

Ferris State University

College of Pharmacy

FY16 Scholarship Report –

(July 1, 2015 – June 30, 2016)



Scholarly Works

Peer Reviewed Publications

Department of Pharmaceutical Sciences



David Bright, associate professor of pharmaceutical sciences, published the following papers:

With D. Kisor, C. Manion: Pharmacogenomics: Overview of applications and relation to infusion therapy. *Journal of Infusion Nursing* 2016; 39(3), 139-48.

With M. Keller, S. Kelling, D. Cornelius, et al.: Enhancing practice efficiency and patient care by sharing electronic health records. *Perspect Health Inf Manag* 2015,12:1b.

With D. Kisor, T. Smith: A pharmacogenomics certificate program for pharmacists: pharmacy students as simulated patients. *Per Med* 2015;12(6), 563-73.

With D. Kisor, A. Smith, M. Conaway, et al.: Implementation of a pharmacogenetic management service for post-myocardial infarction care in a community pharmacy. *Per Med*, 12(4), 319-25.



Adnan Dakkuri, professor of pharmaceutical sciences, published a paper with co-authors N. Alsharif, J. Abrons, et al.: Current Practices in Global/International Advanced Pharmacy Practice Experiences: Home/Host Country or Site/Institution Considerations. *Am J Pharm Educ* 2016;80(3), 38.



Qian Ding, assistant professor of pharmaceutical sciences, with co-author A. Wertheimer, published 2 book chapters titled "Pharmacy in North America" in *Pharmacy in North America* (CRC Press) and "Drug Reimportation into the United States" in *Pharmaceutical Public Policy* (CRC Press). She also published the following papers:

With G. Van Assche, L. Peyrin, A. Sturm, et al.: Burden of disease and patient-reported outcomes in patients with moderate to severe ulcerative colitis in the last 12 months - Multicenter European cohort study. *Dig Liver Dis* 2016;48(6):592-600.

With L. Peyrin, G. Van Assche, A. Sturm: Treatment satisfaction, preferences and perception gaps between patients and physicians in the ulcerative colitis CARES study: A real world-based study. *Dig Liver Dis* 2016;48(6):601-607.

With L. Dalén, A. Svedbom, C. Black: Treatment persistence among patients with immune-mediated rheumatic disease newly treated with subcutaneous TNF-alpha inhibitors and costs associated with non-persistence. *Rheumatol Int* 2016;36(7):987-995.

With R. Lyu, M. Govoni, C. Black: Treatment persistence among patients with rheumatoid disease (RA, AS, PsA) treated with subcutaneous biologics in Germany. *Rheumatol Int* 2016;36(1):143-53.

With C. Brown, P. Gibson, A. Hart, et al.: Long-term outcomes of colectomy surgery among patients with ulcerative colitis. *SpringerPlus* 2015;4(573):1-11.



Jennifer Lamberts, assistant professor of pharmaceutical sciences, published a paper with co-authors P. Brundin and G. Atkin: Basic science breaks through: new therapeutic advances in Parkinson's disease. *Mov Disord* 2015;30(11):1521-7.



Eric Nybo, assistant professor of pharmaceutical sciences, published the following papers:

With V. Ricigliano, S. Kumar, S. Kinison et al: Regulation of sesquiterpenoid metabolism in recombinant and elicited *Valeriana officinalis* hairy roots. *Phytochemistry* 2016

With Z. Jiang, C. Kempinski, CJ Bush, et al: Engineering Triterpene and Methylated Triterpene Production in Plants Provides Biochemical and Physiological Insights into Terpene

Metabolism. *Plant physiology*, 170(2), 702-16.

With N. Khan, J. Chappell, W. Curtis:
Triterpene hydrocarbon production engineered into a metabolically versatile host--*Rhodobacter capsulatus*. *Biotechnology and bioengineering*, 112(8), 1523-32.



Minji Sohn, assistant professor of pharmaceutical sciences, published the following papers:

With D. Moga, K. Blumenschein, and J. Talbert: National trends in off-label use of atypical antipsychotics in children and adolescents in the United States. *Medicine* 2016, 95(23), e3784.

With J. Talbert, D. Moga, K. Blumenschein:
A cost-effectiveness analysis of off-label atypical antipsychotic treatment in children and adolescents with ADHD who have failed stimulant therapy. *Atten Defic Hyperact Disord* 2016;8(3):149-58.

With D. Moga, J. Talbert: Mental disorder comorbidity and in-hospital mortality among patients with acute myocardial infarction. *Geriatric Mental Health Care* 2016;3(1), 7 - 11.



Greg Wellman, professor of pharmaceutical sciences, published the following paper, with co-authors D. Bennett, M. Mahmood, R. Freye, et al: Survey of retired military pharmacist's transition to a civilian pharmacy career path. *Military Medicine* 2015;180(12), 1219-24.

Department of Pharmacy Practice



Margaret de Voest, professor of pharmacy practice, published a paper with FSU pharmacy co-authors **L. Meny, K. VanLangen, S. Devuyt-Miller, L. Salvati, D. Bright, J. Elder and K. Vavra**: Four Themes to Enhanced IPE integration: Lessons Learned from Early

Implementation and Curricular Redesign. *Innovations in Pharmacy* 2015: 7(2).



Heather Girand, professor of pharmacy practice, published the following textbook chapters and reviews:

“Pulmonary Development and Bronchiolitis” and “Croup” in the 2016 Pediatric PharmPrep Study Guide, and “Antimicrobial controversies in children” in *Advanced Pediatric Therapeutics*, published by the Pediatric Pharmacy Advocacy Group.

“Upper Respiratory Tract Infections” in *Pharmacotherapy Principles and Practice* (Fourth Edition ed., pp. 1077-1091). New York, NY: McGraw-Hill Education.

“Antibiotic Lock Therapy for Treatment of Catheter-Related Bloodstream Infections” (Monograph) in *UpToDate*. Waltham, MA.



Mike Klepser, professor of pharmacy practice, published the following works:

With A. Altom, C. MacCallum, E. Nordquist, D. Klepser: Description of the methods for describing and assessing the appropriateness of antibiotic prescribing and adherence to published treatment guidelines in an academic medical clinic. *Innovations in Pharmacy*, 16, 253-264.

With A. Gronowski, A. Adams, C. Ball, et al.: Pharmacists in the Laboratory Space: Friends or Foes? *Clinical chemistry*, 62(5), 679-83. (Jan 8, 2016)

With D. Klepser, A. Dering-Anderson, J. Morse, et al. Community pharmacist-physician collaborative streptococcal pharyngitis management program. *J Am Pharm Assoc* 2016;56(3), 323-329.e1.

With D. Klepser, A. Dering-Anderson, J. Morse, et al. Effectiveness of a pharmacist-physician collaborative program to manage influenza-like illness. *J Am Pharm Assoc* 2016;56(1), 14-21.

With A. Adams, P. Srnis, M. Mazzucco, D. Klepser: U.S. community pharmacies as CLIA-waived facilities: Prevalence, dispersion, and impact on patient access to testing. *Res Soc Admin Pharm* 2016; 12(4), 614-21.

With N. Weber, J. Akers, D. Klepser, A. Adams: Use of CLIA-waived point-of-care tests for infectious diseases in community pharmacies in the United States. *Expert Rev Mol Diagn* 2016;16(2), 253-64.

With S. Chopp, R. Vanderwall, A. Hult: Simeprevir and sofosbuvir for treatment of hepatitis C infection. *Am J Health Syst Pharm* 2015;72(17), 1445-55.

With D. Klepser, C. Corn, Schmidt C., et al.: Health Care Resource Utilization and Costs for Influenza-like Illness Among Midwestern Health Plan Members. *J Manag Care Spec Pharm* 2015;21(7):568-73.

Book Chapters:

“Community Based Antimicrobial Stewardship” in *ACSAP 2016 Book 3 (Infection Primary Care)*.

“Laboratory Testing Considerations” with K. Martin, in *Critical Care Pharmacotherapy, 1st edition*, published by ACCP (Lanexa, KS).



Renee Koski, professor of pharmacy practice, published a paper with co-author C. Lay: Medications Associated with Implantable Cardiac Devices. *U.S. Pharmacist* 2016;41(2), 30-34.

Tracey Mersfelder, professor of pharmacy practice, published the following articles:

With C. Zahn, J. Fleming, K. Kavanaugh: Improving the accuracy of medication and allergy records between a primary care clinic and pharmacy. *Quality in Primary Care* 2016;24(2), 64-66.

With S. Motin, B. Hays. A Case of Vivid Hallucinations Secondary to Ropinirole (Case Report). *Am J Ther* 2016. Mar. 15.

With A. Attaway, L. Sroujeh, C. Butler, D. Ouellette: “Ping-pong gaze” secondary to monoamine oxidase inhibitor

overdose. *J Pharmacol Pharmacother* 2016;7(1), 34-7.

With W. Nichols. Gabapentin: Abuse, Dependence, and Withdrawal. *Ann Pharmacother* 2016;50(3), 229-33.



Mary Frances Ross, professor of pharmacy practice, published an article with M. Stark, W. Kershner and K. Searing: Case Study of Intrapartum Antibiotic Prophylaxis and Subsequent Postpartum Beta-Lactam Anaphylaxis. *J Obstet Gynecol Neonatal Nurs* 2015;44(5), 610-17.



Dane Shiltz, associate professor of pharmacy practice, published a book chapter, with J. Gervasio: “Malnutrition in Kidney Disease” in *Nephrology Pharmacotherapy: A Pharmacist's Guide to Advanced Kidney Disease and Medication Management*. Franklin, TN: FreseniusRx.



Curtis Smith, professor of pharmacy practice, published a book chapter with **Thomas Dowling**: “Acute Kidney Injury” *Critical Care Pharmacotherapy, 1st edition*, published by ACCP (Lanexa, KS).



Thomas Dowling, assistant dean, published the following works:

With M. Martinez, B. Mistry, V. Lukacova, et al.: Use of Modeling and Simulation Tools for Understanding the Impact of Formulation on the Absorption of a Low Solubility Compound: Ciprofloxacin. *AAPS J* 2016;18(4), 886-897.

With A. Mindikoglu, D. Schaub, W. Hutson, et al.: Pharmacokinetics and Tolerability of Intravenous Sildenafil in Two Subjects with Child-Turcotte-Pugh Class C Cirrhosis and Renal Dysfunction. *Dig Dis Sci* 2015; 60(11), 3491-3494.

With S. Vaithianathan, S. Haidar, X. Zhang, et al.: Effect of Common Excipients on

the Oral Drug Absorption of
Biopharmaceutics Classification
System Class 3 Drugs Cimetidine and
Acyclovir. *J Pharm Sci* 2015;105(2),
996-1005.

With A. Hollis, E. Heil, D. Nicolau, et al.:
Validation of a Dosing Strategy for
Cefazolin for Surgery Requiring
Cardiopulmonary Bypass. *Surg Infect*
2015;16(6), 829-832.

With G. Matzke, S. Marks, J Murphy:
Influence of kidney disease on drug
disposition: An assessment of industry
studies submitted to the FDA for new
chemical entities 1999-2010. *J Clin*
Pharmacol 2015;56(4), 390-398.

Book Chapter:

"Assessment of Kidney Function" in
Nephrology Pharmacotherapy: A
Pharmacist's Guide to Advanced Kidney
Disease and Medication Management.
Franklin, TN: FreseniusRx.

Presentations (National Organizations)

Department of Pharmaceutical Sciences

Bright, David R.

DiPietro Mager, Natalie, Bright, David R, Markus, Dani, Batz, Lindsey, Hartzell, David, Gartner, James, PQA Annual Meeting, "Improving preconception care through medication therapy management," Pharmacy Quality Alliance, Arlington, VA. (May 18, 2016).

Bright, David R, PCA Pharmacy Educational Symposium, "Clinical Value of Pharmacogenomic-Guided Therapeutic Optimization," PCA Pharmacy, Indianapolis, IN. (March 10, 2016).

DiPietro Mager, Natalie, Bright, David R, Markus, Dani, Batz, Lindsey, Hartzell, David, Gartner, James, Community Pharmacy Foundation Research Forum, "Community pharmacist provision of preconception care via medication therapy management," American Pharmacists Association, Baltimore, MD. (March 5, 2016).

Ding, Qian

Ding, Qian, Barker, Kenneth N, Flynn, Elizabeth A, Westrick, Salisa C, Chang, Ming, Thomas, Robert E, Braxton-Lloyd, Kimberly, Sesek, Richard, The 31st International Conference on Pharmacoepidemiology & Therapeutic Risk Management, "Incidence of Intravenous Medication Errors in a Chinese Hospital," The International Society for Pharmacoepidemiology, Boston, MA. (August 23, 2015).

Lamberts, Jennifer

Axford, Katie L, Lamberts, Jennifer, Nybo, Eric, Seiferlein, Mandy R, VanLangen, Kali M. 2015 AACP Annual Meeting, "Creating a Culture of Professional Development at Ferris State University College of Pharmacy," American

Association of Colleges of Pharmacy, National Harbor, MD. (July 2015).

Nybo, Eric

Axford, Katie L, Lamberts, Jennifer, Nybo, Eric, Seiferlein, Mandy R, VanLangen, Kali M. 2015 AACP Annual Meeting, "Creating a Culture of Professional Development at Ferris State University College of Pharmacy," American Association of Colleges of Pharmacy, National Harbor, MD. (July 2015).

Sohn, Minji

Sohn, Minji, Moga, Daniela C, Blumenschein, Karen, Talbert, Jeffery. AcademyHealth Annual Research Meeting 2016, "National trends in off-label use of atypical antipsychotics in children and adolescents in the United States," Academy Health, Boston, MA, USA. (June 29, 2016).

Department of Pharmacy Practice

Axford, Katie L.

Nichoson, Audrey, Meyer, Rachel E, Dumkow, Lisa E, Axford, Katie L. 19th Annual Making a Difference in Infectious Diseases (MAD-ID) Meeting, "Evaluating the appropriate use of antibiotics in hospitalized patients with COPD exacerbations," Making a Difference in Infectious Diseases (MAD-ID), Orlando, FL. (May 2016).

Liu, Parker G-H, Axford, Katie L, Dumkow, Lisa E. 50th Annual ASHP Midyear Clinical Meeting and Exhibition, "Is dual Pseudomonas coverage necessary? A retrospective cohort of adult ICU patients treated for healthcare-associated pneumonia," American Society of Health-Systems Pharmacists, New Orleans, LA. (December 2015).

Sikkenga, Taylor, Rivard, Kaitlyn R, Bucher, Kasey L, Draper, Heather M, Egwuatu, Nnaemeka E, Whalen, David W, Axford, Katie L, Dumkow, Lisa E. 50th Annual ASHP Midyear Clinical Meeting and Exhibition, "Point of care testing for chlamydia and gonorrhea with audit and feedback in the ED.," American Society of Health-Systems Pharmacists, New Orleans, LA. (December 2015).

Axford, Katie L, Lamberts, Jennifer, Nybo, Eric, Seiferlein, Mandy R, VanLangen, Kali M. 2015 AACP Annual Meeting, "Creating a Culture of Professional Development at Ferris State University College of Pharmacy," American Association of Colleges of Pharmacy, National Harbor, MD. (July 2015).

Covyeou, Jill A.

Covyeou, Jill A, ASHP Midyear Clinical Meeting and Exhibition, "Evaluation of a patient education initiative on medication reconciliation," ASHP, New Orleans, LA. (December 7, 2015).

Devuyst-Miller, Susan A.

Vavra, Kari L, Devuyst-Miller, Susan A, AACP Annual Meeting, "Developing a Student Leadership Program," AACP, National Harbor. (July 2015).

Klepser, Michael E

Klepser, Michael E, Point-of-Care Technologies Research Network, "Best practices for implementing CLIA-waived point-of-care testing services in community pharmacies," National Institute of Biomedical Imaging and Bioengineering, Bethesda, MD. (June 9, 2016).

Klepser, Michael E, Molecular Med Tri-Con 2016, "Implementing collaborative, community pharmacy-based disease management programs using CLIA-waived POC tests," San Francisco, CA. (March 10, 2016).

Klepser, Michael E, APhA's Annual Meeting and Exposition, "Do point-of-care tests add value?," APhA, Baltimore, MD. (March 5, 2016).

Klepser, Michael E, . NIH-IEEE 2015 Strategic Conference on Healthcare Innovations and Point-of-Care Technologies for Precision Medicine, "Adoption of Point-of-Care Testing Services in Community Pharmacy," Bethesda, Maryland. (November 10, 2015).

Klepser, Michael E, Next Generation Dx Summit: Leveraging Pharmacies for Rapid Diagnostics, "Community pharmacies – a growth market for diagnostics," Cambridge Health Institute, Washington, DC. (August 19, 2015). "Developing a sustainable business using POC and RDTs in community pharmacies," Cambridge Health Institute, Washington, DC. (August 19, 2015). "What tests are currently available and do they fit into a community pharmacy practice?," Cambridge Health Institute, Washington, DC. (August 19, 2015).

Klepser, Michael E, National Association of County & City Health Officials Annual Meeting., "Yours, mine, and ours – the shared goals for future public health and community pharmacy collaborations," National Association of County & City Health Officials, Kansas City, MO. (July 8, 2015).

Meny, Lisa M.

Meny, Lisa M, Naylor, Jessica, Roth, Heather. American Pharmacists Association Annual Meeting and Exposition, "Analysis of Knowledge, Attitudes, and Beliefs that Impact Immunization Status in Patients 19-65 Years of Age," APhA, Baltimore, Maryland. (March 2016).

Mersfelder, Tracey L.

VanGalder, Keni, Mersfelder, Tracey L, VanLangen, Kali M. 50th American Society of Health System Pharmacists Midyear Meeting, "Pharmacist's Knowledge of the Cost of Laboratory Data," American Society of Health-System Pharmacists, New Orleans, Louisiana. (December 2015).

Smith, Curtis L.

Smith, Curtis L, presented at the 2016 Updates in Therapeutics: The Pharmacotherapy Prep Review and Recertification Course, "HIV/Infectious Diseases," American College of Clinical Pharmacy, Phoenix, Arizona. (April 10, 2016). "Infectious Diseases," American College of Clinical Pharmacy, Phoenix, Arizona. (April 10, 2016). "Pharmacokinetics: A Refresher," American College of Clinical Pharmacy, Phoenix, Arizona. (April 9, 2016).

Smith, Curtis L, presented the Last Chance Pharmacotherapy Board Webinar, "Infectious Diseases," American College of Clinical Pharmacy. (September 1, 2015).

VanLangen, Kali

VanLangen, Kali M and Elder, Kimberly. AACP Laboratory Instructors SIG Webinar, "Incorporating Electronic Health Records into the Classroom," American Association of Colleges of Pharmacy Laboratory Instructors SIG. (April 18, 2016).

VanGalder, Keni, Mersfelder, Tracey L, VanLangen, Kali M. 50th American Society of Health System Pharmacists Midyear Meeting, "Pharmacist's Knowledge of the Cost of Laboratory Data," American Society of Health-System Pharmacists, New Orleans, Louisiana. (December 2015).

Axford, Katie L, Lamberts, Jennifer, Nybo, Eric, Seiferlein, Mandy R, VanLangen, Kali M. 2015 AACP Annual Meeting, "Creating a Culture of Professional

Development at Ferris State University College of Pharmacy," American Association of Colleges of Pharmacy, National Harbor, MD. (July 2015).

Vavra, Kari L.

Vavra, Kari L, Devuyst-Miller, Susan A, AACP Annual Meeting, "Developing a Student Leadership Program," AACP, National Harbor. (July 2015).

de Voest, Margaret

McCarty, Andrea, Lee, Sangjin, de Voest, Margaret, McDermott, Jennifer. The International Society for Heart and Lung Transplantation, "Specialized Heart Clinic vs Standard Anticoagulation Clinic Warfarin Management in Patients with left Ventricular Assist Devices," The international Society for Heart and Lung Transplantation, Washington DC. (April 7, 2016).

Dean's Office

Dowling, Thomas C.

Dowling, Thomas C, 2016 ACCP MeRIT Research Program, "Research Objectives, Specific Aims and Hypothesis," ACCP (June 26, 2016).

Dowling, Thomas C, 2015 ASHP Midyear Clinical Meeting, "The skinny on estimating kidney function in obesity," ASHP, New Orleans, LA. (December 9, 2015).

Seliger, Stephen, Diggs, Charalett, Dowling, Thomas C, Christenson, Robert, Watnick, Terry J. ASN Kidney Week 2015, "Accuracy of Traditional and Novel Renal Filtration Markers for Estimating GFR in ADPKD Patients," American Society of Nephrology, San Diego, CA. (November 3, 2015).

Debreczeny, Martin, Dorshow, Richard, Fink, Jeffrey C, Dowling, Thomas C. ASN Kidney Week 2015, "Initial Clinical

Trial Results of a Real-Time Point-of-Care Glomerular Filtration Rate Measurement Utilizing a Novel Fluorescent Tracer Agent," American Society of Nephrology, San Diego, CA. (November 3, 2015).

Seiferlein, Mandy R.

Axford, Katie L, Lamberts, Jennifer, Nybo, Eric, Seiferlein, Mandy R, VanLangen, Kali M. 2015 AACP Annual Meeting, "Creating a Culture of Professional Development at Ferris State University College of Pharmacy," American Association of Colleges of Pharmacy, National Harbor, MD. (July 2015).

Awards and Honors



Kim Hancock, professor of pharmaceutical sciences, received a Lambda Kappa Sigma Service Recognition award from the Alpha Iota Chapter of Lambda Kappa Sigma (2015)



Minji Sohn, assistant professor of pharmaceutical sciences, was a research presentation award finalist at the 2016 International Society for Pharmacoeconomics and Outcomes Research (ISPOR) meeting (May 4, 2016)



Dan Elliott, pharmacy student (P2), along with **Jennifer Lamberts**, assistant professor, and **Tracey Boncher**, professor of pharmaceutical sciences, received a 2016 AFPE Gateway Research Scholarship. The project is entitled "Evaluation of the Neuroprotective Activity of Novel Dual PPAR-delta/ PPAR-gamma Agonists".



Greg Potter, professor of pharmaceutical sciences, was voted teacher of the year by the **P1** Pharmacy Class. (May 2016)



Eric Nybo, assistant professor of pharmaceutical sciences, was voted teacher of the year by the **P2** Pharmacy Class. (May 2016)



Greg Wellman, professor of pharmaceutical sciences, was voted teacher of the year by the **P3** Pharmacy Class. (May 2016)



Curtis Smith, professor of pharmacy practice, was voted teacher of the year by the **P4** Pharmacy Class. (May 2016)

Grants and Contracts (New Awards FY16)

Department of Pharmaceutical Sciences



David Bright, assistant professor of pharmaceutical sciences, received the following grants:

With M. Verma/WMU: "Evaluation of Pharmacogenomics Clinical and Economic Outcomes in Community Mental Health Patients," Sponsored by WMU Development Funds for \$29,000 (March 15, 2016 - March 15, 2018).

"NACDS Foundation Faculty Scholars: Patient Perceptions of PGx Testing in a Community Pharmacy," Sponsored by NACDS Foundation, \$3,500 (September 1, 2015 - August 31, 2016).



Eric Nybo, assistant professor of pharmaceutical sciences, received a NARSAD new investigator grant: "Synthesis of terpene-based sedatives utilizing a novel metabolically engineered host," Sponsored by the Brain and Behavior Research Foundation for \$70,000 (January 15, 2016 - January 15, 2018).



Michael Klepser, professor of pharmacy practice, received a grant with Donald Klepser and Jackie Morse: "Implementation and evaluation of a community pharmacy-based pharmacist-physician collaborative hepatitis C screening program with linkage to care.," Sponsored by NACDSF, \$25,000 (2015 - 2016).



Thomas Dowling, assistant dean, received a grant with Alonso Heredia (Univ. of Maryland), entitled "Long Term Inhibition of HIV transcription targeting cellular CDK9 in vivo", Sponsored by NIH (1R21 AI114288-01) for \$10,000 (February 2, 2016 - June 30, 2016).

Department of Pharmacy Practice



Susan DeVuyst-Miller, assistant professor of pharmacy practice, site team leader with L. Meny, C. DeHoag, and M. Bouthillier, received a Year 2 competitive renewal for their project: "Coordinated Health Impact Alliance," sponsored by the Michigan Dept. of Health and Human Services for \$62,840 (October 1, 2015 - September 30, 2016).