Department of Pharmacy Practice
School of Pharmacy
North Dakota State University

Summary of Individual Faculty Research/Scholarship
2022-2023
<table>
<thead>
<tr>
<th>Sydney Armbrust, PharmD, BCPS</th>
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<tbody>
<tr>
<td>Assistant Professor of Practice, Department of Pharmacy Practice</td>
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<tr>
<td>Inpatient Clinical Pharmacist, Essentia Health</td>
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<tr>
<td>Sudro Hall 118B; <a href="mailto:Sydney.Armbrust@ndsu.edu">Sydney.Armbrust@ndsu.edu</a></td>
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</tbody>
</table>

**Recent Publications**


**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, BCGP

Director, Introductory Pharmacy Practice Experiences
Assistant Professor of Practice
Sudro Hall 20B; (701) 231-7477; rebecca.brynjulson@ndsu.edu

Recent Publications

Research Funding:
• Geriatrics Workforce Enhancement Program (GWEP) Grant Sub Award, $53,395.00, University of North Dakota. Period of Grant Award: July 1, 2019- June 30, 2024
• 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.
• North Dakota State University Department of Pharmacy Practice Seed Grant in the amount of $2615.00 for the project titled “Student Engagement in Institutional Introductory Pharmacy Practice Experiences: Preceptor and Student Perceptions” February 2009.
• North Dakota State University Development Foundation Grant, $1195.00, to purchase a Blood Pressure Training Arm for the North Dakota State University Concept Pharmacy. January 2008.

Current Projects/Collaborations
• Brynjulson R., Petry, N. & Patnaude L. Integration of Pharmacotherapy Case into Pharmacy Practice Improvement and Project Management Course.
• Brynjulson, R. Development and assessment of geriatric patient focused activities in a Pharm D program capstone course to increase understanding and application of geriatric patient care principles.

Research Keywords:
Introductory pharmacy practice experiences (IPPE); Experiential education; Public health; Problem solving; Simulation, Education, Geriatrics
### Dan Cernusca, PhD

**Associate Professor of Practice & Instructional Designer**

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

### Recent Publications

**Cernusca, D. & Mallik, S.** (2022). Successful Transfer of Face-To-Face Active Learning Instructional Design to Online Synchronous Format During COVID-19 Pandemic. Quarterly Review of Distance Education, 23(1), 1-11.


### Research Funding:

**APEX: An Accelerated Pipeline to Graduate Excellence in Electrical and Computer Engineering** (9/1/2022 - 08/31/2028 – proposed for funding); Sponsor: NSF; Total award for NDSU subcontract: $45,406

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

**Phase II COBRE - Center for Diagnostic and Therapeutic Strategies on Pancreatic Cancer** (07/15/2022 – 06/30/2027); Sponsor: NIH; Total award: $9,506,146

Role: Evaluation Coordinator

### Current Projects/Collaborations

**Strengthening Students’ Conceptual Learning through the Integration of Technology-Driven Mindtools and Active Learning Strategies** (2018 – 2021)

Collaborator: Sanku Mallik, NDSU

**Strategies to Stimulate Metacognition and Effective Information-Seeking Behavior in Undergraduate Active Learning Environments** (2022- 2025)

Collaborator: Rebekah Oliver, NDSU

**The Impact of Concept Mapping Strategies on Students’ Perceptions, Beliefs, and Performance** (2019 – 2024) Collaborators: Natasha Petri & Mark Strand, NDSU

### Research Keywords:

Instructional Design, Professional Development, Pharmacy 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 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.

Research 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

Current Projects/ Collaborations

“Impact of Pharmacy Education on the Nurses' Knowledge of Insulin Administration and Use in the Long-Term Care Setting”. PI- Mark Dewey, Pharm.D. Co-investigator(s) and research team: Therese Turner, Daniel Friesner, Natasha Petry.
Recent Publications

Jeanne Frenzel, PharmD, PhD, BCSCP

Professor (tenured)

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

**Recent Publications**

- Rude T, **Frenzel J**. Cooperative wikis used to promote constructivism and collaboration in a skills laboratory course. Currents in Pharmacy Teaching and Learning. In press.

**Research Funding:**

- Frenzel J. Development Foundation Board of Trustees Endowment, $970.00

**Current Projects /Collaborations**

- Vogler C, VanLangen K, Knockel L, **Frenzel J**. Design and analysis of a rubric to assess student pharmacists’ longitudinal prescription counseling skills. INNOVATIONS in pharmacy. Under review.

**Research Keywords:** alternative grading, levels of entrustment, skill laboratory, telepharmacy
**Allison Hursman, PharmD, BCGP**

Assistant Professor of Practice, Pharmacy Practice Department, NDSU
Ambulatory Care Clinical Pharmacist, Family Healthcare

Sudro Hall 118S; (701) 231-8216

### Recent Publications


### Research Funding:

- Implementation and Assessment of the Efficacy of a VaxChamp in the Community Pharmacy, North Dakota Department of Health, 2022-24, $84,201
- North Dakota Pharmacists Service Enhancement Project Pilot Implementation, North Dakota Department of Health – Centers for Disease Control, 2021-22, $20,000
- ND DoH Collaborative Tobacco Prevention and Control, 2022-23 $191,697
- NDSU Hepatitis C POC Testing Initiative, ND Department of Health, 2022-23, $32,950

### Current Projects/Collaborations

- Pharmacy Service Enhancement Project (Maack, Petry, Miller, Buettner-Schmidt, Rubinstein)
- Ambulatory Care Reimbursement
- VaxChamp in the Community Pharmacy (Skoy, Nagel, Steig)
- Ungrading in Pharmacy Education (Monson, Frenzel, Richter, Armbrust, Viets)
- 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)

### Research Keywords:

Medication Therapy Management; Leadership; Levels of Entrustment; Bracketology; Interprofessional Education; Virtual Escape Room;
Research Interests:
Provide a two or three-sentence summary of key research interests here.

Michael Kelsch, PharmD, BCPS
Associate Dean for Academic Affairs (SOP); Professor, Department of Pharmacy Practice
Sudro Hall 123D; (701) 231-6528; Michael.Kelsch@ndsu.edu

Recent Publications

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, Thompson S, Skoy E. Impact of a Poverty Simulation on Pharmacy Students’ Sociocultural and Patient Advocacy Attitudes and Beliefs
• Friesner D, Preheim A, Wirth L, Kelsch MP. Assessing Multiple-Mini Interview Performance Across Pharmacy Admissions Pathways

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
Research Interests:
Provide a two or three sentence summary of key research interests here.

Photo
Daniel Kenzie, PhD
Assistant Professor, Pharmacy Practice Department, NDSU
Sudro Hall 118J; (701) 231-5162; daniel.p.kenzie@ndsu.edu

Recent Publications


Research Funding:

Current Projects/Collaborations

• Discourse about COVID-19 vaccines on social media
• Student learning in an online writing elective
• Public literacy about epidemiology

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


Recent Research Funding:

• North Dakota Pharmacists Service Enhancement Project (PI)
  • ND Department of Health and Human Services 1815 grant: $80,600
  • ND Department of Health and Human Services Tobacco Policy and Control Center: $194,197
• 2022-2023 ND Quits Cessation Grant Program: $22,352 (PI)
  • ND Department of Health grant administered at Family HealthCare

Current Projects/Collaborations

• North Dakota Pharmacy Service Enhancement Project: In collaboration with CAP Center, Drs. Allison Hursman, Natasha Petry, Kelly Buettner-Schmidt (PI), Don Miller, Ellen Rubinstein and several NDSU student research assistants.
  • Collaborative project with pharmacy, nursing and medical anthropology (sociology)

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

- **Miller DR** and Sampson L. A primer on copay accumulator programs. The Rheumatologist. August 2022, p 15-16 A Primer on Copay Accumulator Programs - The Rheumatologist (the-rheumatologist.org)
- Halvorson D., Eukel HN, Gilbraith M, Schaper T, **Miller DR**. Design and Implementation of Tech-Check-Tech Programs in North Dakota Pharmacies. J Pharm Practice (accepted for publication 3/2/22)

Research Funding:


Current Projects/Collaborations

Vaping and Tobacco Systems Change for Effective Cessation. With Kelly Buettner-Schmidt (Nursing), Brody Maack (Pharmacy Practice).
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


### 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, Gumbleton, 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, BCPPS, BCNSP, C-ELBW

**Associate Professor of Pharmacy Practice**  
**Pediatric Clinical Pharmacist-Sanford Health Fargo**  
Sudro Hall 118U; (701) 231-7501; [julia.muzzy@ndsu.edu](mailto:julia.muzzy@ndsu.edu)

### Recent Publications


### 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
- Intraventricular Hemorrhage, feeding intolerance, and indomethacin prophylaxis use in the extremely premature neonate. Collaboration with colleagues from Sanford Medical Center

### Research Keywords

neonatology; pediatric nutrition; parenteral nutrition; lactation; medication safety
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


Research Funding:

- Co-investigator: RFA-HG-17-008 NIH/NHGRI Administrative Supplement (07/01/19 – 06/30/23)

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; Implementation
Lisa Richter, PharmD, BCPS, BCCCP, FASHP

Director of Experiential Outreach and Assessment
Co-Director of Recruitment
Associate Professor of Practice, Department of Pharmacy Practice
Sudro Hall 20A; (701) 231-5178; lisa.richter.1@ndsu.edu

Recent Publications

- Skoy E, Petry N, Richter L, Knauf T, Monahan B, Rue J. Implementation and Evaluation of a Student Scholarship Program to Increase Care Initiatives in Rural Pharmacies. Accepted for publication to *Currents in Pharmacy Teaching and Learning*.


Research Funding:

- Richter L (PI), Frenzel J, Monson E, Bye K. Design & Assessment of a Pharmacy Student Led Preceptor Training Program. NDSU RCA Internal Funding -Research Support Services Award (Award Reference RSS22-06). $180.00  9/2021-6/15/2022

Current Projects/Collaborations

Promotion and Tenure through the eyes of Experiential Education Faculty: A lesson for inclusivity(Newman, Arnoldi, Danielson, Meny)
A longitudinal exploration of perceptions of pharmacy practice preparedness among graduating pharmacy students and preceptors (Weldon, Majerczyk, Dey, Hardinger, Noureldin)
ASHP Statement on Precepting at a Professional Obligation (Wisniewski, Carroll, Williams, Kido, Eudaley)

Research Keywords:

Preceptor Development, Experiential Education, APPE
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

- **Skoy E**, Dybsand L, Hall K, Carson P. Assessment of a Virtual Educational Program on Health Professional Students’ Vaccine Knowledge, Attitudes, and Confidence Managing Patient Hesitancy. Education in the Health Professions. 2022; 5(1).

Research Funding:

- **Skoy E**, Petry N. Improving the Health of Americans through Prevention and Management of Diabetes and Heart Disease and Stroke. The North Dakota Pharmacy Service Corporation. October 2020-June 2023. $82,700.

Current Projects/Collaborations

- Reducing opioid misuse and accidental overdose through preventative screening (Opioid and Naloxone Education) (Eukel, Steig, Strand, Werremeyer)
- Improving the Health of Americans through Prevention and Management of Diabetes and Heart Disease and Stroke. (Natasha Petry, NDHHS, North Dakota Pharmacist Association)
- Increasing antimicrobial stewardship in North Dakota (NDHHS)
- Vaccine education, hesitancy and assistance. (Carson, Hall, Steig, Hursman)

Research Keywords: Pharmacy advancement, immunization, opioid misuse/accidental overdose prevention
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, Mark A. Strand, Heidi Eukel, Elizabeth Skoy, Jayme Steig & Oliver Frenzel (2022) Longitudinal evaluation of pharmacists’ social distance preference and attitudes toward patients with opioid misuse following an educational training program, Substance Abuse, 43:1, 1051-1056, DOI: 10.1080/08897077.2022.2060449


Research Funding:


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
Mark A. Strand, PhD, CPH

Professor (tenured), Department of Pharmacy Practice
Senior Scientist, Center for Collaboration and Advancement in Pharmacy
Sudro Hall 118K; 701-231-7497; mark.strand@ndsu.edu

Recent Publications


Research Funding

- Community and Clinical Collaboration for Opioid Misuse and Overdose Prevention, North Dakota Department of Human Services, $632,000, 2022-23.

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
Teri Undem, BPharm

Director, Advanced Pharmacy Practice Experiences
Senior Lecturer, Pharmacy Practice

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

Recent Publications


Research Funding:

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

Current Projects/Collaborations

Lifestyle Medicine
Successful Aging-Resilience and Lifestyle Medicine
UND Rural Health IPE Initiative
Employability
Assessing professionalism behaviors in third year PharmD students
**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


### 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)
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


Research Funding:


Current Projects/Collaborations

- Pharmacists role in safe opioid use and overdose prevention
- Efforts to reduce stigma related to mental illness and substance-use disorder

Research Keywords:

Psychiatric Pharmacist, Opioid e-prescribing, education, Stigma, Patient-Centered Care, Patient-experience