



Interoffice Memorandum
College of Pharmacy
Office of the Dean
Big Rapids, MI 49307
Phone: (231) 592-2254

TO: All College of Pharmacy and FSU Community Members and Alumni
From: Thomas Dowling, Assistant Dean, Professional Development and Research
Date: August 13, 2018
RE: FY18 College of Pharmacy Scholarly Activity Report (July 1, 2017 - June 30, 2018)

1.0 GRANTS AND CONTRACTS (Externally Funded)

PHARMACEUTICAL SCIENCES DEPARTMENT

<u>Faculty</u>	<u>Sponsor and Award Details</u>
Bright, David	Sponsor: MDHHS – Kalamazoo County Mental Health and Substance Abuse Services Title: “Genomic Opioid Research” Status: New 2018 Total Award: \$57,073 (Subcontract)
Bright, David	Sponsor: WMED/Stryker School of Medicine Title: “Evaluation of Clinical Utility of Pharmacogenomics in KCMH Patients” Status: Continuation 2016-2018 Total Award: \$29,000 (Subcontract)

Lamberts, Jennifer	Sponsor: AACP New Investigator Award Title: "Biological stress and Parkinson's disease: Role of purinergic signaling" Status: Continuation 2017-2018 Total Award: \$10,000
Nybo, Eric	Sponsor: Brain & Behavior Research Foundation - New Investigator Award Title: "Development of new valerianic acid anxiolytics" Status: Continuation 2016 – 2018 Total Award: \$70,000
Nybo, Eric	Sponsor: MEDC ADVANCE Proof of Concept Fund Title: "Production of novel anthracycline and analogs via combinatorial biosynthesis" Status: New 2017-2018 Total Award: \$30,500

PHARMACY PRACTICE DEPARTMENT

<u>Faculty</u>	<u>Sponsor and Award Details</u>
DeVuyst-Miller, Susan	Sponsor: MDCH Chronic Disease Networks (CDC 1422) Title: "Implementing Public Health Prevention Strategies for Obesity, Diabetes, Heart Disease and Stroke through Chronic Disease Coordinating Networks" Status: Continuation: 2015-2018 Total Award: \$53,916 (Year 4)
Elder, Jodie	Sponsor: Metro Health Integrated Network Title: "Comprehensive Medication Management" Status: New 2017-2018 (Service Contract) Total Award: \$12,000

2.0 PUBLICATIONS (Peer Reviewed Journal Articles and Books)

Amissah, Felix

Poku, R. A., Salako, O. O., Amissah, F., Nkembo, A. T., Ntantie, E., Lamango, N. S. (2017). Polyisoprenylated cysteinyl amide inhibitors induce caspase 3/7- and 8-mediated apoptosis and inhibit migration and invasion of metastatic prostate cancer cells. *American Journal of Cancer Research*, 7(7), 1515-1527.

Axford, Katie L.

Dumkow, L. E., Axford, K. L., Suda, K. J., Draper, H. M., Brandt, K. L. (2018). Impact of a stewardship-focused culture follow-up initiative on the treatment of pharyngitis in the emergency department and urgent care settings. *Diagnostic Microbiology and Infectious Disease*. May 28. pii: S0732-8893(18)30171-8.

Bouthillier, Michael J.

Nagelkerk, J., Thompson, M. E., Bouthillier, M. J., Tompkins, A., Baer, L. J., Trytko, J., Booth, A., Stevens, A., Groeneveld, K. (2018). Improving outcomes in adults with diabetes through an interprofessional collaborative practice program. *Journal of interprofessional care*, 32(1), 4-13.

Bright, David R.

Atkinson, D., Bright, D. R., Adams, A. (2017). Should pharmacy technicians administer immunizations? *Innovations in Pharmacy*, 8(3).

Bottorff, M. B., Bright, D. R., Kisor, D. F. (2017). Commentary: Should Pharmacogenomic Evidence Be Considered in Clinical Decision Making? Focus on Select Cardiovascular Drugs. *Pharmacotherapy*, 37(9), 1005-1013.

Bright, D. R., Greco, A. J., Langerveld, A., Kisor, D. F. (2017). Clinical implementation of personalized medicine in community pharmacies: considerations for clinicians. *Personalized medicine*, 14(6), 471-475.

Lewellyan, C. M., Bouwma, A. C., Salvati, L. A., Bright, D. R., Sohn, M. (2018). Analysis of a First Professional Year Student Wellness Program. *INNOVATIONS in pharmacy*, 9(1).

Quesnelle, K. M., Bright, D. R., Salvati, L. A. (2018). Interprofessional education through a telehealth team based learning exercise focused on pharmacogenomics. *Currents in Pharmacy Teaching and Learning*. (available online June 21, 2018)

Salvati, L. A., Bright, D. R., de Voest, M., Meny, L. M., VanLangen, K. M., Vavra, K. L., Young, M. (2017). An Approach for the Development and Implementation of an Assessment Tool for Interprofessional Education Learning Activities. *INNOVATIONS in pharmacy*, 8(4).

DeVoest, Margaret

Salvati, L. A., Bright, D. R., de Voest, M., Meny, L. M., VanLangen, K. M., Vavra, K. L., Young, M. (2017). An Approach for the Development and Implementation of an Assessment Tool for Interprofessional Education Learning Activities. *INNOVATIONS in pharmacy*, 8(4).

Vavra, K. L., Paluzzi, M., de Voest, M., Raguckas, S. E., Slot, M. (2017). Preliminary Findings from a Student Pharmacist Operated Transitions of Care Pilot Service. *Currents in Pharmacy Teaching and Learning*, 10(1):78-84.

French, D., Booth, A., Shoemaker, M., Beasley, J., de Voest, M., Terry, G. J., Scanlon, S., VanLente, P. (2017). Post-Concussion Syndrome. *Simulation Scenarios for Nursing Educators 3rd edition* (3rd edition ed.). Springer Publishing.

French, D., Booth, A., Shoemaker, M., de Voest, M., Beasley, J., Bulson, J. (2017). Interprofessional Disaster Simulation. *Simulation Scenarios for Nursing Educators 3rd edition*. Springer Publishing.

Ding, Qian

Pearce, J. A., Shiltz, D., Ding, Q. (2018). Effectiveness & Safety Comparison for Systemic Corticosteroid Therapy With & Without Inhaled Corticosteroids for COPD Exacerbation Management. *Annals of Pharmacotherapy*. (online May 1, 2018)

Dowling, Thomas C.

Mindikoglu, A. L., Opekun, A. R., Putluri, N., Devaraj, S., Sheikh-Hamad, D., Vierling, J. M., Goss, J. A., Rana, A., Sood, G. K., Jalal, P. K., Inker, L. A., Mohny, R. P., Tighiouart, H., Christenson, R. H., Dowling, T. C., Weir, M. R., Seliger, S. L., Hutson, W. R., Howell, C. D., Raufman, J. P., Magder, L. S., Coarfa, C. (2018). Unique metabolomic signature associated with hepatorenal dysfunction and mortality in cirrhosis. *Translational research : the journal of laboratory and clinical medicine*, 195, 25-47.

Mindikoglu, A. L., Opekun, A. R., Mitch, W. E., Magder, L. S., Christenson, R. H., Dowling, T. C., Weir, M. R., Seliger, S. L., Howell, C. D., Raufman, J. P., Rana, A., Goss, J. A., Khaderi, S. A., Vierling, J. M. (2018). Cystatin C Is a Gender-Neutral Glomerular Filtration Rate Biomarker in Patients with Cirrhosis. *Digestive diseases and sciences*, 63(3), 665-675.

Medina-Moreno, S., Dowling, T. C., Zapata, J. C., Le, N. M., Sausville, E., Bryant, J., Redfield, R. R., Heredia, A. (2017). Targeting of CDK9 with indirubin 3'-monoxime safely and durably reduces HIV viremia in chronically infected humanized mice. *PLoS One*, 12(8), e0183425.

Dowling, T. C. (2017). Drug Dosing in Kidney Disease and Dialysis. *Winter's Basic Clinical Pharmacokinetics* (6th Edition ed.). Philadelphia, PA: Wolters Kluwer.

Girand, Heather L.

Girand, H. L. (2018). Antibiotic Lock Therapy for Treatment of Catheter-Related Bloodstream Infections. *UpToDate*. Waltham, MA: UpToDate. www.uptodate.com

Girand, H. L. (2017). Croup. *PPAG University: Pediatric Preparatory Advanced Guide* (Second edition ed.). Memphis, TN: Pediatric Pharmacy Advocacy Group.

Girand, H. L. (2017). Pulmonary Development and Bronchiolitis. *PPAG University: Pediatric Preparatory Advanced Guide* (Second edition ed.). Memphis, TN: Pediatric Pharmacy Advocacy Group. <https://ppagu.benchprep.com/>

Klepser, Michael E.

Adams, A. J., Dering-Anderson, A., Klepser, M. E., Klepser, D. (2018). The Roles of Pharmacy Schools in Bridging the Gap Between Law and Practice. *American Journal of Pharmaceutical Education*, 82(4), 6577.

Gubbins, P. O., Klepser, M. E., Adams, A. J., Jacobs, D. M., Percival, K. M., Tallman, G. B. (2017). Potential for Pharmacy-Public Health Collaborations Using Pharmacy-Based Point-of-Care Testing Services for Infectious Diseases. *Journal of Public Health Management and Practice*, 23(6), 593-600.

Klepser, D. G., Klepser, M. E. (2017). Point-of-care testing in the pharmacy: how is the field evolving? *Expert Review of Molecular Diagnostics*, 18(1):5-6.

Koski, Renee R.

Kennedy, B., Koski, R. R. (2018). Comparative Review of Oral P2Y₁₂ Inhibitors. *P&T*, 43(6), 352-357.

Ottney, A. R., Koski, R. R. (2018). Addressing Meaningful Use and Maintaining an Accurate Medication List in Primary Care. *Journal of American Pharmacists Association*, 58(2), 186-190.

Koski, R. R., William, Z. H. (2018). Efficacy and Safety of Alpha-Blockers for Kidney Stones in Adults. *Journal of Pharmacy Practice*, 34(2), 54-61.

Lamberts, Jennifer

Lamberts, J., Rosenthal, L. D., Jutkiewicz, E. M., Traynor, J. R. (2017). Role of the guanine nucleotide binding protein, G α , in the development of morphine tolerance and dependence. *Psychopharmacology*.235(1):71-82.

Lamberts, J., Brundin, P. (2017). Axonal transport dysfunction in neurodegenerative diseases: the "holy grail" for developing disease modifying therapies? *Neurobiol Dis.* (vol. 105, pp. 271-272).

Meny, Lisa M.

Salvati, L. A., Bright, D. R., de Voest, M., Meny, L. M., VanLangen, K. M., Vavra, K. L., Young, M. (2017). An Approach for the Development and Implementation of an Assessment Tool for Interprofessional Education Learning Activities. *INNOVATIONS in pharmacy*, 8(4).

Nybo, Eric

Nybo, E., J. S., McCormick, S. (2017). Metabolic Engineering of Valerena-1,10-diene in *Escherichia coli*. *Journal of Biotechnology*(262), 60-66.

Jiang, Z., Kempinski, C., Kumar, S., Kinison, S., Linscott, K., Nybo, E., Janse, S., Wood, C., Chappell, J. (2018). Agronomic and chemical performance of field grown tobacco engineered for triterpene and methylated triterpene metabolism. *Plant Biotechnology Journal*. 16(6):1110-1124.

Ottney, Anne R.

Ottney, A. R., Koski, R. R. (2018). Addressing Meaningful Use and Maintaining an Accurate Medication List in Primary Care. *Journal of American Pharmacists Association*, 58(2), 186-190.

Raguckas, Sarah E.

Vavra, K. L., Paluzzi, M., de Voest, M., Raguckas, S. E., Slot, M. (2017). Preliminary Findings from a Student Pharmacist Operated Transitions of Care Pilot Service. *Currents in Pharmacy Teaching and Learning*, 10(1):78-84.

Thoits, T., Dutkiewicz, A., Raguckas, S. E., Lawrence, M., Parker, J., Keeley, J., Anderson, N., Vandyken, M., Hatfield-Eldred, M (2018). Association between dementia severity and recommended lifestyle changes: retrospective cohort

study. *American Journal of Alzheimer's Disease and Other Dementias*, 33(4):242-246.

Salvati, Lisa A.

Quesnelle, K. M., Bright, D. R., Salvati, L. A. (2018). Interprofessional education through a telehealth team based learning exercise focused on pharmacogenomics. *Currents in Pharmacy Teaching and Learning*. (available online June 21, 2018)

Lewellyan, C. M., Bouwma, A. C., Salvati, L. A., Bright, D. R., Sohn, M. (2018). Analysis of a First Professional Year Student Wellness Program. *INNOVATIONS in pharmacy*, 9(1).

Salvati, L. A., Bright, D. R., de Voest, M., Meny, L. M., VanLangen, K. M., Vavra, K. L., Young, M. (2017). An Approach for the Development and Implementation of an Assessment Tool for Interprofessional Education Learning Activities. *INNOVATIONS in pharmacy*, 8(4).

Shiltz, Dane

Shiltz, D., Lineweaver, T. T., Brimmer, T., Cairns, A. C., Halcomb, D. S., Juett, J., Beer, L., Hay, D. P., Plewes, J. M. (2018). "Music First": An Interprofessional Study of the Effect of Participant-Preferred Music as a Nonpharmacological Alternative or Adjunct to Medications for Behavioral and Psychological Symptoms of Dementia. *GeroPsych: The Journal of Gerontopsychology and Geriatric Psychiatry*, 31(1), 17-30.

Pearce, J. A., Shiltz, D., Ding, Q. (2018). Effectiveness & Safety Comparison for Systemic Corticosteroid Therapy With & Without Inhaled Corticosteroids for COPD Exacerbation Management. *Annals of Pharmacotherapy*. (online May 1, 2018)

Sohn, Minji

Lewellyan, C. M., Bouwma, A. C., Salvati, L. A., Bright, D. R., Sohn, M. (2018). Analysis of a First Professional Year Student Wellness Program. *INNOVATIONS in pharmacy*, 9(1).

Sohn, M., Burgess, M., Bazzi, M. (2017). Antipsychotic polypharmacy among children and young adults in office-based or hospital outpatient department settings. *Pharmacy (Basel)*, 5(4), pE64.

VanLangen, Kali M.

VanLangen, K. M., Wellman, G. S. (2018). Trends in Academic Health Record Usage Among US Colleges of Pharmacy. *Currents in Pharmacy Teaching and Learning*, 10(5), 566-570.

Salvati, L. A., Bright, D. R., de Voest, M., Meny, L. M., VanLangen, K. M., Vavra, K. L., Young, M. (2017). An Approach for the Development and Implementation of an Assessment Tool for Interprofessional Education Learning Activities. *INNOVATIONS in pharmacy*, 8(4).

Soucek, D., Dumkow, L., VanLangen, K. M., Jameson, A. (2017). Cost Justification of the BioFire FilmArray® Meningitis/Encephalitis Panel vs. Standard of Care for Diagnosing Meningitis in a Community Hospital. *Journal of Pharmacy Practice*.

Vavra, Kari L.

Salvati, L. A., Bright, D. R., de Voest, M., Meny, L. M., VanLangen, K. M., Vavra, K. L., Young, M. (2017). An Approach for the Development and Implementation of an Assessment Tool for Interprofessional Education Learning Activities. *INNOVATIONS in pharmacy*, 8(4).

Vavra, K. L., Paluzzi, M., de Voest, M., Raguckas, S. E., Slot, M. (2017). Preliminary Findings from a Student Pharmacist Operated Transitions of Care Pilot Service. *Currents in Pharmacy Teaching and Learning*, 10(1):78-84.

Wellman, Gregory S.

VanLangen, K. M., Wellman, G. S. (2018). Trends in Academic Health Record Usage Among US Colleges of Pharmacy. *Currents in Pharmacy Teaching and Learning*, 10(5), 566-570.

Young, Mark

Salvati, L. A., Bright, D. R., de Voest, M., Meny, L. M., VanLangen, K. M., Vavra, K. L., Young, M. (2017). An Approach for the Development and Implementation of an Assessment Tool for Interprofessional Education Learning Activities. *INNOVATIONS in pharmacy*, 8(4).

3.0 PRESENTATIONS (State, National, International)

Amissah, Felix

Amissah, Felix, Jones, Kylee J, Poku, Rosemary A, American Association for Cancer Research Annual Meeting 2018, "Combined inhibition of cyclooxygenase with docosahexaenoic acid augments apoptosis in KRAS mutant non-small cell lung cancer cells.," American Association for Cancer Research, Chicago, IL. (April 15, 2018).

Bailey, Teresa M.

Bailey, Teresa M, 34th Annual Developmental Disabilities Conference, "Medication Update in the Treatment of Osteoporosis in Cerebral Palsy," Lansing. (2017).

Bailey, Teresa M, 34th Annual Developmental Disabilities Conference, "The Safety and Efficacy of Vitamin Supplements," Lansing. (2017).

Boncher, Tracey D.

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

Bouthillier, Michael J.

Bouthillier, Michael, Shah, R, DeMuth, R, Thompson, M. "Creating Teams for Patient Centered Care Preconference Workshop: Strategies for engaging new partners in clinical placements.," Midwest Interprofessional Practice, Education, and Research Center, Grand Valley State University. (September 21, 2017).

Bright, David R.

Bouwma, Allison C, Lewellyan, Colleen M, Salvati, Lisa A, Bright, David R, Sohn, Minji, ASHP Midyear Clinical Meeting & Exhibition, "An Analysis of a First Professional Year Pharmacy Student Wellness Program," American Society of Health-System Pharmacists, Orlando, Florida. (December 3, 2017).

Quesnelle, Kelly M, Bright, David R, Salvati, Lisa A, Midwest Interprofessional Practice, Education, and Research Center Conference, "Interprofessional education through a virtual team-based learning event focused on pharmacogenomics," Midwest Interprofessional Practice, Education, and Research Center (MIPERC), Grand Rapids, MI. (September 2017).

Salvati, Lisa A, Lewellyan, Colleen M, Bouwma, Allison C, Bright, David R, Sohn, Minji, AACP Annual Meeting, "Midpoint Analysis of a First Professional Year Pharmacy Student Wellness Program," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 17, 2017).

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

de Voest, Margaret

Bennatts, Brenda, de Voest, Margaret, Nowak, Kevin, Kwiatkowski, Greg, Mullennix, Stephanie, Van Overloop, Mitch, Emergency Nursing Conference, "Ketamine Use in the Emergency Department for Treatment of Moderate to Severe Acute Pain," Mt Pleasant, MI. (May 8, 2018).

Devuyst-Miller, Susan A.

Devuyst-Miller, Susan A, Great Lakes Eye Care Conference, "Keeping an Eye on Opioid Use, Misuse and Addiction," Michigan Optometry Association, Grand Rapids, Michigan. (May 31, 2018).

Devuyst-Miller, Susan A, MiCCSI Pain Conference, "Managing Chronic Pain: A Multi-Modal Approach Involved Pharmacotherapy," MiCCSI, Kalamazoo, Michigan. (April 24, 2018).

Devuyst-Miller, Susan A, Michigan Pharmacist Association Annual Convention & Exhibition, "Opioids in 2018: What's a Pharmacist to do in the Opioid Public Health Crisis?," Michigan Pharmacist Association, Detroit, Michigan. (February 24, 2018).

Devuyst-Miller, Susan A, MiCCSI Pain Conference, "Approaches to Opioid Tapering," MiCCSI, Grand Rapids, Michigan. (February 15, 2018).

Devuyst-Miller, Susan A, MiCCSI Pain Conference, "Managing Chronic Pain: A Multi-Modal Approach Involved Pharmacotherapy," MiCCSI, Grand Rapids, Michigan. (February 15, 2018).

Devuyst-Miller, Susan A, Michigan Society of Health System Pharmacist Annual Meeting, "It's O.N.! Where are we at with Opioid & Naloxone?," Michigan Pharmacist Association, East Lansing, Michigan. (October 27, 2017).

Dowling Thomas C.

Dowling, Thomas C, 2018 ACCP MeRIT Conference, "Overview of Designing Clinical Trials," American College of Clinical Pharmacy, Ann Arbor, MI. (June 27, 2018).

Dowling, Thomas C, 2018 ACCP MeRIT Conference, "Crafting Great Research Questions, Aims and Objectives," American College of Clinical Pharmacy, Ann Arbor, MI. (June 25, 2018).

Stockton, Winnie, Nguyen, Theresa, Dowling, Thomas C, 2017 Annual ACCP Conference, "MERIT methods: Etoposide hypersensitivity in pediatric patients," American College of Clinical Pharmacy, Phoenix, AZ. (October 9, 2017).

Dowling, Thomas C, Reger, Michael, Roff, Brooke, Durst, Stephen W, Robertson, Joel, 2017 AACP Annual Meeting, "Student Pharmacist's Competencies Achieved During a Pilot Co-Curricular Training Program in Precision-Based Behavioral Medicine," American Association of Colleges of Pharmacy, Nashville, TN. (July 16, 2017).

Durst, Stephen W.

Dowling, Thomas C, Reger, Michael, Roff, Brooke, Durst, Stephen W, Robertson, Joel, 2017 AACP Annual Meeting, "Student Pharmacist's Competencies Achieved During a Pilot Co-Curricular Training Program in Precision-Based Behavioral Medicine," American Association of Colleges of Pharmacy, Nashville, TN. (July 16, 2017).

Elder, Jodie L.

VanLangen, Kali M, Elder, Jodie L, Farwig, Lindy, LaPointe, Stephanie, Posey, Jordan, AACP 2017 Annual Meeting, "Impact of a Pharmacy Resident Teaching Certificate Program on Faculty Workload," American Association of Colleges of Pharmacy, Nashville, TN. (July 17, 2017).

Girand, Heather L.

Girand, Heather L, Pediatric Pharmacy Advocacy Group Fall Specialty Conference and BCPPS Review and Recertification Course, "Pulmonary update: asthma and cystic fibrosis," PPAG, Cincinnati, OH. (September 23, 2017).

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome

into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

Hancock, Kim E.

Hancock, Kim E, ASHP Midyear 2017, "Bariatrics: It's More Than Just Weight Loss," American Society of Health-Systems Pharmacists, Orlando. (December 5, 2017).

Hancock, Kim E, Faculty Athletic Representative Association Annual Meeting, "Assisting Student-Athletes with "Crisis" on Campus," NCAA FARA, Atlanta, Georgia. (November 4, 2017).

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

Klepser, Michael E.

Klepser, Michael E, APhA's Annual Meeting and Exposition., "Antimicrobial Stewardship 201: It's Time to Act.," APhA, Nashville, Tennessee. (March 17, 2018).

Klepser, Michael E, APhA's Annual Meeting and Exposition, "The Ins and Outs of Point-of-Care Testing.," APhA, Nashville, Tennessee. (March 17, 2018).

Klepser, Michael E, MPA Annual Convention & Exposition, "Basics of Pain Management and Special Considerations for HIV-infected Individuals.," MPA, Detroit, Michigan. (February 24, 2018).

Klepser, Michael E, MPA Annual Convention & Exposition, "The Role of Community Pharmacists in Combating Sexually Transmitted Infections in Michigan.," MPA. (February 24, 2018).

Klepser, Michael E, MPA Annual Convention & Exposition, "Developing Innovative Pharmacy Practice Business Models," MPA, Detroit, Michigan. (February 23, 2018).

Klepser, Michael E, Molecular Med Tri-Con, "Using CLIA-waived POCT for Outpatient Antimicrobial Stewardship.," San Francisco, California. (February 15, 2018).

Klepser, Michael E, American Public Health Association 2017 Annual Meeting and Expo, "A multi-state, collaborative, community-pharmacy based HIV and HCV screening and linkage to care program," American Public Health Association, Atlanta, GA. (November 6, 2017).

Klepser, Michael E, American College of Clinical Pharmacy 2017 Annual Meeting., "Benchmarking outpatient antibiotic prescribing patterns and adherence to

published guidelines in an academic medical clinic," ACCP, Phoenix, AZ. (October 9, 2017).

Klepser, Michael E, American College of Clinical Pharmacy 2017 Annual Meeting., "Implementation and evaluation of a collaborative community pharmacy-based hepatitis C virus (HCV) screening program with linkage to care.," ACCP, Phoenix, AZ. (October 7, 2017).

Klepser, Michael E, Michigan Pharmacists Association Continuing Education Symposium, "Basics of pain management and special considerations for HIV-infected individuals.," MPA, Mackinaw Island, Michigan. (August 25, 2017).

Klepser, Michael E, Next Generation Dx Summit: Leveraging Pharmacies for Rapid Diagnostics., "Collaborative practice agreements (CPAs): pharmacist-physician collaborative working relationships," CHI, Washington, DC. (August 18, 2017).

Klepser, Michael E, Next Generation Dx Summit: Leveraging Pharmacies for Rapid Diagnostics., "Using CLIA-waived POCT for outpatient antimicrobial stewardship.," CHI, Washington, DC. (August 17, 2017).

Klepser, Michael E, Webinar for State of Hawaii Department of Health, "Operationalizing outpatient antibiotic stewardship," State of Hawaii Department of Health, Kalamazoo, MI. (August 14, 2017).

Klepser, Michael E, NASTAD Prevention and Care Technical Assistance Meeting Advancing Health Equity, "Pharmacy-based HIV/HCV prevention delivery," NASTAD, Alexandria, VA. (July 20, 2017).

Klepser, Michael E, American Association of Colleges of Pharmacy Annual Meeting., "Development of pharmacy-based disease management programs utilizing point-of-care tests.," AACP, Nashville, TN. (July 18, 2017).

Lamberts, Jenny

Lamberts, Jennifer, Seminar Series, "Neuronal Injury and Parkinson's Disease: The Role of ATP," University of Toledo College of Pharmacy and Pharmaceutical Sciences, Toledo, OH. (September 2017).

Nybo, Eric, Tran, Johnson, Lamberts, Jennifer, McCormick, Sean, American Society of Pharmacognosy Annual Meeting, "Progress in metabolic engineering production of valerenadiene," American Society of Pharmacognosy, Portland, OR. (August 2017).

Meny, Lisa M.

Seiferlein, Mandy R, Meny, Lisa M, AALHE 2018 Annual Conference, "What's Really Going On? A Practical Model for Using Perception Data for Continuous Improvement," Salt Lake City, UT. (June 6, 2018).

Meny, Lisa M, Salvati, Lisa A, AACP Annual Meeting, "Comparison of Preceptor and Student Perceptions of Interprofessional Activities and Level of Engagement on Required APPEs," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 16, 2017).

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

Mersfelder, Tracey L.

Jacob, Chris, Mersfelder, Tracey L, Kavanaugh, Kevin, Lam, Jason, Sivsammeye, Suceil, Campbell, Christin, ACP National Meeting, "Evaluation of the impact of a pharmacist-driven termination protocol to limit inappropriate use of acid suppressive medications in the non-ICU setting," American College of Physicians, New Orleans, Louisiana. (April 2018).

Campbell, Christin M, Mersfelder, Tracey L, Kavanaugh, Kevin J, Jacob, Chris, Lam, Jason, Sivsammeye, Suciell, ASHP Midyear Meeting, "Evaluation of the impact of a pharmacist-driven termination protocol to limit inappropriate use of acid suppressive medications in the non-ICU setting.," American Society of Health-System Pharmacist, Orlando, FL. (December 2017).

Jacobs, Chris, Mersfelder, Tracey L, Kavanaugh, Kevin J, Lam, Jason K, Sivsammeye, Suciell, Campbell, Christin M, ACP State Meeting, "Evaluation of the impact of a pharmacist-driven termination protocol to limit inappropriate use of acid suppressive medications in the non-ICU setting.," American College of Physicians, Traverse City, Michigan. (September 2017).

Nybo, Eric

Nybo, Eric, Tran, Johnson, Lamberts, Jennifer, McCormick, Sean, American Society of Pharmacognosy Annual Meeting, "Progress in metabolic engineering production of valerenadiene," American Society of Pharmacognosy, Portland, OR. (August 2017).

Nybo, Eric, Sohn, Minji, Maki, Kayla, American Society of Pharmacognosy 2017 Annual Meeting, "Combined Use of Design-of-Experiments and Metabolic Engineering to Enhance Production of Nogalamycin," American Society of Pharmacognosy, Portland, OR. (July 31, 2017).

Ottney, Anne R.

Ottney, Anne R, Lewis, Anthony, Marsh, Haleigh, ASHP Ambulatory Care Conference, "Early assessment of an opioid peer review committee in a family medicine residency clinic," American Society of Health System Pharmacists, Denver, CO. (June 4, 2018).

Ottney, Anne R, MPA Annual Convention and Exposition, "Frontline Pharmacist: The Opioid Epidemic with a Focus on Treatment," Michigan Pharmacists Association, Detroit, MI. (February 25, 2018).

Ottney, Anne R, Michigan Academy of Nutrition and Dietetics Fall Conference, "Sugar, Fat, and All of That: New Medications for Managing Diabetes and

Lipids," Michigan Academy of Nutrition and Dietetics, Livonia, MI. (October 6, 2017).

Ottney, Anne R, 10th Annual Midwest Interprofessional Practice, Education, and Resource Center Conference, "Development of Online Modules to Facilitate Interprofessional Collaboration," Grand Valley State University, Grand Rapids, MI. (September 22, 2017).

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

Saadeh, Claire E.

Saadeh, Claire E, Michigan Pharmacists Association, Pharmacy Law & Policy Symposium, "Medical Marihuana: Clinical Implications," Michigan Pharmacists Association, Lansing, MI. (April 18, 2018).

Saadeh, Claire E, Michigan Pharmacists Association, Annual Convention & Exposition, "Medical Marihuana: Clinical Implications," Michigan Pharmacists Association, Detroit, MI. (February 24, 2018).

Saadeh, Claire E, Michigan Pharmacists Association Continuing Education Symposium, "Abuse Deterrent Opioid Formulations," Michigan Pharmacists Association, Mackinac Island, MI. (August 25, 2017).

Saadeh, Claire E, Michigan Pharmacists Association Continuing Education Symposium, "Oral Oncolytics," Michigan Pharmacists Association, Mackinac Island, MI. (August 24, 2017).

Salvati, Lisa A.

Bouwma, Allison C, Lewellyan, Colleen M, Salvati, Lisa A, Bright, David R, Sohn, Minji, ASHP Midyear Clinical Meeting & Exhibition, "An Analysis of a First Professional Year Pharmacy Student Wellness Program," American Society of Health-System Pharmacists, Orlando, Florida. (December 3, 2017).

Quesnelle, Kelly M, Bright, David R, Salvati, Lisa A, Team Science and Virtual Health Care, "Interprofessional education through a virtual team-based learning event focused on pharmacogenomics," Midwest Interprofessional Practice, Education, and Research Center (MIPERC), Grand Rapids, MI. (September 21, 2017).

Salvati, Lisa A, A Multi-Institution Effort to Advance Professionalism and Interprofessional Education with ProfessionalFormation.org: Kick-Off Meeting, "IPE @ FSU COP: A 15-Year Journey," Josiah Macy Jr. Foundation and Drexel University, Philadelphia, Pennsylvania. (July 24, 2017).

Salvati, Lisa A, Lewellyan, Colleen M, Bouwma, Allison C, Bright, David R, Sohn, Minji, AACP Annual Meeting, "Midpoint Analysis of a First Professional Year

Pharmacy Student Wellness Program," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 17, 2017).

Meny, Lisa M, Salvati, Lisa A, AACP Annual Meeting, "Comparison of Preceptor and Student Perceptions of Interprofessional Activities and Level of Engagement on Required APPEs," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 16, 2017).

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

Seiferlein, Mandy R.

Wellman G, Seiferlein M, ExamSoft Assessment Conference, "Using Assessment Data to Demonstrate Achievement and Identify At-Risk Students in a Health Professions Program," ExamSoft, Fort Lauderdale, FL. (June 28, 2018).

Seiferlein, Mandy R , Meny, Lisa M, AALHE 2018 Annual Conference, "What's Really Going On? A Practical Model for Using Perception Data for Continuous Improvement," Salt Lake City, UT. (June 6, 2018).

Seiferlein, Mandy R, Gibbs, Lincoln, Hegenauer, Jennifer, Assessment Institute in Indianapolis, "Developing an HLC Quality Initiative: A Decentralized Approach," Indiana University-Purdue University Indianapolis, Indianapolis, Indiana. (October 24, 2017).

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

Shiltz, Dane

Quincy, Brenda, Shiltz, Dane, 2017 PAEA Education Forum, "Evaluation of Student Perceptions Relating to the Social Determinants of Health from Playing "The Last Straw!"," Physician Assistant Education Association (PAEA), Denver, CO. (October 27, 2017).

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

Smith, Curtis L.

Smith, Curtis L, 2018 Updates in Therapeutics: The Pharmacotherapy Prep Review and Recertification Course, "HIV/Infectious Diseases," American College of Clinical Pharmacy, Jacksonville, FL. (February 18, 2018).

Smith, Curtis L, 2018 Updates in Therapeutics: The Pharmacotherapy Prep Review and Recertification Course, "Infectious Diseases," American College of Clinical Pharmacy, Jacksonville, FL. (February 18, 2018).

Smith, Curtis L, 2018 Updates in Therapeutics: The Pharmacotherapy Prep Review and Recertification Course, "Pharmacokinetics: A Refresher," American College of Clinical Pharmacy, Jacksonville, FL. (February 17, 2018).

Smith, Curtis L, 2017 Last Chance Pharmacotherapy Board Webinar, "Infectious Diseases," American College of Clinical Pharmacy. (September 5, 2017).

Smith, Curtis L, 2017 Updates Plus in Pharmacotherapy Webinar, "Infectious Diseases Related Updates," American College of Clinical Pharmacy. (July 19, 2017).

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

Sohn, Minji

Bouwma, Allison C, Lewellyan, Colleen M, Salvati, Lisa A, Bright, David R, Sohn, Minji, ASHP Midyear Clinical Meeting & Exhibition, "An Analysis of a First Professional Year Pharmacy Student Wellness Program," American Society of Health-System Pharmacists, Orlando, Florida. (December 3, 2017).

Nybo, Eric, Sohn, Minji, Maki, Kayla, American Society of Pharmacognosy 2017 Annual Meeting, "Combined Use of Design-of-Experiments and Metabolic Engineering to Enhance Production of Nogalamycin," American Society of Pharmacognosy, Portland, OR. (July 31, 2017).

Salvati, Lisa A, Lewellyan, Colleen M, Bouwma, Allison C, Bright, David R, Sohn, Minji, AACP Annual Meeting, "Midpoint Analysis of a First Professional Year Pharmacy Student Wellness Program," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 17, 2017).

Thill, Paul

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

VanLangen, Kali M.

VanLangen, Kali M, Elder, Jodie L, Farwig, Lindy, LaPointe, Stephanie, Posey, Jordan, AACP 2017 Annual Meeting, "Impact of a Pharmacy Resident Teaching Certificate Program on Faculty Workload," American Association of Colleges of Pharmacy, Nashville, TN. (July 17, 2017).

VanLangen, Kali M, Johnson, Brett, Wellman, Gregory S, AACP 2017 Annual Meeting, "Trends in Electronic Health Record Usage Among U.S. Colleges of Pharmacy," American Association of Colleges of Pharmacy, Nashville, TN. (July 17, 2017).

Wellman, Gregory S.

Wellman, Gregory S, Seiferlein, Mandy R, ExamSoft Assessment Conference, "Using Assessment Data to Demonstrate Achievement and Identify At-Risk Students in a Health Professions Program," ExamSoft, Fort Lauderdale, FL. (June 28, 2018).

VanLangen, Kali M, Johnson, Brett, Wellman, Gregory S, AACP 2017 Annual Meeting, "Trends in Electronic Health Record Usage Among U.S. Colleges of Pharmacy," American Association of Colleges of Pharmacy, Nashville, TN. (July 17, 2017).

Wellman, Gregory S, Smith, Curtis L, Seiferlein, Mandy R, Meny, Lisa M, Bright, David R, Salvati, Lisa A, Girand, Heather L, Thill, Paul, Ottney, Anne R, Hancock, Kim E, Boncher, Tracey D, Shiltz, Dane, 2017 AACP Annual Meeting, "Integration of Entrustable Professional Activities & CAPE Domain 4 Outcome into a Revised PharmD Curriculum," American Association of Colleges of Pharmacy, Nashville, Tennessee. (July 15, 2017).

4.0 INTELLECTUAL PROPERTY AND PATENTS

Nybo, Eric

U.S. NON-PROVISIONAL PATENT APPLICATION

TITLE: "GENETICALLY MODIFIED HOST ORGANISM FOR EXPRESSING AN ANTHRACYCLINONE ANALOGUE, METHOD ASSOCIATED THEREWITH, AND SYNTHETIC NUCLEIC ACIDS"

INVENTOR: NYBO ERIC S.

PATENT PENDING

Ward, Tracey

U.S. PROVISIONAL APPLICATION

TITLE: "DERIVATIVES OF NOVEL DUAL PPAR-DELTA PPAR-GAMMA AGONISTS"

INVENTOR(S): RAJESH H. AMIN (AUBURN UNIVERSITY) & TRACEY WARD (FERRIS STATE UNIVERSITY)

PATENT PENDING