotherapy* 2015;35:e13-9.
- **So TY.** Probiotics – what do parents need to know? *Pediatr Parents* 2015;30:17-8.
- Badik J, Chen J, Letvak K, **So TY.** Hypersensitivity reaction to insulin glargine and insulin detemir in a pediatric patient: a case report. *J Pediatr Pharmacol Ther* 2016;21:85-91.

- Binz J, Adler C, **So TY.** The risk of musculoskeletal adverse events with fluoroquinolones in children – what is the verdict now? *Clin Pediatr (Phila)* 2016;55:107-10.
- Lawuyi B, Basham J, **So TY.** The use of penicillin for the prevention of pneumococcal infection in pediatric patients with sickle cell disease. *J Pediatr Sci* 2015;7:e246.
- Von Vajna E, Alam R, **So TY.** Current clinical trials on the use of direct oral anticoagulants in the pediatric population. *Cardiol Ther* 2016. [Epub ahead of print]

Other Notable Achievements

- **Sandra Benavides** and **Richard Parrish:** Were invited guest editors for a special issue called “Pharmacy Paediatrics” in the international, online, open access journal, *Pharmacy* (ISSN 2226-4787), at www.mdpi.com/journal/pharmacy/special_issues/pharmacy-paediatrics.
- **Joseph M. LaRoche:** Completed a 2-year fellowship in Health Professions Education.

BCPPS Certification (note: this list includes only members who provided information):

- Megan Allen
- Gabriella Blyumin
- Deborah Bondi
- Brian Brown
- Christina Cox
- Joseph LaRoche
- Bernard Lee
- Kelly Matson
- Amanda Memken
- Mary Soliman
- Jena Valdes

Presentations

- **Richard Parrish:** Clinical practice innovation: use of productivity dashboards in electronic health record systems to direct clinical workflow. Invited speaker. Clinical Administration PRN Focus Session, American College of Clinical Pharmacy Annual Meeting; October 19, 2015; San Francisco, CA.
- **Richard Parrish:** Development of a surgery pharmacists’ community of practice in Alberta: combining technology with tacit knowledge. Invited

speaker. Provincial Pharmacy Senior Leadership Team meeting, Alberta Health Services; February 4, 2016; Edmonton, Alberta, Canada.

- **Ginther M, Ginther S, Chan A, Parrish R.** Development of a surgery pharmacists' community of practice in Alberta: combining technology with tacit knowledge. Poster presented at: ACCP Global Conference on Clinical Pharmacy; October 19, 2015; San Francisco, CA. *Pharmacotherapy* 2015;35:e245.

Perioperative Care PRN

Introduction

The Perioperative Care PRN is soliciting members to join our research efforts through the PRN's newly launched Research and Publications Committee. To express your interest in practice-based research, a three-step process is suggested: (1) join and/or chair our Research and Publications Committee, (2) join the PBRN at www.accpri.org/pbrn/registration.aspx, and (3) apply for the Mentored Research Investigator Training (MeRIT) program at www.accpri.org/merit/. Applicants for this committee chair position are encouraged to contact PRN Chair Stacey Moultrie for more information.

The Education Committee has been working with the Pain and Palliative Care PRN to create the 2016 PRN focus session for the 2016 Annual Meeting in Hollywood, Florida, on clinical pearls related to multimodal pain management in perioperative care.

Presentations

- **Richard Parrish:** Clinical practice innovation: use of productivity dashboards in electronic health record systems to direct clinical workflow. Invited speaker. Clinical Administration PRN Focus Session, American College of Clinical Pharmacy Annual Meeting; October 19, 2015; San Francisco, CA.
- **Richard Parrish:** Development of a surgery pharmacists' community of practice in Alberta: combining technology with tacit knowledge. Invited speaker. Provincial Pharmacy Senior Leadership Team Meeting, Alberta Health Services; February 4, 2016; Edmonton, Alberta, Canada.
- **April Smith:** "Understanding the Use of Obesity Medications: When, Why and How; VTE Prophylaxis Strategies; Weight Loss Medications in a Post-op Bariatric Surgery Patient; and Integrated Health Pharmacology Course (Moderator &

Course Developer). Invited faculty. Obesity Week (combined annual meeting of the Obesity Society and the American Society for Metabolic & Bariatric Surgery); November 3, 2015; Los Angeles, CA.

Poster Presentations

- **Ginther M, Ginther S, Chan A, Parrish R.** Development of a surgery pharmacists' community of practice in Alberta: combining technology with tacit knowledge. Presented at: ACCP Global Conference on Clinical Pharmacy; October 19, 2015; San Francisco, CA. *Pharmacotherapy* 2015;35:e245.

Publications

- **Gaviola ML, McMillian W, Ames SE, Endicott JA, Alston WK.** A retrospective study on the protective effects of topical vancomycin in patients undergoing multilevel spinal fusion. *Pharmacotherapy* 2016;36:19-25.
- **Parrish II RH.** Positioning a pediatric compounded non-sterile product electronic repository (pCNPeRx) within the health information technology infrastructure. *Pharmacy (Special Issue – Pharmacy Paediatrics)* 2016;4:Article 2. Available at www.mdpi.com/2226-4787/4/1/2.
- **Bhatt-Mehta V, MacArthur RB, Löbenberg R, Cies JJ, Cernak I, Parrish II RH.** An algorithm that identifies compounded non-sterile products that can be formulated on a commercial scale or imported to promote safer medication use in children. *Pharmacy (Special Issue – Pharmacy Paediatrics)* 2015;3:284-94. Available at www.mdpi.com/2226-4787/3/4/284.

Other Notable Achievements

- Sandra Benavides and **Richard Parrish** were invited guest editors for a special issue called "Pharmacy Paediatrics" in the international, online, open access journal, *Pharmacy* (ISSN 2226-4787), at www.mdpi.com/journal/pharmacy/special_issues/pharmacy-paediatrics

Pharmaceutical Industry PRN

Promotions

- **David R. Luke:** Joined Melinta Therapeutics as the National Director responsible for building a team of Regional Medical Affairs Managers by the end of 2016.
- **Kay Uttech:** Senior Director of Business Operations at Baxalta.

- **James Wall (Pharm.D. Candidate 2016):** Appointed to Rutgers Pharmaceutical Industry Fellow in Clinical Operations – Oncology, based at Genentech in South San Francisco.

Publications

- **Evens RP.** Pharma success in product development – does biotechnology change the paradigm in product development and attrition. *AAPSJ* 2016;18:281-5.

Presentations

- Short WR, Albano JD, Cook TS, Gee C, Scheuerle AE, Tilson HH, Baugh B, Schaible D, **Pecini R**, Hadacek MB, Villadiego S, Brown K. Darunavir-containing antiretroviral regimens in pregnancy: findings from the Antiretroviral Pregnancy Registry. Poster PE8/11. Presented at: 15th European AIDS Conference (EACS); October 21–24, 2015; Barcelona, Spain.

Pharmacokinetics/Pharmacodynamics/ Pharmacogenomics PRN

Notable Member Achievements

Awards

- **Mary Ensom** and coauthors (Wang EHZ, Bolt JL, Decarie D, Semchuk W): 2015 Canadian Society of Hospital Pharmacists – BC Branch Publication Award (category: Original Research Article) for: A Study of Dabigatran Stability in 3 Clinically Relevant Environments: Manufacturer’s Blister Pack, Unit-Dose Packaging, and Community Pharmacy Blister Pack. *Can J Hosp Pharm* 2015;68:16-21.
- **Mary Ensom** and coauthors (Kyle Collins, Dan Rainkie, and Roxane Carr): 2016 Canadian Society of Hospital Pharmacists Pharmacotherapy Best Practice Award for the project “Assessment of Pediatric Vancomycin Empiric Dosing.”

Editorship

- **Varsha Bhatt-Mehta:** Associate Editor of the *AAPS Open* journal. An official open-access journal of the American Association of Pharmaceutical Sciences.

Publications

- Birdwell KA, Decker B, Barbarino JM, Peterson JF, Stein CM, Sadee W, Wang D, Vinks AA, He Y, Swen JJ, Leeder JS, van Schaik R, Thummel KE, Klein TE, **Caudle KE**, MacPhee I. Clinical Pharmacogenetics Implementation Consortium (CPIC) guidelines for CYP3A5 genotype and tacrolimus dosing. *Clin Pharmacol Ther* 2015;98:19-24.
- Gammal RS, Court MH, Haidar CE, Iwuchukwu OF, Gaur AH, Alvarellos M, Guillemette C, Lennox JL, Whirl-Carrillo M, Brummel S, Ratain MJ, Klein TE, Schackman BR, **Caudle KE**, Haas DW. Clinical Pharmacogenetics Implementation Consortium (CPIC) guideline for UGT1A1 and atazanavir prescribing. *Clin Pharmacol Ther* 2015 Sep 29.
- Hicks JK, Bishop JR, Sangkuhl K, Muller DJ, Ji Y, Leckband SG, Leeder JS, Graham RL, Chiulli DL, A LL, Skaar TC, Scott SA, Stingl JC, Klein TE, **Caudle KE**, Gaedigk A. Clinical Pharmacogenetics Implementation Consortium (CPIC) guideline for CYP2D6 and CYP2C19 genotypes and dosing of selective serotonin reuptake inhibitors. *Clin Pharmacol Ther* 2015;98:127-34.
- Kalman LV, Agúndez JA, Appell ML, Black JL, Bell GC, Boukouvala S, Bruckner C, Bruford E, Bruckner C, **Caudle K**, et al.. Pharmacogenetic allele nomenclature: international workgroup recommendations for test result reporting. *Clin Pharmacol Ther* 2015 Oct 19.
- Saito Y, Stamp LK, **Caudle KE**, Hershfield MS, McDonagh EM, Callaghan JT, Tassaneeyakul W, Mushiroda T, Kamatani N, Goldspiel BR, Phillips EJ, Klein TE, Lee M. Clinical Pharmacogenetics Implementation Consortium (CPIC) guidelines for human leukocyte antigen B (HLA-B) genotype and allopurinol dosing: 2015 update. *Clin Pharmacol Ther* 2016;99:36-7.
- **Ensom MHH**, Decarie D. Stability of extemporaneously compounded levetiracetam in glass and plastic bottles and plastic syringes. *Can J Hosp Pharm* 2015;68:346-8.
- **Ensom MHH**, Decarie D, Lingertat-Walsh K. Stability of extemporaneously compounded naproxen 25 mg/mL suspension in glass and plastic bottles and plastic syringes. *Can J Hosp Pharm* 2015;68:289-91.
- Elewa H, El-Mekaty E, El-Bardissy A, **Ensom MHH**, Wilby KJ. Therapeutic drug monitoring of voriconazole in the management of invasive fungal infections: a critical review. *Clin Pharmacokinet* 2015;54:1223-35.
- Kendrick JG, Carr RR, **Ensom MHH**. Pediatric

obesity: pharmacokinetics and implications for drug dosing. *Clin Ther* 2015;37:1897-923.

- MacKenzie M, Zed PJ, **Ensom MHH**. Opioid pharmacokinetics-pharmacodynamics: clinical implications in acute pain management in trauma. *Ann Pharmacother* 2016 Jan 6. [Online first]
- Wilby KJ, Shabana S, **Ensom MHH**, Marra F. A critical review of the current evidence for measuring drug concentrations of first-line agents used to treat tuberculosis in children. *Clin Pharmacokinet* 2016;55:17-31.
- **Kiang TKL, Ensom MHH**. A qualitative review on the pharmacokinetics of antibiotics in saliva: implications on clinical pharmacokinetic monitoring in humans. *Clin Pharmacokinet* 2015 Sep 7. [Epub ahead of print]
- **Kiang TKL, Wilby KJ, Ensom MHH**. A comprehensive, critical review on the clinical pharmacokinetics, pharmacodynamics, and clinical trials of the novel 5th-generation cephalosporin, ceftaroline. *Clin Pharmacokinet* 2015;54:915-31.

Presentations

- **Kelly E. Caudle**: The Clinical Pharmacogenetics Implementation Consortium (CPIC): From evidence to clinical practice. Presented at: St. Jude Children's Research Hospital (Clinical Pharmacists CEU accredited); January 2016.
- **Kelly E. Caudle**: The Clinical Pharmacogenetics Implementation Consortium (CPIC) update and term standardization project. Presented at: PGRN's RIP seminar. January 2016.
- **Kelly E. Caudle**: Building personalized dosing into clinical decision support. Presented at: International Pharmaceutical Federation (FIP) 2015 Annual Meeting; September 2015.
- **Kelly E. Caudle**: Incorporating pharmacogenetics into clinical practice and the electronic health record. Presented at: Congreso Latinoamericano de Farmacogenomica y Medicina Personalizada; March 2015.
- **Kelly E. Caudle**: Clinical practices guidelines for pharmacogenomics in Latin America. Presented at: Congreso Latinoamericano de Farmacogenomica y Medicina Personalizada; March 2015.

Other Notable Achievements

- **Keith Moore**: Appointed to the University of Cincinnati Technology Commercialization Accelerator Committee (2016).

Women's Health PRN

Introduction

The Women's Health PRN is proud to introduce two new positions—our student liaisons! Because about 50% of our membership consists of students/residents, the PRN created these positions to help facilitate activities and content for students/residents. This also shows us the strong desire of pharmacy students to learn about women's health, and we want to help meet that need. Ana Simonyan (St. Louis) and Audra Wilson (Regis) will be providing content for our Facebook page, website, and newsletter. They will also help create opportunities for networking within the PRN.

Promotions

- **Alicia Forinash**: Professor, St. Louis College of Pharmacy (2015).
- **Brooke Griffin**: Professor, Midwestern University Chicago College of Pharmacy (2015).

Publications

- Bhakta J, Bainbridge J, **Borgelt LM**. Teratogenic medications and concurrent contraceptive use in women of childbearing ability with epilepsy. *Epilepsy Behav* 2015;52:212-7.
- Rhyne DN, Anderson SL, Gedde M, **Borgelt LM**. The effect of medical marijuana on migraine headache frequency in an adult population. *Pharmacotherapy* 2016 Jan 9. [Epub ahead of print]
- Bookstaver PB, Bland CM, **Griffin B**, Stover KR, Eiland LS, McLaughlin M. A review of antibiotic use in pregnancy. *Pharmacotherapy* 2015;35:1052-62.
- **Rafie S, Kelly S, Gray EK, Wong M, Gibbs S, Harper CC**. Provider opinions regarding expanding access to hormonal contraception in pharmacies. *Womens Health Issues*. [Epub ahead of print]

Other Notable Achievements

- **Sally Rafie**: President-Elect of the San Diego County Pharmacists Association.

Other

- **Sally Rafie**: PRN project: Development and approval of Women's Health PRN Awards.

RESEARCH INSTITUTE UPDATE

ACCP Research Institute

We want to share a quick update on select programs, activities, and successes of the Research Institute. We also invite you to visit our website (www.accpri.org) for updates and program announcements. Thank you for supporting the ACCP Research Institute.



Who Joins the ACCP PBRN?

Do you routinely provide direct patient care? Are you frequently pondering an “I wonder” clinical question? Would you like to participate in collaborative clinical research? The ACCP Practice-Based Research Network (PBRN) may be the perfect solution. The PBRN is an ever-growing group of clinical pharmacists who practice in a variety of settings from all 50 states. The PBRN affords clinicians the ability to conveniently and expeditiously pool patient care experiences into large-enough sample sizes to answer important clinical questions.

The ACCP PBRN continues to grow since its launch in February 2009. We have more than 1000 members to date, including members who belong to existing PRNs and whose data are shown below. We encourage each of you to join!

ACCP PBRN Members	PRN Code	PRN Name
98	AMED	Adult Medicine
229	AMBU	Ambulatory Care
118	CARD	Cardiology
25	CNSY	Central Nervous System
33	CADM	Clinical Administration
131	CRIT	Critical Care
9	DINF	Drug Information
86	EDTR	Education and Training

32	EMED	Emergency Medicine
47	ENDO	Endocrine and Metabolism
38	GERI	Geriatrics
24	GILN	GI/Liver/Nutrition PRN
18	GLBL	Global Health
27	OCEC	Health Outcomes
50	HMON	Hematology/Oncology
15	HIV	HIV
51	IMTR	Immunology/Transplantation
125	INFD	Infectious Diseases
27	NEPH	Nephrology
23	PAIN	Pain and Palliative Care
51	PEDI	Pediatrics
5	PERI	Perioperative Care
7	INDU	Pharmaceutical Industry
23	PKPD	Pharmacokinetics/ Pharmacodynamics/ Pharmacogenomics
21	WOMN	Women’s Health

2/8/2016

How do I Join the ACCP PBRN?

Joining the ACCP PBRN is free to all ACCP members. You can join the PBRN as an individual or as part of an existing network by completing our online registry at www.accpri.org/pbrn/registration.aspx. We invite you to browse our “Now Recruiting” and “Ongoing” studies by visiting our website (www.accpri.org/pbrn/researchProjects.aspx) or share your idea for a potential PBRN study at any time (www.accpri.org/pbrn/StudySuggest.aspx). You can also sign up to receive e-mail notifications about future studies.

Calling All Researchers!

The ACCP PBRN is interested in establishing collaborative research efforts with both ACCP PBRN and other external investigators. If you have a funded project or are

applying for funding and are interested in collaborating with the ACCP PBRN, we invite you to complete our Project Concept Description Template at www.accpri.org/pbrn/partner.aspx. Please contact PBRN staff with any questions, or for assistance with developing a clinical question into a PBRN study, at (913) 492-3311 or pbrn@accp.com.

ACCP RI Announces 2016 Futures Grants Request for Applications

The ACCP Research Institute Futures Grants program invites student, trainee, and early-career ACCP members to apply for developmental research grants. Futures Grants may range from \$5000 to \$40,000, depending on applicant eligibility and the proposal's requisite budget. Up to \$100,000 in mentored, developmental research awards will be granted through the Futures Grants program in 2016.

Notices of intent to apply for Futures Grants are due April 1, and completed applications are due by June 1, 2016. To access detailed instructions and complete the online notice of intent and application, visit www.accpri.org/futuresapp. For all other questions, contact Carla Scarborough (cscarborough@accp.com).

Investigator Development Programs

Are you ready to accelerate your growth as a clinical pharmacy researcher? The Research Institute can meet your needs! Plan now to attend our next Mentored Research Investigator Training (MeRIT) or Focused Investigator Training (FIT) program June 27 – July 1, 2016, on the campus of the University of Michigan College of Pharmacy.

MeRIT is an individualized, 2-year longitudinal program designed to mentor pharmacist-investigators from research idea through study design, IRB and funding application, data collection, results presentation, and manuscript submission.

FIT is an intensive 5-day grant enhancement and refinement program for experienced pharmacist-investigators pursuing NIH (National Institutes of Health) research funding. This proven combination of critical grant review, revision, and mentoring by experienced and funded faculty will maximize your submission's (or resubmission's) competitiveness.

Letters of intent to apply for either program are due February 29, and the full FIT and MeRIT program applications will close March 31, 2016. Both programs will be held June 27 – July 1, 2016, at the University of Michigan College of Pharmacy in Ann Arbor, Michigan. For an informational brochure about the FIT and MeRIT programs, a list of PRNs offering tuition scholarships, or a copy of the application materials, please visit www.accpri.org/investigator/.

[org/investigator/](http://www.accpri.org/investigator/). Please contact Carla Scarborough (cscarborough@accp.com) with any questions about either program.

WASHINGTON UPDATE

Perioperative Care Wins ACCP-PAC PRN Challenge!

Congratulations to the Perioperative Care PRN for winning the ACCP-PAC PRN Challenge. ACCP launched the challenge to determine which PRN could provide the greatest level of support for ACCP-PAC. As winners, the Perioperative Care PRN will be awarded a coveted Monday timeslot for PRN business meetings at the next two ACCP Annual Meetings. The PRN Challenge raised more than \$7500 for ACCP-PAC, and we extend our sincere thanks and gratitude to all PRN members who participated in the challenge and supported the PAC.

Final Leaderboard

The full standings are as follows:

1. Perioperative Care
2. Endocrine and Metabolism
3. Central Nervous System
4. Clinical Administration
5. Pharmaceutical Industry
6. Nephrology
7. Cardiology
8. GI/Liver/Nutrition
9. Pain and Palliative Care
10. Ambulatory Care
11. Pharmacokinetics/Pharmacodynamics/
Pharmacogenomics
12. HIV
13. Critical Care
14. Pediatrics
15. Women's Health
16. Adult Medicine
17. Infectious Diseases

ACCP-PAC 2015 Financial Report and 2016 Outlook

ACCP-PAC is pleased to announce that 2015 was our most successful year on record. Thanks to the generosity of 275 ACCP members, the PAC raised over **\$19,000** to be distributed to candidates for the U.S. Senate and U.S. House of Representatives.

As we head into the 2016 election season, the PAC has almost \$58,000 cash on hand to support elected officials and candidates who are committed to a care delivery system where clinical pharmacists, working within integrated medical practice, are responsible for providing significant portions of medication management and for helping to achieve clinical goal attainment for patients' medication use.

ACCP's advocacy efforts in Washington, D.C., related to our Medicare Initiative are perfectly aligned with the College's ongoing and ever-expanding clinical practice advancement initiatives essential for integrating clinical pharmacy services into contemporary team-based health care delivery. As an organization, we are entirely focused on providing clinical pharmacists actionable tools, knowledge, and skills to make meaningful transformations in practice management and leadership development.

However, the political reality is that a legislative initiative cannot move forward purely on the strength of its own merits—grassroots advocacy and financial contributions are key to showing support for our initiative from elected officials' own districts and states.

A well-funded PAC will help provide the necessary resources to support our friends on Capitol Hill. Contributions from ACCP-PAC to members of Congress will raise our profile on Capitol Hill, improve our standing among key lawmakers, and provide unique opportunities to discuss our initiative with potential congressional champions. Our PAC will also help ensure that elected officials who support our initiative remain in office to advance the goals of the proposal in the future.

Only ACCP members are eligible to contribute to the PAC and allow us to make these vital political contributions. With its more than 17,000 ACCP members, ACCP is in a position to become one of the most prominent pharmacy PACs in Washington. To do this, we need the widespread support of our membership. [Click here to contribute to ACCP-PAC today!](#)

2016 Presidential Candidate Health Care Policy Platform Overview

As the 2016 presidential primary process gathers pace, the following is a short summary of the health care policy platform proposed by each of the major candidates for their party's nomination. Although Republican candidates have focused largely on defunding and eventually repealing the Affordable Care Act (ACA), the leading contenders for the Democratic nomination have presented markedly different plans for how to improve the American health care system.

Republican Candidates.

Senator Ted Cruz

- Repeal Obamacare and propose commonsense reform that makes health care personal, portable, and affordable.
- Expand competition in the marketplace, empower consumers and patients to make health care decisions with their physicians, and disempower the government from getting in between physicians and their patients.
- Open insurance markets across state lines, expand Health Savings Accounts (HSAs), and delink health insurance from employment.

For more information, visit <https://www.tedcruz.org/about/>.

Governor John Kasich

- Repeal Obamacare and replace it with efforts that improve access by lowering health care costs without interfering with Americans' personal health care decisions or imposing punishing burdens on job creators.
- Improve primary care, focusing on patient-centered primary care that helps promote long-term good health instead of just reacting when someone gets sick.
- Rewarding value instead of volume (episode-based payments), incentivizing providers to work as teams to control costs and maximize quality.

For more information, visit <https://johnk Kasich.com/healthcare/>.

Donald Trump

- Repeal and replace Obamacare.
- Expand access to HSAs.
- Save Social Security, Medicare, and Medicaid "without cutting it to the bone" by "making the country rich again."
- Infuse more competition into the market to let citizens purchase health care plans across state lines.

For more information, visit <https://www.donaldjtrump.com/issues/>.

Democratic Candidates

Former Secretary of State Hillary Clinton

- Defend the ACA and build on it to expand affordable coverage, slow the growth of overall health care costs (including prescription drugs), and make it possible for providers to deliver the very best care to patients.
- Lower out-of-pocket costs like copays and deductibles. The average deductible for employer-sponsored health plans rose from \$1240 in 2002 to about \$2500 in 2013, even though the growth of national health spending has been slowing.
- Reduce the cost of prescription drugs. Prescription drug spending accelerated from 2.5% of overall health care spending in 2013 to 12.6% in 2014.
- Transform our health care system to reward value and quality. Build on delivery system reforms in the ACA that improve value and quality care for Americans.
- Expand access to rural Americans, who often have difficulty finding quality, affordable health care, and explore cost-effective ways to broaden the scope of health care providers eligible for telehealth reimbursement under Medicare and other programs, including federally qualified health centers and rural health clinics.
- Ensure that women have access to reproductive health care, and continue defending Planned Parenthood, which provides critical health services including breast exams and cancer screenings to 2.7 million women a year.

For more information, visit <https://www.hillaryclinton.com/issues/health-care/>.

Senator Bernie Sanders

- Build on the ACA to achieve the goal of universal health care through a “Medicare for All” proposal.
- Create a federally administered single-payer health care program providing comprehensive coverage for all Americans, including inpatient and outpatient care; preventive and emergency care; primary and specialty care; long-term and palliative care; vision, hearing, and oral health care; and mental health and substance abuse services, as well as prescription medications, medical equipment, supplies, diagnostics, and treatments.
- Eliminate copays, deductibles, and insurance-provider networks, thereby reducing overhead, administrative costs, and complexity. Patients would simply present an insurance card to their health care provider.

Senator Sanders's plan has been estimated to cost \$1.38 trillion per year, paid for by:

- A 6.2% income-based health care premium paid by employers. Revenue raised: \$630 billion per year.
- A 2.2% income-based premium paid by households. Revenue raised: \$210 billion per year.
- Progressive income tax rates. Revenue raised: \$110 billion a year.
- Taxing capital gains and dividends the same as income from work. Revenue raised: \$92 billion per year.
- Limit tax deductions for rich. Revenue raised: \$15 billion per year.
- The Responsible Estate Tax. Revenue raised: \$21 billion per year.
- Savings from health tax expenditures. Revenue raised: \$310 billion per year.

For more information, visit <https://berniesanders.com/issues/medicare-for-all/>.

Senate Finance Chronic Care Working Group Policy Options

On December 18, 2015, the Senate Finance Committee Chronic Care Working Group released an options paper outlining policies being considered as part of the committee's effort to improve how Medicare treats beneficiaries with multiple, complex chronic illnesses.

Release of the options paper followed a request from Finance Committee Chairman Orrin Hatch (R-UT) and Ranking Member Ron Wyden (D-OR) to health care stakeholders for input on solutions that will improve outcomes for Medicare patients requiring chronic care. The paper organizes policies into several key areas under consideration:

- Providing high-quality health care in the home.
- Improving access to interdisciplinary, team-based health care.
- Expanding innovation in benefit design and access to technology.
- Identifying ways to improve payments and quality for the chronically ill population.
- Empowering patients and caregivers in care delivery.

However, the paper did not properly address the issue of medication use among the chronically ill Medicare population. This omission came despite comments submitted to the committee from ACCP, the College of Psychiatric and Neurologic Pharmacists (CPNP), and a diverse range of organizations including the Pharmaceutical Research and Manufacturers of America

(PhRMA), the Biotechnology Industry Organization (BIO), GlaxoSmithKline (GSK), Blue Thorn, Healthcare Consulting, and others, calling for coverage for comprehensive medication management (CMM) as part of the process of developing and implementing policies designed to streamline care coordination, improve quality, and lower Medicare costs.

ACCP will continue its efforts to educate the Senate Finance Committee and other key stakeholders on Capitol Hill on the importance of “getting the medications right” through consistent CMM as part of a truly patient-centered, team-based approach to health care and a vital component of evolving Medicare payment and care models.

[Click here](#) to read the Senate Chronic Care Working Group Policy Paper in full.

ACCP Responds to CMS Request for Information Pertaining to Pharmacist Labor Cost

On December 28, 2015, ACCP submitted comments on the pharmacist labor cost component of the direct practice expense (PE) calculation to the Centers for Medicare & Medicaid Services (CMS) in response to a request for information related to the CY 2016 Physician Fee Schedule (PFS) policy revisions on this topic.

The request from CMS was prompted by calls for the agency to include pharmacists as active qualified health care providers for purposes of calculating physician PE direct costs, in recognition of ongoing Center for Medicare & Medicaid Innovation initiatives in which pharmacists are making substantial contributions to redesigning health care delivery and financing. As a result, CMS concluded that the labor costs of pharmacists are not a typical resource cost in furnishing any particular physician service and requested more detailed information regarding the typical clinical labor costs involving pharmacists for particular PFS services.

ACCP’s response was based on information provided by established practices and pharmacist colleagues who are actively engaged in team-based primary care and specialty medical practices. This information reflects a combination of aggregated information of a proprietary nature as well as publicly available data from sources such as the Bureau of Labor Statistics and the Health Resources and Services Administration. Of importance, ACCP’s response was presented in the context of an interprofessional and integrated practice framework and structure and was grounded in a series of established definitions, professional practice standards, and policy documents that more fully define the “scope” (i.e., the “work/labor activity”) of CMM that is being delivered by clinical pharmacists within physician/clinic practices.

[Click here](#) to read ACCP’s letter in full.

[Click here](#) to view the request for information from CMS.

Important New Documents Related to the Integration of Pharmacists in Team-Based Patient Care Practices

On December 23, 2015, the California Department of Public Health (CDPH) released an important white paper titled “Comprehensive Medication Management Programs: Description, Impacts, and Status in Southern California, 2015.” The document reviews CMM pilot programs that were successfully implemented in six health care systems in southern California and resulted in improvements in clinical, fiscal, and quality measures.

CDPH developed the white paper and drafted the California Wellness Plan, a chronic disease prevention and health promotion plan, in response to Governor Jerry Brown’s 2012 call for the improved health of Californians. The white paper aims to describe the current clinical landscape, including the delivery, use, outcomes, benefits, and challenges of CMM in southern California.

Contributing authors to the white paper are as follows:

- Ashley Butler, Touro University, California.
- Steven Chen, School of Pharmacy, University of Southern California.
- Michelle Chu, School of Pharmacy, University of Southern California.
- Matthew Dehner, FrontLine Pharmacy Consulting.
- Loriann DeMartini, California Department of Public Health.
- Ryan J. Gates, FrontLine Pharmacy Consulting.
- Terry McInnis, Blue Thorn.
- Jessica Núñez de Ybarra, California Department of Public Health.
- Caroline Peck, California Department of Public Health.
- Patricia Shane, College of Pharmacy, Touro University, California.
- Marilyn Stebbins, School of Pharmacy, University of California, San Francisco.

The following six programs in southern California contributed CMM pilot program and information to the white paper:

- GEMCare Medical Group.
 - Key findings: Pharmacy services within the medical group initially included 305 patients seen over 12 months in a medication therapy management program, which successfully

generated more than \$600,000 in medication cost savings, reduced hospitalizations by 20%, and demonstrated high physician and patient satisfaction. After integrating the advanced practice pharmacist into the Comprehensive Care Program, positive economic outcomes included an overall decreased health cost of almost 20% per member per month, with decreases in hospital admission rates by 38%, readmission rates by 32%, and emergency department visits by 29%.

- Greater Newport Physicians Ambulatory Care Clinics
 - Key findings: On average, ACTIVE Diabetes Program participants met their diabetes treatment goals within the first 180 days of enrollment. They also met quality measure goals for blood pressure control, high cholesterol, and nephropathy screening. As a result of the pharmacist-led anticoagulation center, inpatient admissions were reduced by 53% and emergency department visits by 41%. Medical costs for ACTIVE program participants were about \$1200 less per patient per year.
- Kern Medical Center
 - Key findings: Almost half of the patients with poorly controlled diabetes achieved the blood glucose treatment goal. There was a 40.1% reduction in emergency department visits, a 22.3% reduction in hospitalizations overall, and a 26.1% reduction in the length of stay, if hospitalized. A clinical pharmacist working as a member of the multidisciplinary team in the Diabetes Care Clinic for 40 hours per week for a mean of 272 days and a mean of 5.9 visits per patient resulted in an estimated cost savings of \$256,518 per year.
- Sharp HealthCare
 - Key findings: Patients with heart failure enrolled in the Continuum of Care Network had half as many readmissions as patients not enrolled (12% vs. 24%).
- University of California San Diego Health System
 - Key findings: The annualized cost avoidance with the Transitions of Care program (i.e., inpatient and outpatient) was \$503,278. Within the first year of the Community-Based Care Transitions Program, patient readmissions decreased dramatically by about 30% for the Medicare fee-for-service population to a rate of 10.4%.
- University of Southern California School of

Pharmacy/AltaMed Health Services

- Key findings: Over 3 years, pharmacy teams enrolled more than 6000 high-risk and/or high-cost patients. An average of 10 medication-related problems were identified and resolved for each patient. Preliminary return on investment analysis suggests that program costs were outweighed by savings.

Of importance, although the white paper concluded that adopting CMM resulted in improved health care quality measures, allowed better access to health care, offered time savings to other health care providers, reduced drug costs and adverse drug events, and decreased expensive health care resource use, the report also identified several barriers to the widespread deployment of CMM that must be overcome. These include a lack of reimbursement mechanisms, alignment of financial incentives, robust electronic health information exchange, quality and outcomes tracking systems, patient and provider awareness, and adequate staffing and space.

[Click here](#) to view the California CMM white paper in full.

Contact Us! For more information on any of ACCP's advocacy efforts, please contact:

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STUDENT INITIATIVES UPDATE

ACCP Student Chapter Growth

Because of the growing interest in clinical pharmacy, ACCP expanded opportunities for student involvement in the College by formally recognizing student chapters in October 2013. Since then, more than 70 student chapters have been formed.

Benefits of Student Membership

Students can benefit from ACCP membership in many ways, including:

- Leadership development experiences (as student liaisons and as members of the National Student Network Advisory Committee);
- Options to explore clinical pharmacy specialties

(by taking advantage of complimentary student membership in up to two PRNs);

- Opportunities to expand and showcase their knowledge (through Scientific Poster Presentations and the Clinical Pharmacy Challenge); and
- Career development guidance (through the CV Review Service, the “Emerge from the Crowd: How to Become a Standout Residency Candidate” sessions, and career development programming at national meetings).

Creating a student chapter is a great way to help pharmacy students learn about clinical pharmacy and get involved in ACCP. Any ACCP College of Pharmacy Faculty Liaison can establish a formally recognized student chapter by submitting an official chapter application. If the application is approved, the liaison will be invited to serve as the primary faculty adviser for the chapter. To obtain complete information on establishing a student chapter and to download a New ACCP Chapter Application, please visit www.accp.com/stunet/studentliaisons.aspx.

For more information about student chapters, e-mail us at membership@accp.com.

2016 ACCP Student Chapter Awards – Applications Due June 30

Last year, the Board of Regents approved two new awards for Student Chapter members: the Outstanding Student Chapter and the Outstanding Student Chapter Member. These honors will be awarded for the first time in 2016. Application for each award is submitted as part of the Annual Chapter Report and is due June 30, 2016. A description of each award follows.

Outstanding Student Chapter Award

This award recognizes the ACCP student chapter that has exemplified strength in leadership, dedication in patient care, and passion for professional development through its activities and membership. The activities of the chapter should address ACCP’s core values of extending the frontiers of clinical pharmacy and promoting dedication to excellence in patient care, research, and education. A key component of all the core values is the clinical pharmacist’s ability to work collaboratively within the health care environment. Each chapter must demonstrate its ability to work with other health disciplines.

An announcement will be featured on the ACCP website, and an article highlighting the winning chapter’s accomplishments will be published in *StuNews* and the ACCP Report. A commemorative plaque and \$1000 cash will be awarded to the winning chapter. The faculty liaison/adviser and one appointed student liaison from the

winning chapter will receive complimentary full Annual Meeting registrations, and each will receive a \$250 travel stipend to attend.

Members of student chapters who wish to apply for the award will complete an application form as part of their end-of-the-year report, due June 30. As part of the application process, each chapter is required to submit a rationale statement (250 words or less) outlining the plan for using the \$1000 award funds, should said chapter be selected as the winner.

Outstanding Student Chapter Member

This award recognizes a student who has enhanced student involvement from his or her ACCP chapter at the local, state, or national level and who has expanded the presence of ACCP through community engagement, education promotion, research opportunities, and/or professional stewardship. The activities of the selected student should address ACCP’s core values of extending the frontiers of clinical pharmacy and promoting dedication to excellence in patient care, research, and education.

Each chapter award recipient will receive a certificate suitable for framing and recognition in an *ACCP Report* article, a *StuNews* article, and the *Annual Meeting News*. In addition, student award winners in attendance at the award-year Annual Meeting will be recognized during the Clinical Pharmacy Challenge semifinal round of competition.

Each recognized student chapter will select its recipient for Outstanding Student Chapter annually and submit the winner’s name to the ACCP national office as part of its year-end report, due June 30.

ACCP SNAC Now Accepting Applications for 2016–2017

Initiated as a working group in 2006, the National Student Network Advisory (SNAC) group became a standing committee of the College in 2007 whose members are appointed by the ACCP president-elect. The present 11-member committee serves in an advisory capacity to the ACCP Board of Regents and staff, providing feedback and assistance in developing new programs and services for students. Student members who are interested in serving on the ACCP SNAC, either as a member-at-large or in a leadership role, may apply for appointment. All applicants must submit a CV, a personal essay, and a letter of recommendation from a professor, a preceptor, or an academic dean or his or her designee. Application for appointment to the 2016–2017 SNAC is available online. Applications are due June 17, 2016.

POST-GRADUATE TRAINEE UPDATE

Residents, Fellows, and Graduate Students

All resident, fellow, and graduate student members of ACCP currently receive a monthly electronic newsletter titled *Experts in Training*. The readers would like to thank all the PRNs, residency programs, and clinical pharmacists who have contributed to the publication. You may view the archives through the link above. For topics you'd like to see covered in future editions, submit your ideas to ksims@accp.com.

ACCP will continue to offer resident/fellow-specific educational programming at the 2016 Annual Meeting through "Chart the Course of Your Professional Future" and the professional development roundtables. In addition to the live programming, ACCP offers two free, live webinars each year for residents and fellows. The [webinars](#), archived on the ACCP website, each provide 1.0 contact hour of continuing education.

Sixty-one postgraduate trainee members of ACCP are currently participating in the 2015–2016 mentoring program. Mentors are ACCP members who have at least 5 years of professional experience and have volunteered to participate in the program. Mentor/mentee pairs are encouraged to correspond at least monthly and are provided with timely topics of discussion. A call for mentors goes out each year in August.

The College is currently accepting applications for all positions on the 2016–2017 National Resident Advisory Committee. The committee is a working group composed of resident, fellow, and graduate student members of ACCP. Applications for chair, vice chair, and member-at-large positions are due by June 17, 2016.

PRN MEMBERSHIP TOTALS

PRN Title	Total Members
Adult Medicine PRN (AMED)	1102
Ambulatory Care PRN (AMBU)	2237
Cardiology PRN (CARD)	1318
Central Nervous System PRN (CNSY)	285
Clinical Administration PRN (CADM)	486
Critical Care PRN (CRIT)	2326
Drug Information PRN (DINF)	389
Education and Training PRN (EDTR)	594
Emergency Medicine PRN (EMED)	951
Endocrine and Metabolism PRN (ENDO)	314
Geriatrics PRN (GERI)	413
GI/Liver/Nutrition PRN (GILN)	237
Global Health PRN (GLBL)	165
Health Outcomes PRN (OCEC)	235
Hematology/Oncology PRN (HMON)	915
HIV PRN (HIV)	244
Immunology/Transplantation PRN (IMTR)	527
Infectious Diseases PRN (INFD)	2326
Nephrology PRN (NEPH)	208
Pain and Palliative Care PRN (PAIN)	377
Pediatrics PRN (PEDI)	1074
Perioperative Care PRN (PERI)	84
Pharmaceutical Industry PRN (INDU)	386
Pharmacokinetics/Pharmacodynamics/Pharmacogenomics PRN (PKPD)	354
Women's Health PRN (WOMN)	273
TOTAL:	17,820

PRN CONTACTS

For more information about a specific PRN, please contact the PRN's incoming chair identified as follows.

PNR TITLE	PNR CONTACT
Adult Medicine	<u>Sarah L. Anderson, Pharm.D., BCPS</u>
Ambulatory Care	<u>Daniel M. Riche, Pharm.D., BCPS, CDE</u>
Cardiology	<u>Toni L. Ripley, Pharm.D., FCCP, BCPS</u>
Central Nervous System	<u>Jeffrey R. Bishop, Pharm.D., M.S., BCPP</u>
Clinical Administration	<u>Angela B. Smith, Pharm.D., BCPS, MHA</u>
Critical Care	<u>Pamela L. Smithburger, Pharm.D., M.S., BCPS</u>
Drug Information	<u>Dianne W. May, Pharm.D., BCPS</u>
Education and Training	<u>Joshua Caballero, Pharm.D., BCPP</u>
Emergency Medicine	<u>Asad Patanwala, Pharm.D., BCPS</u>
Endocrine and Metabolism	<u>Amy Calabrese Donihi, Pharm.D., BCPS</u>
Geriatrics	<u>Amber N. McLendon, Pharm.D., BCPS</u>
GI/Liver/Nutrition	<u>Michael A. Smith, Pharm.D., BCPS</u>
Global Health	<u>Renee M. Holder, Pharm.D.</u>
Health Outcomes	<u>Karen Smith, RPh, Ph.D.</u>
Hematology/Oncology	<u>David L. DeRemer, Pharm.D., BCOP</u>
HIV	<u>Melissa Badowski, Pharm.D.</u>
Immunology/Transplantation	<u>Christopher R. Ensor, Pharm.D., BCPS</u>
Infectious Diseases	<u>Christopher M. Bland, Pharm.D., FIDSA, BCPS</u>
Nephrology	<u>Mary Vilay, Pharm.D.</u>
Pain and Palliative Care	<u>Jayne E. Pawasauskas, Pharm.D., BCPS</u>
Pediatrics	<u>Christina Cox, Pharm.D.</u>
Perioperative Care	<u>Stacey Bortlik (Moultrie), Pharm.D.</u>
Pharmaceutical Industry	<u>David R. Luke, Pharm.D., BScPhm, FCCP</u>
Pharmacokinetics/Pharmacodynamics/Pharmacogenetics	<u>Keith A. Moore, Pharm.D., BCPS</u>
Women's Health	<u>Brooke L. Griffin, Pharm.D.</u>