Department of Pharmacy Practice School of Pharmacy North Dakota State University

Summary of Individual Faculty Research/Scholarship 2021-2022

Sydney Armbrust, PharmD, BCPS



Assistant Professor of Practice, Department of Pharmacy Practice Inpatient Clinical Pharmacist, Essentia Health

Sudro Hall 118B; Sydney.Armbrust@ndsu.edu

Recent Publications

• **Johnk S**, Grindeland C, Leedahl D, Carson P, Leedahl N. Impact of a multicenter stewardshiptargeted carbapenem justification requirement on the use of carbapenems in 23 hospitals. *J Am Coll Clin Pharm.* 2019; 2:53–57.

Research Funding:

Current Projects / Collaborations

Implementation of a pharmacy-driven COVID vaccination program in an inpatient setting. (Monson)

Research Keywords:

Carbapenems, Antimicrobial Stewardship, Drug Utilization

Rebecca Brynjulson, PharmD, BCACP



Director, Introductory Pharmacy Practice Experiences Assistant Professor of Practice

Sudro Hall 20B; (701) 231-7477; rebecca.brynjulson@ndsu.edu

Recent Publications

- Strand, M., Miller, D., & **Focken, R.** Assessing public health knowledge and perceptions of pharmacy students before and after completion of didactic and experiential public health coursework. *Currents in Pharmacy Teaching and Learning. 2016;* 8(1). Published online September 29, 2015. doi: http://dx.doi.org/10.1016/j.cptl.2015.09.013
- Eukel, H., Frenzel, J., Skoy, E., **Focken, R.**, & Fitz, A. An introductory pharmacy practice experience using simulated patient care activities in a pharmaceutical care laboratory environment. *Currents in Pharmacy Teaching and Learning.* 2014;6(5). doi: http://dx.doi.org/10.1016/j.cptl.2014.05.007

Research Funding:

Focken, R, Naughton, C, Oetken, H, Stromback, C. National Association of Community Drug Stores (NACDS) Foundation Million Hearts Grant, \$1000.00, for the project titled "Public Health Impact of community-based cardiovascular risk screenings conducted by pharmacy students." January 2013.

Current Projects / Collaborations

- Frenzel J., Eukel H., & Brynjulson R. Impact of an Active Learning Continuing Education Session focused on Medication Errors and Continuous Quality Improvement.
- Connor S., Beliard R., Brynjulson R., Covvey J., Forrister D., Golchin N., Jounkman L., Kauffman Y., Klein-Fedyshin M., & Park S. Assessment methods in global health courses: a systematic review.
- Petry N., Brynjulson R., & Patnaude L. Integration of Pharmacotherapy Case into Pharmacy Practice Improvement and Project Management Course.

Research Keywords:

Introductory pharmacy practice experiences (IPPE); Experiential education; Public health; Problem solving; Capstone

Dan Cernusca, PhD



Assistant Professor of Practice & Instructional Designer

Sudro Hall 118P; (701) 231-7729; Dan.Cernusca@ndsu.edu

Recent Publications

Frenzel, J., **Cernusca, D.,** Eukel, H., Marg, C., & Schotters, B, (2020). Design Based Research: Studying the Effect of an Escape Room on Students' Knowledge and Perceptions. *Journal of the American College of Clinical Pharmacy*, 1-7, https://doi.org/ 10.1002/jac5.1290

Cernusca, D., Strand, M. & Petry, N. (2020). Exploratory Steps to Stimulate a Deep Learning Micro-Culture. Introducing Concept Mapping Strategies into a Pharmacy Curriculum. *2020 AECT Virtual International Convention, 43rd Annual AECT Proceedings*, Nov. 2-7, Vol.1, 69-77.

Cernusca, D. & Mallik, S. (2020). Disrupting Students' Learning Micro-Culture in a Graduate Pharmaceutics Course: Perceived Impact of Deep Learning Strategies on Self-Efficacy. 2020 AECT Virtual International Convention, 43rd Annual AECT Proceedings, Nov. 2-7, Virtual, Vol.1, 60-68

Research Funding:

Enriching the Undergraduate Experience through Personalized Learning and Mentoring (4/1/2018 - 03/31/2022); Sponsor: NSF; Total award: \$649,962

Role: Co-PI, Provide oversight and guidance on all educational aspects;

Center for Diagnostic and Therapeutic Strategies in Pancreatic Cancer (03/01/2016 – 02/28/2022); Sponsor: NIH; Total award: \$9,721,617

Role: Assessment of the junior PI mentoring programs.

Current Projects / Collaborations

Active Learning Strategies and their Transfer Across Instructional Modes (2018 – 2021)

Collaborator: Sanku Mallik, NDSU

Effective Instructional Strategies for the iGeneration (2019- 12/2021)

Collaborators: Rebekah Oliver, Heidi Eukel, NDSU

Research Keywords:

Professional Development, Graduate, Pharmacy, Professional education.

Mark Dewey, PharmD, BCGP, FASCP



Associate Professor of Practice

Consultant Pharmacist/ Lake Region Healthcare & Consultant Pharmacist Inc.

Sudro Hall 118Q; (218) 736-8057 (LRH); Mark.Dewey@ndsu.edu

Recent Publications

- 2019 Witt, J., Dewey, M., Freisner, D., Marvanova, M. "Medication Regimen Review on Discharge from Skilled Nursing Facility to Independent Living". American Society Of Consultant Pharmacy. Grapevine, TX.
- 2019 Reedstrom, K., Dewey, M., Friesner, D. "Formation of a Controlled Substance Care Team (CSCT) and its impact on identifying and treating those at high-risk for opioid overdose in patients with or at risk for opioid use disorder". American College of Clinical Pharmacy Virtual Poster Symposium.
- 2018 Thompson, J., Dewey, M., Freisner, D., Marvanova, M. "Pharmacists Conducted Medication Regimen Review for patients Returning to Independent Living Following Skilled Nursing Facility Stay". American Society Of Consultant Pharmacy. National Harbor, MD.
- 2017 Horne Dunn, B., Dewey, M., Goedker, A, Friesner, D. "Pharmacist Conducted Patient Education and Discharge Follow-up in a Rural Hospital Setting". Poster at American Society of Health-System Pharmacists Midyear Clinical Meeting: Orlando, FL.
- 2017 Dammer, T., Kelsch, M., Dewey, M. "Evaluation of Fluoroquinolone Use in a Long Term Care Facility". Poster at American Society of Health-System Pharmacists Midyear Clinical Meeting: Orlando, FL.

esearch Funding:

2017-2019: Return to Community Initiative Grant for MTM to patients that are returning home after a skilled nursing visit.

2007- present: Medication Therapy Management Program Grant through Lake Region Healthcare from Land of the Dancing Sky Agency on Aging 2013-2016 Minnesota Department of Human Services Community Service/Community Services Development Grants program for MTM via in-home or Telepharmacy presence at Lake Region Healthcare

2011 Lake Region Foundation Grant for Medication Therapy Management Services at the Transition of Care from LRH Foundation

urrent Projects /Collaborations

Expanding the Role of a Clinical Pharmacist on a Multidisciplinary Controlled Substance Care Team Managing Chronic Pain and Opioid Use. DeeAnna Hanson, Pharm.D. & Dan Friesner, Ph.D.

Heidi Eukel, PharmD



Professor

Sudro Hall 118G; (701) 231-7602; heidi.eukel@ndsu.edu

Recent Publications

- Eukel H, Morrell B, Holmes S, Kelsch M. Managing Difficult Patient Encounters: Simulation Design, Findings, and Call to Action. American Journal of Pharmaceutical Education. Accepted for publication. Published online January 2021.
- Werremeyer A, Mosher S, **Eukel H**, Skoy E, Steig J, Frenzel O, Strand MA. Pharmacists' Stigma Toward Patients Engaged in Opioid Misuse: When 'Social Distance' Does Not Mean Disease Prevention. Substance Abuse. Published online March 22, 2021.
- Skoy E, Werremeyer A, **Eukel H**, Frenzel O, Steig J, Strand M. Patient Acceptance of Naloxone Resulting from Targeted Intervention from Community Pharmacists to Prevent Opioid Misuse and Accidental Overdose. Journal of the American Pharmacists Association. Accepted, August 2020.
- Eukel H, Morrell B. Ensuring Educational Escape Room Success: The Process of Designing, Piloting, Evaluating, Redesigning, and Re-Evaluating Educational Escape Rooms. Simulation and Gaming. 2021: 52 (2) 18-23.
- Eukel H, Steig J, Frenzel O, Skoy E, Werremeyer A, Strand M. Opioid Misuse and Overdose: Changes in Pharmacist Practices and Outcomes. Journal of Continuing Education in Health Professions. 2020: 40(4): 242-247.
- Eukel H, Frenzel J, Frazier K, Miller M. Unlocking Student Engagement: Creations, Adaptation, and Application of an Educational Escape Room Across Three Pharmacy Campuses. Simulation and Gaming. Accepted, available online. January, 2020.
- Skoy E, **Eukel H**, Werremeyer A, Strand M, Frenzel O, Steig, J. Implementation of a Statewide Program within Community Pharmacies to Prevent Opioid Misuse and Accidental Overdose. Journal of the American Pharmacists Association. 2020: 60(1) 117-121.

Research Funding:

- Skoy E, Eukel H, Maack B, Strand M, Werremeyer A. Center for Collaboration and Advancement in Pharmacy. Alex Stern Family Foundation. October 2020 September 2023. \$5,000
- Eukel H, Strand M, Skoy E, Steig J, Werremeyer A. Community and Clinical Collaboration for Opioid Misuse and Overdose Prevention. North Dakota Department of Human Services. October 2020 September 2021. \$283,935
- Eukel H, Strand M. Public Health Nursing Supporting Safe Opioid Use through ONE Rx \$15,000
- Eukel H, Halvorson D. Expanding the Role of the Pharmacy Technician: Tech-Check-Tech. Northland Association of Pharmacy Technicians. June 2019 April 2020. \$7,200
- Strand M, Eukel H, Werremeyer A, Skoy E, Steig J. Primary prevention of opioid misuse and accidental overdose across North Dakota. North Dakota Department of Human Services. September 2019 August 2020.
 \$221.887
- Eukel H, Strand M, Werremeyer A, Skoy E, Steig J. Opioid Misuse and Overdose Risk Prevention Expansion. North Dakota Department of Human Services. January 2019 September 2019. \$141,000

Current Projects / Collaborations

Escape Room Education Gaming: 1. University of Indianapolis 2. Community Hospital North; Indianapolis, IN Opioid Misuse and Overdose Prevention: community pharmacy, public health nursing

Research Keywords:

skills laboratory; Simulation; teaching innovation; communication; primary prevention, opioid misuse, opioid overdose

Jeanne Frenzel, PharmD, PhD, RPh



Professor (tenured)

Sudro Hall 118F; (701) 231-8546; Jeanne.Frenzel@ndsu.edu

Recent Publications

- Frenzel J, Richter L, Hurman A, Viets J. Assessment of preceptor understanding and use of levels of entrustment. Currents in Pharmacy Teaching and Learning. Volume 13, Issue 9.
- Frenzel J, Porter A. Preparing graduates for telepharmacy and telehealth: The need for tele-education. American Journal of Pharmaceutical Education. 2021; 85(3): 8566.
- Frenzel J, Brandon Nuziale B, Bradley C, Ballou J, Begley K, Donohoe K, Riley B. A Modified Delphi to Define Essential Skills for Pharmacy Graduates. American Journal of Pharmaceutical Education. 2021;85(2).
- Richter LM, Frenzel JE. Design and assessment of a preceptor development escape room. American Journal of Pharmaceutical Education. 2020; 84(7): 8073.
- Brazeau GA, Frenzel JE, Prescott WA. Facilitating wellbeing in a turbulent time. American Journal of Pharmaceutical Education. 2020; 84(6).
- Frenzel J, Cernusca D, Marg C, Schotters B, Eukel HN. Design-based research: Studying the effects of an escape room on students' knowledge and perceptions. Journal of the American College of Clinical Pharmacy. 2020;3:1326-1332.
- Frenzel J. Exploration of the entrepreneurial orientation and trait emotional intelligence in practicing pharmacists. Journal of the American Pharmacists Association. Online 26 Feb 2020.
- Frenzel J, Eukel H, Brynjulson R. A novel continuing professional education simulation for pharmacists and pharmacy technicians focused on medication errors and patient safety. INNOVATIONS in pharmacy. 2020; 11(1): Article 7.
- Kavanaugh R, Lamberton N, George S, Eukel H, Frenzel J, Cernusca D. Learning impact of a diabetes-themed escape room in an accelerated pharmacy program: A transferability study. Currents in Pharmacy Teaching and Learning. 2020; 12(6).
- Eukel H, Frenzel J, Frazier K, Miller M. Unlocking Student Engagement: Creation, adaptation, and application of a diabetes-themed educational escape room across three pharmacy campuses. Simulation & Gaming. 2020; 51(2): 167-179.

Research Funding:

- Frenzel J. Scholarship of Teaching and Learning Grant (Co-PI); 2019. \$3460.00
- Frenzel J. National Association of Boards of Pharmacy/AACP District 5 Individual Study Grant (PI); 2018. \$3000.00

Current Projects / Collaborations

- Frenzel J, Porter A. Use of telepharmacy technology to prepare pharmacy students to deliver health care to distant populations.
- Vogler C, Knockel L, VanLangen K, Frenzel J. Development of a longitudinal skills blueprint for pharmacy education.

Research Keywords:

Allison Hursman, PharmD, BCGP



Assistant Professor of Practice, Pharmacy Practice Department, NDSU Ambulatory Care Clinical Pharmacist, Essentia Health

Sudro Hall 118S; (701) 231-8216

Recent Publications

- Frenzel J, Richter L, **Hursman A**, Viets J. "Assessment of preceptor understanding and use of levels of entrustment." Currents in Pharmacy Teaching and Learning. 2021. ISSN 1877-1297. https://doi.org/10.1016/j.cptl.2021.06.034.
- Richter L, **Hursman A**, Tupper, E. "Assessing the effectiveness of a pharmacist and student pharmacist leadership workshop on self-perceived leadership ability." Poster session presented at: Pharmacy Education conference of the American Association of Colleges of Pharmacy; 2019 July 13-17; Chicago, IL.

Research Funding:

NA

Current Projects / Collaborations

ND Am Care Collaborative (Maack, Petry, Slevin)

Virtual Escape Room in Interprofessional Education (Frenzel, Richter, Viets, Monson)

Impact of Simulation on Pharmacy Students Interprofessional Skills/Attitudes (Kelsch, Brynjulson, Werremeyer, Eukel)

Bracketology in Educational Setting (Petry, Brynjulson, Miller, Werremeyer, Monson, Viets, Richter, Frenzel)

The Dakota Geriatric Workforce Enhancement Program (Interprofessional workgroup with University of North Dakota)

Assessment of Interprofessional Healthcare Practice (CHP 400) Course (Scott, Friesner, Viets, Naughton)

Research Keywords:

Medication Therapy Management; Leadership; Levels of Entrustment; Bracketology; Interprofessional Education; Virtual Escape Room;

Michael Kelsch, PharmD, BCPS



Interim Associate Dean for Academic Affairs (SOP); Professor of Practice, Department of Pharmacy Practice

Sudro Hall 123D; (701) 231-6528; Michael.Kelsch@ndsu.edu

Recent Publications

- Eukel H, Morrell B, Holmes S, **Kelsch MP**. Managing Difficult Patient Encounters: Simulation Design, Findings, and Call to Action. American Journal of Pharmaceutical Education. Jan 2021, 8327.
- Scott DM, **Kelsch MP**, Zhang A, Friesner DL. Appraisal of the Entrustable Professional Activities Interprofessional Team Member Domain Performed by North Dakota Pharmacists. Pharmacy Practice 2021 Jan-Mar;19(1):2179.
- Scott DM, **Kelsch MP**, Zhang A, Friesner DL. Evaluation of the Entrustable Professional Activities (EPAs) Population Health Provider Domain by North Dakota Pharmacists. Pharmacy Practice 2020 Jul-Sep;18(3):1980.
- Skoy E, **Kelsch MP**, Hall K, Choi BJ, Carson PJ. Increasing Adult Immunization Rates in a Rural State through Targeted Pharmacist Education. Journal of the American Pharmacists Association. April 27, 2020.
- **Kelsch MP**. Skin and Soft Tissue Infection I (Book Chapter) in Infectious Diseases: A Case-Study Approach (First Edition). McGraw-Hill (and online on Access Pharmacy). April 2020.
- Scott DM, **Kelsch MP**, Hanel M, Friesner DL. Appraisal of the Entrustable Professional Activities (EPAs) Patient Care Provider Domain by North Dakota Pharmacists. Pharmacy Practice 2019 Oct-Dec;17(4):1607.

Research Funding

• Increasing North Dakota's Adults Immunization Rates, July 1, 2017 – June 30, 2018; \$9,993; Co-investigator; North Dakota Department of Health

Current Projects / Collaborations

• **Kelsch MP**, Brynjulson R, Hursman A, Werremeyer A, Eukel HN. Impact of an Emergency Center Simulation on Pharmacy Students' Interprofessional Skills and Attitudes

Research Keywords

Interprofessional Education; Simulation; Course Timing; Health Sciences Reasoning Test; Poster Presentations; Interrater Reliability; Interviews; Current Events; Peer Teaching; Chronic MRSA Infections; Immunizations; Entrustable Professional Activities; Skin Infections; Antimicrobial Hypersensitivity Reconciliation; Fluoroquinolone Use; Population Health; Difficult Patient Encounters

Daniel Kenzie, PhD



Assistant Professor of Practice, Pharmacy Practice Department, NDSU

Sudro Hall 118J; (701) 231-5162; daniel.p.kenzie@ndsu.edu

Recent Publications

- Arnó-Macià E, McCall MA, **Kenzie DP**, Isohella S, Maylath B. Designing telecollaborative projects for professional communication and user experience. Journal of Universal Computer Science. 2021;27(5):450-471.
- Sills E, **Kenzie DP**. Critical science literacy in the writing classroom: A pedagogy for post-truth times. In Carillo E, Horning A, eds. *Teaching Critical Reading and Writing in the Era of Fake News*. Peter Lang; 2020:113-128.
- **Kenzie DP**. Review of *Disabled Upon Arrival* by Jay Dolmage, *Authoring Autism* by Melanie Yergeau, and *Fables and Futures* by George Estreich. Present Tense: A Journal of Rhetoric in Society. 2020;8(2).
- **Kenzie DP**, McCall MA. Teaching writing for the health professions: disciplinary intersections and pedagogical practice. Technical Communication Quarterly. 2018;27(1):64-79.
- Sánchez F, **Kenzie DP**. Of evolutions and mutations: assessment as tactics for action in WAC partnerships. The WAC Journal. 2016:27:119-141.

Research Funding:

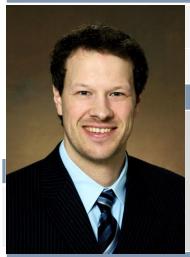
Current Projects / Collaborations

- Patient discourse about vaccine hesitancy
- Researcher discourse about clinical trail failure for traumatic brain injury
- · Reflective writing

Research Keywords:

Professional & Technical Writing, Writing in the Disciplines, Rhetoric of Health & Medicine, Disability Studies

Brody Maack, PharmD, BCACP, CTTS



Associate Professor of Practice/Ambulatory Care Clinical Pharmacist

Sudro Hall 118L; (701) 231-9781; brody.maack@ndsu.edu

Recent Publications

- Buettner-Schmidt K, Miller D, **Maack B**. Disparities in Rural Tobacco Use, Smoke-free Policies, and Tobacco Taxes. West J Nurs Res. 2019;41(8):1184-1202. doi: 10.1177/0193945919828061.
- Buettner-Schmidt K, Maack B, Larson M, Orr M, Miller D, Mills K. Systems Change to Improve Tobacco Use identification and Referral in the Chiropractic Setting: A Pilot Study. Chiropractic & Manual Therapies. 2018 Nov 26;26:45. doi: 10.1186/s12998-018-0214-y.
- Maack B, Willborn R. Description of Tobacco Use and Cessation among Bhutanese Refugees Participating in a Tobacco Cessation Program. Ethn Health. 2017 Jan 21: 1-13. doi: 10.1080/13557858.2017.1280134. [Epub ahead of print].

Recent Research Funding:

- North Dakota Pharmacists Service Enhancement Project: \$15,168 (PI)
 - ND Pharmacy Service Corporation grant
- 2021-2022 ND Quits Cessation Grant Program: \$28,159 (PI)
 - ND Department of Health grant administered at Family HealthCare
- Collaborative Tobacco Prevention and Control Activities 2020-2021: \$223,874 (Co-PI)
 - ND Department of Health grant

Current Projects / Collaborations

- North Dakota Pharmacy Service Enhancement Project: In collaboration with CAP Center, Drs. Allison Hursman, Natasha Petry
- Tobacco Systems Change (within ND pharmacies): In collaboration with CAP Center, Drs. Kelly Buettner-Schmidt (PI), Don Miller, Megan Orr, and several NDSU student research assistants.
- Atherosclerotic Cardiovascular Disease (ASCVD) Risk Review Service implementation project: With assistance from NDSU advanced practice pharmacy experience (APPE) students at Family HealthCare.
- Hepatitis C Care Cascade: In collaboration with Amber Slevin (PI), Mark Strand, and several NDSU health professions students and local medical providers.

Research Keywords:

Diabetes; Depression; Tobacco; Medication management; Implementation; Reimbursement; Innovation

Donald R. Miller, PharmD, FASHP



Professor (tenured), Department of Pharmacy Practice

Sudro Hall 118R; (701) 231-7941; Donald.R.Miller@ndsu.edu

Recent Publications

- Buettner-Schmidt K, **Miller D,** Orr M, Rykal K, Swanson K, Berry M. Compliance with North Dakota's smoke-free law among vape and tobacco specialty shops. Public Health Nursing 2021;00, 1–6. https://doi.org/10.1111/phn.12916
- Buettner-Schmidt K, Miller DR, Orr M, Balasubramanian N, Rykal K, Steward KF, Swanson K, Berry M. Electronic cigarette refill liquids: Nicotine content, presence of child-resistant packaging, and in-shop compounding. <u>J Ped Nursing</u> 2021;59:45-54 <u>Electronic cigarette refill liquids: Nicotine content, presence of child-resistant packaging, and in-shop compounding ScienceDirect
 </u>
- Miller DR, Buettner-Schmidt K, Orr M, Mills K, Niewojna E. A Systematic review of refillable E-Liquid nicotine content accuracy. <u>J Am Pharm Assoc</u> 2021;61(1):20-26. <u>A systematic review of refillable e-liquid nicotine content accuracy Journal of the American Pharmacists Association</u> (japha.org)
- Buettner-Schmidt K, **Miller DR**, Maack B. Disparities in rural tobacco use, smoke-free policies, and tobacco taxes. <u>Western Journal of Nursing Research</u> 2019 https://journals.sagepub.com/doi/10.1177/0193945919828061.
- Miller DR, Jangula S. Confirmation bias as a factor in pharmacy student assessment of research study quality. <u>Am J Pharm Ed</u> 2019;83(5):article 6754 https://www.ajpe.org/content/83/5/6754

Research Funding:

\$170,352 North Dakota Department of Health. NDDoH G19.276 Collaborative tobacco prevention and control activities and study. Co-investigator (Kelly Buettner-Schmidt PI).

\$164,657 North Dakota Department of Health. NDDoH # PF17.225. Vape Stores and ENDS Refills: A Follow Up Study. Co-investigator (Kelly Buettner-Schmidt PI).

Current Projects / Collaborations

Vaping and Tobacco Systems Change for Effective Cessation. With Kelly Buettner-Schmidt (Nursing), Brody Maack (Pharmacy Practice), Megan Orr (Statistics). Tech-check-tech Implementation in North Dakota Pharmacies. With Heidi Eukel (Pharmacy Practice), Diane Halvorson and Melissa Gilbraith (NDPhA).

Research Keywords:

Tobacco use cessation; Public health; Pharmacy, Rheumatology

Elizabeth Olafson Monson, PharmD



Assistant Professor of Practice, Department of Pharmacy Practice Inpatient Clinical Pharmacist, Essentia Health

Sudro Hall 118B; Elizabeth.monson@ndsu.edu

Recent Publications

- Degrote J, Olafson E, Drofa A, Kouznetsov E, Manchak M, Leedahl N, Leedahl D. Ticagrelor and acetylsalicylic acid after placement of pipeline embolization device for cerebral aneurysm: a case series. Can J Hosp Pharm. 2018; 71(6):349-355.
- Olafson E, DeGrote J, Drofa A, Kouznetsov E, Manchak M, Leedahl N, Leedahl D. A case series of 18 patients receiving ticagrelor after carotid stenting. *J of Pharm Pract.* 2018;(5):519-521.

Research Funding:

Current Projects / Collaborations

Design and Assessment of a Pharmacy Student Led Preceptor Development Program (Richter, Bye, Frenzel) Impact of an Online Interprofessional Escape Room (Hursman, Viets, Frenzel, Richter)

Bracketology in Educational Setting (Hursman, Petry, Brynjulson, Miller, Werremeyer, Viets, Richter, Frenzel)

Enzmann, M, Richman W, Gumpleton, R, **Olafson E.** Comparison of bleed risk in regimens containing ticagrelor and anticoagulation versus regimens containing clopidogrel and anticoagulation.

Richman W, Olafson E. Safety and efficacy of abciximab versus eptifibatide in neurointerventional procedures

Research Keywords:

Antiplatelet agent; Ticagrelor; Dual antiplatelet therapy; Neurointervention.

Julia D. Muzzy Williamson, PharmD, CNSC, BCPPS



Assistant Professor of Pharmacy Practice & Pediatric Clinical Pharmacist-Sanford Health Fargo

Sudro Hall 118U; (701) 231-7501; julia.muzzy@ndsu.edu

Recent Publications

- Byerley EM, Mohamed MW, Grindeland CJ, and Muzzy Williamson JD. Neonatal abstinence syndrome practices in the United States. J Pediatr Pharmacol Ther 2021;26(6):XXX-XXX.
- Kamleh M, **Muzzy Williamson JD**, Casas KA, and Mohamed MW. Reduction in newborn screening false positives in extremely low birth weight neonates: a quality improvement project. J Pediatr Pharmacol Ther. *Accepted. December 2020 awaiting publication*.
- Vettleson KL, Larson HJ, Mohamed MW, Grindeland CJ, and **Muzzy Williamson JD.** Micronutrient monitoring and management in PN-dependent premature neonates: A case series. *J Pediatr Pharmacol Ther* 2021;26(2):26(2):200-204.
- Mohamed M, Kamleh M, Groh-Wargo S, **Muzzy Williamson J**, Abu-Shaweesh J. Determinants of osteopenia of prematurity in infants with a birthweight less than 1250 grams: a case-control study. Front. Pediatr. 2020;8:546544. Doi:10.3389/fped.202.546544
- Muzzy Williamson JD, Thurlow B, Mohamed MW, Yokom D, and Casas L. Neonatal hyperglycemia in a preterm infant managed with a subcutaneous insulin pump. American Journal of Health-System Pharmacy. 2020;77(10):739-44

Research Funding:

\$3,000 NDSU internal department grant. Medication Management in Lactation-A Pharmacist Education Pilot Project. (MILK-PHED)

Current Projects / Collaborations

- Medication Management in Lactation-A Pharmacist Education Pilot Project. (MILK-PHED). Collaboration with colleagues from Sanford Medical Center
- Caffeine Use in Preterm Neonates: National Survey. Collaboration with colleagues from Sanford Medical Center
- Vitamin D concentrations in neonates. Collaboration with colleagues from Sanford Medical Center

Research Keywords

Neonatal abstinence syndrome; neonatology; pediatric nutrition; parenteral nutrition

Cynthia A Naughton, PharmD, BCPS



Senior Associate Dean, College of Health Professions Associate Professor, Pharmacy Practice

Dean's Office, Sudro 123D; (701) 231-8487; cynthia.naughton@ndsu.edu

Recent Publications

- Naughton CA. Patient-Centered Communication. Pharmacy 2018, 6(1), 18; doi:10.3390/pharmacy6010018.
- Naughton CA, Schweiger TA, Angelo LB, Bonner CL, Dhing CW, Farley JF. Expanding dress code requirements in the Doctor of Pharmacy program. Am J Pharm Educ. 2016;80(5) Article 74.
- **Naughton CA**, Friesner D. Correlation of P3 PCOA scores with future NAPLEX scores. Currents in Pharmacy Teaching and Learning. 2014;6:877-883.

Research Funding:

- \$1500 Advance FORWARD Leadership Development Grant, ACE North Dakota Regional Leadership Forum, (2013) (PI)
- \$1000 "Public Health Impact of Community-based Cardiovascular Risk Screenings" (Co-PI) National Association of Chain Drug Stores Foundation Million Hearts 2013 Heart to Heart Community Health Fair Grant
- \$4500 NDSU, Faculty Senate Committee, Instructional Development Grant "Interprofessional Education" (2013) (Co-PI)

Current Projects / Collaborations

- Delivering pharmacy education in a study abroad experience (with David Scott, Dan Friesner, Kelly Haugen)
- Impact of interprofessional education on achievement of core competencies for interprofessional collaborative practice.

Research Keywords:

Interprofessional education, pharmacy education and assessment, curricular design, leadership, patient-centered care and communication

Natasha Petry, PharmD, MPH, BCACP



Associate Professor of Practice, Pharmacy Practice Department, NDSU Pharmacogenetics Clinical Pharmacist and Clinical Pharmacogenomics PGY2 Residency Program Director, Sanford Health Imagenetics

Sudro Hall 20D; (701) 231-6554; Natasha.Petry@ndsu.edu

Recent Publications

- Luzum, J.A., Petry, N., Taylor, A.K., Van Driest, S.L., Dunnenberger, H.M. and Cavallari, L.H. (2021), Moving
 Pharmacogenetics into Practice: It's All About the Evidence!. Clinical Pharmacology & Therapeutics. Accepted Author
 Manuscript. https://doi.org/10.1002/cpt.2327
- Stoneberg M, Petry N, Grindeland C, Roemmich M, Massmann A, Baye J and Schultz A, "Developing a Standardized Review Process of Pharmacogenomics Resources for Psychotropic Medications", Current Pharmacogenomics and Personalized Medicine 2021; 18(). https://doi.org/10.2174/1875692118666210603155248.
- Kisor DF, **Petry N**, Bright DR. Pharmacogenomics in the United States Community Pharmacy Setting: The Clopidogrel-CYP2C19 Example. Pharmgenomics Pers Med. 2021;14:569-577
- Baye JF, **Petry N**, Jacobson SL, Moore MM, Tucker B, Shaaban S, Massmann AK, Clark NM, Schultz AJ. Malignant hyperthermia susceptibility: utilization of genetic results in an electronic medical record to increase safety. Pharmacogenomics. 2020 Nov;21(17):1207-1215. doi: 10.2217/pgs-2020-0088. Epub 2020 Oct 29. PMID: 33118445.

Research Funding:

- Co-investigator: RFA-HG-17-008 (PI: J Peterson / site PI: RA Wilke) (07/01/19 06/30/23); NIH/NHGRI Administrative Supplement; A Depression and Opioid Pragmatic Trial (ADOPT-PGx)
- Co-investigator: Improving the Health of Americans through Prevention and Management of Diabetes and Heart Disease and Stroke. The North Dakota Department of Health. July 2020-June 2021.

Current Projects / Collaborations

• Precision Medicine – ADOPT-PGx; Integrated Individualized Intelligent Prescribing and IGNITE-2: Collaborators at Vanderbilt University Medical Center

Research Keywords:

Pharmacogenomics; Precision medicine; Primary health care; Pharmacy education

Lisa Richter, PharmD, BCPS, BCCCP



Director of Experiential Outreach and Assessment
Assistant Professor of Practice, Department of Pharmacy Practice

Sudro Hall 20A; (701) 231-5178; lisa.richter.1@ndsu.edu

Recent Publications

- **Richter LM**, Scott DM, Bektas A, Friesner DL, Peterson CD. Impact of COVID-19 Pandemic on Pharmacy Teaching at a Midwestern University. *Journal of Higher Education Theory and Practice*. Accepted for Publication. 2021
- Frenzel JE, **Richter LM**, Hursman AN, Viets JL. Assessment of preceptor understanding and use of levels of entrustment. *Currents in Pharmacy Teaching and Learning*. Published online June 18, 2021. doi:10.1016/j.cptl.2021.06.034
- Steenhoek RJ, **Richter LM**. An Office of Experiential Education Rotation for APPE Students. *Am J Pharm Educ*. Published online April 23, 2021:8429. doi:10.5688/ajpe8429
- Richter LM, Frenzel JE. Design and Assessment of a Preceptor Development Escape Room. Am J Pharm Educ. 2020. 84(7): 8073.
- McGurran MA, **Richter LM**, Leedahl ND, Leedahl DD. Impact of a comprehensive COPD therapeutic interchange program on 30-day readmission rates in hospitalized patients. *PT*. 2019 Apr;44(4):185-191.
- Grindeland CJ, Mauriello CT, Leedahl DD, **Richter LM**, Meyer AC. Association between updated guideline-based palivizumab administration and RSV hospitalizations: A retrospective cohort study. *Pediatr Infect Dis J*. 2016 July; 35(7): 728-32.

Research Funding:

Current Projects / Collaborations

Pharmacy Experiential Education Faculty Experiences with the Promotion and Tenure Process (Newman, Arnoldi, Danielson, Meny)

Design and Assessment of a Pharmacy Student Led Preceptor Development Program (Bye, Monson, Frenzel)

Impact of an Online Interprofessional Escape Room (Hursman, Viets, Frenzel, Monson)

Exploration of AACP Survey Data for Associations Among Students, Faculty and Preceptors on Overall School Related Satisfaction & Policies (Weldon, Majerczyk, Dey, Hardinger, Noureldin)

Research Keywords:

Preceptor Development, Experiential Education, COPD interchange, Palivizumab guidelines

Elizabeth Skoy, PharmD, RPh



Associate Professor Center for Collaboration and Advancement in Pharmacy (CAP Center), Director

Community Pharmacist, Thrifty White Pharmacy

Sudro Hall 118E, (701) 231-5669, elizabeth.skoy@ndsu.edu

Recent Publications

- Johnson A, Vincent B, Carson P, **Skoy E.** Prevalence of SARS-CoV-2 antibodies among North Dakota community pharmacy personnel: A seroprevalence survey. J Am Pharm Assoc (2003). 2021 May-Jun;61(3):e127-e132.
- Skoy E, Werremeyer A, Steig J, Eukel H, Frenzel O, Strand M. Patient Acceptance of Naloxone Resulting from Targeted Intervention from Community Pharmacists to Prevent Opioid Misuse and Accidental Overdose. Substance Abuse. Oct (2020) 1-6.
- **Skoy E,** Kelsch M, Hall K, Choy BJ, Carson P. Increasing Adult Immunization Rates in a Rural State through Targeted Pharmacist Education. Journal of the American Pharmacists Association. (2020) 60(6).

Research Funding:

- Carson P, Skoy E. COVID-19 Vaccine Education and Assistance. March 2021-June 2024. \$5,308,313.
- Eukel E, Strand M, **Skoy E**, Werremeyer A, Steig J. Community and Clinical Collaboration for Opioid Misuse and Overdose Prevention. September 2020-Stepember 2021. \$283,935.
- Skoy E, Carson P, Hall K. Improving Vaccination Coverage Among Under Vaccinated Populations. The North Dakota Department of Health. July 2020-June 2021. \$149,000

Current Projects / Collaborations

- Reducing opioid misuse and accidental overdose through preventative screening (Opioid and Naloxone Education) (Eukel, Steig, Strand, Werremeyer)
- Vaccine education, hesitancy and assistance. (Carson, Hall, Steig, Hursman)

Research Keywords:

Amber Slevin, PharmD, BCACP



Assistant Professor of Practice/Ambulatory Care Clinical Pharmacist

Sudro Hall 118M; 701-231-6685

Recent Publications

- Perkins M, **Slevin A,** Strand MA, Freisner D. Screening at a Federally Qualified Health Center in the Midwest for Hepatitis C Among People Who Inject Drugs, 2019–2020. Prev Chronic Dis 2021;18:200604.
- Slevin A, Hart M, Van Horn C, Rahman S, Samji NS, Szabo A, Rein L, Werner S, Saeian K. *Hepatitis C virus direct-acting antiviral nonadherence: Relationship to sustained virologic response and identification of at-risk patients*. Journal of the American Pharmacists Association. 2019 January February; 59(1): 51-56.
- Altstadt A, Holznecht C, Rahman S, Rein L, Szabo A, Saeian K. "Non-adherence Diminishes Real-world SVR12 in an Inter-disciplinary Care Clinic." Gastroenterology. 2016 April; 150(4): S1039.

Research Funding:

Grant funding obtained and administered at clinical practice site, Family HealthCare clinic:

- 2021-2022 Hepatitis C Care Cascade Grant: \$60,000
- 2020-2021 Hepatitis C Screening Grant: \$60,000
- 2018-2020 Hepatitis C Care Cascade Grant: \$98,000

Current Projects / Collaborations

Hepatitis C Care Cascade: From Diagnosis to Cure (NDSU SOP, ND DoH, Family HealthCare) ND Pharmacy Enhancement Collaborative (Maack, Petry, Hursman, regional ND pharmacists)

Research Keywords:

Hepatitis C virus, Hepatitis C Care Cascade, medication adherence, direct-acting antiviral, PWID, Hepatitis C Screening

Jayme Steig, PharmD



Assistant Professor of Practice, Department of Pharmacy Practice Community Pharmacist, Southpointe Pharmacy

Sudro Hall 118N; jayme.steig@ndsu.edu

Recent Publications

- Amy Werremeyer, Sydney Mosher, Heidi Eukel, Elizabeth Skoy, Jayme Steig, Oliver Frenzel & Mark A.
 Strand (2021) Pharmacists' stigma toward patients engaged in opioid misuse: When "social distance" does not mean disease prevention, Substance Abuse, DOI: 10.1080/08897077.2021.1900988
- Eukel H, Steig J, Frenzel O, Skoy E, Werremeyer A, Strand M. Opioid Misuse and Overdose: Changes in Pharmacist Practices and Outcomes. *Journal of Continuing Education in the Health Professions*. 2020;40(4):242–247. doi:10.1097/CEH.000000000000317
- Skoy L. Werremeyer A, Steig J, Eukel H, Frenzel O, and Strand MA. Patient Acceptance of Naloxone Resulting from Targeted Intervention from Community Pharmacists to Prevent Opioid Misuse and Accidental Overdose. Substance Abuse. Oct 2020 1-6.

Research Funding:

- Eukel H, Strand M, Skoy E, Steig J, Werremeyer A. Community and Clinical Collaboration for Opioid Misuse and Overdose Prevention. North Dakota Department of Human Services. October 2020 September 2021 \$283,935
- Strand M, Eukel H, Werremeyer A, Skoy E, Steig J. Primary prevention of opioid misuse and accidental overdose across North Dakota. North Dakota Department of Human Services. October 2019 September 2020. \$221,887.

Current Projects / Collaborations

Opioid and Naloxone Education (Strand, Eukel, Skoy, Werremeyer, O. Frenzel)
Center for Collaboration and Advancement in Pharmacy (Skoy, Strand, Werremeyer, Eukel, Maack)

Research Keywords:

Community pharmacy, medication therapy management, opioid safety, quality improvement, transitions of care

Mark A. Strand, PhD, CPH



Professor (tenured), Department of Pharmacy Practice

Sudro Hall 118K; 701-231-7497; mark.strand@ndsu.edu

Recent Publications

- **Strand MA**, Eukel H, Frenzel O, Skoy E, Steig J, and Werremeyer A. Program Evaluation of the Opioid and Naloxone Education (ONE Rx) Program Using the RE-AIM Model. *Research in Social and Administrative Pharmacy*, 2020;16:1248-1254. Recipient of the *Research in Social and Administrative Pharmacy* journal's 2020 Best Paper Award, March, 2021.
- Strand MA, DiPietro Mager N, Hall L, Martin S, Sarpong D. Public Health and Pharmacy Collection: Pharmacy Contributions to Improved Population Health: Expanding the Public Health Roundtable. Submitted to Preventing Chronic Disease journal Guest Editorial, 2020;17:200350.
- **Strand MA**, Bratberg J, Eukel H, Hardy M, Williams C. Community Pharmacists' Contributions to Disease Management During COVID-19. Accepted to Preventing Chronic Disease journal, Pharmacy and Public Health special collection, 2020;17:200317.

Research Funding

- Community and Clinical Collaboration for Opioid Misuse and Overdose Prevention, North Dakota Department of Human Services, \$283,935, 2020-21.
- Governor's Health Strategic Planning Group, North Dakota Governor's Office, \$26,284, 2020-2021.

Current Projects / Collaborations

- Community and Clinical Collaboration for Opioid Misuse and Overdose Prevention, North Dakota Department of Human Services
- COVID-19 Impact Analysis: Global and Regional

Research Keywords:

Epidemiology; Chronic disease; Diabetes; Public health; Global health; Opioid misuse prevention

Sara Thompson, PharmD, BCACP



Assistant Professor of Practice & Clinical Pharmacist – Fargo VA Health Care System

Sudro Hall 118T; (701) 231-7502; sara.a.thompson@ndsu.edu

Recent Publications

- **Thompson S**. Spanish Conversation Guide using the Pharmacists' Patient Care Process. *Curr Pharm Teach Learn*. 2021;13(4):443-444.
- **Thompson S**. GPAs, PCATs, and coupons: Wilting quality in pharmacy school admissions and the impact on pharmacy faculty. *Innov Pharm*. 2020;11(3):1-3. doi:10.24926/iip.v11i3.3349
- Thompson S, Chow N, Arias I. Ovarian Cancer. *PharmacyLibrary's PharmacotherapyFirst: A Multimedia Learning Resource*. Washington, DC: American Pharmacists Association; 2019. https://pharmacylibrary.com/doi/full/10.21019/pharmacotherapyfirst.ovarian-cancer_overview
- Lopez A, **Thompson S**, Miller L. Resilience in residency: Navigating difficult situations while maintaining your mental well-being. In: Caballero J, Clauson K, Benavides S, eds. *Get the Residency: ASHP's Guide to Residency Interviews and Preparation*. 2nd ed. Bethesda, MD: American Society of Health-System Pharmacists; 2019:147-161.
- **Thompson S.** Thank you, next: Steps for a paradigm shift in pharmacy education to reduce health disparities. *Curr Pharm Teach Learn*. 2019:11(12):1335-1336.

Research Funding:

Current Projects / Collaborations

Diaz-Cruz E, Hawkins M, Zengotita-Borges R, Jefferson K, **Thompson S**. Leveraging expertise from community resources to improve the role of the pharmacist in HIV testing and counseling.

Research Keywords:

Oncology, cultural competency, health disparities

Teri Undem, BPharm



Director, Advanced Pharmacy Practice Experiences Lecturer, Pharmacy Practice

Sudro Hall 20C; (701) 231-6578; teri.undem@ndsu.edu

Recent Publications

Scott D, Strand MA, **Undem T**, Anderson, G, Clarens, A, and Liu XY. Assessment of Pharmacists' Delivery of Public Health Services in Rural and Urban Areas in Iowa and North Dakota. *Pharmacy Practice*. 2016;14(4):836-846. Strand MA, Scott, D, **Undem T**, Anderson G, Clarens A, Liu X. Pharmacist Contributions to the Ten Essential Services of Public Health in Three National Association of Boards of Pharmacy Regions. *Journal of the American Pharmacists Association*. 2017; 57:395-401.

Scott D, Friesner DL, **Undem T**, Anderson G, Sem K, Peterson C. Perceived sustainability of Community Telepharmacy in North Dakota. *Journal of the American Pharmacists Association*. 2017; 57:362-368.

Strand M, Scott D, **Undem T**, Anderson G, Clarens A, Liu X. Comparing Contributions to the Ten Essential Services of Public Health in Three NABP Pharmacy Regions. *Journal of the American Pharmacists Association*. 2017; 57 (3) Strand M, **Undem T**, PharmD Candidates, Scott D. A Comparison of Pharmacist Delivery of Public Health Services in Manitoba, North Dakota and Iowa. https://www.researchgate.net/publication/322317701

Research Funding:

2014-2015 District V Competitive Grant \$3000 "Assessing Pharmacists Contribution to Public Health". (Research Team member)

Current Projects / Collaborations

UND Rural Health IPE Initiative
UND/NDSU M1/P1 Student Match
Employability
Assessing professionalism behaviors in third year PharmD students

Teri Undem, BPharm



Director, Advanced Pharmacy Practice Experiences Lecturer, Pharmacy Practice

Sudro Hall 20C; (701) 231-6578; teri.undem@ndsu.edu

Recent Publications

Undem, T. A. (2021). *Professionalism: A New Approach to an Old Problem*. ProQuest Dissertations Publishing. Scott D, Strand MA, **Undem T**, Anderson, G, Clarens, A, and Liu XY. Assessment of Pharmacists' Delivery of Public Health Services in Rural and Urban Areas in Iowa and North Dakota. *Pharmacy Practice*. 2016;14(4):836-846. Strand MA, Scott, D, **Undem T**, Anderson G, Clarens A, Liu X. Pharmacist Contributions to the Ten Essential Services of Public Health in Three National Association of Boards of Pharmacy Regions. *Journal of the American Pharmacists Association*. 2017; 57:395-401.

Scott D, Friesner DL, **Undem T**, Anderson G, Sem K, Peterson C. Perceived sustainability of Community Telepharmacy in North Dakota. *Journal of the American Pharmacists Association*. 2017; 57:362-368.

Strand M, Scott D, **Undem T**, Anderson G, Clarens A, Liu X. Comparing Contributions to the Ten Essential Services of Public Health in Three NABP Pharmacy Regions. *Journal of the American Pharmacists Association*. 2017; 57 (3) Strand M, **Undem T**, PharmD Candidates, Scott D. A Comparison of Pharmacist Delivery of Public Health Services in Manitoba, North Dakota and Iowa. https://www.researchgate.net/publication/322317701

Research Funding:

Current Projects / Collaborations

UND Rural Health IPE Initiative Employability

Joni Viets, PharmD, BCPS



Assistant Professor of Practice & Clinical Pharmacist – Fargo VA Health Care System

Sudro Hall 118M; (701) 231-6685; joan.viets@ndsu.edu

Recent Publications

• Frenzel J, Richter L, Hursman A, **Viets J**. Assessment of preceptor understanding and use of levels of entrustment. Currents in Pharmacy Teaching and Learning. Volume 13, Issue 9.

Research Funding:

N/A

Current Projects / Collaborations

Impact of an Online Interprofessional Escape Room (Hursman, Richter, Frenzel, Monson)

Ceftaroline Versus Vancomycin Plus Piperacillin/Tazobactam or Cefepime or Ceftazidime and Effect On Length of Stay (Kokett, Schiele, Newman, Smith, Lo)

Design, delivery and assessment of a pharmacist and student pharmacist leadership workshop on self-perceived leadership ability (Richter, Hursman, Frenzel)

Assessment of the Interprofessional Healthcare Practice (CHP 400) Course (Scott, Freisner, Hursman, Naughton)

Evaluation of the Impact of Combination Basal Insulin and Liraglutide on Hgb A1C Reduction Compared to Basal Insulin Alone (Gourde, Newman, Schiele)

Dacaarch Kannarda

Amy Werremeyer, PharmD, BCPP



Professor and Chair; Psychiatric Pharmacist-Southeast Human Service Center Fargo

Sudro Hall 118H; (701) 231-7603; amy.werremeyer@ndsu.edu

Recent Publications

- Werremeyer A, Mosher S, Eukel H, Skoy E, Steig J, Frenzel O, Strand MA. Pharmacists' Stigma Toward Patients Engaged in Opioid Misuse: When 'Social Distance' Does Not Mean Disease Prevention. *Substance Abuse*. Published online March 22, 2021. https://doi.org/10.1080/08897077.2021.1900988
- Goldstone LW, DiPaula BA, Werremeyer A, Botts S, Heburn B, Liu HY, Duckworth K, Young AS, Kelly DL. The Role of Board Certified Psychiatric Pharmacists in Expanding Access to Care and Improving Patient Outcomes. Psychiatric Services. 2021;00:1-8. doi: 10.1176/appi.ps.202000066
- Werremeyer A, Bostwick J, Cobb C, Moore TD, Park SH, Price C, McKee J. Impact of Pharmacists on Outcomes for Patients with Psychiatric or Neurologic Disorders. Mental Health Clinician. 2020;20(6):358-380.
- Eukel H, Steig J, Frenzel O, Skoy E, **Werremeyer A**, Strand M. Opioid Misuse and Overdose: Changes in Pharmacist Practices and Outcomes. Journal of Continuing Education in Health Professions. 2020;40(4):242-247. doi:10.1097/CEH.000000000000317
- Skoy E, **Werremeyer A**, Steig J, Eukel H, Frenzel O, Strand M. Patient Acceptance of Naloxone Resulting from Targeted Intervention from Community Pharmacists to Prevent Opioid Misuse and Accidental Overdose. Substance Abuse. Published online 12 Oct 2020. https://doi.org/10.1080/08897077.2020.1827126
- Strand M, Eukel H, Frenzel O, Skoy E, Steig J, Werremeyer A. Program Evaluation of the Opioid and Naloxone Education (ONE Rx) Program Using the RE-AIM Model. Research in Social and Administrative Pharmacy. 2020;16:1248-1254. https://doi.org/10.1016/j.sapharm.2019.11.016.

Research Funding:

• Strand M, Eukel H, Werremeyer A, Skoy E, Steig J. Primary prevention of opioid misuse and accidental overdose across North Dakota. North Dakota Department of Human Services. 2018-present

Current Projects / Collaborations

- Pharmacists role in safe opioid use and overdose prevention
- Efforts to reduce stigma related to mental illness and substance-use disorder
- Value of the psychiatric pharmacist in patient-centered outcomes

Research Keywords:

Psychiatric Pharmacist; Opioid overdose prevention; Stigma; Patient-Centered Care; Patient experience