

Pharmacy Education Innovation, Research and Scholarship: Publications by CIPhER Faculty, Fellows, and Students for the Academic Year 2018-2019

As of June 2019, CIPhER staff authored 52 products in the scholarship of education.

Peer Reviewed Publications

Zeeman, J.M., Bush, A.A., Cox, W.C., and **McLaughlin, J.E.** Assessing the co-curriculum by mapping student organization involvement to curricular outcomes using mixed methods. *American Journal of Pharmaceutical Education*. 2019 (published ahead of print). doi:10.5688/ajpe7354.

Minshe LM, McLaughlin JE. What's in a name? considerations for authorship in pharmacy education. *American Journal of Pharmaceutical Education*. 2019 (in press). doi:10.5688/ajpe7463.

Lyons K, McLaughlin JE, Wolcott MD, Grandy R, and Williams CR. Teaching pharmacist preceptors the one-minute preceptor method to foster students' therapeutic reasoning. *American Journal of Pharmaceutical Education*. 2019 (in press) doi:10.5688/ajpe7212.

McLaughlin JE, Wolcott M, Hubbard D, Umstead K, and Rider TR. A qualitative review of the design thinking framework in health professions education. *BMC Medical Education*. 2019; (1): 98-106. doi:10.1186/s12909-019-1528-8.

Rhodes LA, Marciniak MW, **McLaughlin JE,** Melendez CR, Leadon KI, Pinelli NR. Exploratory analysis of entrustable professional activities as a performance measure during early practice experiences in a doctor of pharmacy program. *American Journal of Pharmaceutical Education*. 2019; 83 (2). doi: 10.5688/ajpe6517.

Olsen AA. Strategies to effectively implement self-assessment techniques. *Currents in Pharmacy Teaching and Learning*. 2019 (in press). doi:10.1016/j.cptl.2019.02.029.

Wolcott MD, Lobczowski N, Lyons K, McLaughlin JE. Design-based research: An iterative and practical approach in pharmacy educational intervention research. *Currents in Pharmacy Teaching and Learning*. 2019; 11(3): 309-318. doi:10.1016/j.cptl.2018.12.002.

Bates JS, Auten J, Sketch MR, Patel T, Clark SM, Morgan KP, Muluneh B, **McLaughlin JE,** Pinelli NR, Foster MC, Amerine L. Patient engagement in first cycle comprehensive chemotherapy consultation pharmacist services and impact on patient activation. *Journal of Oncology Pharmacy Practice*. 2019 June;25(4):896-902. doi: 10.1177/1078155219832644.

Zeeman JM, Kang I, **Angelo TA.** Assessing student academic time use: Assumptions, predictions and realities. *Medical Education*. 2018. doi: 10.1111/medu.13761.

Frick A, Benton C, Suzuki O, Dong O, Howard R, El-Sabae H, Wiltshire T. Implementing clinical pharmacogenomics in the classroom: student pharmacist impressions of an educational intervention including personal genotyping. *Pharmacy*. 2018 Dec; 6(4): 115. doi:10.3390/pharmacy6040115.

McLaughlin JE, Bush AA, Rodgers PT, Scott MA, Zomorodi M, Roth MT. Characteristics of high performing interprofessional teams involving student pharmacists. *American Journal of Pharmaceutical Education*. 2018 (in press). doi: 10.5688/ajpe7095.

Tester CS, **Wolcott MD**. Describing education management and perceptions in health-system pharmacy. *Journal of American College of Clinical Pharmacy*. 2018 (in press). doi: 10.1002/jac5.1045.

DeAngelis JT, **Wolcott MD**. Defining preceptorship: A job analysis to describe the role of the pharmacy preceptor. *American Journal of Pharmaceutical Education*. 2018 (in press). doi:10.5688/ajpe7196.

McLaughlin JE, Lupton-Smith C, Wolcott MD. Text mining as a method for examining the alignment between educational outcomes and workforce needs. *Education in the Health Professions*. 2018; 1 (2): 55-60. doi:10.4103/EHP.EHP_25_18.

Other Publications

Lyons K, Minshew LM, McLaughlin JE. Response to Student and School-level Predictors of Pharmacy Residency Attainment. *American Journal of Pharmaceutical Education*. 2018 October;82(8):7320.

McLaughlin JE. Flipped classrooms, by design. Invited commentary to *Medical Education*. 52(9), 887-888.

Presentations

Frick A. Pharmacogenomics for the pharmacy practitioner. CE presentation at the North Carolina Association of Pharmacists Chronic Care and Health System Conference; February 28, 2019; Chapel Hill, NC.

Wolcott MD, Lobczowski NG. They Snooze, We Lose: Strategies to Motivate Learners. CE Presentation at: American Society of Health-Systems Pharmacists (ASHP) Midyear Meeting; December 2-6, 2018; Anaheim, CA.

Wolcott MD, Lobczowski NG. Breathe In, Breathe Out: How to Manage Emotions in the Workplace. CE Presentation at: American Society of Health-Systems Pharmacists (ASHP) Midyear Meeting; December 2-6, 2018; Anaheim, CA.

Lyons K, Lobczowski N, Greene JA, McLaughlin JE. Exploring differences between students' motivation processes in collaborative learning in H. Jarvenoja (Chair), Processes matter? Exploring the role of motivation and emotions in the process of learning. Symposium presentation at the International Conference on Motivation of the European Association for Research on Learning and Instruction (EARLI); August 16, 2018; Aarhus, Denmark.

Lyons, K, Lobczowski N, Green JA, McLaughlin J. Exploring differences between students' motivation processes in collaborative learning. In H. Jarvenoja (Chair), Processes matter? Exploring the role of motivation and emotions in the process of learning. Podium presentation at the International Conference on Motivation of the European Association for Research on Learning and Instruction (EARLI); August 2018; Aarhus University, Denmark.

Costelloe M, Brock T, Mak V, Steeb D, Whittelsea C, **Lyons K.** Special session: Emphasizing the 'LAB' in Collaboration—Demonstrating How to Work Together Scientifically Across Cultures. Podium presentation at the American Association of Colleges of Pharmacy (AACP) Meeting; July 23, 2018; Boston, MA.

Lyons K, Brock T, Hubal R, MacDougall C. Special Session: Better, cheaper, faster, easier: The story of four educational technology innovations in pharmacy education. Podium presentation at the American Association of Colleges of Pharmacy (AACP) Meeting; July 22, 2018; Boston, MA.

Wolcott MD, Lyons K. Taking your SoTL to the next level: Design-based research. Podium presentation at: American Association of Colleges of Pharmacy (AACP) Meeting; July 21-25, 2018; Boston, MA.

Zeeman J, Medina M, Castleberry A, Franks A, **McLaughlin JE.** Expanding your assessment toolkit: Selection, identification, and evaluation of social, behavioral, and professional competency assessment. Podium presentation at the American Association of Colleges of Pharmacy Annual Meeting; July 2018; Boston, MA.

Alston G, Nguyen M, Cox WC, **McLaughlin JE.** Evidence-based admissions: the search for the best applicants. Podium presentation at American Association of Colleges of Pharmacy Annual Meeting; July, 2018; Boston, MA.

McLaughlin JE, Bush AA, Romanelli F, Persky AM. Winner takes all: Debating the merits of quantitative and qualitative research. Podium presentation at the American Association of Colleges of Pharmacy Annual Meeting; July 2018; Boston, MA.

Zeeman J, Medina M, Castleberry A, Franks A, **McLaughlin JE.** Expanding your assessment toolkit: Selection, identification, and evaluation of social, behavioral, and professional competency assessment. Podium presentation at the American Association of Colleges of Pharmacy Annual Meeting; July 2018; Boston, MA.

Alston G, Nguyen M, Cox WC, **McLaughlin JE.** Evidence-based admissions: the search for the best applicants. Podium presentation at American Association of Colleges of Pharmacy Annual Meeting; July 2018; Boston, MA.

Posters

Olsen AA, Hingtgen SD, **Greene JM,** **McLaughlin JE.** Exploring the feasibility of flipping a PhD course with the same materials designed for a PharmD Course. Poster presented at the North Carolina State University Postdoctoral Research Symposium; May 2019; Raleigh, NC

Olsen AA, Hingtgen SD, Greene JM, McLaughlin JE. Implementing flipped classroom materials developed for a professional program (PharmD) in a PhD course. Poster presented at PharmAlliance Annual Meeting; February 2019; Melbourne, Australia.

Ma C, Hubard R, Kazim T, **McLaughlin JE.** Case element analysis for automated generation of cases in pharmacy education. Poster presented at the American Society of Health-System Pharmacists Midyear Meeting; December 2018; Anaheim, CA.

Bobbitt L, McLaughlin J. Pay to play: The cost of the pre-pharmacy curriculum. Poster presented at the North Carolina Association of Pharmacists Annual Meeting; September 26, 2018; Winston-Salem, NC.

Kim C, Dong O, Howard R, Benton C, Dupuis R, Wiltshire T, **Frick A.** Impact of a pharmacogenomics educational intervention utilizing a next-generation sequencing platform on future pharmacists. Poster presented at North Carolina Association of Pharmacists Annual Convention; September 2018; Winston-Salem, NC.

Rubin D, Dong O, Howard H, Suzuki O, Benton C, Wiltshire T, **Frick A.** Advancing precision medicine: improving attitudes and confidence in pharmacogenomics with educational programming and personalized genotyping. Poster presented at North Carolina Association of Pharmacists Annual Convention; September 2018; Winston-Salem, NC.

Lyons K, Lobczowski N, Green JA, McLaughlin JE. Exploring differences between students' motivation processes in collaborative learning. In H. Jarvenoja (Chair), Processes matter? Exploring the role of motivation and emotions in the process of learning. Poster presented at the International Conference on Motivation of the European Association for Research on Learning and Instruction (EARLI); August, 2018; Aarhus University, Denmark.

Wolcott MD, Zeeman JM, Cox WC, McLaughlin JE. The multiple mini interview as an assessment strategy within the first year of a PharmD curriculum. Poster presented at: American Association of Colleges of Pharmacy 2018 Annual Meeting; July 21-25, 2018; Boston, MA.

Wolcott MD, Greene JM. Not so flawless: The impact of item writing flaws in multiple choice examinations. Poster presented at: American Association of Colleges of Pharmacy 2018 Annual Meeting; July 21-25, 2018; Boston, MA.

McLaughlin JE, Bush A, Anderson J, Corbat J, and Lai S. Immersive pharmaceutical sciences research training for high school students through the Young Innovators Program. Poster presented at American Association of Colleges of Pharmacy Annual Meeting; July 2018; Boston, MA.

Patel A, **McLaughlin JE, Zhang K, Bush A, Jackson A, and Lewis K.** Training, confidence, and career goals in underrepresented minority students. Poster presented at American Association of Colleges of Pharmacy Annual Meeting; July 2018; Boston, MA.

Frick A, Harris SC, Anksorus HN, Williams C, Osa L, Rodgers P. Implementing Mental Health First Aid training into the Doctor of Pharmacy curriculum. Poster presented at American Association of Colleges of Pharmacy Annual Meeting; July 2018; Boston, MA.

Invited talks - External

McLaughlin JE. (May, 2019). Beginner's guide to the scholarship of teaching and learning. Invited talk to University of British Columbia Faculty of Pharmaceutical Sciences, Vancouver, Canada.

Hatton Kolpek J, **McLaughlin JE**, Cochran G, Baker WL, Moga D, Snyder ME. Statistical issues & Regulatory and ethical issues. Invited talk at: American College of Clinical Pharmacists, Research and Scholarship Academy Midyear Meeting; April, 2019; St Louis, MO.

McLaughlin JE. Evidence-based curriculum design in pharmacy education. Invited talk at: Pacific University School of Pharmacy; March, 2019; Hillsboro, OR.

McLaughlin JE. Evidence-based course design: Rethinking pedagogy in pharmacy education. Invited talk at: University of Houston College of Pharmacy, Department of Pharmacy Practice and Translational Research; February, 2019; Houston, TX.

Wolcott MD, Lobczowski NG. Breathe In, Breathe Out: How to Manage Emotions in your Workplace. Invited talk at: Carolina Donor Services; October, 2018; Durham, NC.

Hatton Kolpek J, **McLaughlin JE**, Cochran G, Kane-Gill S. Research primer (educational research in clinical pharmacy) & Research basics. Invited talk at: American College of Clinical Pharmacists, Research and Scholarship Academy; October, 2018; Seattle, WA.

McLaughlin JE. Training students for expertise: Research-based strategies. Invited talk at: North Carolina State University College of Veterinary Medicine; September, 2018; Raleigh, NC.

Wolcott MD. Managing your digital footprint. Invited talk at: North Carolina Association of Pharmacists (NCAP) Annual Convention; September 21-22, 2018; Winston Salem, NC.

McLaughlin JE. Innovation in academy. Invited talk at: International Pharmaceutical Federation Annual Congress; September, 2018; Glasgow, Scotland.

Invited talks - Internal

Minshew LM. Teamwork Team Contracts. Invited talk at: Integrative Pharmacotherapy course, UNC School of Pharmacy; January, 2019; Chapel Hill, NC.

McLaughlin JE, Lyons K, and Wolcott M. Teaching adult learners. Invited talk at: UNC School of Medicine Academic Medicine Rotation, UNC School of Medicine; November, 2018; Chapel Hill, NC.

Grants

Olsen AA. Co-PI, Collaboration in Graduate Student Professional Development and Training (Co-PI with Phillips, A.), PharmAlliance. December 1, 2018 - December 1, 2019. Total funding \$21,000.

McLaughlin JE, Asbill C, Cain J, Minshew L. American Association of Colleges of Pharmacy, Cognitive Apprenticeship in Pharmacy Education. June 1, 2019 – May 31, 2020. Total funding \$4,000.

Awards/Honors

Wolcott MD. 2018, AACP Best Graduate Student Poster, American Association of Colleges of Pharmacy.