

## SMHS Scholarship Reporting – 2022

### Sports Medicine

1. Steve Westereng - 9/8/2022 "Concussion and NCAA Athletes". Jim Rudd Lecture Series, Altru Family Medicine Residency Program. Attended by physicians and athletic trainers.
2. Cathy Ziegler - 2/10/2022 "Gait Analysis" Jim Rudd Lecture Series, Altru Family Medicine Residency Program. Attended by physicians and athletic trainers.

### Health Workforce Group

1. Kelly, D., Schroeder, S., & **Leighton, K.** (2022). Anxiety, depression, stress, burnout, and professional quality of life among the hospital workforce during a global health pandemic. *The Journal of Rural Health*. 2022 Autumn: 38(4): 795-804, doi:10.1111/jrh.12659
2. Schroeder, S., Kelly, D., & **Leighton, K.** (2022). Influence of years of experience and age on hospital workforce compassion satisfaction, anxiety, depression, stress, and burnout during pandemic: Implications for retention. *Psychology, Health & Medicine*. 2022 Winter: 1-14, <https://doi.org/10.1080/13548506.2022.2159988>

### **Reports**

**Bernhardt, K.** (2022). North Dakota Qualified Service Provider Survey Report. <https://ruralhealth.und.edu/assets/4988-22376/nd-qsp-survey-report-2022.pdf>

Bernhardt, K., Starkweather, J., & Peterson, M. L. (2022). North Dakota Telebehavioral Health Report.

North Dakota Behavioral Health Epidemiological Profile. (2022). [https://www.hhs.nd.gov/sites/www/files/documents/BH/EPI\\_2022.pdf](https://www.hhs.nd.gov/sites/www/files/documents/BH/EPI_2022.pdf)

### **Presentations**

Bernhardt, K., Peterson, M.L., **Starkweather, J.** State Epidemiological Outcomes Workgroup Data Familiarization Webinar Series Part 1. What is data? Introduction of the broader view of data.

Presentation reviewed common data source types used in the SEOW Epidemiological report, defining key terms associated with data, defining and explaining common file types used for housing data, and discussing some commonly confusing types of variables.

**Bernhardt, K.**, Peterson, M. L., & Starkweather, J. State Epidemiological Outcomes Workgroup Data Familiarization Webinar Series Part 2: Data Considerations in the SEOW Context.

Presentation covered the application of the foundational elements to the unique needs of the SEOW. Discussed different types of statistics, along with guidelines for selecting appropriate data sources, considerations for making state vs. national comparisons, and important geographical data considerations.

Bernhardt, K., Peterson, M.L., **Starkweather, J.** State Epidemiological Outcomes Workgroup Data Familiarization Webinar Series Part 3. Working examples from the EPI profile 1.

Presentation provided demonstrations of the process of updating the data from the Alcohol section of the EPI report; specifically using the BRFSS, 2019, data file and a detailed demonstration of updating the data

from the Tobacco section of the EPI report; specifically the North Dakota YTS, 2019, and North Dakota YRBS, 2019, data summary report tables.

**Bernhardt, K.**, Peterson, M. L., & Starkweather, J. State Epidemiological Outcomes Workgroup Data Familiarization Webinar Series Part 4: Working Examples from the Epi Profile 2.

Presentation explored specific data sources from sections 3 (Illicit Drugs) and 4 (Prescription Drugs) of the Epi Profile, including discussion of how to access these sources and locate relevant information, such as the overview(s), codebook(s), and variable(s) of interest. This information was explained and applied to particular examples from the Epi Profile.

Bernhardt, K., **Peterson, M. L.**, & Starkweather, J. State Epidemiological Outcomes Workgroup Data Familiarization Webinar Series Part 5: Special Topics.

Presentation covered data dashboard considerations and best practices examples. Additional training focus on data management and basic analytics in Microsoft Excel. North Dakota Healthcare Workforce Group, University of North Dakota.

**Peterson, M.L.** Behavioral Health Workforce in North Dakota. Presentation to Dakota Medical Foundation's F-M Region Children's Mental Health Roundtable.

Presentation provided a detailed description of the history of behavioral health workforce legislative actions over the previous 10 years. Presentation of analysis of the current behavioral health workforce in North Dakota and the southeast region of the state. Discussion related to barriers to growing the workforce and potential next steps to improve the quality of information being collected for planning purposes.

Martin, C., Relling, D. Chepeus, J., **Peterson, M.L.**, & Sigmund-Gaines, M. Mining Your Data – Exploring Trends in Licensure. Federation of State Boards of Physical Therapy Annual Education Meeting, October 28-29, 2022.

In this session, representatives from Arizona, Louisiana, North Dakota, and Oregon will share their workforce initiative experiences and data. The workforce initiatives vary from new to well-established programs. The session will explore how the states initiated their workforce programs, identified key data elements, and developed reports for key stakeholders. Sample data reports will be shared to demonstrate how data can be used for current decision-making and what the states are pursuing for the future

### **Academic Work**

**Leighton, K.** (2022). The Moral Foundations Of Attitudes Toward Mask Wearing. (Dissertation)

## **Medical Laboratory Science**

### **1. Mary Coleman:**

Hematology Malignant Mutations - ASCLS ND State Meeting 04/25/22

Chapter Reviews:

Clinical Hematology and Fundamentals of Hemostasis, 6th Ed. F.A. Davis Co.

Chapter 19 Chronic Myeloproliferative Neoplasms

Clinical Hematology and Fundamentals of Hemostasis, 6th Ed. F.A. Davis Co.

Chapter 23 Plasma Cell Neoplasms

## 2. **Hannah Hove:**

### Co-Author

Chandra Deb L, Hove H, Miller TK, Pinks K, Njau G, Hagan JJ, et al. (2022) Epidemiology of Hepatitis C virus infection among incarcerated populations in North Dakota. PLoS ONE 17(3): e0266047.  
<https://doi.org/10.1371/journal.pone.0266047>

## 3. **Shannon Jongeward:**

ASCLS Emerging Lab Managers Collaborative Conference (ELMC2) - ASCLS Conference 01/14/22

## 4. **Samantha Peterson:**

CLEC Presentation Clinical Laboratory Education Conference, Denver, CO March 2022

Solberg BL, **Peterson S** (co-authors). Using immediate feedback to foster competency in the hematology student laboratory.

## 5. **Brooke Solberg:**

CLEC Presentation Clinical Laboratory Education Conference, Denver, CO March 2022

Solberg BL, **Peterson S** (co-authors). Using immediate feedback to foster competency in the hematology student laboratory.

## 6. **Chris Triske**

Notable Work #5 - Notable work was done related to scholarship of teaching activities associated with new curriculum development and implementation, specifically with extensive course development in MLS 413, 423, MLS 450, MLS 518, and MLS 522. Additional scholarly/creative activities occurred with mentoring of graduate students in preparation of scholarly work with their independent study projects, and significant mentoring of students in dissemination of their scholarly work at a regional/national level through the LEND continuing education program.

## **Psychiatry and Behavioral Science**

### **A. Publications from the past year**

#### **Carrie Brower- Breitwieser**

Lane, A., Pacella, J., Beal, J.D., Sahmoun, A., Bellas, W., Fedo-Rosvold, S., **Brower-Breitwieser, C.M.** (2021). Infant-Led Feeding Outcomes for Neonatal Intensive Care Unit Infants: A Retrospective Analysis. Journal of Perinatology, 41 (1865-1872).

#### **1. Ross Crosby:**

Haas, V., Nadler, J., **Crosby**, R.D., Madden, S., Kohn, M., Le Grange, D., Gonçalves, A.S.O., Hebebrand, J. & Correll, C.U. Comparing randomized controlled trials of outpatient family-based or inpatient multimodal treatment followed by outpatient care in youth with anorexia nervosa: differences in populations, metrics, and outcomes. *European Eating Disorders Review*, 2022, 30(6), 693-705. PMID: 35474627 \*

Kelly, N. R., Cotter, E., Williamson, G., Guidinger, C., Fotang, J., **Crosby**, R. D., & Cao, L. Loss of control may uniquely predict negative affect among the disinhibited eating experiences of high-risk young men. *Eating Behaviors*, 2022, 47, 101674. PMID: 36240577 \*

Parker, M.N., Tanofsky-Kraff, M., **Crosby**, R.D., Shank, L.M., Kwarteng, E.A., Loch, L., Faulkner, L.M., Haynes, H.E., Gupta, S., Fatima, S., Dzombak, J.W.P., Zenno, A., Engel, S., Brady, S.M., Yanovski, S. Z. & Yanovski, J. A. State negative affect in relation to loss-of-control eating among youth in the natural environment. *Appetite*, 2022, 178, 106166. PMID: 35850381 \*

Dodd, D.R., Johnson, E.L., Hazzard, V.M., Cao, L., **Crosby**, R.D. & Wonderlich, S.A. It is not what happens to you but how react to it that matters: PTSD as a moderator of the association between trauma and impulsive behaviors. *Journal of Nervous and Mental Disorders*, 2022, 210(9), 702-707. PMID: 35472195 \*

Deb, L.C., McGrath. B.M., Schlosser, L., Hewitt, A., Schweitzer, C., Rotar, J., Leeadhl, N.D., **Crosby**, R.D. & Carson, P. Antibiotic prescribing practices for upper respiratory tract infections among primary care providers: A descriptive study. *Open Forum Infectious Diseases*, 2022, 9(7), July 22, ofac302. \*

Hazzard, V.M., Ziobrowski, H.N., Borg, S.L., Schaefer, L.M., Mangold, A.C., Herting, N.A., Lipson, S.K., **Crosby**, R.D. & Wonderlich, S.A. Past-year abuse and eating disorder symptoms among U.S. college students. *Journal of Interpersonal Violence*, 2022, 37(15-16), NP13226-NP13244. PMID: 33794702 \*

Lammers, M., Vroling, M.S., **Crosby**, R.D. & Van Strien, T. Dialectical behavior therapy compared to cognitive behavioral therapy in binge-eating disorder: An effectiveness study with 6-month follow-up. *International Journal of Eating Disorders*, 2022, 55(7), 902-913. PMID: 35665526 \*

Rossi, E., Cassioli, E., Martelli, M., Melani, G., Hazzard, V.M., **Crosby**, R.D., Wonderlich, S.A., Ricca, V. & Castellini, G. Attachment insecurity predicts worse outcome in patients with eating disorders treated with enhanced cognitive behavior therapy: A one-year follow-up study. *International Journal of Eating Disorders*, 2022, 55(8), 1054-1065. PMID: 35735601 \*

Matherne, C.E., Watson, H., Fassnacht, D.B., Ali, K., Zerwas, S., Peat, C., Runfola, C., Levine, M.D., Marcus, M.D., Zimmer, B., Moessner, M., **Crosby**, R.D. & Bulik, C.M. An exploratory investigation of predictors of outcome in face-to-face and online cognitive-behavioral therapy for bulimia nervosa. *European Eating Disorders Review*, 2022, 30(4), 373-387. PMID: 35474624 \*

Forney, K.J., Brown, T.A., **Crosby**, R.D., Klein, K.M. & Keel, P.K. Evaluating the predictive validity of purging disorder by comparison to bulimia nervosa at long-term follow-up. *International Journal of Eating Disorders*, 2022, 55(6), 810-819. PMID: 35366014 \*

Anderson, L.M., Hall, L.M.J., **Crosby**, R.D., Crow, S.J., Berg, K.C., Durkin, N.E., Engel, S.G. & Peterson, C.B. "Feeling fat," disgust, guilt, and shame: Preliminary evaluation of a mediation model of binge-eating in adults with higher weights. *Body Image*, 2022, 42, 32-42. PMID: 35653964 \*

Ivezaj, V., Kalarchian, M.A., King, W.C., Devlin, M.J., Mitchell, J.E. & **Crosby**, R.D. Interrater reliability and internal consistency of the Eating Disorder Examination in the longitudinal assessment of bariatric surgery. *Surgery for Obesity and Related Diseases*, 2022, 18(8), 1015-1022. PMID: 35691868 \*

Fardouly, J., **Crosby**, R.D., & Sukunesan, S. Potential benefits and limitations of machine learning in the field of eating disorders: Current research and future directions. *Journal of Eating Disorders*, 2022, 10(1):66. PMID: 35527306 \*

Duffy, M.E., Lieberman, A., Wonderlich, S.A., **Crosby**, R.D., Mitchell, J.E., Crow, S.J., Peterson, C.B., Le Grange, D., Bardone-Cone, A.M. & Joiner, T.E. Identity problems and suicidal ideation severity among women with bulimia nervosa. *Personality Disorders: Theory, Research, and Treatment*, 2022, 13(1), 24-29. PMID: 33211528 \*

Trottier, K., Monson, C.M., Wonderlich, S.A. & **Crosby**, R.D. Results of the first randomized controlled trial of Integrated Cognitive-Behavioral Therapy for eating disorders and post-traumatic stress disorder. *Psychological Medicine*, 2022, 52(3), 587-596. PMID: 34872625

Wonderlich, J.A., **Crosby**, R.D., Engel, S.G., Crow, S.J., Peterson, C.B., Le Grange, D., Wonderlich, S.A. & Fischer, S. Negative affect and binge eating: Assessing the unique momentary trajectories of negative affect before and after binge eating episodes across eating disorder diagnostic classifications. *International Journal of Eating Disorders*, 2022, 55(2), 223-230. PMID: 34877679 \*

Dodd, D.R., **Crosby**, R.D., Cao, L., Gordon, K.H. & Wonderlich, S.A. Borderline personality disorder symptoms as mediational mechanisms linking childhood trauma and nonsuicidal self-injury among women with bulimia nervosa. *International Journal of Eating Disorders*, 2022, 55(3), 372-381. PMID: 34985154 \*

Parker, M.N., LeMay-Russell, Schvey, N.A., **Crosby**, R.D., Ramirez, E., Kelly, N.R., Shank, L.M., Byrne, M.E., Engel, S.G., Swanson, T.N., Djan, K.G., Kwarteng, E.A., Faulkner, L.M., Zenno, A., Brady, S.M., Yanovski, S.Z., Tanofsky-Kraff, M. & Yanovski, J.A. Associations of sleep with food cravings and loss-of-control eating in youth: An ecological momentary assessment study. *Pediatric Obesity*, 2022, 17(2), e12851. PMID: 34498417

Engel, S.G., Schaefer, L.M., Kerver, G.A., Leone, L.M., Smith, G., Mitchell, J.E., Gunstad, J., **Crosby**, R.D., Steffen, K. The rewarding effects of alcohol after bariatric surgery: Do they change and are they associated with pharmacokinetic changes? *Surgery for Obesity and Related Diseases*, 2022, 18(2), 190-195. PMID: 34583891 \*

Cassioli, E., Rossia, E., D'Annaa, G., Martellia, M., Hazzard, V.M., **Crosby**, R.D., Wonderlich, S.A, Riccaa, V. & Castellinia, G. A one-year follow-up study of the longitudinal interplay between emotion dysregulation and childhood trauma in the treatment of anorexia nervosa. *International Journal of Eating Disorders*, 2022, 55(1), 98-107. PMID: 34862809 \*

Veronda, A.C., Allison, K.C., **Crosby**, R.D. & Irish, L.A. Development and validation of the Chrononutrition Profile-Questionnaire. *Eating Behaviors*, 2022, 45, 101625. PMID: 35306292 \*

## 2. Karl Nelson

Knowlton, C. N., & **Nelson, K. G.** (2021). PTSD telehealth treatments for veterans: Comparing outcomes from in-person, clinic-to-clinic, and home-based telehealth therapies. *Journal of Rural Mental Health*, 45(4), 243–255.

## 3. Andrew McLean

**McLean A**, Connell J. The Evolution of an Unintended Peer Support Group. *Journal of Emergency Management*. 2022; 20(9): p. 61-64.

**McLean A**. Vision, Impairment and Native Stories. In: Packer S, (Ed.) *Seeing Blindness through Many Lenses. Vision Loss in Myth, Media, Music and Medicine*. McFarland, 2023

**McLean A**. Behavioral Health and American Indian/Alaskan Native Cultures.

In: Warne D, Dyke C, (Eds.) *American Indian Health Disparities in the 21st Century*. Cambridge Scholars Publishing.

#### 4. **Stephen Wonderlich**

Mason, T.B., Smith, K.E., Crosby, R.D., Dvorak, R., Engl, S., Crow, S., **Wonderlich, S.A.**, Peterson, C.B. Self-discrepancy as a Predictor of Eating Disorder Symptoms: Findings from Two Ecological Momentary Assessment Studies of Adults with Binge Eating. *Cogn Ther Res* 46, 580–589 (2022). <https://doi.org/10.1007/s10608-021-10279-5>

Howard, L. M., Mason, T. B., Crosby, R. D., Dvorak, R. D., **Wonderlich, S. A.**, & Smith, K. E. (2022). Using the acquired preparedness model to explore the role of eating expectancies and impulsivity in binge eating. *Eating disorders*, 30(3), 345–354. <https://doi-org.ezproxylr.med.und.edu/10.1080/10640266.2021.1924924>

Mason, T.B., Smith, K.E., Crosby, R.D., Dvorak, R., Engel, S.G., & **Wonderlich, S.A.** An ecological momentary assessment examination of the transdiagnostic model of food and alcohol disturbance. *Journal of Psychopathology and Behavioral Assessment*, 2021, 43, 730-734.

Trottier K, Monson CM, **Wonderlich SA**, Crosby RD. Results of the First Randomized Controlled Trial of Integrated Cognitive-Behavioral Therapy for Eating Disorders and Posttraumatic Stress Disorder. *.Psychol Med*. 2022 Feb; 52(3):600. doi: 10.1017/S0033291721005365. Epub 2022 Jan 24. PMID: 34872625 Free PMC article. No abstract available.

Dodd DR, Crosby RD, Cao L, Gordon KH, **Wonderlich SA** Borderline personality disorder symptoms as mediational mechanisms linking childhood trauma and nonsuicidal self-injury among women with bulimia nervosa. *Int J Eat Disord*. 2022 Mar;55(3):372-381. doi: 10.1002/eat.23669. Epub 2022 Jan 5. PMID: 34985154

Cassioli E, Rossi E, D'Anna G, Martelli M, Hazzard VM, Crosby RD, **Wonderlich SA**, Ricca V, Castellini G A 1-year follow-up study of the longitudinal interplay between emotion dysregulation and childhood trauma in the treatment of anorexia nervosa. *Int J Eat Disord*. 2022 Jan;55(1):98-107. doi: 10.1002/eat.23647. Epub 2021 Dec 4. PMID: 34862809 Free PMC article.

Wonderlich JA, Crosby RD, Engel SG, Crow SJ, Peterson CB, Le Grange D, **Wonderlich SA**, Fischer S. Negative affect and binge eating: Assessing the unique trajectories of negative affect before and after binge-eating episodes across eating disorder diagnostic classifications. *Int J Eat Disord*. 2022 Feb;55(2):223-230. doi: 10.1002/eat.23648. Epub 2021 Dec 8. PMID: 34877679 Free PMC article.

Lauren M Schaefer, Vivienne M Hazzard, **SA Wonderlich**. Treating eating disorders in the wake of trauma. *Lancet Child Adolesc Health*. 2022 Mar 17; S2352-4642(22)00072-4. doi: 10.1016/S2352-4642(22)00072-4. Online ahead of print. Epub 2022 Mar. 17. PMID: 35305701

Duffy ME, Lieberman A, **Wonderlich SA**, Crosby RD, Mitchell JE, Crow SJ, Peterson CB, Le Grange D, Bardone-Cone AM, Joiner TE. Identity problems and suicidal ideation severity among women with bulimic-spectrum pathology. *Personal Disord*. 2022 Jan;13(1):24-29. doi: 10.1037/per0000466. Epub 2020 Nov 19. PMID: 33211528

Rossi, E., Cassioli, E., Martelli, M., Melani, G., Hazzard, V.M., Crosby, R.D., **Wonderlich, S.A.**, Ricca, V. & Castellini, G. Attachment insecurity predicts worse outcome in patients with eating disorders treated with enhanced cognitive behavior therapy: A one-year follow-up study. *International Journal of Eating Disorders*, 2022, 55(8), 1054-1065. PMID: 35735601

Dodd DR, Johnson EL, Hazzard VM, Cao L, Crosby RD, **Wonderlich SA**. It Is Not What Happens to You But How You React to It That Matters: PTSD as a Moderator of the Association Between Trauma and Impulsive Behaviors. *J Nerv Ment Dis*. 2022 Apr 15. doi: 10.1097/NMD.0000000000001526. PMID: 35472195

Hazzard VM, Loth KA, Crosby RD, et al. Relative food abundance predicts greater binge-eating symptoms in subsequent hours among young adults experiencing food insecurity: Support for the "feast-or-famine" cycle hypothesis from an ecological momentary assessment study [published online ahead of print, 2022 Sep 24]. *Appetite*. 2022; 180:106316. doi:10.1016/j.appet.2022.106316. Epub ahead of print. PMID: 36167172.

Burr EK, Dvorak RD, De Leon AN, et al. The role of eating expectancies and eating motives in the association between mood and loss-of-control eating: A national sample daily diary study [published online ahead of print, 2022 Oct 5]. *Appetite*. 2022; 180:106322. doi:10.1016/j.appet.2022.106322. Epub ahead of print. PMID: 36208692.

## **NEW GRANT FUNDING FROM THE PAST YEAR**

### **Andrew McLean, MD, MPH**

#### **A. EXISTING GRANT FUNDING PERSISTING FROM PREVIOUS YEARS**

##### **Andrew McLean, MD, MPH**

SAMHSA Funding through the Center for Rural Health/Sanford Health on Behavioral Health Bridge Collaboration.

Consultant/Trainer-Mental Health Technology Transfer Center; SAMHSA through UND College of Nursing and Professional Disciplines

##### **Stephen Wonderlich, PhD:**

Principal Investigator: Center for Biobehavioral Mechanisms of Eating Behavior. Funded by the National Institute of General Medical Sciences (1 P20 GM134969). 2021-2026 (total cost \$11,511,625).

Principal Investigator: The Treatment of Traumatized Children. Funded by the North Dakota Department of Human Services. 2006-2022.

Principal Investigator (North Dakota site): Midwest Regional Fellowship in Eating Disorders and Obesity Research. Funded by the National Institute of Mental Health (T32 082761). 2009-2024.

External Advisor: Understanding the Effects of Acute Stressors and Negative Emotion on Eating Behavior in Binge Eating Disorder: The Role of Stressor-Induced Changes in Reward and Cognitive Control. Funded by the National Institute of Diabetes and Digestive and Kidney Diseases (K23 DK120517). Principal Investigator: Kristin Javaras. 2018-2023.

**Ross Crosby, PhD:**

Mentor: *Fear conditioning and fear extinction in anorexia nervosa*. Funded by the National Institute of Mental Health (K23 MH115184). Conducted at the University of California, San Francisco, San Francisco, California. Principal Investigator: Stuart Murray, Ph.D. September 19, 2017 to August 31, 2022 (\$184,180 direct).

Mentor: *Novel executive function training for obesity*. Funded by the National Institute of Diabetes and Digestive and Kidney Diseases (K23 DK114480). Conducted at the University of California, San Diego, San Diego, California. Principal Investigator: Dawn Eichen, Ph.D. July 1, 2018 to April 30, 2023 (\$202,716).

Investigator: *Neural Effects of Negative Affect on Food Choices and Reward in Individuals with Binge Eating Episodes* (R01 MH112681), Conducted at the University of Colorado, Aurora, Colorado. Principal Investigator: Guido Frank, M.D. December 26, 2017 to October 31, 2022 (\$477,454 direct).

**B. OTHER (presentations, major academic educational efforts outside the framework of SMHS such as CME, regional meetings organized, etc.)**

**Andrew McLean, MD, MPH:**

**Consultative and Service Activities:**

Physician Surveyor, The Joint Commission 2018-  
Volunteer, Vibrant Health, Psychiatric Services to Afghans through Operation Allies Welcome  
Region 8 Mental Health Technology Transfer Center (MHTTC) Network Consultant/Trainer 2018-  
Project ECHO, UNDSMHS, 2017-  
Physicians Advisory Group COVID-19 to NDMA  
Spectra (FQHC) Collaborative Care Consultant  
NDSU Student Health Consultant 2015-2022

**Lectures/Presentations: Outside of UNDSMHS Curriculum**

McLean, A., Provider Wellness & Resilience During COVID-19. Loyal Source staff, Ft. McCoy, WI, January 5, 2022.

McLean, A., Resilience: Individual, Organizational, Community (with annotations for pandemics). Great Plains Quality Innovative Networks, Grand Forks, ND, January 25, 2022.

McLean, A., "Challenging People-Challenging Times." North Dakota Medical Association meeting -Virtual, February 9, 2022.

McLean, A., "Cannabis and Physical and Mental Health-What do we (think we) know? Mountain Plains Addition Technology Transfer Center-Virtual, February 9, 2022.



McLean, A., Screening for and Diagnosis of Depression in Primary Care. Mountain Plains Mental Health Technology Transfer Center-Virtual, February 15, 2022.

McLean, A., Evidence-Based Treatment of Depression. Mountain Plains Mental Health Technology Transfer Center-Virtual, March 1, 2022.

McLean, A., Pathways to Care – Building a Depression Follow-up Program. Mountain Plains Mental Health Technology Transfer Center-Virtual, March 15, 2022.

McLean, A., Invited Panel Member. Behavioral Health in the Dakotas. Great Plains Quality Innovative Network Webinar, July 25, 2022.

McLean, A., Limit-Setting as Treatment. Spectra Health, Grand Forks, ND, August 12, 2022.

McLean, A., Psychosocial Impacts of Disaster. Texas Health and Human Services Commission (LMHA Medical Director's Conference- Invited Speaker, August 18, 2022.

McLean, A., Direct Care Resilience. ND Center for Persons with Disabilities; Virtual, September 7, 2022.

McLean, A., Generational Perspectives. UNDSMHS Annual Curriculum Retreat; Virtual, September 8, 2022.

McLean, A., Interview on "The Reflective Doc" Podcast, "Mental Health in a Rural State.", October 31, 2022.

McLean, A., "Trauma." Drs. Andrew McLean and Omar Reda. Canadian Muslims: Mental health, Wellness, and Resiliency conference. Winnipeg, CA, November 12, 2022.

McLean, A., Anxiety Disorders: Screening, Diagnosis, Intervention and Treatment. Mountain Plains Mental Health Technology Transfer Center-Virtual, December 6, 2022.

Tupy, S., Justice, N., & Nelson, K. (2022, August). Do compensation and other assessment veterans differ on the MMPI-2-RF? Poster presented at the American Psychological Association annual convention in Minneapolis, MN.

Adams, K., Cantor, N., Krumm, A., & Nelson, K. (2022, August). Predicting suicidality risk indicators among veterans with the Personality Assessment Inventory. Poster presented at the American Psychological Association annual convention in Minneapolis, MN.

Blehm J, Olson RJ, Malek D, Montgomery M, Dunlev J SIMPLE-Physician Depression & Suicide. UND School of Medicine 1<sup>st</sup> year Medical students. March 23, 2022. Grand Forks, North Dakota

Olson, RJ, Invited panel member-Farm Stress. USDA National Conference (SAMHSA).

Cotes R, Rolin D, Ehret M, Singh B, Olson RJ Clozapine Clinics: Interdisciplinary Perspectives on Best Practices, Successes and Challenges. American Psychiatric Association Annual Meeting May 22, 2022, New Orleans, LA

Cotes R, Rolin D, Ehret M, Singh B, Olson RJ Clozapine Clinics: Interdisciplinary Perspectives on Best Practices, Successes and Challenges. American Psychiatric Association Annual Meeting May 22, 2022, New Orleans, LA

McLean, A., Invited panel member-Providing Behavioral Health Care to Afghan Refugees. Vibrant/CECT annual symposium on Disaster Mental Health, June 9, 2022.

McLean, A., Resilience: Impact and Aftermath of the Pandemic. Vizient Advisory Council Meeting-The Joint Commission, June 21, 2022. (Invited Speaker).

Wonderlich, S.A., Eating Disorders Research Society (EDRS) “Developments in the Training of the Next Generation of Clinical Researchers”. (with Ross Crosby, Ph.D.). September 2022, Philadelphia, PA

Dodd, D.R., Peterson, C.B., Crosby, R.D., Crow, S.J., Engel, S.G., & Wonderlich, S.A. (2022, September). Working alliance as an epiphenomenon of early symptom change in a randomized clinical trial for binge eating disorder. Poster presented at the 2022 annual meeting of the Eating Disorder Research Society, Philadelphia, PA.

Gasevic, L., Olson RJ, Decision Making Capacity. Grand Rounds. Department of Psychiatry & Behavioral Science, University of North Dakota School of Medicine & Health Sciences. October 19, 2022. Fargo, North Dakota.

Brower-Breitwieser, C.M (2022). Pediatric Feeding Disorders: A Deeper Dive into the Importance of Healthy Feeding Behaviors and Nutrition on Child Health and Development. Invited address presented at the Minnesota Association for Behavior Analysis Annual Conference.

## **Obstetrics and Gynecology**

### **Book Chapter**

Dennis J Lutz, MD

“Health Disparities in American Indian Women” in *American Indian Health Disparities in the 21<sup>st</sup> Century*, Cambridge Scholars Publishing UK, 2021 (available in 2022)

### **UNDSM Poster Presentations**

Poster presentation Central Association of Obstetricians and Gynecologists Annual Meeting October 2022, Charleston, SC.

#### **“Deciphering Maternal Ethnicity From State Birth Certificates: A Perplexing Quandary”**

Jessica Z Nelson, MS4, Tiffany A Azzarello, MS4, Steffen P Christensen, MD, Thomas F Arnold, MD, Dennis J Lutz, MD

Univ. of North Dakota School of Medicine & Health Sciences  
Minot, North Dakota

Poster presentation Central Association of Obstetricians and Gynecologists Annual Meeting October 2022, Charleston, SC. Winner Judges Choice Gyn Award\*

#### **“Vaginal Cuff Dehiscence with Small Bowel Prolapse 10 Years after Vaginal Hysterectomy”**

Brandon K Morehart, MS4, Denise M Schumacher, MD, Dennis J Lutz, MD

Univ. of North Dakota School of Medicine & Health Sciences  
Fargo, North Dakota

Poster presentation Central Association of Obstetricians and Gynecologists Annual Meeting October 2022, Charleston, SC.

**“Colorectal Adenocarcinoma Presenting as a Bowel Obstruction in the Second Trimester of Pregnancy”**

Thomas F Arnold, MD, Tracer L Overland, MS4, Dennis J Lutz, MD  
Univ. of North Dakota School of Medicine & Health Sciences  
Dickinson, North Dakota

Poster presentation Central Association of Obstetricians and Gynecologists Annual Meeting October 2022, Charleston, SC.

**“Second Case of Spontaneous Left Ureter Rupture During Normal Vaginal Delivery”**

Emily J Decker, MS4<sup>1</sup>, Collette R Lessard, MD<sup>1,2</sup>, Dennis J Lutz, MD<sup>1</sup>  
Univ. of North Dakota School of Medicine & Health Sciences  
Grand Forks, North Dakota

**Department of Family & Community Medicine**

**1. All publications from 2022 (include citations).**

**Pekas D, Telken W, Sahmoun AE, and Beal JR (In Press). Association between Race and Utilization of Pain Medications in Children with Long Bone Fractures in United States Emergency Rooms, 2011-19. *Pediatric Emergency Care*. 2022**

**Storandt MH, Walden CD, Sahmoun AE and Beal JR. Trends and Risk Factors in the Antibiotic Management of Skin and Soft Tissue Infections in the United States. *Journal of Dermatological Treatment*. 2022 May;33(3):1576-1580. doi:10.1080/09546634.2020.1859442. Epub 2021 Jan 28. PMID: 33263454**

McLean AJ, **Connell JM**: The evolution of an unintended peer support group. *J Emer Mgmt*. 2022; 20(9): 61-64. DOI: 10.5055/jem.0668.

Weyrauch S, **Johnson EL**. Interprofessional Management of Medically Complex Older Adults with Diabetes. *APTA Home Health Quarterly Report* 2022 Summer; 57(3) 1-6.

**Johnson EL**, Miller E. Remote Patient Monitoring in Diabetes: How to Acquire, Manage, and Use All of the Data. *Diabetes Spectr*. 2022 Feb 15;35(1):43-56. doi: 10.2337/dsi21-0015. Epub 2022 Feb 8.

Wiedner A, Elwood S, Koopman R, Phillips J, **Schmitz D**, Li L, Catinella A, Robinson J, Rianon N, Peek C, Asif I. Negotiating a New Chair Package: Context and Considerations. *Family Medicine and Community Health Journal* (Accepted for Publication)

L, Pollack S, Andrilla C, Morgan Z, Longenecker R, **Schmitz D**, Evans D, Patterson D. Academic Achievement and Competency in Rural and Urban Family Medicine Residents. *Family Medicine* (Accepted for Publication)

Pollack S, Peterson L, Morgan Z, Longenecker R, **Schmitz D**, Evans D, Patterson D. Rural Versus Urban Family Medicine Residency Scope of Training and Practice. *Family Medicine* (Accepted for Publication)

**Schmitz D**, Casapulla S, Patterson D, Longenecker R. "Building Rural Primary Care Research by Connecting Rural Programs" *Family Medicine* (Accepted for Publication)

Terry D, Peck B, Hills D, Bishop J, Kirschbaum M, Obamiro KO, Phan H, Baker E, **Schmitz D**. The Pharmacy Community Appgar Questionnaire: a modified Delphi technique to develop a rural pharmacist recruitment and retention tool. *Rural and Remote Health*. 2022 Nov 29;22(4):7347-.

Terry D, Peck B, Hills D, Bishop J, Kirschbaum M, Obamiro K, Phan H, Baker E, **Schmitz D**. Sustaining rural pharmacy workforce understanding key attributes for enhanced retention and recruitment. *Australian Journal of Rural Health*. 2022 Nov 1.

Kim S, Chiu T, Klug MG, **Schmitz D**, Schwartz GG. Interventions to promote home radon testing: A randomized clinical trial of a smartphone app vs. printed brochures. *Cancer Medicine*. 2022 Jun 28.

Zhang Y, Moore T, Weidner A, Nguyen V, Longenecker R, **Schmitz D**, Bergeson K, Evans D. Exploration of Remote Didactics at Rural Family Medicine Training Programs. *Family Medicine*. 2022;54(5):362-3.

Co-Author **Schmitz, D.** (2022) National Advisory Council on the National Health Service Corps. National Health Service Corps at 50: Accomplishments, Adaptations, & Aspirations [White paper]. Report of the National Advisory Council of the National Health Service Corps, Committee member. Retrieved from <https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/nhsc-5t0-accomplishments-adaptations-aspirations.pdf>

Co-Author **Schmitz, D.** (released 2022) Readiness to Practice Protocol for Health Care Providers in Underserved Communities: Facilitators, Barriers, and Potential Measures [White Paper] 2021. Report of the National Advisory Council of the National Health Service Corps, Committee member. Retrieved from: <https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/national-health-service-corps/nacnhsc-practice-protocol-hcp-underserved-communities.pdf>

Co-Author **Schmitz, D.** (2022) Recommendations for Priorities to Support National Health Service Corps Efforts to Address the U.S. Health Care Workforce Shortage, 2021-2023 [White Paper]. Report of the National Advisory Council of the National Health Service Corps, Committee member. Retrieved from: <https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/national-health-service-corps/nhsc-healthcare-shortage-2021-2023.pdf>

## **2. All scholarly presentations from 2022 (include meeting information and information about who and what was presented).**

Gauthier C, Teigen L, **Beal JR**, Sahmoun AE. Association Between Wait-Time for TAVR Procedure and Post-Operative FEV1%. Medical Students Best Poster- 2nd Place. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Braaten, KC, Limke WL, **Beal JR**, Sahmoun AE (Poster). Association between Bullying and Sexual Assault and Risky Sexual Behavior in Adolescents. Medical Students Best Poster- Honorable Mention. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Bau HM, Fussy KA, Sahmoun AE, **Schmitz DF**, **Beal JR**. Association of Rural Maternal Residence with Maternal and Infant Morbidity in North Dakota. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Bernard S, McLearn A, Wold M, Sahmoun AE, **Beal JR**. Adequacy of prenatal care in relation to treatment for suspected neonatal sepsis among women in North Dakota. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Bokinskie KL, Eidsness EM, **Beal JR**, Sahmoun AE. Association between Insurance Coverage and Women's Choice of Contraception. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Bueide P, Lund J, Sahmoun AE, **Beal JR**. Association between Provider Specialty and Management of Shoulder Pain in United States Clinics. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Corum NJ, Slaubaugh KJ, Sahmoun AE, **Beal JR**. Association between Race and Cardiac Workup among Women Presenting with Chest Pain to Emergency Departments in the United States, 2011-2019. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Fedje-Johnston W, Sogard O, Sahmoun AE, **Beal JR**. The Association Between Race and Diagnostic Imaging Use in Emergency Department Trauma Encounters. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Floura MT, Stern JJ, Sahmoun AE, **Beal JR**. Association of Obstructive Sleep Apnea with Cardiovascular and Psychiatric Diseases. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Haven L, Herberg M, Sahmoun AE, **Beal JR**. Association between Race and STI-related Screening and Education among Adolescent Females in the United States. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Jesme CA, Heitkamp LM, **Beal JR**, Sahmoun AE. Association between Types of Smoking and Risky Behavior among Adolescents. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Litchfield WR, **Beal JR**, Sahmoun AE. Association between Diabetic Retinopathy and Preventive Healthcare among Diabetics. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Solc M, Bjerke R, **Beal JR**, Sahmoun AE. Association Between Out-of-Pocket Cost and Lung Cancer Screening. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Morehart B, Grindberg S, Sahmoun AE, **Beal JR**. Association between Maternal Obesity and Adverse Neonatal Outcomes among Preterm Premature Rupture of Membranes Complicated Pregnancies. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Pekas D, Telken W, Sahmoun AE, **Beal JR**. Association between Race and Utilization of Pain Medications in Children with Long Bone Fractures in United States Emergency Departments, 2011-19. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Pius-Stewart A, Verdugo MQ., Riggle C, **Beal JR**, Sahmoun AE. Social determinants of health: Association of immigration status with healthcare access, quality of care, and the desire to seek treatment. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Rosenau PS, Palme AL, **Beal JR**, Sahmoun AE. Association between Adverse Childhood Experiences and Unhealthy Behaviors in Adults. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Rummel KA, Sahmoun AE, **Beal JR**. Association between Cancer Status and Opioid Utilization in United States Emergency Departments 2012-2019. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022

Saravana K, Al Saegh A, O'Connell AM, **Beal JR**, Sahmoun AE. Association between Immigrant Status and Having a Primary Place of Care. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Schafer JL, Graber, RA, Sahmoun AE, **Beal JR**. Association of Clinic Location and Antibiotic Utilization for Acute Otitis Media. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Selland A, Sarah Wherley S, **Beal JR** and Sahmoun AE. Association between health insurance status and vaccinations received. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Shearer J, Weisel C, Thompson D, **Beal JR**, Sahmoun AE. Association Between Race and Arthritis Disease Management. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Solc M, Bjerke R, **Beal JR**, Sahmoun AE. Association Between Out-of-Pocket Cost and Lung Cancer Screening. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Thelen MD, Ellingson CM, Sahmoun AE, **Beal JR**. Association between Psychiatric Disorders and Management of Older Adults with Dementia. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Toumeh N, Kong S, **Beal JR**, Sahmoun AE. Association Between Smoking Status and Pap Smear and hrHPV Cervical Cancer Screening. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Valerius AR, Hecker AE, Sahmoun AE, **Beal JR**. Patterns and Predictors of Anti-Depression Treatment in Patients with co-morbid Parkinson's Disease and Depression. 41st Annual Frank N. Low Research Day, Grand Forks ND, April 21, 2022.

Bau H, Fussy K, Sahmoun AE, **Schmitz D, Beal JR** (Poster-Submitted). 2022 AAFP National Conference of Family Medicine Residents & Medical Students - American Academy Of Family Physicians, Kansas City, MS July 28-30, 2022

Bernard S, McLearn A, Wold M, **Beal JR**. (Poster-Submitted). Inadequate Prenatal Care a Risk Factor for Suspected Neonatal Sepsis in a Rural State. American College of Obstetricians and Gynecologists District VI: 2022 Annual District Meeting, September 16-18, 2022.

**Connell, Joan**. Health Equity Ambassador Training Program- virtual meeting sponsored by Minot State University to train college students in public health -"Health Equity- As it Applies to Covid-19"-9/14/22

**Hostetter, Jeffrey**. AFMRD Mentor Monday Presentation "Dealing with Conflict" 4/4/2022, Virtual from Bismarck, ND

**Hostetter, Jeffrey**. RTT Collaborative Annual Scholarly Intensive, 1/20/22, Invited presentation: Plenary address, "The Unique Challenges and Opportunities for Research in Rural Medical Education", Athens, OH (Virtual)

**Johnson EL**, Werremeyer A, Lindseth G, Petros T. Keynote Panel: Interprofessional Collaborations in practice, research, and education. Bridging Research with Practice: an Interprofessional

Collaboration Conference Hosted by North Dakota Nurses Association October 21, 2022, Holiday Inn, Fargo, ND.

**Johnson EL**, Relling D, Hanson D, et al. Interprofessional Telehealth Simulations for Health Science Students. Bridging Research with Practice: an Interprofessional Collaboration Conference Hosted by North Dakota Nurses Association October 21, 2022, Holiday Inn, Fargo, ND.

Aroda V, **Johnson EL**. ADA Hands On Webinar: Clinical Update-Treatment Intensification with Non-insulin Therapies. American Diabetes Association Webinar August 9, 2022.

Weyrauch S, **Johnson EL**. Interprofessional Management of Complex Older Adults with Diabetes. American Physical Therapy Association Combined Sections Meeting (virtual), February 3, 2022.

**Luger, Brynn**. Presenter (2022), North Dakota Counseling Association conference. Indigenous Healing in Decolonized Spaces

**Luger, Brynn**. Guest lecturer (2022), Dealing with Trauma and the Effects on Mental Health, American Academic Procedural Committee

**Sandroni, Peter**. Presentation entitled “10-Year Mock Self-Study of the UND Minot Program”, given at The RTT Collaborative Annual Meeting, April, 2022 in Stevenson, WA

Stutzman, K., Longenecker, R., **Schmitz, D.** (2022) Patient and Community Centered Care in the Rural Landscape. AAFP National Conference for Family Medicine Residents and Medical Students.

**Schmitz, D.**, Barclay, M. (2022) The Community Apgar Project: An Evidence-Based Tool for Improving Communities’ Recruitment and Retention of Healthcare Workforce (Keynote Speaker). Pennsylvania Rural Recruitment Summit: Increasing Access to Care. State College, PA.

**Schmitz, D.** (2022) Research Perspectives on Rural Provider Recruitment and Retention (Invited Panel Member). Veterans Rural Health Advisory Committee, Office of Rural Health, U.S. Department of Veterans Affairs (Online).

**Schmitz, D.**, Barclay, M., Kusler, S. (2022) The Community Apgar Project and 3RNet Factors Book: A Collaboration for Improving Rural Communities’ Recruitment and Retention of Physicians. RCORP (Rural Community Opioid Response Program) 2022 Reverse Site Visit: Building Healthier Rural Communities Through Partnership and Perseverance, HRSA (Online).

**Schmitz, D.** Stone Soup: Leadership and Facilitation of Success in Faculty Scholarship. The RTT Collaborative Annual Scholarly Intensive for Rural Programs. (Online).

**Schmitz, D.**, Schwartz, G., Klug, M. (2022) The ND Quit Line as a Tool for Identifying Disparities in Radon Knowledge Among People Who Smoke. The National Conference on Tobacco or Health. New Orleans, LA.

**Schmitz, D.**, Stahl, C., Kusler, S., Baker, E. (2022) HPERC Community Apgar: Engaging the Community in Rural Health Professions Education. National Rural Health Association Annual Conference. Albuquerque, NM.

Kim, S., Chiu, T., Klug, M., **Schmitz, D.** and Schwartz, G. (2022). Interventions to Promote Home Radon Testing: A Randomized Clinical Trial of a Smartphone App vs. Printed Brochures. Frank Low Research Day, University of North Dakota School of Medicine and Health Sciences. Grand Forks, ND.

**Sherman, K., Delage, B., Kusler, S., Schmitz, D.** (2022) Highlighting Bright Spots: State Initiatives. NRHA Rural Medical Educators Pre-conference. Albuquerque, NM.

**3. All book chapters from 2022 (include citations).**

**Luger, Brynn.** Book chapter co-author (2022) McCubbin, L., Luger, B., Park., C., & Chin, S. (in press). *Native American Psychosocial Identity - Worldviews and Community Structures*. The Case of Native Hawaiians: Indigenous Well-Being and Healing Practices. Oxford, UK: Oxford.

**Sherman, Kamille.** Conn's Current Therapy 2022. Elsevier Publishing. Book Editors: Kellermann, R and Rakel, D. Sherman, Kamille S: Section 14, Skin Disease, *Sunburn*, Pages 1103-1104.

**4. All funded grants on which faculty participated in 2022.**

**Connell, Joan.** Maternal Child Health Grant from NDDHHS Special Health Services- Pediatrician for Children's Regional Asthma Clinic grant.

**Connell, Joan.** Recipient Maternal Child Health Grant from NDDHHS Special Health Services- Adolescent Well Checks in Sioux County-November 1, 2022- September 30, 2023- \$40,000.

**Johnson, Eric.** Grand Forks Human Nutrition Research Center Medical Officer-USDA

**Johnson, Eric.** National Science Foundation (NSF) NSF RII Track-2 FEC Edge AI Project University of South Alabama, Alabama A&M, University of Arkansas, North Dakota State University, University of North Dakota, Nueta Hidatsa Sahnish College

**Malhi, Renu, Sandroni, Peter.** The UND CFM, Minot partnered with the UND Department of Geriatrics (The Dakota Geriatrics Workforce Enhancement Program, a HRSA funded contract) to achieve Age Friendly certification and bring better care to older adults in the Minot and Warn County community. This included a monetary grant/allocation to the UND CFM Minot. For the Minot CFM, this project was directed by Renu Malhi, MD.

**Sauter, Shannon.** Regional children's asthma clinic grant

**Sauter, Shannon.** HIV/HCV prevention grant

**Sauter, Shannon.** Title X family planning, Custer County grant

**Schmitz, David.** Promoting Radon Testing via Smartphone App: A Clinical Trial in a High Radon State (DaCCoTA Feasibility Pilot Grant), DHHS – NIH, Federal, \$38 920.00, 09/01/2021-08/31/2022.

**5. Any other scholarly activity from 2022.**

**Connell, Joan.** Associate Editor, Aquifer Pediatrics

**Connell, Joan.** Case Editor Aquifer Pediatrics: Harris MA. Pediatrics 09: 6-day-old female with jaundice. [www.aquifer.org](http://www.aquifer.org)



**Connell, Joan.** In training to become a certified life coach through Committee on Medical Student Education in Pediatrics (COMSEP)

**Connell, Joan.** PALS instructor for “Vascular Access” “Shock Cases” - November 8, 2022

**Evans, Patrick.** Site manager for CFM-Minot participation in Dr. Hostetter’s BeSafe colon cancer screening study

**Evans, Patrick.** Institute of Healthcare Improvement Maintenance of Certification Modules in both Quality Assurance and Patient Safety. These modules were necessary for my roles as the Rotation Director for Health System Management at the CFM-Minot Residency and for my roles as Medical Safety Officer and Clinic Medical Director at CFM-Minot

**Evans, Patrick.** 12/31/2022 have completed the requirements for the Institute of Healthcare Improvement’s Basic Certification in Quality Assurance and Patient Safety. This is in preparation for establishing a series of QA and scholarly research projects with other faculty at our facility and to add to my qualifications to teach the Health System Management rotation.

**Hostetter, Jeffrey.** Teach ACLS, PALS, and ATLS courses to community providers multiple time per year

**Hostetter, Jeffrey.** Developed curriculum and taught the following resident didactic conferences: EKG Interpretation, Journal Club, Geriatrics, Practice Management

**Hostetter, Jeffrey.** Developed curriculum, taught and precepted the following resident rotations: Community and Population Medicine, Geriatrics

**Hostetter, Jeffrey.** Precepted the following medical student rotations: Family Medicine Required MS 3, Family Medicine AI MS 4

**Johnson EL** American Diabetes Association. Know Your Diabetes By Heart. Online webinar continuing education program, Fall 2022.

**Luger, Brynn.** Accepted to attend a workshop in October 2022 for Promoting Indigenous Research Leadership (PIRL) in Grand Forks, ND. This is a three-day workshop designed to promote the research careers of Indigenous and other early-career faculty working with Indigenous communities.

**Luger, Brynn.** Research project (2022), Luger, B., McCubbin L., and Park, C. *Social Activism, Indigeneity, and Healing. Examining the Lived Experiences of Indigenous Land and Water Protectors: A Qualitative Analysis.*

**Luger, Brynn.** Manuscript (2022), Luger, B and Korcuska, J. Lifting the Lived Experiences of Native American Counselors Working on the Reservation: An Interpretive Phenomenological Analysis.

**Sandroni, Peter.** Completed National Institute for Program Director Development (NIPDD): This program is designed to provide a comprehensive education in the knowledge, skills, attitudes, and attributes needed by successful residency program directors. I completed this training and was awarded a Certificate of Completion.

**Schmitz, David.** Externally funded research grants: CAH CEO and HPERC Community Apgar Projects (ND State Office of Rural Health). [faculty time is in-kind to Center for Rural Health]

**Schmitz, David. Delage, Bryan, Sherman, Kamille.** Project ECHO: HPERC (Health Profession Education in Rural Communities), 3-part series funded by ND State Office of Rural Health).

**Schmitz, David.** Editorial Board Member, Journal of Rural Health

**Schmitz, David.** Reviewer for 7 Peer-Reviewed Journals

## **Population Health**

### **1. Gary Schwartz**

#### **Publications:**

Schwartz GG, Klug MG, Williamson MR, Schwartz HM. Criterion validity of radon test values reported by a commercial laboratory versus the Environmental Protection Agency. International Journal of Environmental Research and Public Health 2022, 19, 3615.

Kim S, Chiu T, Klug MG, Schmitz D, Schwartz GG (corresponding). Interventions to promote radon home testing: A randomized clinical trial of a smartphone app vs. printed brochures. Cancer Medicine, published, June 19, 2022.

Anthony K, Collins J, Love S-A, Stewart J, Buchheit S, Gondalia R, Schwartz GG, Huang D, Meliker J, Zhang Z, Barac A, Desai P, Hayden K, Honigberg M, Jaiswal S, Natarajan P, Bick A, Kooperberg C, Manson J, Reiner A, Whitsel E. Radon exposure, clonal hematopoiesis, and stroke susceptibility in the Women's Health Initiative, Stroke, submitted.

#### **Presented Talks:**

NIH, "Radon and stroke risk in the Women's Health Initiative Study, Washington, DC, May, 2022

EPA Radon Stakeholders Conference, Moab, UT, 4/2022, Knowledge and practices concerning radon among family physicians in a high radon state"

International Radon and Vapor Intrusion Symposium, 10/2022, Bellevue, WA. "Radon education via smartphone".

#### **Funded grants:**

Source: Prevent Cancer Foundation

Total: \$100,000 (7% effort), P.I.

Title: A Clinical Trial of Radon Communication Methods: Smartphone App vs. Brochure

Term: 1/2022 – 12/2024

Source: National Center for Healthy Housing, Mini-Grants

Total: \$5,000, P.I.

Title: Creating a digital radon test lending library in Grand Forks, North Dakota

Term: 6/2022 – 12/2023

## **2. Marilyn Klug**

### Publications:

Sim K, Chiu T, Klug MG, Schmitz D, Schwartz GG. Interventions to promote home radon testing:

A randomized clinical trial of a smartphone app vs printed brochures. Cancer Medicine June 2022.

Nadeau M, Best LG, Klug MG. Exploring Clinical Risk Factors for Breast Cancer Among

American Indian Women. Frontiers in Public Health June 22, 10: 840280

G Schwartz, D Lutz, M Bell, **M Klug**. 39P Longitudinal increases in albumin-adjusted serum

calcium predict ovarian cancer. Annals of Oncology 33, S398-S399, 2022

Weisel CL, Dyke CM, **Klug MG**, Haldis TA, Basson MD. Day-to-day blood pressure variability

predicts poor outcomes following percutaneous coronary intervention: A retrospective study World Journal of Cardiology 14 (5), 307-318, 2022

Harris NC, Nielsen S, **Klug MG**. Level I Fieldwork Using Simulation: Student Performance

Outcomes and Perceptions. Journal of Occupational Therapy Education 6 (2), 16, 2022

Schwartz GG, **Klug MG**, Williamson MR, Schwartz HM. Criterion Validity of Radon Test Values

Reported by a Commercial Laboratory versus the Environmental Protection Agency.

International Journal of Environmental Research and Public Health 19 (6), 3615, March 2022.

Rogers O, Graves C, Turner T, Hanson DJ, **Klug MG**. Level II Fieldwork E el II Fieldwork Educators'

Perceived and Experienced Challenges with Using the Collaborative Fieldwork

Supervision Model. Journal of Occupational Therapy Education 6 (1), 12, 2022.

## **Physical Therapy**

## 1. David Relling

Martin C., Chepeus J., Peterson M.L., Sigmund-Gaines M., **Relling D.** (2022) Mining Your Data – Exploring Trends in Licensure. Federation of State Boards of Physical Therapy Annual Meeting: Riding the Waves of Regulation. Orange County CA. October 27-29, 2022.

Johnson, E.L\*, **Relling, D.**\*, Van Eck, R., Janssen, S., Hanson, D. \*, Burns C., Allen, J. (2022). Interprofessional Telehealth Simulations for Health Science Students. North Dakota Nurses Association Bridging Research with Practice conference. Fargo ND. October 21, 2022

## 2. Mark Romanick

Schindler G, Fitzgerald J, Halcrow S, **Romanick M**, Rhoades J. Reliability of subtalar neutral placement as baseline for dynamic navicular drop measurement. J Orthop Sports Phys Ther. 2022;52(1):CSM124-125. <https://doi.org/10.2519/jospt.2022.52.1.CSM55> (Abstract)

**Romanick MA.** Epidemiology of Performing Arts Injuries. Performing Artists Special Interest Group Citation Blast. March 2022. (non peer reviewed)

Schindler G, Fitzgerald J, Halcrow S, **Romanick M** (presenter), Rhoades J. Reliability of Subtalar Neutral Placement As Baseline for Dynamic Navicular Drop Measurement

APTA Combined Sections Meeting - San Antonio, TX  
February 3, 2022 (Poster presentation)

**Romanick MA**, Caine DJ, Goodwin BJ, Schuch T, Hanson C. A 15-year regional emergency department study of youth sport and recreational injuries.

Submitted to Research in Sports Medicine (not accepted)

Submitted to Health Promotion and Physical Activity (in review)

**Romanick MA**, Mohr P. Teaching clinical anatomy and rehabilitation through simulated cadaveric surgery.

Submitted to Anatomical Sciences Education (in review)

## Meridee Danks

**Meridee Danks DPT**, NCS presented webinar “Fall Risk Assessment and Management” for Project ECHO Geriatric teleECHO, December 13, 2022

**Meridee Danks DPT**, NCS and Scinda Janssen PH.D. OTR/L, CLA, FAOTA presented “Functional Neurorehabilitation after Stroke: A Case Study at UND Homecoming Conference - Interprofessional Approaches to Neurological Disorder, UND SMHS Continuing Education Symposium, September 30, 2022.

**Danks M.** The Effectiveness of the “Stepping On” Program for Reducing the Incidence of Falls in the Elderly (previously poster presentation at APTA CSM). Oral Poster Presentation. Dakota Conference on Rural and Public Health, Grand Forks, ND, June 8, 2022.

HRSA Grant application for the 2019 - 2024 Dakota Geriatric Workforce Enhancement Program (GWEP) submitted by Dr. Donald Jurivich, UNDSMHS Geriatrics Department. Funded April, 2019. PT role: Innovation Team 1:

Geriatrics education, serve as core faculty for IPE educational products that include online gamification of Geriatrics curriculum, tele-mentoring with project ECHO, Geriatrics Twitter Poll for IPE, Geriatrics Population Health simulations, and community service education. Also, assist with train the trainers via the Dakota IPE Teaching Academy. (\$3.75 million)

### 3. **Cindy Flom-Meland**

Haladay D, Morris Z, Applebaum D, Fitzgerald C, **Flom-Meland C**, et al. Educational Leadership Conference, Milwaukee, WI, October 2022. Poster Presentation – *Development of an Evidence-Based Practice-Specific EPA for DPT Students: A Modified Delphi Study*.

Haladay D, Morris Z, Applebaum D, Fitzgerald C, **Flom-Meland C**, et al. Educational Leadership Conference, Milwaukee, WI, October 2022. Poster Presentation – *Development of an Evidence-Based Practice-Specific EPA for DPT Students: A Modified Delphi Study*.

### 4. **Gary Schindler**

**G Schindler**, J Fitzgerald, S Halcrow, M Romanick, J Rhoades) Combined Sections Meeting Poster February 03-05, 2022, San Antonio, TX *Reliability of Subtalar Neutral Placement as Baseline for Dynamic Navicular Drop Measurement*

### 6. **Steven Halcrow**

G Schindler, J Fitzgerald, **S Halcrow**, M Romanick, J Rhoades) Combined Sections Meeting Poster February 03-05, 2022, San Antonio, TX *Reliability of Subtalar Neutral Placement as Baseline for Dynamic Navicular Drop Measurement*

### 7. **Mohamed Elhamadany**

Elhamadany **M\***, Hoffman K., **Application of the International Classification of Functioning, Disability, and Health (ICF) During Physical Therapy Management of a Child with Idiopathic Toe Walking, A Case Study**. APTA Pediatrics Annual Conference. Nov 18-20, 2022

### 8. **Emily Henneman**

**Henneman E\***, Flom-Meland C. Poster Presentation: *Perceptions of Physical Therapy Students on End-of-Life Curriculum and Preparedness for Clinical Education Experiences*. 2022 APTA Educational Leadership Conference. Milwaukee, WI. October 27, 2022.

**Henneman E\***, Jeno S. Oral Platform Presentation: *Difficult Conversations and Delivering Bad News: Are Physical Therapy Students Prepared?* 2022 APTA Educational Leadership Conference. Milwaukee, WI. October 30, 2022

**Henneman E\***, Salome, T\*. Session Presentation: *Physical Therapy in Hospice 101*. 2022 APTA Combined Sections Meeting. San Antonio, TX. February 5, 2022.

## **Department of PA Studies**

### **1. Jay Metzger, MPAS, PA-C, Assistant Professor/Program Faculty, DPAS**

Metzger, J. (2022, October 7). *COPD Update* [Conference session]. North Dakota Academy of Physician Assistants Primary Care Conference, Bismarck, ND.

Poster Presentations, Scholarly Projects of UND's MPAS Class of 2022, held May 3, 2022 at the School of Medicine & Health Sciences

*The Role of Ketamine in the Management of Chronic Pain*

Hugh W. Cline III, PA-S & Jay Metzger, MPAS, PA-C

*Combination Thyroid Hormone Therapy in the Treatment of Hypothyroidism*

Jessica Johnson, PA-S & Jay Metzger, MPAS, PA-C

*Ketamine Use in Refractory Depression*

McKenzie K. Kemmet, PA-S & Jay Metzger, MPAS, PA-C

*Biomarkers in the Detection of Alzheimer's Disease*

Karen Kenny, PA-S & Jay Metzger, MPAS, PA-C

*Monotherapy vs. Polypharmacy: SNRIs for the Management of Mood Disorders and Chronic Pain*

Rachel Levy, PA-S & Jay Metzger, MPAS, PA-C

*Epigenetics as Primary Prevention of Coronary Artery Disease*

David Majewski PA-S & Jay Metzger, MPAS, PA-C

*Obstetrical Morbidity and Mortality in Women of Color*

Shacara Pratt, PA-S & Jay R. Metzger, MPAS, PA-C

### **2. Vicki Andvik, MPAS, PA-C, Assistant Professor/Program Faculty, DPAS**

Andvik, V. (2022, October 7). *Global Treatment Strategy for Chronic Migraine* [Conference session]. North Dakota Academy of Physician Assistants Primary Care Conference, Bismarck, ND.

Andvik, V. (2022, September 30). *Global Treatment Strategy for Chronic Migraine* [Conference session]. UND Homecoming Symposium, Grand Forks, ND

Andvik, V. (2022, May 5). *Global Treatment Strategy for Chronic Migraine* [Conference session]. North Dakota Academy of Physician Assistants Primary Care Conference, Fargo, ND.

### **3. Jeanie McHugo, PhD, PA-C, Professor/Chair and Program Director, DPAS**

Oral Presentations – National Meetings

“The Leadership Challenge Workshop” co-presenter, invited for Adult Protective Services of MO; workshop included individual coaching sessions for six attendees – October, 2022

“Leadership is Everyone’s Business” co-presenter, invited for Wellpath Management Team, virtual – bimonthly from June – September, 2022

“Inspire a Shared Vision” primary presenter, invited presentation for The Leadership Challenge Advanced Facilitator Teachback, Fort Collins, CO – August, 2022

“Leadership is Everyone’s Business” Black History Month co-presenter, invited for Leadership Team, virtual June, 2022

“Introduction to Accreditation” co-presenter, invited presentation for PAEA New PD Jump Start, virtual – February, 2022

“Overview of Academia and the Program Director Role” co-presenter, invited presentation for PAEA New PD Jump Start, virtual – February, 2022

“Budgeting and Financial Management” co-presenter, invited presentation for PAEA New PD Jump Start, virtual – February, 2022

“Student Remediation and Management Issues” co-presenter, invited presentation for PAEA New Program Director Jump Start, virtual – February, 2022

“The Leadership Challenge for Managers” co-presenter, invited for Physicians Health Partners Management Team, virtual – biweekly from September, 2021 through February, 2022

#### Oral Presentations – Local

“The Leadership Challenge Workshop” co-facilitated and organized for UND Staff; workshop included individual follow-up coaching for 13 attendees – June 2022

“Elevate” Leadership Event, invited presentation for the Teaching Transformation and Development Academy at UND – April, 2022

#### Professional Development Activities

- Program Director Retreat – virtual PAEA workshop; Dec 2022
- Active Shooter Training (UND SMHS); Nov 2022
- Primary Care: Getting to the Heart of Medicine (UND SMHS); Oct 2022
- PAEA Annual Education Forum – virtual conference; Oct 2022
- Self-Empowered Leadership Facilitation Course; Oct 2022
- Challenge Accepted - Leadership Workshop; Oct 2022
- UND CME Symposium (SMHS) – neurological conditions; Oct 2022
- Diversity, Equity and Inclusion University Workshop; May 2022
- “Elevate” TTaDA sponsored Faculty Study Series; Spring 2022
- The Leadership Challenge Pay It Forward Workshop; Jan 2022

#### Poster Presentations, Scholarly Projects of UND’s MPAS Class of 2022, held May 3, 2022 at the School of Medicine & Health Sciences

##### *An Overview of MRNA Vaccine Technology*

Rachel N. Bruening PA-S & Jeanie McHugo, PhD, PA-C

##### *Is MDMA a Safe and Effective Adjunct for Treatment of Posttraumatic Stress Disorder*

Angela Emerson, PA-S & Jeanie McHugo, PhD, PA-C

##### *Vitamin D Concentrations and COVID-19 Outcomes*

Bennett A. Leitch, MS, ATC, PA-S & Jeanie McHugo, PhD, PA-C

*Efficacy of Probiotic Supplementation for Weight Loss in Overweight and Obese Adults*  
Kelsie Tescher, PA-S & Jeanie McHugo, PhD, PA-C

#### **4. Julie Solberg, MSPAS, PA-C, Assistant Professor/Program Faculty, DPAS**

Solberg, J. (2022, October 7). *Osteoporosis Overview* [Conference session]. North Dakota Academy of Physician Assistants Primary Care Conference, Bismarck, ND.

On-going research, IRB approved project: *PA Student Stress Survey*

Poster Presentations, Scholarly Projects of UND's MPAS Class of 2022, held May 3, 2022 at the School of Medicine & Health Sciences

*Hepatitis C Treatment for Substance Users in North Dakota*  
Jenae Arnold BS, RRT, PA-S & Julie Solberg, MSPAS, PA-C

*Comparison of Selective Serotonin Reuptake Inhibitor Monotherapy and Dual Therapy with Physical Exercise in Mood Disorders*  
Sean Core, PA-S & Julie Solberg, MSPAS, PA-C

*The Impact of Continuous Glucose Monitoring in the Management of Type II Diabetes*  
Benjamin Graf, PA-S & Julie Solberg, MSPAS, PA-C

*Botulinum Toxin for the Treatment of Leg Spasticity in Children with Cerebral Palsy*  
Kathleen Matzke, PA-S & Julie Solberg, MSPAS, PA-C

*Epidemiology of Children with ADHD in Rural Versus Metropolitan Settings*  
Miranda Nygaard, PA-S & Julie Solberg, MSPAS, PA-C

*Non-pharmacologic and Alternative Management of Chronic Pain in Multiple Sclerosis*  
Kylie Pastian, PA-S & Julie Solberg, MSPAS, PA-C

*Anxiety Treatment in Health Science and Medical Students*  
Rachel Sperl, PA-S & Julie Solberg, MSPAS, PA-C

*Multimodal Pain Management to Reduce Opioid Use after Cholecystectomy*  
Danielle Tretbar, PA-S & Julie Solberg, MSPAS, PA-C

#### **5. Kristen Carr, MPAS, PA-C, DipACLM, Assistant Professor/Program Faculty, DPAS**

Carr, K. (2022, May 5). *Lifestyle Medicine: A Prescription for Change* [Conference session]. North Dakota Academy of Physician Assistants Primary Care Conference, Fargo, ND.

Carr, K (2022, March 1-December 31). Participant in the *Geriatric Workforce Enhancement Program*. Grant funded by Health Resources and Services Administration (HRSA). Contributions include: PA Program gap analysis; Incorporating Geriatric content into current MPAS curriculum; Project ECHO lecture: Sensory Impairment; and dispersing Geriatric content to network: Faculty/Students/Preceptors.



## **6. Russ Kauffman, MPAS, PA-C, Assistant Professor/Program Faculty, DPAS**

Kauffman, R. (2022, October 7). *Continuous Glucose Monitors* [Conference session]. North Dakota Academy of Physician Assistants Primary Care Conference, Bismarck, ND.

Poster Presentations, Scholarly Projects of UND's MPAS Class of 2022, held May 3, 2022 at the School of Medicine & Health Sciences

*Effects of the COVID-19 Pandemic on the Health of American Indians*  
Heather Bates, PA-S & Russ Kauffman, MPAS, PA-C

*Migraine with Aura versus Seizure: Diagnosis and Treatment*  
Jessica Gifford, PA-S & Russ Kauffman, MPAS, PA-C

*Long Term Outcomes of Anti-retroviral Treatment vs. Additional Nutritional Supplementation for HIV Patients*  
Michael P. Gillispie, PA-S; Russ Kauffman MPAS, PA-C; Dr. Ellis Frazier MD; Dr. Marilyn Klug Ph.D., & Megan Denis MLIS

*Incidence of Coronary Artery Disease and Testosterone Replacement Therapy*  
Stephen Leard, PA-S & Russ Kauffman, MPAS, PA-C

*Evaluation of Early Primary Care Implementation of Point of Care Ultrasound in Outcomes of Patients with Dyspnea as Compared to Standard Diagnostic Exams*  
Chase McGlinchey, PA-S & Russ Kauffman, MPAS, PA-C

*Antimicrobial Stewardship and its Effects on Resistant Organisms*  
John D. Seifert, PA-S & Russ Kauffman, MPAS, PA-C

*The Indications and Potential Complications of Supplementing with Fat-Soluble Vitamins*  
Krista Thielges, PA-S & Russ Kauffman, MPAS, PA-C

## **7. Mindy Staveteig, MMS, PA-C, Assistant Professor/Program Faculty, DPAS**

Poster Presentations, Scholarly Projects of UND's MPAS Class of 2022, held May 3, 2022 at the School of Medicine & Health Sciences

*Best Second Oral Agent to Metformin to Manage Type 2 Diabetes*  
Dhana Acharya, PA-S; Mindy Staveteig, MMS, PA-C & Daryl Sieg, PA-C)

*Breast Conserving Therapy vs Mastectomy in Treatment of Early Breast Cancer Patients. Does BRCA1/BRCA2 Status Change Treatment Recommendations?*  
Kylie Engebretson, PA-S & Mindy Staveteig, MMS, PA-C

*How Does Access to Primary Care Affect The Latino Population*  
Brandon Harthan, PA-S & Mindy Staveteig, MMS, PA-C

*The Genetic Link to Postpartum Depression*  
Kelsey Krueger, PA-S & Mindy Staveteig, MMS, PA-C

## **8. Michelle Murphy, MS, PhD – Community Faculty, DPAS**

Murphy, M.P. & Hung, W. (2022, December 1). *Assessing meaning with text mining in R* [Workshop]. University College Bedër, Tirana, Albania.

Murphy, M.P. & Hung, W. (2022, October 26). *Facilitating physiology student mental model development through systems modeling* [Roundtable session]. Association for Educational Communications and Technology Annual Meeting, Las Vegas, NV.

Murphy, M.P. (2022, September 15). *Facilitating physiology student mental model development through systems modeling* [Seminar session]. Teaching, Learning and Scholarship Faculty Development Series, UND School of Medicine and Health Sciences, Grand Forks, ND.

Murphy, M.P. (2022, June 14). *Ranked benefit of active study strategies among physician assistant students* [Training session]. Occupational Therapy Department Faculty Development Session, UND School of Medicine and Health Sciences, Grand Forks, ND.

Murphy, M.P., & Hung, W. (2022, May 24). *Constructing system models to bolster threshold concept mental model accuracy* [Conference session]. North Dakota State University Teaching and Learning Conference, Fargo, ND.

Murphy, M.P., & Hung, W. (2022, April 25). *Using systems modeling in facilitating undergraduate integration of physiological concepts* [Poster presentation]. American Educational Research Association Annual Meeting, San Diego, CA.

Murphy, M.P., & Hung, W. (2022, April 23). *Perceived benefit of active study strategies among physician assistant students* [Conference session]. American Educational Research Association Annual Meeting, San Diego, CA.

Murphy, M.P., & Hung, W. (2022, April 21). *Ranked benefit of active study strategies among physician assistant students* [Poster presentation]. Frank Low Research Day, UND School of Medicine and Health Sciences, Grand Forks, ND.

Murphy, M.P., & Hung, W. (2022, April 7). *Ranked benefit of active study strategies among physician assistant students* [Conference session]. University of North Dakota College of Education and Human Development Research Fair, Grand Forks, ND.

Murphy, M.P., & Hung, W. (2022, April 7). *Using systems modeling in facilitating undergraduate integration of physiological concepts* [Poster presentation]. University of North Dakota College of Education and Human Development Research Fair, Grand Forks, ND.

## **Department of Occupational Therapy**

### **Faculty Effectiveness (August 2021 to December 2022)**

#### Overview:

17 of 17 faculty members responded to the survey regarding faculty effectiveness. The faculty body was comprised of 4 instructors, 7 assistant professors, 3 associate professors and 3 professors. The timeframe was from August 2021 to December 2022 as the content from August to December of 2021 was not previously reported as data was gathered prior to the ACOTE visit in 2021.

#### **1. All publications from 2022. (include citations): 18 (1 of which is a book chapter which is also listed below)**

#### Publication List:

Rogers, O., Graves, C., Turner, T., Hanson, D., & Klug, M. G. (2022). Level II fieldwork educators perceived and experienced challenges with using the collaborative fieldwork supervision model. *Journal of Occupational Therapy Education*, 6(1). <https://doi.org/10.26681/jote.2022.060112>

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Roehrich, H., Grabanski, J., & Miceli, N. (2022, September). Online group projects: Instructor path to creating student ownership. *Annual Marketing Management Association Educators' Fall Conference Proceedings*. Roehrich, H., Grabanski, J., & Miceli, N. (2021, October). A study of an undergraduate marketing degree program: Opportunities for collaborative, Inviting, and inclusive higher education practices. *Annual Marketing Management Association Educators' Fall Conference Proceedings*. Virtual Conference

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1. Haskins, A.M., Nielsen, S., Harris, N. Salentiny, A. & Klug. (2022, December conditionally accepted pending revisions). Professional Identity Building Scale (PIBS) development: Measuring self-authorship and dimensions of professional identity in graduate students. *Cogent Education*.

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As a final assignment in the OT 403 Research Methods in OT course, Year I doctoral students write critically appraised topic (CATs) papers based on topics provided by faculty that important for current practice. Students devise a formal clinical question, write case scenarios based on evidence, and answer the clinical question following a literature review of most recent evidence. Faculty members (Gail Bass, Breann Lamborn & Anne Haskins) for the course work with students formatively on the CATs and complete multiple reviews of the manuscripts. Once approved, the CATs are published to the UND Scholarly Commons. As of January 2023, the CATs for the Class of 2022 and Class of 2023 had been downloaded 15,000+ by people located more than 30 countries. These CATs are important publications because they represent the Scholarship of Integration and The Scholarship of Application, Practice & Engagement and, because they are open access, practitioners can readily use them to inform their practice. Website: <https://commons.und.edu/cat-papers/>

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Harris, N., Nielsen, S.K., & Klug, M.G. (2022). Level I Fieldwork Using Simulation: Student Performance Outcomes and Perceptions. *Journal of Occupational Therapy Education*. Accepted January 14, 2022

Original Papers Refereed: Harris, N. C., Nielsen, S., & Klug, M. G. (2022). Level I fieldwork using simulation: Student performance outcomes and perceptions. *Journal of Occupational Therapy Education*, 6 (2). <https://doi.org/10.26681/jote.2022.060216>

Larson, S.K., Nielsen, S., Hemberger, K., & Klug, M.G. (2021). Addressing puberty challenges for adolescents with ASD: A survey of occupational therapy practice trends. *American Journal of Occupational Therapy*, 75, 7503180020. <https://doi.org/10.5014/ajot.2021.040105>

Anderson, L., Annen, E., Dick, S., & Nielsen, S. (2021). Facilitating Successful Transition to Middle School: Implementing Effective Advisories. Product. Mountain Plains Mental Health Technology Transfer Center. <https://mhttcnetwork.org/centers/mountain-plains-mhttc/product/facilitating-successful-transition-middle-school>

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Hannebrink, S. & Loscheider, J. Seating and Mobility (in production). In Case-Smith Occupational Therapy textbook (new edition).

B. Farahani, R. Fadil, A. Aboonabi, J. Loscheider, K. Tavakolian and S. Arzanpour. (2022). Applying machine learning for intelligent assessment of wheelchair cushions from pressure mapping images. 44th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), 2022, pp. 3772-3775, doi: 10.1109/EMBC48229.2022.9871905. 2021

Farahani, B, Fadil, R, Aboonabi, A., Hoffmann, B., Loscheider, J., Tavakolian, K., Arzanpour, S. (2021). An image processing-based approach for assessing wheelchair cushions. *International Scholarly and Scientific Research & Innovation* 15(8) pp. 513-517.

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• Jurivich, D., Schimke, C., Snustad, D., Floura, M., Morton, C., Waind, M., Holloway, J., Janssen, S., Danks, M., Semmens, K., & Manocha, G.D. (2021). A New Interprofessional Community-Service Learning Program, HATS (Health Ambassador Teams for Seniors) to Improve Older Adults Attitudes about Telehealth and Functionality. *International Journal of Environmental Research and Public Health*, 18, 10082. <https://doi.org/10.3390/ijerph181910082> •

Floura, M., Morton, C., Jurivich, D, Waind, M., Janssen, S., Danks, M., Semmens, K., Brynjulson, R. and Dahl, L. (2021), HATS: Health Ambassador Teams for Seniors and Population Health Training. *Journal of American Geriatrics Society*, 69, S1. Abstract; Corresponding article also submitted •

Rachey, K., & Janssen, S. (2021, September). Self-neglect among older adults: The role of occupational therapy in interprofessional primary care teams. *AOTA's Occupational Therapy Practice*. 26(9). (primary

practice literary resource). Edited, non-blind peer-review Available to AOTA members at:  
<https://www.aota.org/Publications-News/otp/Archive/2021/self-neglect-older-adults.aspx>

**2. All scholarly presentations from 2022. (include meeting information and information about who and what was presented)**

- School of Medicine & Health Sciences presentations: 30
- University Presentations: 4
- Regional Presentations: 9
- National Presentations: 31
- International Presentations: 0

**Cumulative List of Presentations:**

Graves, C., Turner, T., Rogers, O., & Hanson, D. (2022). The collaborative fieldwork supervision model: An active approach for student learning. Pre-Conference Institute. American Occupational Therapy Association, March 20, 2022, San Antonio, TX. 10 Lauer, W., Graves, C., Lamborn, B., Janssen, S., & Young, A. (2021). Fostering student competencies in community-based settings through a high impact educational practice assignment. AOTA Education Summit, October 2021 [Virtual due to COVID-19]. Walthers, K., Zimmer, J., & Graves, C. (2021). The utility of smart home technology within occupational therapy practice. Poster Session. American Occupational Therapy Association Inspire Conference, April 2021 [Virtual due to COVID-19].

Lamborn, B. & Janssen, S. (2021, June/July). Teaching with diversity, equity, and inclusion. 5 part lecture series via Zoom with recording for faculty development. Department of Occupational Therapy, School of Medicine and Health Sciences, University of North Dakota. Grand Forks, North Dakota. (1.5 contact hours); Bass, G., Haskins, A., Lamborn, B., & Olson, D. (2021, October 14-15). The role of collective efficacy in course delivery: A case study of consistent learner outcomes across multiple sections, instructors and campuses in graduate research methods instruction. Northern Rocky Mountain Educational Research Association Annual Conference, Sun Valley, Idaho (Symposium – 1 hour). ;Haskins, A. M., Lamborn, B., Olson, D., Jedlicka, J., & Bass, G. (2022). Scholarship of discovery to application: Teaching research to capture the essence of evidence based practice. Short course at the annual INSPIRE conference of The American Occupational Therapy Association, San Antonio, Texas, USA. (1-hour);Lauer, W., Graves, C., Lamborn, B., Janssen, S., & Young, A. (2021, October 22-23). Fostering student competencies in community-based settings through a high impact educational practice assignment. American Occupational Therapy Association Education Summit, St. Louis, Missouri.

Roehrich, H., Grabanski, J., & Miceli, N. (2022, September). Online group projects: Instructor path to creating student ownership. Presentation at Marketing Management Association Educators' Annual Fall Conference. San Antonio, Texas. Roehrich, H., Grabanski, J., & Miceli, N. (2021, October). A study of an undergraduate marketing degree program: Opportunities for collaborative, inviting, and inclusive higher education practices. Presentation at Marketing Management Association Educators' Annual Fall

Conference. Virtual Conference. Juried Poster Session (2021). Finley, J., Timm, A., & Grabanski, J. A Group Protocol: Returning to Life for Women Post Breast Cancer Treatment. AOTA Inspire Conference. Banks, M., & Grabanski, J. (2022). The effects of retained primitive reflexes on student's occupational and academic performance in the school setting. Frank N. Low Research Day, Poster, School of Medicine and Health Sciences, Grand Forks, ND, April 21, 2022. Hudson, S. & Grabanski, J. (2022). Wheelchair seating and mobility for today's veteran: An advanced clinical practice experience and independent study. Frank N. Low Research Day, Poster, School of Medicine and Health Sciences, Grand Forks, ND, April 21, 2022. Longtin, H. & Grabanski, J. (2022). Creating a socially inclusive program to increase occupational engagement and performance in students. Frank N. Low Research Day, Poster, School of Medicine and Health Sciences, Grand Forks, ND, April 21, 2022. Schutt, S. & Grabanski, J. (2022). Transitional caregiver support from NICU to early intervention occupational therapy services. Frank N. Low Research Day, Poster, School of Medicine and Health Sciences, Grand Forks, ND, April 21, 2022. Stearns, K. & Grabanski, J. (2022). The sensory friendly classroom. Frank N. Low Research Day, Poster, School of Medicine and Health Sciences, Grand Forks, ND, April 21, 2022.

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Carrlson, R. (2022, November 15). Literacy in Early Intervention: Satisfaction, Knowledge, and Confidence of Occupational Therapists [Paper Presentation]. AOTA Literacy Community of Practice, Virtual. Carrlson, R., & Ozaki, C., (2022, March 29). Literacy in Early Intervention: Satisfaction, Knowledge, and Confidence of Occupational Therapists [Juried Poster Session]. AOTA Inspire Conference, San Antonio TX.

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Haskins, A.M. (2022, March 22). Wrist & hand prescriptive exercise. 2-hour presentation (invited) in PT 413: Exercise in Health and Disease for first year Physical Therapy doctorate students. University of North Dakota, Grand Forks, North Dakota, USA. Haskins, A.M. (2022, March 8). Elbow prescriptive exercise. 2-hour presentation (invited) in PT 413: Exercise in Health and Disease for first year Physical Therapy doctorate students. University of North Dakota, Grand Forks, North Dakota, USA. National: Haskins, A. M., Lamborn, B., Olson, D. & Bass, G. (2022, April). Scholarship of discovery to application: Teaching research to capture the essence of evidence-based practice. Poster Presentation at the annual INSPIRE conference of The American Occupational Therapy Association, San Antonio, TX, USA. (1-hour) Loscheider, J., Young, A., Nielsen, S., Janssen, S. & Haskins, A.M. (2022, April). Occupational therapy student safety readiness: A comprehensive safety check before level II fieldwork experience. One-hour short course at the annual INSPIRE conference of The American Occupational Therapy Association, San Antonio, TX, USA. (1-hour) Regional: Nickoson, D. & Haskins, A.M. (2022, April 21). Yoga as Occupational Therapy Intervention for Individuals with Upper Extremity Injuries. Poster session presented at the University of North Dakota Frank Low Research Day, Grand Forks North Dakota, USA. McGauvran, A. & Haskins, A.M. (2022, April 21). Bringing Peace to the River: Establishing Support Groups for Survivors of Loss by Suicide. Poster session presented at the University of North Dakota Frank Low Research Day, Grand Forks North Dakota, USA. Patel, S. & Haskins, A.M. (2022, April 21). Occupational therapist's role in addressing the psychological impacts of pain in clients with upper extremity conditions. Poster session presented at the University of North Dakota Frank Low Research Day, Grand Forks North Dakota, USA. Seaman, R. & Haskins, A.M. (2022, April 21). Upper extremity evaluation & intervention through the utilization of occupation-based activities within the Model of Human Occupation Perspective. Poster session presented at the University of North Dakota Frank Low Research Day, Grand Forks North Dakota, USA. Stecher, T. & Haskins, A.M. (2022, April 21). Enhancing Occupational Performance Outcomes for Individuals with Orthopedic Injuries that Includes Psychosocial Well-Being Considerations in Occupational Therapy. Poster session presented at the University of North Dakota Frank Low Research Day, Grand Forks North Dakota, USA. Local: Haskins, A.M. (2022, November 22). UND Occupational Therapy Program Introduction. Presentation presented at the University of North

Dakota School of Medicine & Health Sciences 11 students from Bishop Ryan High School. Grand Forks, North Dakota, USA. Haskins, A.M. (2022, August 19). Mindfulness. 20-minute presentation (invited) in Occupational Therapy PACES program for entering occupational therapy doctoral students. University of North Dakota, Grand Forks, ND, USA.

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Haas, C., & Harris, N. (2022). The development of a transition to motherhood education and support program: Elevate motherhood. Unpublished scholarly project. University of North Dakota, Grand Forks, ND. Harris, N., & May, J. (2022). A research study to identify gaps and barriers to mental health treatment in Natrona County. Unpublished scholarly project. University of North Dakota, Grand Forks, ND. Christopherson, K., & Harris, N. (2022). Unpublished scholarly project. Occupation, dissociation, & queer identity. University of North Dakota, Grand Forks, ND. Harris, N., & Reeves, R. (2022). Iris Clubhouse: Experiences of community integration. Unpublished scholarly project. University of North Dakota, Grand Forks, ND. Harris, N., & Madsen, C. (2022). Unpublished scholarly project. Oral hygiene education for patients and staff in an inpatient rehabilitation setting. University of North Dakota, Grand Forks, ND.

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#### Neuroplasticity and Occupational Recovery, 2022 UND SMHS Homecoming Continuing Medical Education Symposium

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Loscheider, J., Young, A., Nielsen, S., Janssen, S., Haskins, A. (2022). Occupational therapy student safety readiness: A comprehensive safety check before level II fieldwork experience, Short Course 108. Inspire. American Occupational Therapy Association Annual Conference and Expo, San Antonio, TX. March 31, 2022. Fox, L., Nielsen, S., Heitkamp, T., & Schroeder, S. (2021). Strengthening resilience: Promoting positive mental health among indigenous youth. Poster presentation, May 4, 2021, National Council for Behavioral Health Annual Conference, online May 3-5, 2021. Steinbeisser, K., Rivard, N., & Nielsen, S. (2021). Using occupation-based models to Analyze and respond to public health prevention efforts: A case study illustration. American Occupational Therapy Association INSPIRE virtual conference, April 19, 2021. Boldt, R., Rick, M., & Nielsen, S. (2021) Addressing the occupational needs of children with post traumatic brain injury in the school setting. American Occupational Therapy Association INSPIRE virtual conference, April 13, 2021. Nielsen, S., Bazyk, S., & Fox, L. (2021). Building capacity of interdisciplinary school teams to address mental health needs of students—A community of practice approach. American Occupational Therapy Association INSPIRE virtual conference, April 9, 2021. Fox, L., & Nielsen, S. (2021). Education to heal the broken circle of cultural genocide. National Association of African American Studies & Affiliates Conference, virtual presentation, February 16, 2021. Fox, L., & Nielsen, S. (2022). Building capacity of school personnel to address the mental health needs of indigenous children and youth: 5 part- webinar community of practice series on behalf of the Mountain Plains Mental Health Technology Transfer Center. January-May, 2022. Fox, L., & Nielsen, S. (2021). Building capacity of school personnel to address the mental health needs of indigenous children and youth: 5 part- webinar community of practice series on behalf of the Mountain Plains Mental Health Technology Transfer Center. September-January, 2021-22. Anderson, L., Annen, E., Dick, S., & Nielsen, S. (2021). Transition to Middle School-Best Practices. Presentation. Mountain Plains Mental Health Technology Transfer Center. August 10. <https://mhttcnetwork.org/centers/mountain-plains-mhttc/event/transition-middle-school-best-practices-hhs-region-8> Fox, L., & Nielsen, S. (2021). Strengthening resilience: Promoting positive mental health among indigenous youth. Presentation, North Dakota Indian Education Summit hosted by the North Dakota Department of Public Instruction, Bismarck, ND, July 16. Heitkamp, T., Nielsen, S., & Schroeder, S. (2021). Promoting positive mental health in rural schools. Wisconsin School Counselor Association Annual Conference, April 21, 2021 via Zoom. Fox, L., & Nielsen, S. (2021). Building capacity of school personnel to address the mental health needs of indigenous children and youth: 5 part-

webinar community of practice series in SD on behalf of the Mountain Plains Mental Health Technology Transfer Center. January-May, 2021.

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Loscheider, J.A. (2022, April) Supporting occupational engagement through assessment and intervention of postural asymmetries for clients using mobility devices. Three-hour workshop for the annual American Occupational Therapy Association conference. San Antonio, Texas, USA. Loscheider, J.A., Young, A., Nielsen, S., Janssen, S., & Haskins, A. (2022, April). Occupational therapy student safety readiness: A comprehensive safety check before level II fieldwork experience. Three-hour workshop for the annual American Occupational Therapy Association conference. San Antonio, Texas, USA. Loscheider, J.A. (2022, October). Seating and wheeled mobility for therapy practitioners. 12 attendees. Presented at Altru for 7 hours. Loscheider, J.A. (2022, November). Switch-adapting toys for children with disabilities. Our 2nd year students voluntarily participated in a 5 hour day to learn how to modify/adapt a toy for a child with a disability. Students had hands-on experiences. Loscheider, J.A. (April, 2022). Occupational therapy department. Presentation on wheelchair seating; total of six hours at both GF and Casper campus. Loscheider, J.A. (2022, March). Occupational therapy department. Research panel with biomedical engineering department to year one OTD students; both Grand Forks and Casper sites. Online via Zoom. Loscheider, J.A. (October, 2021). High school career fair. Memorial Union. UND. Approximately 20 students visited the OT booth. Loscheider, J.A. (October, 2021). Facilitator for the interprofessional telehealth simulation in collaboration with multiple health-related departments across campus.

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SMHS: Meyer, M., & Hulteng, J. (In process). Neuroplasticity and occupational recovery. Continuing education presentation: SMHS Neurology CME Symposium. University: Hulteng, J., & Clinton-Lisell, V. (April, 2022). Analysis of the Multicultural Awareness, Knowledge, Skills Survey-Healthcare Edition. Poster Presentation: CEHD Research Fair, Grand Forks, ND; March 4th and 5th: Lymphedema lecture and lab for School of Nursing

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SMHS Presentations • Dreiling, M., Janssen, S., & Lauer, W. (2022). Occupation-based lymphedema patient education. Scholarly project poster presented at Frank Lowe Research Day. School of Medicine and Health Sciences. University of North Dakota. USA • Dye, M., Janssen, S., & Lauer, W. (2022). A Sensory-based Curriculum for Childcare Providers to Implement for Preschool-aged Children. Scholarly project poster presented at Frank Lowe Research Day. School of Medicine and Health Sciences. University of North Dakota. USA • Gerving, M., Janssen, S., & Lauer, W. (2022). Addressing the Occupational Needs of Older Adults and their Informal Caregivers in a Rural Community. Scholarly project poster presented at Frank Lowe Research Day. School of Medicine and Health Sciences. University of North Dakota. USA • Janssen, M., Janssen, S., & Lauer, W. (2022). "TBI and Sensory Integration"- A Sensory-based Program to Decrease Aggression in Post TBI Patients. Scholarly project poster presented at Frank Lowe Research Day. School of Medicine and Health Sciences. University of North Dakota. USA • McLellan, K., Janssen, S., & Lauer, W. (2022). Nature-Based Educational Program for Caregivers of Children Who Have Experienced Trauma. Scholarly project poster presented at Frank Lowe Research Day. School of Medicine and Health Sciences. University of North Dakota. USA • Merchlewitz, N., Janssen, S., & Lauer, W. (2022). Occupational Therapy's Role in Addressing the Adolescent/Young Adult (AYA) Oncology Gap. Scholarly project poster presented at Frank Lowe Research Day. School of Medicine and Health Sciences. University of North Dakota. USA • University • Kelsch, A., Janssen, S., Kelly, A., Terrell, H. (2021, December). TTaDA: DEI Syllabus Makeover: How to Signal A More Welcoming and Inclusive Classroom for All Students. Virtual Zoom session of a monthly series provided by Teaching Transformation and Development Academy. University of North Dakota. Grand Forks. North Dakota. USA. 1 contact hour. Invited Regional • Janssen, S., Danks, M., Jurivich, D., Schimke, C., Snustad, D., Floura, M., Morton, C., Waing, M. Holloway, J., Semmens, K., & Manocha, G.D. (2021a, October 22). Geriatric 4Ms: What Matters. Interprofessional continuing education symposium



(hybrid live/Zoom) at the School of Medicine and Health Sciences. Grand Forks. North Dakota. USA. .5 contact hours/2.5 hours for the whole symposium. Invited National • Janssen, S. & Rachev, K. (2022, August 9). Interprofessional assessment of BADLs and IADLs with older adults. Virtual (Zoom) Continuing education seminar by Geriatric and Age-Friendly TeleECHO project North Dakota Rural Health Center at the School of Medicine and Health Sciences. Grand Forks, North Dakota USA. 1 contact hour. • Janssen, S. (2022, June 14). Interprofessional assessment and management strategies for older adults with delirium, neurocognitive disorder, or depression. Virtual (Zoom) Continuing education seminar by Geriatric and Age-Friendly TeleECHO project North Dakota Rural Health Center at the School of Medicine and Health Sciences. Grand Forks, North Dakota USA. 1 contact hour. Invited. • Loscheider, J., Young, A., Nielsen, S., Janssen, S., & Haskins, A. (2022). Occupational therapy student safety readiness: A comprehensive safety check before level II fieldwork experience. Short course at American Occupational Therapy Association National Conference. San Antonio. Texas. USA. 1 contact hour. Peer-reviewed • Janssen, S., Jurivich, D., Schimke, C., Snustad, D., Floura, M., Morton, C., Waind, M., Holloway, J., Danks, M., Semmens, K., & Manocha Gunjan Dhawan. (2021, Nov. 9). What Matters: IP collaboration to enhance wellness through functional activities. Virtual (Zoom) Continuing education seminar by Geriatric and Age-Friendly TeleECHO project North Dakota Rural Health Center at the School of Medicine and Health Sciences. Grand Forks, North Dakota USA. 1 contact hour. Invited. • Lauer, W., Graves, C., Lamborn, B., Young, A., Janssen, S. (2021, October). Fostering student competencies in community-based settings through a high-impact educational practice assignment. Platform presentation for the 2021 American Occupational Therapy Association Education Summit. St Louis. Missouri. USA. (1 contact hour) Peer-reviewed; accepted

3. **All book chapters from 2022 (include citations): 3 are in production; citations will be included in 2023 report.**
4. **All funded grants on which faculty participated in 2022: 2**
5. **Any other scholarly activity from 2022.**

Faculty also take part in book reviews, presentations by graduate students that are regional (often not included by faculty members in these reports), and more. In addition, the Occupational Therapy Department is in its third year of the doctoral curriculum and thus a great deal of time and efforts continues to be directed towards curriculum building and modification all of which is considered scholarly activity.

## **Department of Surgery**

### **Publications:**

1. Staskywicz Z, **Burchill K**, **Sahr S**, Sahmoun A, Sang T. Changing Patterns in Midwestern Farm Trauma: A Retrospective Comparative Analysis. Am Surg. 2022 Apr 7:31348221083949. doi: 10.1177/00031348221083949. Epub ahead of print.
2. **Aaland M**. Through the Eyes of Dr Sherman – That 10 percent Header: Roger T. Sherman Lecture. The American Surgeon. April 2022. doi:10.1177/00031348221086784
3. Seiler J, Chong AC, **Chen S**. Laparoscopic-Assisted Transversus Abdominis Plane Block is Superior to Port Site Infiltration in Reducing Post-Operative Opioid Use in Laparoscopic Surgery. Am Surg. 2022 Apr 28:31348221087923. doi: 10.1177/00031348221087923. Epub ahead of print. PMID: 35481763.

4. Row, H **Dyke C** "American Indian Health Disparities in the 21st Century Disparities in Cardiovascular Disease in American Indians" Cambridge publishing 3/1/2022 "ISBN: 1-5275-7358-3 ISBN13: 978-1-5275-7358-1 Release Date: 11th October 2021" Book Chapter - Cambridge publishing
5. Curto, E **Sticca R, Ganai S** "Chapter 8: Goals of Care Discussions in High Risk Surgery" Book Chp title Book Chapter in Difficult Decisions in Surgical Ethics 3/1/2022 <https://doi.org/10.1007/978-3-030-84625-1> Book Chapter - Springer
6. **Ganai S** "Chapter 9: Ethics of Telehealth" Book Chapter in Difficult Decisions in Surgical Ethics 3/1/2022 ISBN: 978-3-030-84625-1 Book Chapter
7. **Ganai S** "Chapter 12: Ethics Education" Book Chapter in Difficult Decisions in Surgical Ethics 3/1/2022 ISBN: 978-3-030-84625-1 Book Chapter
8. Nowotny, D **Ahmeti M** "Multidisciplinary approach to trauma Patients: the u.s. Concepts and Practice" 6Kosova Surgeons Journal 3/14/2022 <https://kosovajournalofsurgery.net/kosova-journal-of-surgery-volume-6/> Online publication
9. **Ganai S** "Impact of Endocrinologist and Surgeon Density on Well-Differentiated Thyroid Cancer Survival" The American Surgeon 2/20/2022 5/19/2022 McDow AD, Lanzotti N, Zahnd WE, MacKinney EC, Angelos P, Mellinger JD, **Ganai S**. Impact of Endocrinologist and Surgeon Density on Well-Differentiated Thyroid Cancer Survival. Am Surg. 2022 May 19:31348221091958. doi: 10.1177/00031348221091958. Epub ahead of print. PMID: 35591793. 35591793 The American Surgeon. Your manuscript ID is ASU-22-0259.R1.
10. Staskywicz Z "Farm Machinery Injuries: A Retrospective Analysis of Admissions at a Level I Trauma Center in North Dakota" Journal of Agromedicine 3/7/2022 Gilblom EA, Sang HI, Johnson AB, **Sahr S**, Misialek M, Syverson D, Staskywicz Z. Farm Machinery Injuries: A Retrospective Analysis of Admissions at a Level I Trauma Center in North Dakota. J Agromedicine. 2022 Dec 24:1-8. doi: 10.1080/1059924X.2022.2158151. Epub ahead of print. PMID: 36510643. 36510643
11. "Sharma A, Chauhan A, Chauhan P, Evans DL, **Szlabick RE, Aaland MO**, Mishra BB, Sharma J. Glycolipid Metabolite  $\beta$ -Glucosylceramide Is a Neutrophil Extracellular Trap-Inducing Ligand of Mincle Released during Bacterial Infection and Inflammation. J Immunol. 2022 Jul 15;209(2):391-400. doi: 10.4049/jimmunol.2100855. Epub 2022 Jun 29. PMID: 35768151.
12. **Nowotny D**, Chen S. "Gastric Outlet Obstruction After Remnant Stomach Perforation in Gastric Bypass: Management and Prevention". Am Surg. 2022 Aug;88(8):2050-2052. doi: 10.1177/0003134820950283. Epub 2020 Sep 10. PMID: 32909445.
13. Danielson EJ, **Nowotny DJ, Ahmeti M**. Unusual Manifestation of a Non-inflamed Appendiceal Fistula as a Necrotizing Soft Tissue Infection in the Setting of a Gigantic Ventral Hernia. Cureus. 2022 Aug 30;14(8):e28578. doi: 10.7759/cureus.28578. PMID: 36185846; PMCID: PMC9521170.
14. Vomhof-DeKrey EE, Singhal S, Singhal SK, Stover AD, Rajpathy O, Preszler E, **Garcia L, Basson MD**. RNA Sequencing of Intestinal Enterocytes Pre- and Post-Roux-en-Y Gastric Bypass Reveals Alteration in Gene Expression Related to Enterocyte Differentiation, Restitution, and Obesity with Regulation by Schlafen 12. Cells. 2022 Oct 18;11(20):3283. doi: 10.3390/cells11203283. PMID: 36291149; PMCID: PMC9601224.
15. Kaza A, **Tuvin D, Sticca R, Ganai S** "Improved outcomes for borderline resectable adenocarcinoma of the pancreas after neoadjuvant chemotherapy in a community cancer center" American Surgeon "Am J Surg. 2022 Nov 5:S0002-9610(22)00658-4. doi: 10.1016/j.amjsurg.2022.10.027. Online ahead of print. PMID: 36372580 "
16. Bartholomew R, Zumwalt CM, Reede KR, Differding S, Sang HI, Sahmoun A, **Ahmeti M**. Stapling Common Enterotomy Does Not Increase Leak Rates in Stapled Anastomoses. Am Surg. 2022 Nov 7:31348221138088. doi: 10.1177/00031348221138088. Epub ahead of print. PMID: 36342463.

## **Presentations**

1. **Mary Aaland MD** "Rural Trauma" Southeastern Surgical Congress Oral Presentation 2/5/2022  
Regional Sherman Lecture at the Southeastern Surgical Congress February 2022 in Nashville
  2. Joclyn Seiler, MD **Sugong Chen MD** "LAPAROSCOPIC-ASSISTED TRANSVERSUS ABDOMINIS PLANE BLOCK IS SUPERIOR TO PORT SITE INFILTRATION IN REDUCING POST-OPERATIVE OPIOID USE IN LAPAROSCOPIC SURGERY: A RETROSPECTIVE REVIEW." Southeastern Surgical Congress Short Oral Presentation
  3. Erin Follman, MD **Michael Traynor MD** "OUTPATIENT DISCHARGE AFTER THYROID LOBECTOMY IN RURAL AMERICA" Southeastern Surgical Congress Quick shot oral presentation 2/8/2022
  4. **Kayla Burchill, MD** "The Mouse in the Room" SGR 2/11/2022 Fargo, ND
  5. **Mary Aaland MD** "STOPTHEBLEED education" the North Dakota Emergency Medical Services Association 2/12/2022
  6. **Stefan Johnson, MD** "Surgeons and Engineers Meeting Abstracts" Virtual Surgeons and Engineers Conference Virtual Poster Presentation 3/2/2022
  7. **Sabha Ganai, MD** "How to Leverage Social Media to Enhance Your Practice and Career Session: How to leverage social media to enhance your practice and career" SSO 2022 Annual Meeting Oral Presentation 3/11/2022
  8. **Mentor Ahmeti, MD** "Blood-Therapy- How we started and where we are" SGR 4/1/2022
  9. **Sabha Ganai, MD** "From Best Practice to Measure - The COC Disease Site Team Model" American College of Surgeons Quality and Safety Conference, Panel Session 7/15/2022
  10. **Sabha Ganai, MD**, "Title Unknown", DaCCoTa Symposium, Presentation, 8/5/2022
  11. **Sabha Ganai, MD** "The Ethics of Telehealth" Surgical Ethics Conference Presentation 8/5/2022,
  12. **Mentor Ahmeti, MD** "Promoting Indigenous Research Leadership (PIRL)"  
8/5/2022Regional, Promoting Indigenous Research Leadership (PIRL) 3-day work shop October 9-13, 2022
  13. **Robert Sticca, MD** "Mirizzi's Syndrome: The Spectrum of Presentation and Management" SGR Presentation, 9/2/2022 Fargo, ND
  14. **Michael Traynor, MD** "How to write a Scientific manuscript for publication" SGR Presentation 9/9/2022, Fargo, ND
  15. **Sabha Ganai, MD** "Surgical Oncology & Surgical Outcomes Scientific Session" SAAS 2022 Moderator 9/19/2022
  16. **Mentor Ahmeti, MD** "Let's Consider Mechanism of Injury - Case Studies" ND Trauma Meeting Presentation 9/28/2022
  17. **Steven Briggs, MD** "How Do You Surge?" ND Trauma Meeting Presentation 9/28/2022
  18. **Khaled Zreik, MD** "Ketamine Use in Trauma Care" ND Trauma Meeting Presentation 9/29/2022
  19. **Khaled Zreik, MD** "Ketamine use in trauma care" SGR Presentation 11/11/2022 Fargo, ND
- 3. Funded Grants Faculty Participated in 2022.**

1. **Cornelius Dyke, MD** Tumor-targeted Delivery of Chemotherapeutic for Effective Management of Lung Cancer - Grant Period: 9/1/2021 – 8/31/2022 - Grant Amount: \$14,582.00
2. **Cornelius Dyke, MD** Ready-to-Go pilot grant "National Institutes of Health (NIH)-funded Dakota Community Collaborative on Translational Activity (DaCCoTA)" 9/1/2022 we hereby award you a Ready-to-Go pilot grant in the amount of \$150,000.
2. **Sabha Ganai, MD** "An Explanatory Sequential Mixed-Methods Investigation of Disparities in Colorectal Cancer Care in North Dakota" "National Institutes of Health (NIH)-funded Dakota Community Collaborative on Translational Activity (DaCCoTA)" 9/1/2022 Amount of \$75,000.00

## **Geriatrics Department**

### **HOLLOWAY**

Participated in the HRSA funded GWEP grant.

#### **1. JURIVICH**

##### Scholarly Activity:

Handgrip Strength Asymmetry and Weakness Are Associated with Future Morbidity Accumulation in Americans.

Klawitter L, Vincent BM, Choi BJ, Smith J, Hammer KD, Jurivich DA, Dahl LJ, McGrath R.

J Strength Cond Res. 2022 Jan 1;36(1):106-112. doi: 10.1519/JSC.0000000000004166.

PMID: 34941610

##### Abstracts:

ACSM Annual Meeting:

abstract, Handgrip Strength Asymmetry Is Associated With Future Accumulating Morbidities In Older Americans

HRSA National meeting (BHW All Grantee and Stakeholder Meeting)

abstract and webinar presentation Geri-POP: Gamification for Older Adult Population Health

American Geriatrics Society Annual Scientific Meeting

Abstract and poster: Pancreatic Intraductal Papillary Mucinous Neoplasm Associated with Acromegaly

Abstract and poster: Dermatologic toxicity of a new tyrosine kinase inhibitor in an older patient with CLL

Frank Lowe Research Day

Poster: Neuronal Heat Shock Axis and Aging

Poster: Geri POP: a serious game for medical education

##### Presentations:

DaCCoTA annual symposium: panel speaker on Clinical translational research

Age Friendly Health Care, presented to CHAD (Federally Qualified Health Care clinics)

Age Friendly Health Care, presented to North Dakota Critical Access Hospitals

Reimagining Long Term Care, presented to the North Dakota Long Term Care Association

Prevention of Alzheimers Disease, presented to Memory Café of Fargo

Project ECHO Nursing Home: multiple webinars on Age Friendly Health Care

Project ECHO Geriatrics: multiple webinars on Geriatric topics

Project ECHO community health care: 12 presentations on Geriatric topics

Participated in the HRSA funded GWEP grant.

## **2. MANOCHA**

### Presentations:

*American Geriatrics Society Annual Meeting*

Poster presentations

1. @GeriatricsJC: Twitter Journal Club Improves Geriatric Fellowship Program collaborations
2. GeriPop: A Game to Apply the 4Ms to Patient Populations
3. C.A.R.E. (Caregiver Resources and Education): A Curriculum for Caregivers of People Living With Dementia

*Bureau of Health Workforce (BHW) Virtual All Grantee and Stakeholder Meeting*

Oral Presentation: Geri-POP: Gamification for Older Adults Population Health

*Service Providers for Seniors (Greater Grand Forks region)*

Oral Presentation: Improve Older Adult Care in the Dakotas

*American Association of Physicians (Regional meeting)*

Poster session: C.A.R.E. (Caregiver Resources and Education): A Curriculum for Caregivers of People Living With Dementia

Participated in the HRSA funded GWEP grant.

## **3. MATHUR**

### Scholarly Activity:

Interferon- $\gamma$  promotes monocyte-mediated lung injury during influenza infection.

Schmit T, Guo K, Tripathi JK, Wang Z, McGregor B, Klomp M, Ambigapathy G, Mathur R, Hur J, Pichichero M, Kolls J, Khan MN.

Cell Rep. 2022 Mar 1;38(9):110456. doi: 10.1016/j.celrep.2022.110456.

PMID: 35235782

Promoting autophagy to mitigate coronavirus disease pathology in the elderly.

Lund Da Costa A, Mehta H, Mathur R.

Clin Transl Discov. 2022 Jun;2(2):e68. doi: 10.1002/ctd2.68. Epub 2022 May 23.

PMID: 35942234

Cellular Heterogeneity and Molecular Reprogramming of the Host Response during Influenza Acute Lung Injury.

Guo K, Yombo DJK, Schmit T, Wang Z, Navaeiseddighi Z, Sathish V, Mathur R, Wu M, Kumar B, Hur J, Khan N.

J Virol. 2022 Nov 9;96(21):e0124622. doi: 10.1128/jvi.01246-22. Epub 2022 Oct 26.

PMID: 36286482

Proteomics Profiling Reveals Regulation of Immune Response to Salmonella enterica Serovar Typhimurium Infection in Mice.

Huang H, Even Z, Wang Z, Li L, Erickson A, Golovko M, Golovko S, Darland D, Mathur R, Wang X.

Infect Immun. 2022 Dec 13:e0049922. doi: 10.1128/iai.00499-22. Online ahead of print.

PMID: 36511704

Performance enhancement of solar photovoltaic (PV) module using a novel flat plate (NFP) glass cover by reducing the effect of bird dropping (BD) settlement.

Sisodia AK, Mathur R.

Environ Sci Pollut Res Int. 2022 Jan;29(4):6104-6124. doi: 10.1007/s11356-021-16082-9. Epub 2021 Aug 26.

PMID: 34435292

#### Poster Presentations:

1. Detection of defects in human mitochondrial DNA on Parkinson's disease patients by RT-qPCR and stimulation of SH-SY5Y cells. Mara Mikaella Reyna<sup>1</sup>, Mansib Rahman<sup>2</sup>, Het Mehta<sup>2</sup>, Zhihan Wang<sup>3</sup>, Ramkumar Mathur<sup>1,2,3</sup> Geriatrics, University of North Dakota School of Medicine & Health Sciences, 2 UND College of Arts and Sciences.

2. IL22 Epithelial Signaling in Microbial Distribution and Fucosylation in Aging Colon Cancer  
Mansib Rahman, Zhihan Wang, Kai Guo, Het Mehta, Mara Mikaella Reyna, Ramkumar Mathur  
Department of Geriatrics, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

3. Mitochondrial Transcription Factor A Regulates Foxp3+ T Cell Mediated CD4+ T Cell Landscape Maintenance and Immunological Aging. Het Mehta, Mansib Rahman, Mara Mikaella Reyna, Ramkumar

Mathur, Department of Geriatrics, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

Participated in the following grants:

1. DaCCOTA Feasibility Award \$73,471
2. The role of inflammation in compromising the epithelial barrier and aging colitis amount \$2,500 Identifier# 984756 Agency: Crohn's & Colitis Foundation (Mansib Rahman)
3. The role of gut inflammation in the dysregulation of the fucosylation process in DSS-colitis amount \$2,500 Identifier# 984514 Agency: Crohn's & Colitis Foundation (Het Mehta)

## **Radiology**

### **1. Nicholas Bradbury, M.D., Clinical Assistant Professor of Radiology**

4/4/2022: Invited educational presentation at the North Dakota Society of Radiologic Technologists in Bismarck, ND. Title: "Emergency Interventional Radiology". Approximately 200 Radiologic Technologists in attendance.

12/10/2022: Invited educational presentation at the Bismarck-Mandan Metro Area Ambulance Service Weekend of Education, Bismarck, ND. Title: "Stroke: Thrombectomy Treatment". Approximately 75 EMS professionals from around western North Dakota in attendance.

### **2. Joshua Morrell, M.D., Chair of Radiology**

#### **Spontaneous Portosystemic Shunt Identified by CT and Ultrasound in Patient without Cirrhosis**

Section: Abdominal imaging

Case: Type Clinical Cases

Authors: Wyatt Lutt, Dr. Joshua Morrell

**Published:** <https://www.eurorad.org/case/17842>

### **3. Luke Roller, M.D., Clinical Assistant Professor of Radiology**

#### **Uterine lipoleiomyoma: Case report and review of the literature**

Wilke S, Benson J, Roller L. Uterine lipoleiomyoma: Case report and review of the literature. Radiol Case Rep. 2022 Jan 17;17(3):954-958. doi: 10.1016/j.radcr.2022.01.012. PMID: 35096214; PMCID: PMC8783067.

### **4. Agnieszka Solberg, M.D., Clinical Assistant Professor of Radiology**

#### **The Current State of Gender Discrimination and Sexual Harassment in the Radiology Workplace: A Survey**

Pitot, Marika A. ; White, Marney A. ; Edney, Elizabeth ; Mogensen, Monique A. ; Solberg, Agnieszka ; Kattapuram, Taj ; Kadom, Nadja

Academic radiology, 2022, Vol.29 (3), p.416-425

### **You Too? Female Radiologists' Narratives on Discrimination and Harassment**

Pitot, Marika A. ; White, Marney A. ; Edney, Elizabeth ; Mogensen, Monique A. ; Solberg, Agnieszka ; Kattapuram, Taj ; Sinha, Cynthia ; Kadom, Nadja

Journal of the American College of Radiology, 2022, Vol.19 (2), p.288-303

## **Internal Medicine**

### **Articles/Publications**

Chandra DL, Hove H, Miller TK, Pinks K, Njau G, Hagan JJ, Jansen R. Epidemiology of Hepatitis C virus infection among incarcerated populations in North Dakota. PLoS One. 17(3). doi 10.1371/journal.pone.0266047. PMID 35349606

Mergoum AM, Montgomery JR, Matzke T, Gonzalez-Santiago TM. Erythema Ab Igne: Recognition and Management SN Compr. Clin. Med.. 4, 16 (2022). doi 10.1007/s42399-021-01116-7.

Elzanaty AM, Maraey A, Elbadawi A, Khalil M, Hashim A, Vyas R, Moustafa A, Ramanathan PK, Mentia A, Abbott JD, Aronow HD, Kapadia S. Early versus late discharge after transcatheter aortic valve replacement and readmissions for permanent pacemaker implantation Catheter. Cardiovasc. Interventions. 100 (2), 245-253. doi 10.1002/ccd.30299. PMID 35758231.

Weisel CL, Dyke CM, Klug MG, Haldis TA, Basson MD. Day-to-day blood pressure variability predicts poor outcomes following percutaneous coronary intervention: A retrospective study. World J. Cardiol. 14:5, 307-318. doi 10.4330/wjc.v14.i5.307. PMID 35702324.

Nichols L, Guerrero D, Mannuru D, Basson MD, Sahmoun AE, Bande D. Integrated secure messaging to enhance medical education: a mixed methods study. BMC Med Educ. 22:01, 580. doi 10.1186/s12909-022-03637-8. PMID 35902846.

Roth F, Leedahl ND, Leedahl DD, Guerrero DM. Clinical and Financial Impact of Rapid Antimicrobial Susceptibility Testing in Blood Cultures Antibiotics. 11:02, 122. doi 10.3390/antibiotics11020122. PMID 35203725.

Matta A, Matta D, Bande D. A meta-analysis of myocarditis post-mRNA vaccine administration. Crit. Care Med. 50:1, 170. doi 10.1097/01.ccm.0000807792.52397.94.

Rasuleva K, Elamurugan S, Bauer A, Khan M, Wen Q, Li Z, Steen P, Guo A, Xia W, Mathew S, Jansen R, Sun D.  $\beta$ -Sheet Richness of the Circulating Tumor-Derived Extracellular Vesicles for Noninvasive Pancreatic Cancer Screening. ACS Sens. 6:12, 4489-4498. doi 10.1021/acssensors.1c02022. PMID 34846848.

Maraey A, Hashim A, Esharnoby H, Khalil M, Elzanaty A. Morbid obesity in hospitalized young adults: Insights from a national database. Obes Res Clin Pract. 16(2), 177-179. doi 10.1016/j.orcp.2022.03.004. PMID 35397992.

Maqsood MH, Khalil M, Maraey A, Elzanaty A, Louka B, Elbadawi A, Ong K, Megaly M, Garcia S, , , . Temporal Trends and Outcomes of Same-Day Discharge After Left Atrial Appendage Occlusion: Insight from National Readmission Database. Am J Cardiol. 173, 149-151. doi 10.1016/j.amjcard.2022.03.049. PMID 35431051.

Khalil M, Maraey A, Aglan A, Akintoye E, Salem M, Elzanaty A, Younes A, Saeyeldin A, Barbhaiaya C, Shokr M. Impact of chronic kidney disease on in-hospital mortality and clinical outcomes of catheter ablation of



ventricular tachycardia: Insights from the national readmission database. J Interv Card Electrophysiol. doi 10.1007/s10840-022-01187-z. PMID 35314904

Younes AM, Salem M, Maraey A, Nomigolzar S, Sewell K, Khalil M, Elzanaty A, Saeyeldin A, Dar M. Safety outcomes of SGLT2i in the heart failure trials: A systematic review and Meta-analysis. *Int J Cardiol.* S0167-5273(22)01012-9. . doi 10.1016/j.ijcard.2022.06.059. PMID 35777490.

Khalil M, Hashim A, Maraey A, Saeyeldin A, Elzanaty A, Biskupski P, Ong K, Barbhaiaya C, Shokr M. Outcomes of conventional pacemaker implantation in patients with dementia: insights from the National Readmission Database. *J Interv Card Electrophysiol.* doi 10.1007/s10840-022-01265-2. PMID 35672620.

Waechter J, Allen J, Lee CH, Zwaan L. Development and Pilot Testing of a Data-Rich Clinical Reasoning Training and Assessment Tool. *Acad Med.* doi 10.1097/ACM.0000000000004758. PMID 35612911.

Pekas D, Chawda A, Desai N. Effective treatment of hypertrophic cardiomyopathy with left ventricular outflow tract obstruction using a covered stent. *BMJ Case Rep.* 15:12. doi 10.1136/bcr-2022-250929. PMID 36535735

Rismiller KP, Shahwan KT, Yu WY, Bordeaux JS, Carr DR. Mohs micrographic surgery of penile squamous cell carcinoma in situ with urethral extension. *Arch. Dermatol. Res.* 983-986. doi 10.1007/s00403-021-02311-1. PMID 35031871

Sundaram SS, Melquist S, Kalgotra P, Srinivasan S, Parasa S, Desai M, Sharma P. Impact of age, sex, race, and regionality on major clinical outcomes of COVID-19 in hospitalized patients in the United States. *BMC Infect. Dis.* 22:01. doi 10.1186/s12879-022-07611-z. PMID 35906558

Elzanaty AM, Maraey A, Khalil M, EsharnobyH, Nazir S, Moukarbel GV. Right Heart Catheterization Timing and Outcomes of Cardiogenic Shock: Analysis from the National Readmission Database. *Curr. Probl. Cardiol.* 47:12. doi 10.1016/j.cpcardiol.2022.101388. PMID 36058343

Hayer R, Kirley K, Tsiapas S, Allen J, Hanson D, Johnson E. Redesigning blood pressure measurement training in healthcare schools. *Med Educ Online.* 27:1. doi 10.1080/10872981.2022.2098548. PMID 35796417

Nash J, Shahwan KT, Chung C, Abidi N, Gokun Y, Pan X, Carr DR. Grading of differentiation in cutaneous squamous cell carcinoma: Evaluation of interrater and intrarater reliability. *J. Am. Acad. Dermatol.* 87:4, 895-897. doi 10.1016/j.jaad.2021.12.015. PMID 34920027

Nash J, Shahwan KT, Carr DR. Clinical practicality of reporting cutaneous squamous cell carcinoma risk factors at the time of Mohs surgery. *Arch. Dermatol. Res.* doi 10.1007/s00403-022-02376-6. PMID 35943539

Shahwan KT, Amon GJ, Archibald LK, Bakker C, Mattox AR, Alam M, Maher IA. Repair of auricular defects following Mohs micrographic surgery or excision: a systematic review of the literature. *Arch. Dermatol. Res.* doi 10.1007/s00403-022-02373-9. PMID 35951108

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Khalil M, Maraey A, Maqsood MH, Elzanaty A, Salem M, Younes A, Elsharnoby H, Ong K, Shokr M. Differences According to Sex in Short-term Clinical Outcomes After Supraventricular Tachycardia Catheter Ablation: Insights from the Nationwide Readmission Database. *J. Innov. Cardiac Rhythm Manag.* 13:10, 5189-5194. doi 10.19102/icrm.2022.13105. PMID 36605292

Maraey A, Maqsood MH, Khalil M, Hashim A, Elzanaty A, Elsharnoby HR, Elsheikh E, Elbatanony L, Ong K, Chacko P. Impact of Chronic Obstructive Pulmonary Disease on Atrial Fibrillation Ablation Outcomes According to the National Readmission Database. *J. Innov. Cardiac Rhythm Manag.* 13:8, 5112-5119. Doi 10.19102/icrm.2022.130806. PMID 36072441

**Presentations**

Fohle E, Tompkins R, Newman R, Haldis T, Sharma S. SEVERE RHEUMATIC MITRAL STENOSIS DISCOVERED ONE WEEK AFTER UNEVENTFUL DELIVERY. ACC 2022. April 2-4, 2022. Washington DC

Fohle E, Parmar G, Sharma S. LOW BLOOD PRESSURE IN BOTH ARMS: IS THIS A BILATERAL PROBLEM?. Acc 2022. April 2-4, 2022. Washington DC

Sharma A, Gassman J, Balhara M, Manjunath H, Sharma S. PULMONARY ARTERIAL HYPERTENSION IN CHRONIC MYELOID LEUKEMIA: IS IT THE DISEASE OR THE DRUG?. ACC 2022. April 2-4, 2022. Washington DC

Lybeck K, Al-Abid B. Successful Treatment of Refractory Status Asthmaticus with Inhaled Anesthetics. ATS 2022. May 13-18, 2022. San Francisco

Blanchard MJ, Terrell A, Vegunta R, Powell S, Nowak RK, Almquist D, Schmidt A, Bloch B, Shafique K, Geeraerts L, Nurkic SRW. EVOLVE: Evaluating the Safety of De-escalated Head and Neck Irradiation in HPV Positive Oropharynx Cancer in Non/Minimal Smokers. 2022 Head and Neck Cancer Symposium. February 24-26, 2022. Phoenix AZ

Antharam P, Komanetz M, Dahl L. Lung Herniation Case Presentation. AGS 2022. May 12-14, 2022. Orlando FL

Maraey A, Khalil M, Elhendawy A, ElsharnobyH, Elzanaty A, Bhattad VB, Hassan M. TCT-72 Early Versus Late CABG in Patients Presenting With NSTEMI and Cardiogenic Shock: A Nationwide Analysis. Thirty-Fourth Annual Symposium Transcatheter Cardiovascular Therapeutics (TCT). Sept 16-19, 2022. Boston, MA

Elzanaty AM, Khalil M, Maraey A. Trends and Outcomes of Early vs Late Discharge After Percutaneous Edge-to-Edge Mitral Valve Repair: A Nationwide Analysis. CRT 2022. February 26 - March 1, 2022. Washington DC

Roberts J, Sandstrom A, Teigen L, Gautheir C, Bekdash I, Sharma P, Haldis TA, Dyke C. UNDERUTILIZATION OF TRANSCATHETER AORTIC VALVE REPLACEMENT (TAVR) IN AMERICAN INDIANS, OUTCOMES FROM A SINGLE CENTER RETROSPECTIVE STUDY. ACC 22. April 2-4, 2022. Washington DC

Elzanaty AM, Khalil M, Maraey A. CRT-700.58 Trends and Outcomes of Early vs Late Discharge After Percutaneous Edge-to-Edge Mitral Valve Repair: A Nationwide Analysis. CRT 2022. February 26-March 2, 2022. Washington DC

Khalil M, Maraey A, Elzanaty A. CRT-700.46 Temporal Trends and Impact of Same-Day Discharge After Left Atrial Appendage Occlusion: Insight From National Readmissions Database. CRT 2022. February 26-March 2, 2022. Washington DC

Lybeck K. Rapid respiratory failure: A rare rheumatologic emergency. SCCM 2022. February 6-9, 2022. San Juan, Puerto Rico

Lybeck K, Seaman M. Ketogenic diet in the treatment of fires-associated SRSE: Fad or fact?. SCCM 2022. February 6-9, 2022. San Juan, Puerto Rico

Nickell A, Antharam P, Sergev O, Alberto N, Guerrero D. EFFECTIVENESS OF THE ANGIOVAC SYSTEM IN REMOVAL OF INTRAVASCULAR MASSES: A SINGLE CENTER EXPERIENCE. 2022 Midwest Clinical and Translational Research Meeting of Central Society for Clinical and Translational Research. March 3-4, 2022. Chicago, IL

Ploom S, Cooley M, Guerrero D, Nagpal A. BLASTOMYCES DERMATITIDIS SEPTIC ARTHRITIS IN A RENAL TRANSPLANT PATIENT. 2022 Midwest Clinical and Translational Research Meeting of Central Society for Clinical and Translational Research. March 3-4, 2022. Chicago, IL

Sharma A, Guerrero D, Jones J, Perry E. POLICING THE POLICE: PEER-TO-PEER HIGH COST ANTIBIOTICS STEWARDSHIP PROGRAM DIRECTED TOWARDS INFECTIOUS DISEASE SPECIALISTS. 2022 Midwest Clinical and Translational Research Meeting of Central Society for Clinical and Translational Research. March 3-4, 2022. Chicago, IL

Nichols L, Sletten S, Shabb J, Tinguely S, Haage A, Grove BD. ENHANCING THE GENERAL INTERNAL MEDICINE CLERKSHIP THROUGH INTEGRATION OF BASIC SCIENCES, FACULTY COLLABORATION, AND THE USE OF INTERACTIVE PLATFORMS. 2022 Annual Meeting of the Society of General Internal Medicine. April 6-9, 2022. Orlando FL

Agarwal M, Liu A, Langlais B, Leventakos K, Yu NY, Almquist D, Manochakian R, Ernani V. EP14.05-001 Chemoimmunotherapy as First-Line Treatment for Extensive-Stage Small-Cell Lung Cancer and ECOG Performance Status of 2 or 3. Proceedings of the American Society for Radiation Oncology 64th Annual Meeting. August 6-9, 2022. San Antonio, TX

Ganti AK, Rothe M, Mangat PK, Garrett-Mayer E, Dib EG, Duvivier H, Ahn E, Behl D, Borghaei H, Balmanoukian AS, Gaba A. Pertuzumab plus trastuzumab (P+T) in patients (pts) with lung cancer (LC)

with ERBB2 mutation (mut) or amplification (amp): Results from the Targeted Agent and Profiling Utilization Registry (TAPUR) study. ESMO Congress 2022. Sept 9-13, 2022. Virtual  
Durrani AK, VanHeel A, Durrani Q, Mutgi S. Coronavirus vaccine and cerebral vasculitis: Potential pathophysiology. 45th Annual Meeting of the American Society of Neuroimaging. January 13-16, 2022. Scottsdale, AZ

Blanchard MJ, Terrell A, Vegunta R, Powell S, Nowak RK, Almquist D, Schmidt A, Bloch B, Shafique K, Geeraerts L, Nurkic SRW. EVOLVE: Evaluating the Safety of De-escalated Head and Neck Irradiation in HPV Positive Oropharynx Cancer in Non/Minimal Smokers. 2022 Head and Neck Cancer Symposium. February 24-26, 2022. Phoenix AZ

Maraey A, Abdelmottaleb W, Ozbay M, Elsharnoby H, Khalil M, Elzanaty A. TCT-447 Contemporary Trends, Characteristics, and Safety Outcomes Associated With Transcatheter Aortic Valve Replacement in Nonagenarians: Large Database Analysis of 23,507 Patients. Thirty-Fourth Annual Symposium Transcatheter Cardiovascular Therapeutics (TCT). September 16-19, 2022. Boston, MA

Maraey A, Khalil M, Fathy S, Abdelmottaleb W, Khalil M, Younes A, Elzanaty A. TCT-568 Contemporary Trends of Racial and Social Disparities in Left Atrial Appendage Closure Procedure: Insights From the National Inpatient Sample. Thirty-Fourth Annual Symposium Transcatheter Cardiovascular Therapeutics (TCT). September 16-19, 2022. Boston, MA

Maraey A, Khalil M, Elzanaty A, Elsharnoby H, Hashim A, Younes A, Saeyeldin A, Salem M. Temporal Trends and Safety Outcomes Associated With Suction Thrombectomy of Right-Sided Intra-Cardiac Thrombus. CRT 2022. February 26 - March 1, 2022. Washington DC

Maraey A, Salem M, Elsharnoby H, Khalil M, Elzanaty A, Elbayomy A, Alam A. Impact of non-alcoholic fatty liver disease on heart failure with preserved ejection fraction hospitalizations: a nationwide analysis. Heart Failure 2022 and the World Congress on Acute Heart Failure. May 21-24, 2022. Madrid, Spain

Maraey AM, Maqsood MH, Khalil M, Hashim A, Elzanaty A, Elsharnoby H, Elsheikh E, Elbatanony L, Ong K, Chacko P. IMPACT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE ON ATRIAL FIBRILLATION ABLATION OUTCOMES (FROM THE NATIONAL READMISSION DATABASE). ACC 2022. April 2-4, 2022. Washington DC

Maraey A, Khalil M, Elzanaty A, Elsharnoby H, Hashim A, Younes A, Saeyeldin A, Salem M. CRT-700.70 Temporal Trends and Safety Outcomes Associated With Suction Thrombectomy of Right-Sided Intra-Cardiac Thrombus. CRT 2022. February 26 - March 1, 2022. Washington DC

### **Posters presented at American College of Physicians and Society of Hospital Medicine North Dakota Chapter Meeting**

Cornforth B, Hunt J. West Nile Virus Encephalopathy Leading to Prolonged ICU Hospitalization. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Jiran A, Kartham S. The role of plasmapheresis in treating and preventing hypertriglyceridemia-induced pancreatitis. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Johnson L, Boateng S. Third Degree Heart Block: A Case of Temporary Pacing in a Gravid Patient. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Johnson L, Boateng S. Double Orifice Mitral Valve: An Isolated Anomaly. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Ploom S, Nichols L. Pneumocystis jirovecii Pneumonia After COVID-19 in an Immunocompetent Host. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

DeVillers M, Nichols L. Retinal Vasculitis in a newly diagnosed SLE patient. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Erie E, Wong C, Potluri R. Recurrent Pericarditis with Pericardial and Pleural Effusions in the Setting of Glutamic Acid Decarboxylase (GAD65) Associated Cerebellar Ataxia. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Erie E, Bande D, Clark R. Non-infectious post-operative fever in the setting of adult-onset Still's disease flare. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Wong C, Thompson H, Sriramoju A, Toumeh M. Hydralazine-Induced Vasculitis: A Rare Etiology of Diffuse Alveolar Hemorrhage. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Schimke C, Bande D. An Unusual Case of Severe Acute Transaminitis. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Lautt W, Kremens K. Endobronchial Valve Placement in a Patient with a Broncho-pleuro-cutaneous Fistula. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Ekic A, Ayyadurai P, Kartham S. A Rare Case of COVID-19 Infection and MINOCA. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Wilke S, Luong-Player A, Deng X. Rhubarb Induced Oxalate Nephropathy: Case Report and Review of the Literature. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Snustad D, Singhal S, Arya A. Diabetes: An Unrecognized Cause of Cerebral/Renal Salt Wasting. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Harris O, Schmaltz L, Kokett A, Miller R, Hammer K. Trimethoprim/Sulfamethoxazole-Induced Agranulocytosis Complicated with Aseptic Meningitis. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Jesme C, Toumeh M. Kappa light chain deposition disease in a previously healthy woman. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Lautt W, Guerrero D. Computed Tomography Scan Characteristics of Patients with COVID 19 Associated Pulmonary Aspergillosis. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Baker T, Keup S, Cao L, Guerrero D. Association of Vaccination Status and Severity of SARS CoV 2 Infections in Hospitalized Patients. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Krieger A, Kremens K. Robotic bronchoscopy diagnostic efficacy utilizing the Monarch system at Essentia Health Hospital. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Thompson H, Kouba S, Smith B. Hantavirus Cardiopulmonary Syndrome: Pathophysiology, Diagnosis, and Treatment. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Steinwehr D, Sanaullah M. Noncompaction Cardiomyopathy in Young Patient Presenting with Advanced Heart Failure. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Steinwehr D, Syverson K. Should I stay or should I go? Identifying factors associated with mortality in transfer patients. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Eidsness E, Koshiol M. Improving Hospital Acquired Conditions: Postoperative Sepsis and DVT. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Sathish Kumar N, Bassett J. Standardization of the endoscopic collection process with institution of multi-step verification strategies, rooted in S.T.A.R (Stop, Think, Act, Review) Patient Safety Universal Reliability Skill, in order to decrease specimen errors. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Martens L, Manocha G, Dahl L, Wegner N, Binger K, Jurivich D. C.A.R.E. A Curriculum for Caregivers of People Living With Dementia. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Braaten A, Sabella M, Brower-Breitweiser C, Mohamed M, Sahmoun A. Home Nasogastric Feeding Tube Program: Efficacy and Safety Data of Neonatal Intensive Care Infants. 2022 ND Chapter ACP/SHM Meeting. 10/6/2022. Virtual

Sidhu G, Marsh N, Starosta V. Anaplasmosis: A Colostrum of Vague Symptoms Often Leading to a Delayed Diagnosis. 2022 ND Chapter ACP Meeting. 10/5/2022. Fargo, ND

Sidhu G, Bassett J. Clinical Operational Tolerance in Liver Transplant: Are We Making Any Progress?. 2022 ND Chapter ACP Meeting. 10/5/2022. Fargo, ND

Schmaltz, Patta A, Potluri R, Mannuru D. Venlafaxine-Induced Liver Injury. 2022 ND Chapter ACP Meeting. 10/5/2022. Fargo, ND

#### **Posters presented at Frank Low Research Day**

Ziegler S, DeVillers M, Mohs Z, Basson M, Newman W. Comparison of Prognostic Scoring Systems for Individuals with Malignant Pleural Effusion. 2022 Frank Low Research Day. 4/21/2022. Virtual

Osman M, Jesme C, McMiller Z, Matta Abhishek, Kunadjaraju R, Johnson E, Matta D, Kallamadi R, Bande D. Clinical Presentation and Outcomes of Myocarditis Post mRNA Vaccination: A Meta-Analysis and Systematic Review. 2022 Frank Low Research Day. 4/21/2022. Virtual

Sharma A, Perry E, Jones J, Guerrero D. Policing the Police: Self-regulation of the Effectiveness of a Daptomycin Stewardship Intervention. 2022 Frank Low Research Day. 4/21/2022. Virtual



Gauthier C, Teigen L, Beal J, Sahmoun A. Association Between Wait-Time for TAVR Procedure and Post-Operative FEV1%. 2022 Frank Low Research Day. 4/21/2022. Virtual

Mohs Z, DeVillers M, Ziegler S, Basson M, Newman W. Complications Associated with Malignant Pleural Effusion (MPE) Interventions. 2022 Frank Low Research Day. 4/21/2022. Virtual

Toumeh N, Kong S, Beal J, Sahmoun A. Association Between Smoking Status and Pap Smear and hrHPV Cervical Cancer Screening. 2022 Frank Low Research Day. 4/21/2022. Virtual

Wood J, Dequet C. Monoarthritic Mystery and How to Handle it: A Case Report. 2022 Frank Low Research Day. 4/21/2022. Virtual

Valerius A, Hecker A, Sahmoun A, Beal J. Patterns and Predictors of Anti-Depression Treatment in Patients with co-morbid Parkinson's Disease and Depression. 2022 Frank Low Research Day. 4/21/2022. Virtual

Selland A, Wherley S, Beal J, Sahmoun A. Association between health insurance status and vaccinations received. 2022 Frank Low Research Day. 4/21/2022. Virtual

Floura M, Stern J, Beal J, Sahmoun A. Association of Obstructive Sleep Apnea with Cardiovascular and Psychiatric Diseases. 2022 Frank Low Research Day. 4/21/2022. Virtual

Saravana K, Al Saegh A, O'Connell A, Beal J, Sahmoun A. Association between Immigrant Status and Having a Primary Place of Care. 2022 Frank Low Research Day. 4/21/2022. Virtual

DeVillers M, Mohs Z, Ziegler S, Newman W, Basson M. Malignant Pleural Effusion Treatment Outcomes. 2022 Frank Low Research Day. 4/21/2022. Virtual

Shearer J, Weisel C, Thompson D, Beal J, Sahmoun A. Association Between Race and Arthritis Disease Management. 2022 Frank Low Research Day. 4/21/2022. Virtual

Corum N, Slaubaugh K, Sahmoun A, Beal J. Association between Race and Cardiac Workup among Women Presenting with Chest Pain to Emergency Departments in the United States, 2011-2019. 2022 Frank Low Research Day. 4/21/2022. Virtual

Rummel K, Sahmoun A, Beal J. Association between Cancer Status and Opioid Utilization in United States Emergency Departments 2012-2019. 2022 Frank Low Research Day. 4/21/2022. Virtual

Pius-Stewart A, Quiridumbay Verdugo M, Riggle C, Beal J, Sahmoun A. Social determinants of health: Association of immigration status with healthcare access, quality of care, and the desire to seek treatment. 2022 Frank Low Research Day. 4/21/2022. Virtual

Pekas D, Hecker A, Chawda A, Desai N. Effective Treatment of Hypertrophic Cardiomyopathy with Left Ventricular Outflow Tract Obstruction Utilizing a Covered Stent. 2022 Frank Low Research Day. 4/21/2022. Virtual

Pekas D, Chawda A, Desai N. Treatment of Aortic Dissection using Transcatheter Aortic Valve Replacement with Concomitant Bicuspid Aortic Valve and Right-Sided Aortic Arch. 2022 Frank Low Research Day. 4/21/2022. Virtual

Bueide P, Lund J, Sahmoun A, Beal J. Association between Provider Specialty and Management of Shoulder Pain in United States Clinics. 2022 Frank Low Research Day. 4/21/2022. Virtual

Litchfield W, Beal J, Sahmoun A. Association between Diabetic Retinopathy and Preventive Healthcare among Diabetics. 2022 Frank Low Research Day. 4/21/2022. Virtual

Solc M, Bjerke R, Beal J, Sahmoun A. Association Between Out-of-Pocket Cost and Lung Cancer Screening. 2022 Frank Low Research Day. 4/21/2022. Virtual

Nickell A, Antharam P, Sergev O, Alberto N, Guerrero D. Effectiveness of the AngioVac system in removal of intravascular masses: a single center experience. 2022 Frank Low Research Day. 4/21/2022. Virtual

Roberts J, Sandstrom A, Teigen L, Gautheir C, Bekdash I, Sharma P, Haldis T, Dyke C. Underutilization of Transcatheter Aortic Valve Replacement (TAVR) in American Indians, Outcomes From a Single Center Retrospective Study.. 2022 Frank Low Research Day. 4/21/2022. Virtual

Ploom S, Beattie T, Sahmoun A, Guerrero D. Asymptomatic Preoperative COVID-19 Screening: A Single Center Study. 2022 Frank Low Research Day. 4/21/2022. Virtual

Littlewolf C, Helbling R, Turner S, Hammer K. Cannabidiol (CBD) and Hemp Oils Use in Veterans at Fargo VAHCS. 2022 Frank Low Research Day. 4/21/2022. Virtual

Aleksandrovich E, Melquist S, Estep K, Basset J, Guerrero D, Brucker K, Sang H. Individualized Audit and Feedback Improves Colonoscopy Quality Indicators. 2022 Frank Low Research Day. 4/21/2022. Virtual

Sathish Kumar N, Mahmoud M. Case of an Atypical Presentation of Ethylene Glycol Ingestion with Vision Changes treated with two Competitive Inhibitors and Hemodialysis.. 2022 Frank Low Research Day. 4/21/2022. Virtual

Broadbent J, Mannuru D, Guerrero D, Holaday K. Handoff Bootcamp: Development and Implementation of Patient Handoff among Medical Students. 2022 Frank Low Research Day. 4/21/2022. Virtual

Thadi P, Sefain A, Gerving M. Disparities in Mortality from Alzheimer's in North Dakota compared to the United States, 1999–2020. 2022 Frank Low Research Day. 4/21/2022. Virtual

Sefain A, Thadi P, Gerving M. Comparing rates of injury related mortality of TBI in North Dakota between the Native American Population and other races. 2022 Frank Low Research Day. 4/21/2022. Virtual

### **Presentations at Internal Medicine Research Symposium**

Aleksandrovich E. Individualized Audit and Feedback Improves Colonoscopy Quality Indicators. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Guerrero D, Mergoum A, Sahmoun A, Blotter J. Melanoma screening and diagnostic practices among primary care physicians in North Dakota. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Wiger C. QI investigation of Vertebroplasty Documentation at Sanford Health, Fargo. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Broadbent J, Mannuru D, Guerrero D, Alberto N, Holaday K. Handoff Bootcamp: Development and Implementation of Patient Handoff among Medical Students. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Sefain A. Comparing rates of injury related mortality of TBI in North Dakota between the Native American Population and other races. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Thadi P. Disparities in Mortality from Alzheimer's in North Dakota compared to the United States, 1999–2020. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Zareen U. Optimal Cardiac Stress Testing for Patients with Known Left Bundle Branch Block and/or Paced Ventricular Rhythm (Study Update). 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Chamberlain S. Severe Asthma Exacerbation requiring administration of continuous Sevoflurane. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

de Leeuw A, Fohle E. A Young Man with Confused Brain and Stressed Heart. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Fowler J. Secondary Hypertension. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Herting A. Destructive Lung Changes in a 29-year-old woman with a History of Streptococcal Pneumonia and Prolonged Mechanical Ventilation. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Sathish Kumar N. Case of an Atypical Presentation of Ethylene Glycol Ingestion with Vision Changes treated with two Competitive Inhibitors and Hemodialysis. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Schmaltz L, Ruiz R, Niwattisaiwong S, Matta A. A Case of Alcohol-Induced Type V Hyperlipoproteinemia. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Gassman J. Pulmonary Arterial Hypertension in Chronic Myeloid Leukemia: Is it the Disease or the Drug?. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Littlewolf C, Helbling R, Hammer K, Montgomery A, Turner S. Cannabidiol (CBD) and Hemp Oils Use in Veterans in Fargo VAHCS. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Rubner R, Newman W, Newman D. Safety and Efficacy of Implantable Testosterone Pellets (ITP) in Female to Male (FTM). 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Schroeder A, Bassett J. Assessment of Hospital Readmissions in Decompensated Cirrhosis: Are We Doing Enough?. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Wilke B, Sefain A. Modifiable Risk Factors on Inactivity in the Adult Stroke Population. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

Thompson H, de Leeuw A, Hills M, Mannuru D. Interact and Impact: Structured Nursing Rounding Tool to Improve Patient-Centered Care in Inpatient Oncology. 2022 Internal Medicine Research Symposium. 5/10/2022. Fargo, ND

### **Grants/Studies**

Basson, M, Hammer, KDP. Dakota Cancer Collaborative on Translational Activity (DaCCoTA). NIH Clinical and Translational Research Grant- Award U54GM128729. 2018-2023. 20.3 mill: 2,334,950 to Hammer.

Al Maluli, H. AEGIS-II Phase III Clinical Trial of CSL 112 to reduce early recurrent cardiovascular events after an acute myocardial infarction. CSL Behring Phase 3 trial. 2019-?.

Fenstad, E. Clinical classification of patient with pulmonary hypertension in rural Minnesota. 2017-present.

Fenstad, E. Phenotypic classification of patients with pulmonary hypertension in rural Minnesota. 2015-present.

Fenstad, E. Pulmonary hypertension secondary to arteriovenous fistulas. 2018-present.

Fenstad, E. Minneapolis Heart Institute pulmonary hypertension bioregistry. 2019-present.

Fenstad, E. Pulmonary hypertension with severe aortic stenosis: hemodynamic characteristics before and after TAVR. 2019-present.

Fenstad, E. Tissue oxygen saturation measurement during arterial desaturation (TO SMART) study-Medtronic. 2019-present.

Gaba, A. Accuracy of liquid biopsies when performed on thawed frozen plasma. 2018-present.

Gaba, A. Community oncology use of molecular profiling to personalize the approach to specialized cancer treatment at Sanford. Sanford Health COMPASS trial. 2016-present.

Gaba, A. Phase IB study of Pembrolizumab in combination with chemo radiotherapy for locally-advanced squamous cell carcinoma of the head and neck. Sanford Health MISP trial with Merck Head and Neck. 2015-present.

Gaba, A. Evaluating targets in localized and advanced breast cancer by sequencing tumor DNA at diagnosis and after progression. Sanford Health ELSA trial. 2015-present.

Gaba, A. Nutrition coaching for breast cancer patients undergoing treatment to decrease insulin resistance. Sanford Health Nutrition Coaching for Breast Cancer. 2014-present.

Gaba, A. Phase II study of DCA (dichloroacetate) vs. placebo in combination with cisplatin and definitive radiation in stage III-IV squamous cell carcinoma of the head and neck. Sanford Health DCA 2010. 2014-present.

Kurniali, P. Pilot study to investigate the level of inter-alpha inhibitors in bone marrow aspirate. Sanford Health Bismarck. 2017-present.

Kurniali, P. Multiple industry and cancer cooperative group research studies conducted at Sanford Health Bismarck. Sanford Health Bismarck. 2015-present.

Kurniali, P. Inter-alpha inhibitors as biomarker to predict response and complications in cancer patients treated with immunotherapy. Autoantibody Response Guided by immuno-Oncology Surveillance (ARGOS) repository study with Sanford Enterprise. 2018-present.

## **Department of Pathology**

### **Publications:**

[Chronic Arsenic Exposure Upregulates the Expression of Basal Transcriptional Factors and Increases Invasiveness of the Non-Muscle Invasive Papillary Bladder Cancer Line RT4.](#) Mehus AA, Bergum N, Knutson P, Shrestha S, Kalonick M, Zhou X, Garrett SH, Sens DA, Sens MA, Somji S. *Int J Mol Sci.* 2022 Oct 14;23(20):12313. doi: 10.3390/ijms232012313.PMID: 36293167

[Association between Arsenic Level, Gene Expression in Asian Population, and In Vitro Carcinogenic Bladder Tumor.](#) Singhal S, Ruprecht NA, Sens D, Tavakolian K, Gardner KL, Singhal SK. *Oxid Med Cell Longev.* 2022 Jan 7;2022:3459855. doi: 10.1155/2022/3459855. eCollection 2022.PMID: 35039759

[Protein interactions with metallothionein-3 promote vectorial active transport in human proximal tubular cells.](#) Kalyan G, Slusser-Nore A, Dunlevy JR, Bathula CS, Shabb JB, Muhonen W, Somji S, Sens DA, Garrett SH. *PLoS One.* 2022 May 3;17(5):e0267599. doi: 10.1371/journal.pone.0267599. eCollection 2022.PMID: 35503771

[Spectrum of Nonkeratinocyte Skin Cancer Risk Among Solid Organ Transplant Recipients in the US.](#) Sargen MR, Cahoon EK, Yu KJ, Madeleine MM, Zeng Y, Rees JR, Lynch CF, Engels EA. *JAMA Dermatol.* 2022 Apr 1;158(4):414-425. doi: 10.1001/jamadermatol.2022.0036.PMID: 35262623

[Pancreatic cancer among solid organ transplant recipients in the United States.](#) Tanaka T, Lynch CF, Yu KJ, Morawski BM, Hsieh MC, Alverson G, Austin AA, Zeng Y, Engels EA. *J Cancer Res Clin Oncol.* 2022 Aug 6. doi: 10.1007/s00432-022-04227-3. Online ahead of print. PMID: 35932302

[RNA Sequencing of Intestinal Enterocytes Pre- and Post-Roux-en-Y Gastric Bypass Reveals Alteration in Gene Expression Related to Enterocyte Differentiation, Restitution, and Obesity with Regulation by Schlafen 12.](#) Vomhof-DeKrey EE, Singhal S, Singhal SK, Stover AD, Rajpathy O, Preszler E, Garcia L, Basson MD. *Cells.* 2022 Oct 18;11(20):3283. doi: 10.3390/cells11203283.PMID: 36291149

[Protein expression of the gp78 E3 ligase predicts poor breast cancer outcome based on race.](#) Singhal SK, Byun JS, Yan T, Yancey R, Caban A, Gil Hernandez S, Bufford S, Hewitt SM, Winfield J, Pradhan J, Mustkov V, McDonald JA, Pérez-Stable EJ, Nápoles AM, Vohra N, De Siervi A, Yates C, Davis MB, Yang M, Tsai YC, Weissman AM, Gardner K. *JCI Insight.* 2022 Jul 8;7(13):e157465. doi: 10.1172/jci.insight.157465.PMID: 35639484

[Role of HRTPT in kidney proximal epithelial cell regeneration: Integrative differential expression and pathway analyses using microarray and scRNA-seq.](#) Shrestha S, Singhal S, Kalonick M, Guyer R, Volkert A, Somji S, Garrett SH, Sens DA, Singhal SK. *J Cell Mol Med.* 2021 Nov;25(22):10466-10479. doi: 10.1111/jcmm.16976. Epub 2021 Oct 9. PMID: 34626063

[Educational Case: Endometrial carcinoma types I and II.](#) Hemann ZA, Lim WZ, Kemp WL. *Acad Pathol.* 2022 May 17;9(1):100023. doi: 10.1016/j.acpath.2022.100023. eCollection 2022. PMID: 35600750

[Educational Case: Rheumatic fever, acute and chronic manifestations.](#) McIntire NR, Kemp WL. *Acad Pathol.* 2022 May 17;9(1):100024. doi: 10.1016/j.acpath.2022.100024. eCollection 2022. PMID: 35607602

[Sudden cardiac death in the young: A consensus statement on recommended practices for cardiac examination by pathologists from the Society for Cardiovascular Pathology.](#) Kelly KL, Lin PT, Basso C, Bois M, Buja LM, Cohle SD, d'Amati G, Duncanson E, Fallon JT, Firschau D, Fishbein G, Giordano C, Leduc C, Litovsky SH, Mackey-Bojack S, Maleszewski JJ, Michaud K, Padera RF, Papadodima SA, Parsons S, Radio SJ, Rizzo S, Roe SJ, Romero M, Sheppard MN, Stone JR, Tan CD, Thiene G, van der Wal AC, Veinot JP. *Cardiovasc Pathol.* 2022 Nov 12;63:107497. doi: 10.1016/j.carpath.2022.107497. Online ahead of print. PMID: 36375720

[Cardiopulmonary Resuscitation Induced Posterior Rib Fractures in Nontraumatic Pediatric Deaths.](#) Love JC, Austin D, Giese KW, Roe SJ. *Am J Forensic Med Pathol.* 2022 Mar 1;43(1):55-59. doi: 10.1097/PAF.0000000000000743. PMID: 35020605

[SLFN12 Over-expression Sensitizes Triple Negative Breast Cancer Cells to Chemotherapy Drugs and Radiotherapy.](#) Raafat Elsayed AA, Al-Marsoum S, Vomhof-Dekrey EE, Basson MD. *Cancer Genomics Proteomics.* 2022 May-Jun;19(3):328-338. DOI: 10.21873/cgp.20323. PMID: 35430566

[Schlafen 12 Slows TNBC Tumor Growth, Induces Luminal Markers, and Predicts Favorable Survival.](#) Singhal SK, Al-Marsoum S, Vomhof-DeKrey EE, Lauckner B, Beyer T, Basson MD. *Cancers (Basel).* 2023 Jan 7;15(2):402. doi: 10.3390/cancers15020402. PMID: 36672349; PMCID: PMC9856841.

Scholarly Presentations:

**With Medical Students: Platform presentations**

Joel Zimmerman, Sara Schreiber, Lauren Huddle. "To sleep, perchance to Dream: Case Report of Lethal Concentrations of Over-the-Counter Sleep Aids Diphenhydramine and Melatonin. Platform Presentation, National Association of Medical Examiners, Dallas, TX Oct 14 – 18, 2022.

Brailyn Weber, Mary Ann Sens, Susan Roe. "Post-mortem tanning: An unusual post-mortem event" Platform Presentation, National Association of Medical Examiners, Dallas, TX Oct 14 – 18, 2022.

Courtney Hanson, Erin Batdorff, Lauren N. Huddle, Julia Kochanowski, Kevin D. Whaley. "Acute Organophosphate Poisoning Suicide Case Review with Consideration of Off-gassing during Post- Mortem Examination. Platform Presentation, National Association of Medical Examiners, Dallas, TX Oct 14 – 18, 2022.

***Poster presentations***

1) Cole E Rokke, Susan Roe. "Devil in the Details: A Case Report of Amphipod Anthropophagy". Poster Presentation, National Association of Medical Examiners, Dallas, TX Oct 14 – 18, 2022.

With Graduate Students: Poster presentations:

A bioinformatics approach to elucidate the role of the metal binding protein metallothionein-3 through protein-protein interactions. Kalyan G, Slusser-Nore A, Dunlevy JR, Bathula CS, Shabb JB, Muhonen W, Somji S, Sens DA, Garrett SH.

Society of Toxicology Meeting, San Diego, CA, May 27-31.

8<sup>th</sup> Annual North Dakota Tribal College Research Symposium, April 21, 2022.

Proteomic alterations within the MCF10A human breast epithelial cell line from chronic As<sup>3+</sup>- or Cd<sup>2+</sup>- transformation. Aaron A. Mehus, Nicholas Bergum, Peter Knutson, Scott H. Garrett, Donald A. Sens, and Seema Somji. Department of Pathology, School of Medicine and Health Sciences, University of North Dakota, Grand Forks, North Dakota, United States of America. Society of Toxicology Meeting, San Diego, CA, May 27-31.

8<sup>th</sup> Annual North Dakota Tribal College Research Symposium, April 21, 2022.

Long-term arsenite exposure induces the expression of stem cell related in genes in normal urothelial cells. Josaphina Juarez, Aaron Mehus, Scott H Garrett, Donald A Sens and Seema Somji. Department of Pathology, University of North Dakota, School of Medicine and Health Sciences, Grand Forks, ND, 58201.

Society of Toxicology Meeting, San Diego, CA, May 27-31.

8<sup>th</sup> Annual North Dakota Tribal College Research Symposium, April 21, 2022.

Role of HRTPT in kidney proximal epithelial cell regeneration: Integrative differential expression and pathway analysis using microarray and scRNA-seq. Swojani Shrestha, Sonalika Singhal , Matthew Kalonick , Rachel Guyer, Alexis Volkert , Seema Somji , Scott H Garrett , Donald A Sens , Sandeep Singhal. Department of Pathology, University of North Dakota, School of Medicine and Health Sciences, Grand Forks, ND. Society of Toxicology Meeting, San Diego, CA, May 27-31.

Singhal S. Association between Arsenic Level, Gene Expression in Asian Population, and In Vitro Carcinogenic Bladder Tumor, Society of Toxicology, March 2022.

Singhal S. Cyberbiosecurity Vulnerability Assessment and Resilience. Poster Session, UND Cyber Awareness & Research Symposium, Oct. 2022.

Singhal S. Immunofluorescent staining of pathology images to study the tumor microenvironment. Poster Session, Fifth North Dakota Biomedical Engineering Symposium, 2022.

Singhal S. Expression of the gp78 E3 ligase protein indicates a poor breast cancer outcome based on race. Poster Session, Fifth North Dakota Biomedical Engineering Symposium, 2022.

Singhal S. Google Project: Developing a Multi-omics Platform. Poster Session, Fifth North Dakota Biomedical Engineering Symposium, Oct. 2022.

Singhal S. Gene Module and Biomarker Prediction of Breast Cancer Survival in Different Ancestral Groups. Poster Session, Fifth North Dakota Biomedical Engineering Symposium, 2022.

Singhal S. On Understanding a Radiation-Age Association. Poster Session, Fifth North Dakota Biomedical Engineering Symposium, 2022.

Singhal S. Developing a Radiation-Age Association to use Genetic Biomarkers for an Environment Exposure Risk Assessment. Poster Session, Abstract 22-07723, Military Health Systems Research Symposium, 2022.

Singhal S. Immunofluorescent staining of pathology images to study the tumor microenvironment in Breast Cancer. Poster Session, ND-EPSCoR 2022 State Conference, 2022.

Singhal S. Role of Racial Disparity in Clinical Setting: An Ancestry Estimation using Deep Learning. Poster Session, ND-EPSCoR 2022 State Conference, 2022.

Singhal S. Luminal Master Regulator Gene Expression in Patients with Triple Negative Breast Cancer. Poster Session, ND-EPSCoR 2022 State Conference, 2022.

Singhal S. Immunofluorescent staining of pathology images to study the tumor microenvironment in Breast Cancer. Poster Session, University of North Dakota Graduate Research Achievement Day, 2022.

Singhal S. Admixture Estimation using Deep Learning. Poster Session, University of North Dakota Graduate Research Achievement Day, March 2022.

Singhal S. Selected Gene Expression in Patients with Triple Negative Breast Cancer. Poster Session, University of North Dakota Graduate Research Achievement Day, 2022.

**With Undergraduate STEM Students:** *For complete list, see end of report.*



Alzheimer's Disease.

*Kochanowski J, Whaley K.*

*Department of Pathology, UND School of Medicine & Health Sciences*

McNair Scholar Program. April 14, 2022.

Knockdown of KRT6 in As<sup>3+</sup>-Transformed UROtsa Cells Results in Upregulation of GRHL1 and Downregulation of EGFR and TFAP2A

*Jessa Anderson, Becker Lindner, Kaitlyn Berwald, Kaija Kinnunen, Aaron Mehus, Seema Somji Department of Pathology, UND School of Medicine & Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Effect of Transient GRHL1 Knockdown on KRT6A, RXRA, GRHL1 and SOX2 in Arsenite-Transformed Urothelial Cells

*Dylan Helm, Kaija Kinnunen, Becker Lindner, Kaitlyn Berwald, Danping Guo, Aaron Mehus, Seema Somji Department of Pathology, University of North Dakota School of Medicine & Health Sciences* UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

**Knockdown of GRHL1 in Arsenite (As<sup>3+</sup>)-Transformed UROtsa Cells Decreases KRT5 Expression** *Justin*

*Inglis, Kaija Kinnunen, Becker Lindner, Kaitlyn Berwald, Danping Guo, Aaron Mehus, Seema Somji Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Knockdown of SOX2 in UROtsa Cells Transformed with Arsenite (As<sup>3+</sup>) Decreases the Expression of

**KRT6**

*Madison Jones, Kaija Kinnunen, Kaitlyn Berwald, Becker Lindner, Danping Guo, Aaron Mehus, Seema Somji Department of Pathology, University of North Dakota School of Medicine & Health Sciences* UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

SOX2 siRNA Knockdown Upregulates CDH2, Downregulates CDH1, and Does Not Affect GRHL1 Expression in As<sup>3+</sup> – Transformed Urothelial Cells

Lauren Jorda, Becker Lindner, Kaitlyn Berwald, Kaija Kinnunen, Danping Guo, Aaron Mehus, and Seema Somji Department of Pathology, University of North Dakota School of Medicine and Health Sciences UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Analyzing DSC2, DSC3, and DSG2 Expression After Stable Knockdown of KRT6 in Arsenite Transformed UROtsa Cells.

Paul Joseph, Kaitlyn Berwald, Kaija Kinnunen, Becker Lindner, Aaron Mehus, Seema Somji Department of Pathology, UND School of Medicine & Health Sciences, Grand Forks, ND UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Tretinoin Downregulates Basal Markers EGFR, KRT1 and Upregulates Luminal Markers CD24, KRT20 in Arsenite Transformed Urothelial Cancer Cells

Isabel Lopez Soto<sup>1</sup>, Kaitlyn Berwald<sup>2</sup>, Becker Lindner<sup>2</sup>, Kaija Kinnunen<sup>2</sup>, Danping Guo<sup>2</sup>, Sarmad Al-Marsoum<sup>2</sup>, Seema Somji<sup>2</sup>

<sup>1</sup>Department of Biology, Dickinson State University, Dickinson, North Dakota

<sup>2</sup>Department of Pathology, University of North Dakota School of Medicine & Health Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Expression of KRT6A, SOX2, GRHL1, and P63, After Stable Knockdown of KRT6 in As<sup>3+</sup> Transformed UROtsa Cells

Creighton Mitchell, Becker Lindner, Kaitlyn Berwald, Kaija Kinnunen, Aaron Mehus, Seema Somji Department of Pathology, School of Medicine & Health Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

The Expression of GATA3, KRT7, and KRT18 Upregulates in Response to Tretinoin Treatment in As<sup>3+</sup> Transformed UROtsa Cell Lines

Hannah Rathgeber, Kaija Kinnunen, Kaitlyn Berwald, Becker Lindner, Danping Guo, Sarmad Al-Marsoum, Seema Somji

*Department of Pathology, University of North Dakota School of Medicine & Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Expression of Proteasomal Genes Upregulated in HRTPT Progenitor Cells in Comparison to RPTEC/TERT1 and HREC24T Differentiated Cells

Zachary Reamann, Kaitlyn Berwald, Al-Marsoummi Sarmad, Scott H. Garrett, Kaija Kinnunen, Becker Lindner, Seema Somji

*Department of Pathology, University of North Dakota School of Medicine & Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Treatment of HRTPT Cell Line with Proteasomal Inhibitor (Bortezomib) Downregulates Expression of Progenitor Cell Markers (CD133 & CD24) and Proximal Tubule Marker (AQP1), and Upregulates Expression of Distal Tubule Marker (CALB1)

Rayna Rice, Kaija Kinnunen, Kaitlyn Berwald, Becker Lindner, Danping Guo, Sarmad Al-Marsoummi, Scott Garrett

*Department of Pathology, University of North Dakota School of Medicine & Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Treatment with Proteasomal Inhibitor (Bortezomib) Downregulates Expression of FGFR1, FGFR2, and FGF9 and Upregulates Expression of FGF2 in Kidney Progenitor Cells

Brooke Rossow, Kaija Kinnunen, Kaitlyn Berwald, Becker Lindner, Danping Guo, Sarmad Al-Marsoummi, Scott Garrett

*Department of Pathology, University of North Dakota School of Medicine & Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

The Effect of Tretinoin Treatment on Expression of FOXA1, PPARG, KRT8, and KRT16 in Arsenite-transformed Malignant Urothelial Cells

Bergen Stockstad, Kaitlyn Berwald, Becker Lindner, Kaija Kinnunen, Danping Guo, Sarmad Al-Marsoummi, Seema Somji

*Department of Pathology, University of North Dakota School of Medicine & Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Transient Knockdown of KRT6 Induces the Downregulation of KRT5 and P63 with No Effect on SOX2 in As<sup>3+</sup>-transformed UROtsa cells

Mason Trahan, Becker Lindner, Kaitlyn Berwald, Kaija Kinnunen, Danping Guo, Aaron Mehus, Seema Somji

Department of Pathology, University of North Dakota School of Medicine and Health Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

Downregulation of KRT5, KRT6A, KRT6B, and KRT6C in Tretinoin Treated As<sup>3+</sup> Transformed UROtsa Cells

Victoria Trochez<sup>1</sup>, Kaitlyn Berwald<sup>2</sup>, Becker Lindner<sup>2</sup>, Kaija Kinnunen<sup>2</sup>, Danping Guo<sup>2</sup>, Sarmad Al-Marsoum<sup>2</sup>, Seema Somji<sup>2</sup>

<sup>1</sup>Department of Biology, Dickinson State University; <sup>2</sup>Department of Pathology, University of North Dakota School of Medicine & Health Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Proteasomal Gene Expression Differences of PSMB2, PSMB7, PMSC1, PSMC4 among HRTPT, HREC24T and RPTEC/TERT1 Cells

Tanner Whelan, Kaitlyn Berwald, Becker Lindner, Danping Guo, Sarmad Al-Marsoum, Scott Garrett  
Department of Pathology, UND School of Medicine & Health Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

With Tribal College Students:

**Nadeau, M.** Indigenous Research Equity: Indigenous People's Sovereignty, Data and Research, Presenter. 8<sup>th</sup> Annual Tribal College Research Symposium. Cankdeska Cikana Community College, Spirit Lake Dakota Nation. April 21<sup>st</sup>, 2022. \*Melanie Nadeau is co-director with Corey Smith of the Virtual Indigenous Data Science Academy.

Faculty, post-doctoral only:

### **Oral presentations**

Mary Ann Sens, Nikolas Lemos: "Methamphetamine Caused and Related Deaths". Center for Forensic Science Research and Education. National Network of Public Health Institutes. On- Line, international

lecture. January 21, 2022, and May 25, 2022. Enrollments > 500 each presentation. On-Demand through 2022

Mary Ann Sens. "Deaths in Custody" Center for Forensic Science Research and Education. National Network of Public Health Institutes. On-Line, international lecture. January 21, 2022, and May 25, 2022. On-Demand through 2022. Enrollment > 400 for each presentation.

Jan Gornack, Mary Ann Sens, Allecia Wilson. "Toxicology and Genetic testing in Restraint Associated Deaths. May 13, 2022. Toxicology Grand Rounds. National Association of Medical Examiners, Center for Forensic Science Research and Education. National Network of Public Health Institutes. On-Line, international lecture.

Sandeep Singhal. "15th American Association for Cancer Research Conference on The Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved at Philadelphia" (Invited speaker AACR September 2022)

Smith, C. Navigating the Digital Mental Health Landscape: What Do I Need to Know?, Presenter. North Dakota Psychological Association. Fall Conference. October 27, 2022.

Lauren N. Huddle. "A Staged Hanging: Postmortem Suspension of a Homicide Victim." Virtual Conference Presentation. Minnesota Coroners' and Medical Examiners' Association, 38th Annual Forensic Science Seminar. Sept 22, 2022.

Lauren N. Huddle. "Overview of Breast Cancer." UND Virtual Indigenous Data Science Academy. June 30, 2022.

Kevin Whaley. "A Common Manner by Uncommon Means." Virtual Conference Presentation. Minnesota Coroners' and Medical Examiners' Association, 38th Annual Forensic Science Seminar. Sept 22, 2022.

Kevin Whaley. "A Common Manner by Uncommon Means" 23rd Annual North Dakota State- Wide Trauma Conference sponsored by the North Dakota Trauma Foundation. Sept. 29, 2022.

Kevin Whaley. BCI Advanced Investigative Training: "Asphyxia-related Deaths & Postmortem Identification". March 4, 2022.

Susan Roe, Yveka Pierre. "Defending Pregnant People in the post Dobbs Era: Why it Matters MN Defenders." 2022 Minnesota Board of Public Defense Professional Development Weekend. Oct. 14, 2022.

Kevin Whaley. FAC Mass Disaster Seminar. Thief River Falls, MN. Nov. 17, 2022/

Sandeep Singhal. Oral presentation: The breast cancer biomarkers as predictors of survival: Do they vary by race and ethnicity? ([https://aacrjournals.org/cebpa/article/32/1\\_Supplement/1A039/712246](https://aacrjournals.org/cebpa/article/32/1_Supplement/1A039/712246))

#### Poster presentations

Sarmad Al-Marsoum, Seema Somji, Scott H. Garrett, Marc D. Basson, Donald A. Sens. Schlafen 12 induces luminal differentiation of Arsenite (As<sup>3+</sup>) transformed UROtsa cells.

Annual Tribal College Research Symposium, Fort Totten, ND. (2022, April). Frank Low Research Day, Grand Forks, ND. (2022, April).

Sarmad Al-Marsoum, Seema Somji, Scott H. Garrett, Donald A. Sens, All-Trans Retinoic Acid (Tretinoin) Induces Luminal Differentiation in Arsenite-Transformed Malignant UROtsa Cells. NISBRE (Dec 2022), USA.

Singhal, Sandeep. Gene modules in association with Kaiso and LC3 regulatory pathways to predict survival and response to therapy (2022 ASCO Annual Meeting, e13573, 2022/6/1).

([https://ascopubs.org/doi/abs/10.1200/JCO.2022.40.16\\_suppl.e13573](https://ascopubs.org/doi/abs/10.1200/JCO.2022.40.16_suppl.e13573))

#### Book Chapters

Mary Ann Sens, Nikolas Lemos: “Methamphetamine Caused and Related Deaths”. Center for Forensic Science Research and Education. National Network of Public Health Institutes. Toxicology Grand Rounds. Center for Disease Control and Prevention.

[https://www.cfsre.org/images/content/research/toxicology/Grand\\_Rounds\\_2022-Final.pdf](https://www.cfsre.org/images/content/research/toxicology/Grand_Rounds_2022-Final.pdf)

Jan Gorniak, Mary Ann Sens, Allecia Wilson. “In Custody Deaths: Role of Toxicology, Genetics, and Natural Disease”. National Association of Medical Examiners, Center for Forensic Science Research and Education. National Network of Public Health Institutes. Toxicology Grand Rounds. Center for Disease Control and Prevention.

[https://www.cfsre.org/images/content/research/toxicology/Grand\\_Rounds\\_2022-Final.pdf](https://www.cfsre.org/images/content/research/toxicology/Grand_Rounds_2022-Final.pdf)

Sandeep Singhal. “Handbook of Arsenic Toxicology” 1. Application of high content predictive models and new alternative methods (NAMs) in the context of adverse outcome pathways

(AOPs) to assess arsenic toxicology. 2. Testing and assessment during development of arsenic toxicology. Elsevier.

#### Funded Grants:

NIH/GM (5P20 GM103442-21) \$ 3,379,827 May 2022 – April 2023

Donald Sens, PI

North Dakota IDeA Networks of Biomedical Research Excellence (INBRE) Health and the Environment

NIH/GM/INBRE-Supplement (P20 GM103442-S1) \$179,998 May 2022 – April 2023

PI: S. Singhal

#### Cloud-Based Multi-Omics Educational Platform Development (PI: Singhal)

NIH-INBRE Supplement

NIH/GM/INBRE Supplement (P20 GM103442-S2)      \$ 250,000      May 2022 – April 2023

PI: D. Sens

Instrumentation for Clinical Translational Science NIH/GM/INBRE Supplement

NIH (3P20GM103442-21S3)      \$      333,172      May 2022 – Apr 2023

Co-Investigator (Donald Sens, PI, Corey Smith, Co-I)

North Dakota IDeA Networks of Biomedical Research Excellence (INBRE) Health and the Environment,  
Administrative Supplement

NIH/IHS (1 S06 GM142131-01)      \$ 4,953,774      Sep 2022 – Aug 2025

Corey Smith Co-PI (Carrie Billy, PI)

Native American Research Center for Health (NARCH)

American Indian Higher Education Consortium (AIHEC) Building Indigenous Research Capacity in Health  
(BIRCH) project

NIH/NCI (RO1 CA266040-01)      \$3,649,389      Nov 2021 – Aug 2026

site PI: Singhal

The Role of Kaiso as a predictive breast cancer biomarker in Africa and across the African Diaspora

NIH/NCI (R01CA277862-01)      \$ 3,526,470      Dec 2022 – Nov 2023

site PI: Singhal

Understanding the Role of Adiposity and Adipokine-Related RNA Expression in the Tumor  
Microenvironment on Breast Cancer Outcomes in a Racially and Ethnically Diverse Sample

CDC (6 NU58DP007135-01)      \$ 653,904      July 2022 – June 2023

PI: Mary Ann Sens      Co-PI: Yun Zeng North Dakota Statewide Cancer Registry

ND Department of Health, Cancer Registry      \$ 98,000      July 2022 – June 2023 PI: Mary Ann Sens  
Co-PI: Yun Zeng

North Dakota Statewide Cancer Registry

Grants, submitted under review:

**The role and mechanism of gp78 in breast cancer progression and survival based on race.** Project (07/01/2023 – 06/30/2028). (Singhal) Proposal: 1R01CA275957-01A

Education:

**Students in Summer INBRE/SUBRE/REU Laboratory Experience: Undergraduate Research**

Jessa Anderson	Lauren Flakne	Alexis Lohnes Isabel	Rayna Rice Brooke
Zackary Anderson	Lily Gibson Katie	Lopez Het Mehta	Rossow John Schaller
Clara Anderson-	Harris Dylan	Tuesday Melton	Paul Schwartz Ethan
Cameron	Helm Justin Inglis	Creighton Mitchell	Simons Bergen
Ethan Bergeman	Madison Jones	Chris Nero	Stockstad
Nicholas Bittner	Lauren Jorda	Travis Pennington	Dakota Thompson
James Bowen Itzel	Paul Joseph	Hayley Qualley	Mason Trahan Victoria
Cayetano Kaleigh	Kaitlyn Kelley	Mansib Rahman	Trochez Anastasia
Coker Rachel Craig	Kaylee Kempel	Hannah Rathgeber	Usatii Zoe Von Holten
Jason Daniels Sarah	Jacob Knapek	Zachary Reamann	Tanner Whelan
Dierks Luis	Anna Lambertz	Abigail Rehbein	
Eguiguren	Madison Larson	Mara Reyna	

Undergraduate students in Fall and Spring semester research: Spring, 2022

Becker Lindner Kaija Kinnunen Merrick McMahon Kaha Mohamud Evan Szczepanski Shaelynn Wells

Fall, 2022

Madison Jones Rayna Rice Brooke Rossow Mason Trahan

Virtual Course

Virtual Indigenous Data Science Academy, June 17– July 1, 2022: 30 indigenous students registered (Corey Smith, Cristina Oancea, Melanie Nadeau, Sandeep Singhal)



week-long summer course offered in synchronous format introduced participants to analytic approaches, methods, and tools needed to extract usable knowledge from data sources found in many different areas of application in biomedicine and public health

## Continuing Education

### Death Investigation Courses

Bundled enrollment, all courses: 91 Enrolled Individual course enrollment: 96 Enrolled

North Dakota Pathology: Quality Review: 156 hours of CME in 2022.

For all forensic pathologists in North Dakota, Case review and adjudication

### Medical Student Electives:

2 Acting internships at UND, Grand Forks

20 students in one-month-long independent study

365 medical students from USA “Death Investigation in North Dakota: A model for Rural Death Investigation”

Assisted clinical hospitals with electives for students, establishing an externship at the VA hospital, Fargo.

### Community service:

Faculty Members on Journal editorial Boards:

Garrett	Editorial Board	Journal of Applied Toxicology
Garrett	EDITOR	Toxicology letters
Somji	Editorial Board	Toxicology Letters
Somji	Editorial Board	Journal of Applied Toxicology
Singhal	Editorial Board	Current Trends in Translational and Research
Singhal	Special Issue Editor	MDPI Cancers journal: “Applications of Machine Learning and Statistical Modeling in Precision Oncology”

Singhal	Editorial Board	Current Biomedical Chelation - Bentham Science which will be launched soon.
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#### Faculty Members on Study Sections:

Donald Sens	Several ad hoc NIH, Army
Mary Ann Sens	NIJ, Forensic fellowship and accreditation
Scott Garrett	DOD

Sandeep Singhal	Breast Cancer Now, London, UK Grant
Sandeep Singhal	Worldwide Cancer Research
Sandeep Singhal	Kuwait Foundation for the Advancement of Science
Sandeep Singhal	DaCCoTA Grant Review Committee

#### Faculty Members on Regional / National Positions:

Seema Somji: Northlands Regional representative to Society of Toxicology

Corey Smith: Member-at-large, Board of Directors, North Dakota Healthcare Information Management and Systems Society

Lauren Huddle, Kevin Whaley, Susan Roe, Mary Ann Sens: Board of MN Coroners' and Medical Examiners' Association.

Lauren Huddle: Vice President, Board of MN Coroners' and Medical Examiners' Association

#### Graduate Students on Regional / National Positions:

1) Eloho Igbofese: Graduate student representative for Northland Society of Toxicology

#### Other Scholarly Activity/ Service:

Singhal, Sandeep. Participated in the Pediatric COVID-19 Data Challenge together with Dr. Basson. The BARDA Community Challenge is sponsored by Biomedical Advanced Research and Development Authority (BARDA) in partnership with the National Institute of Health's National Center for Advancing Translational Sciences (NCATS), the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) at the National Institutes of Health and Health Resources & Services Administration (HRSA) Maternal & Child Health Bureau.

Singhal, Sandeep. Provided my services to the COVID Information Commons Student Paper Challenge organized by Northeast Big Data Innovation Hub as a mentor. The goal was to inspire the next generation of researchers. As a mentor, I joined weekly mentoring sessions throughout February and March, 2022 to help students learn about your COVID research and develop their papers.

Singhal, Sandeep: Judge: North Dakota State Science & Engineering Fair (NDSSEF), International Science & Engineering Fair (ISEF).

Singhal, Sandeep: Member of Career & Technical Education (CTE) instructor in the area of Technology & Engineering Education (TEED) at Grand Forks Red-River High School.

Roe, Susan: Judge: South Middle School/Northeast Regional Science & Engineering Fair, Feb. 2022.

Whaley, Kevin: Judge: Northeast Regional Science & Engineering Fair; North Dakota State Science & Engineering Fair (NDSSEF)

Whaley, Kevin: Moderator and Judge - NDHOSA State Leadership Convention (HOSA Bowl); Alerus Center, 3/21/22

Whaley, Kevin. Medical School/Forensic Pathology Presentation to High School Student/Teacher Molecular Biology Boot Camp. July 13, 2022

Whaley, Kevin. Pre-Med Physician Panel. UNDSMHS. Jan 29, 2022

Whaley, Kevin. Forensic Pathology Presentation to Upward Bound. June 16, 2022

Whaley, Kevin. Medical School/Forensic Pathology Presentation to High School Student/Teacher Molecular Biology Boot Camp. July 13, 2022

Whaley, Kevin. Morgue Tour and Forensic Pathology Presentation to Citizens' Police Academy. August 23, 2022

Huddle, Lauren: Judge - NDHOSA State Leadership Convention (HOSA Bowl); Alerus Center, 3/21/22 (~ 4 hours)

Huddle, Lauren: Committee Member – National Association of Medical Examiners (NAME) Position Paper Committee: 2<sup>nd</sup> Autopsies; April – June 2022 (approximately 10 hrs of review, online meetings, etc)

Faculty Summary:

	Publications	Presentations	Books, Chapters
Al-Marsoummi, S (appointed, 2022)	2	10	
Garrett, S	3	11	
Huddle, L	0	4	
	67		

Jurgens, C (appointed, December 2022)	0	0	
Mehus, A (appointed, 2022)	1	10	
Roe, SJ	2	2	
Saleem, Muhammad (appointed, 2022)	0	0	
Sens, DA	5	6	
Sens, MA	1	1	3
Singhal, S	5	18	1
Smith, C	0	0	1
Somji, S	3	19	
Whaley, K	0	6	
Zeng, Y	2	0	
Zhou, X	1	0	
Kemp, W (work done at UND)	2		

INBRE Supported, outside of Pathology:

#### **Publications:**

[HLA-II Alleles Influence Physical and Behavioral Responses to a Whey Allergen in a Transgenic Mouse Model of Cow's Milk Allergy.](#) Germundson DL, Nookala S, Smith NA, Warda Y, Nagamoto- Combs K. Front Allergy. 2022 Apr 14;3:870513. doi: 10.3389/falgy.2022.870513. PMID: 35769584

[Potential Role of Intracranial Mast Cells in Neuroinflammation and Neuropathology Associated with Food Allergy.](#) Germundson DL, Nagamoto-Combs K. *Cells.* 2022 Feb 20;11(4):738. doi: 10.3390/cells11040738. PMID: 35203387

#### **With Graduate Students: Platform presentations:**

Danielle L Germundson-Hermanson and Kumi Nagamoto-Combs. "Intracranial mast cell accumulation and activation in an asymptomatic mouse model of cow's milk allergy." Virtual talk, International Society for Neuroscience Young Time Symposium, August 15, 2022.

#### **Poster presentations:**

SC Oancea, CL Chang. *Trend analysis of the association between physical activity for leisure and obesity before and after the start of the Covid-19 pandemic.* 2022 Society of Epidemiologic Research Conference; Chicago, IL; June 14-17, 2022

SC Oancea, J Passini. *Examining the association between history of heart attack and experiencing frequent mental distress among United States veterans and adult civilians: a national level*

study. 2022 Society of Epidemiologic Research Conference; Chicago, IL; June 14-17, 2022

J Passini, SC Oancea. *Examining the association between history of heart attack and experiencing frequent mental distress among United States veterans and adult civilians: a national level study.* UND Frank Low Research Day; Grand Forkd, ND; April 21, 2022 (received Best Poster presentation award)

CL Chang, SC Oancea. *Trend analysis of the association between physical activity for leisure and obesity before and after the start of the Covid-19 pandemic.* UND Frank Low Research Day; Grand Forkd, ND; April 21, 2022

R Guyer, SC Oancea. *The association between seat belt use and screening for colorectal, prostate, cervical, and female breast cancer: Results from the 2020 BRFSS study.* UND Frank Low Research Day; Grand Forkd, ND; April 21, 2022

Danielle L Germundson-Hermanson and Kumi Nagamoto-Combs. "Repeated allergen exposure induces histaminergic dysregulation and depression-like behaviors in a non-anaphylactic food allergy mouse model." Poster and data blitz presentation, Host-Pathogen Interaction Symposium, Grand Forks, ND, October 4, 2022. \*\*Received data blitz award

Danielle L Germundson-Hermanson and Kumi Nagamoto-Combs. "Involvement of histamine in depression-like behavior in a mouse model of non-anaphylactic milk allergy." Poster presentation, Frank Low Research Day, Grand Forks, ND, April 21, 2022. \*\*Received Frank Low Research Day award for Graduate Category

Danielle L Germundson-Hermanson and Kumi Nagamoto-Combs. "An unscratchable itch: A potential role for histamine in food allergy-induced behavioral changes." Poster presentation, Graduate Research Achievement Day, Grand Forks, ND, March 5, 2022.

Danielle L Germundson-Hermanson and Kumi Nagamoto-Combs. "Cortical demyelination and depression-like behavior are associated with histaminergic dysregulation in a mouse model of peripheral inflammation." Poster presentation, Society for Neuroscience Meeting, San Diego, CA, November 11-15, 2022.

Danielle L Germundson-Hermanson and Kumi Nagamoto-Combs. "Brain mast cell accumulation and activation in an asymptomatic food allergy mouse model with continuous allergen consumption." Poster presentation, American Association of Immunologists Meeting, Portland, OR, May 6-10, 2022.

#### **Faculty, post-doctoral only:**

##### **Oral presentations**

1) SC Oancea. The Public Health path to INBRE research: past, present and future. 2022 North Dakota INBRE Annual Symposium; Grand Forks, ND; October 08, 2022. Invited Oral Presentation.

#### **University of North Dakota**

##### **Knockdown of KRT6 in As<sup>3+</sup>- Transformed UROtsa Cells Results in Upregulation of GRHL1 and Downregulation of EGFR and TFAP2A**

Jessa Anderson, Becker Lindner, Kaitlyn Berwald, Kaija Kinnunen, Aaron Mehus, Seema Somji Department of Pathology, UND School of Medicine & Health Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **CMS Model in Mouse Anxiety/Depression**

Zack Anderson, Jason Power, Ethan Bergeman, Katie Harris, Charismha Tsosie, Van Doze Department of Biomedical Sciences, UND School of Medicine & Health Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Characterization of Progesterone Resistant Breast Cancer Cells**

Clara Anderson-Cameron<sup>2,3</sup>, Mikhala Cooper-Robinson<sup>1</sup>, Motoki Takaku<sup>1</sup>

<sup>1</sup>Department of Biomedical Sciences, University of North Dakota School of Medicine, <sup>2</sup>Department of Biology, University of North Dakota, <sup>3</sup>Department of Biology, Cottey College

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Anti-Epileptic Effects of $\alpha_{1A}$ Adrenergic Receptor Activation**

<sup>1</sup>Ethan Bergeman, <sup>1</sup>Charismha Tsosie, <sup>1</sup>Katie Harris, <sup>1</sup>Zackary Anderson, <sup>1</sup>Jason Power, <sup>1</sup>Joseph Biggane,

<sup>2</sup>Dianne Perez, <sup>1</sup>Van Doze

<sup>1</sup>Department of Biomedical Sciences, UND School of Medicine & Health Sciences, <sup>2</sup>Cleveland Clinic

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Creation of a Hyperplane Device for Horizontal Cellular Migration Assays**

Nicholas M. Bittner<sup>1</sup>, Nelofer Nargis<sup>1</sup>, Brent J. Voels<sup>2</sup>, Colin K. Combs<sup>1</sup>

<sup>1</sup>Dept. of Biomedical Sciences, University of North Dakota School of Medicine & Health Sciences;

<sup>2</sup>Cankdeska Cikana Community College

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Cancer Specificity of Superantigen SEI Treatment in HLA-DQ8 and Double Transgenic Mice**

James Bowen<sup>1</sup>, Nathan Velaris<sup>2</sup>, Abiola Sholarin<sup>2</sup>, Matthew Nilles<sup>2</sup>, and David Bradley<sup>2</sup>

<sup>1</sup>Greenville University, Greenville, Illinois; <sup>2</sup>Department of Biomedical Sciences, University of North Dakota, Grand Forks, North Dakota

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **What is under the shell? Survey of turtle helminths from Reelfoot Lake, Tennessee**

Itzel Cayetano<sup>1</sup>, Luis A. Eguiguren<sup>2</sup>, Zoe S. Von Holten<sup>3</sup>, Thomas J. Fayton<sup>4</sup>, Vasyl V. Tkach<sup>5</sup>

<sup>1</sup>University of Wisconsin-Stevens Point, <sup>2</sup>University of Illinois at Urbana-Champaign, <sup>3</sup>Middle Georgia State University, <sup>4</sup>U.S. Fish and Wildlife Service, <sup>5</sup>University of North Dakota

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022 Exploring the transcriptional memory response during the Epithelial to Mesenchymal Transition (EMT).**

Kaleigh Coker<sup>1\*</sup>, Atrayee Bhattacharya<sup>1,2</sup>, Danielle Perley<sup>1,2</sup>, Adam Scheidegger<sup>1,2</sup>, Motoki Takaku<sup>1</sup>, Sergei Nechaev<sup>1</sup>, and Archana Dhasarathy<sup>1</sup>

<sup>1</sup>Biomedical Sciences, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND-58202-9061

<sup>2</sup> Present address: Dana-Farber Cancer Institute/ Harvard Medical School, Boston, MA, USA

<sup>3</sup> Present address: Canadian Centre for Computational Genomics, Montreal, Quebec, Canada

<sup>4</sup> Present address: Ginkgo Bioworks, Inc., Boston, MA, USA

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Changes in neuronal phenotype in C57BL/6 wild type and *App*<sup>NL-G-F</sup> mice following a colitis insult and probiotic intervention**

Rachel M J Craig<sup>1,2</sup>, Sathiya Priya Chandrasekaran<sup>1</sup>, Bijayani Sahu<sup>1</sup>, Suba Nookala<sup>1</sup>, Colin K Combs<sup>1</sup> <sup>1</sup>Dept. of Biomedical Sciences, University of North Dakota School of Medicine and Health Sciences, <sup>2</sup>Cornell University

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Promoter-Associated RNAs Show Comparable Abundance Compared Against Other RNA Classes**

Jason Daniels<sup>1</sup>, Damien Parrello<sup>2</sup>, Sara Apostol<sup>2</sup>, Mike Hill<sup>2</sup>, Sergei Nechaev<sup>2</sup>

<sup>1</sup>University of Maryland, Baltimore County, <sup>2</sup>Department of Biomedical Sciences, University of North Dakota School of Medicine & Health Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Effect of chronic food allergen exposure on the progression of Alzheimer's Disease**

Sarah Dierks<sup>1</sup>, Afrina Brishti<sup>2</sup>, Angela Mullins<sup>2</sup>, Kumi Nagamoto-Combs<sup>2</sup>

<sup>1</sup>Department of Biology, Eastern Washington University, Cheney, WA, <sup>2</sup>Department of Biomedical Sciences, University of North Dakota SMHS, Grand Forks, ND

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Digeneans of leeches in northwestern Minnesota**

Luis A. Eguiguren<sup>1</sup>, Zoe S. Von Holten<sup>2</sup>, Itzel Cayetano<sup>3</sup>, Vasyl V. Tkach<sup>5</sup>

<sup>1</sup>University of Illinois at Urbana-Champaign, <sup>2</sup>Middle Georgia State University, <sup>3</sup>University of Wisconsin-Stevens Point, <sup>4</sup>University of North Dakota

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **The Effect of Plant Biodiversity on the Gut Microbiomes of Pollinator Species**

Lily K. Gibson<sup>1</sup>, Kaylee Kempel<sup>1</sup>, Kelsey J. Morin<sup>1</sup>, Jona L. Pedersen<sup>1</sup>, Lee J. Qualley<sup>1</sup>, Abigail R. Rehbein<sup>2</sup>, and Rebecca Simmons<sup>1</sup>

<sup>1</sup>University of North Dakota and <sup>2</sup>University of Minnesota-Morris

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **$\alpha$ -1A Adrenergic Receptor Stimulation for the Treatment of Alzheimer's Disease**

Katie Harris, Ethan Bergeman, Charismha Tsosie, Zackary Anderson, Jason Power, Dianne Perez, Van Doze

Department of Biomedical Sciences, University of North Dakota School of Medicine and Health Sciences, Department of Molecular Cardiology, Lerner Research Institute, Cleveland Clinic Foundation

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Effect of Transient GRHL1 Knockdown on KRT6A, RXRA, GRHL1 and SOX2 in Arsenite-Transformed Urothelial Cells**

Dylan Helm, Kaija Kinnunen, Becker Lindner, Kaitlyn Berwald, Danping Guo, Aaron Mehus, Seema Somji  
Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022



### **Knockdown of GRHL1 in Arsenite (As<sup>3+</sup>)-Transformed UROtsa Cells Decreases KRT5 Expression**

Justin Inglis, Kaija Kinnunen, Becker Lindner, Kaitlyn Berwald, Danping Guo, Aaron Mehus, Seema Somji  
Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Knockdown of SOX2 in UROtsa Cells Transformed with Arsenite (As<sup>3+</sup>) Decreases the Expression of KRT6**

Madison Jones, Kaija Kinnunen, Kaitlyn Berwald, Becker Lindner, Danping Guo, Aaron Mehus, Seema Somji  
Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

### **SOX2 siRNA Knockdown Upregulates CDH2, Downregulates CDH1, and Does Not Affect GRHL1 Expression in As<sup>3+</sup> – Transformed Urothelial Cells**

Lauren Jorda, Becker Lindner, Kaitlyn Berwald, Kaija Kinnunen, Danping Guo, Aaron Mehus, and Seema Somji

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, North Dakota

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Analyzing DSC2, DSC3, and DSG2 Expression After Stable Knockdown of KRT6 in Arsenite Transformed UROtsa Cells.**

Paul Joseph, Kaitlyn Berwald, Kaija Kinnunen, Becker Lindner, Aaron Mehus, Seema Somji Department of Pathology, UND School of Medicine & Health Sciences, Grand Forks, ND UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Infectivity of clonal isolates of hard-tick borne relapsing fever spirochete, *Borrelia miyamotoi***

*Kaitlyn Kelley<sup>1</sup>, Yvonne Tourand<sup>2</sup>, Dawn Cleveland<sup>2</sup>, Catherine Brissette<sup>2</sup>*

*<sup>1</sup>Guilford College, <sup>2</sup>Department of Biomedical Sciences, UND School of Medicine & Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Microbiome Composition of Megachilidae found in the Northern Great Plains**

*Kaylee Kempel<sup>1</sup>, Lily Gibson<sup>1</sup>, Kelsey Morin<sup>1</sup>, Jona Pedersen<sup>1</sup>, Lee Qualley<sup>1</sup>, Abigail Rehbein<sup>2</sup>, Rebecca Simmons<sup>1</sup>*

*<sup>1</sup>Department of Biology, University of North Dakota, <sup>2</sup>University of Minnesota - Morris UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022*

**Soil Health Benefits of the Conservation Reserve Program** *Jacob C. Knapek, Kathryn A. Yurkonis, & Brian J. Darby Department of Biology, University of North Dakota*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Focal Adhesion Patterns in Neural Crest Cell Differentiation**

*Anna Lambertz<sup>1</sup>, Amanda Haage<sup>1</sup>*

*<sup>1</sup>Department of Biomedical Sciences, University of North Dakota School of Medicine and Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Construction and Characterization of Drosophila Dopamine Transporters Engineered to Contain N-terminal Palmitoylation Sites Homologous to the Human Transporter**

*Madison Larson<sup>1</sup>, Lauren Flakne<sup>2</sup>, Evan Walter<sup>1</sup>, and L. Keith Henry<sup>1</sup>*

*<sup>1</sup>Biomedical Sciences, University of North Dakota School of Medicine and Health Sciences, Grand Forks, North Dakota, <sup>2</sup>College of St. Benedict, St. Joseph, Minnesota*

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### **Future Research: Mosquito Species Population Dynamics in Benson County North Dakota**

*Alexis Lohnes<sup>1</sup>, Brent Voels<sup>1</sup>*

*<sup>1</sup>Cankdeska Cikana Community College, 214 1<sup>st</sup> Avenue, Fort Totten, ND 58335*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Tretinoin Downregulates Basal Markers EGFR, KRT1 and Upregulates Luminal Markers CD24, KRT20 in Arsenite Transformed Urothelial Cancer Cells**

*Isabel Lopez Soto<sup>1</sup>, Kaitlyn Berwald<sup>2</sup>, Becker Lindner<sup>2</sup>, Kaija Kinnunen<sup>2</sup>, Danping Guo<sup>2</sup>, Sarmad Al-Marsoum<sup>2</sup>, Seema Somji<sup>2</sup>*

<sup>1</sup>*Department of Biology, Dickinson State University, Dickinson, North Dakota*

<sup>2</sup>*Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Mitochondrial Transcription Factor A in Immunological Aging and Cognitive Impairment**

*Het Mehta, Zhihan Wang, Kai Guo, Mansib Rahman, Mara Mikaella Reyna, Ramkumar Mathur* Department of Geriatrics, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Epigenetic regulation of the SPARC gene in bladder cancer**

*Tuesday Melton<sup>1</sup>, Carson Herbert<sup>1</sup>, Mollie Hostetter<sup>1</sup>, Jarret Merschman<sup>1</sup>, Emily Biggane<sup>2</sup> and Archana Dhasarathy<sup>1</sup>*

<sup>1</sup>*Department of Biomedical Sciences, School of Medicine and Health Sciences, Grand Forks, ND-58202*

<sup>2</sup>*United Tribes Technical College, Bismarck, ND-58504*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Expression of KRT6A, SOX2, GRHL1, and P63, After Stable Knockdown of KRT6 in As<sup>3+</sup> Transformed UROtsa Cells**

*Creighton Mitchell, Becker Lindner, Kaitlyn Berwald, Kaija Kinnunen, Aaron Mehus, Seema Somji* Department of Pathology, School of Medicine & Health Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Investigation of Dopamine Transporters when Challenged with Prednisolone**

*Barbara C. Nero, Christopher Brown, Aaron Blackwell, Tess Sether, James D Foster*

*Department of Biomedical Sciences, University of North Dakota, School of Medicine and Health Sciences, Grand Forks, ND*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Dopamine Transporter Levels on the Cell Surface are Negatively Impacted by Dexamethasone**

*Travis Pennington<sup>1</sup>, Christopher Brown<sup>2</sup>, James Foster<sup>2</sup>*

*<sup>1</sup>Biochemistry and Biophysics, Oregon State University, Corvallis OR, <sup>2</sup>Department of Biomedical Sciences, University of North Dakota, School of Medicine and Health Sciences, Grand Forks ND*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **The Effects of Urbanization on the Solitary Hymenoptera Communities**

*Hayley Qualley<sup>1</sup>, Abigail Rehbein<sup>2</sup>, Kaylee Kempel<sup>1</sup>, Kelsey Morin<sup>1</sup>, Lily Gibson<sup>1</sup>, Jona L. Pedersen<sup>1</sup>, Shea McGuinness<sup>3</sup> Rebecca Simmons<sup>1</sup>*

*Department of Biology- University of North Dakota<sup>1</sup>, University of Minnesota -Morris<sup>2</sup>, Montana State University<sup>3</sup>*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Deregulated Gut Epithelial Fucosylation is Involved in Aging and Associated with Colon Cancer Pathology**

*Mansib Rahman, Zhihan Wang, Kai Guo, Het Mehta, Mara Mikaella Reyna, Ramkumar Mathur* Department of Geriatrics, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **The Expression of GATA3, KRT7, and KRT18 Upregulates in Response to Tretinoin Treatment in As<sup>3+</sup> Transformed UROtsa Cell Lines**

*Hannah Rathgeber, Kaija Kinnunen, Kaitlyn Berwald, Becker Lindner, Danping Guo, Sarmad Al- Marsoum, Seema Somji*

*Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Expression of Proteasomal Genes Upregulated in HRTPT Progenitor Cells in Comparison to RPTEC/TERT1 and HREC24T Differentiated Cells**

Zachary Reamann, Kaitlyn Berwald, Al-Marsoum Sarmad, Scott H. Garrett, Kaija Kinnunen, Becker Lindner, Seema Somji

Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Determining Gut Microbiomes of Hoverflies Living in the Northern Plains**

Abigail Rehbein<sup>1</sup>, Lily K. Gibson<sup>2</sup>, Kaylee Kempel<sup>2</sup>, Kelsey J. Morin<sup>2</sup>, Jona L. Pedersen<sup>2</sup>, Lee J. Qualley<sup>2</sup>, Rebecca Simmons<sup>2</sup>

<sup>1</sup>University of Minnesota – Morris, <sup>2</sup>Department of Biology, University of North Dakota

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Detection of defects in human mtDNA on Parkinson's disease patients by qPCR and stimulation of SH-SY5Y cells**

Mara Mikaella Reyna<sup>1</sup>, Mansib Rahman<sup>2</sup>, Het Mehta<sup>2</sup>, Zhihan Wang<sup>3</sup>, Ramkumar Mathur<sup>1</sup>

<sup>1,2,3</sup>Geriatrics, University of North Dakota School of Medicine & Health Sciences, <sup>2</sup> University of North Dakota College of Arts and Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Treatment of HRTPT Cell Line with Proteasomal Inhibitor (Bortezomib) Downregulates Expression of Progenitor Cell Markers (CD133 & CD24) and Proximal Tubule Marker (AQP1), and Upregulates Expression of Distal Tubule Marker (CALB1)**

Rayna Rice, Kaija Kinnunen, Kaitlyn Berwald, Becker Lindner, Danping Guo, Sarmad Al-Marsoum, Scott Garrett

Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Treatment with Proteasomal Inhibitor (Bortezomib) Downregulates Expression of FGFR1, FGFR2, and FGF9 and Upregulates Expression of FGF2 in Kidney Progenitor Cells**

Brooke Rossow, Kaija Kinnunen, Kaitlyn Berwald, Becker Lindner, Danping Guo, Sarmad Al-Marsoum, Scott Garrett

*Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

### **Acetylated H4 and H3K27me3 Antibodies and their role in Early RNA Transcription of transfected SV40 chromatin**

*John Schaller<sup>1</sup>, Barry Milavetz<sup>2</sup>*

*<sup>1</sup>Hendrix College, Department of Biomedical Sciences, <sup>2</sup>University of North Dakota School of Medicine & Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Effects of Carbachol on Palmitoylation of Dopamine Transporter**

*Paul Schwartz, James D. Foster, and Aaron Blackwell*

*Department of Biomedical Sciences, University of North Dakota School of Medicine & Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Single-Nucleotide Polymorphisms and Their Effects on Temperature-Dependent Sex Determination in *Chelydra serpentina***

*Ethan Simons<sup>1</sup>, Dakota Thompson<sup>1</sup>, Autumn Joy<sup>1</sup>, and Turk Rhen<sup>1</sup>* <sup>1</sup>Department of Biology, University of North Dakota

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **The Effect of Tretinoin Treatment on Expression of FOXA1, PPARG, KRT8, and KRT16 in Arsenite-transformed Malignant Urothelial Cells**

*Bergen Stockstad, Kaitlyn Berwald, Becker Lindner, Kaija Kinnunen, Danping Guo, Sarmad Al- Marsoum, Seema Somji*

*Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

**Chromosome Loci 20148572 Single Nucleotide Polymorphism Association with Temperature Dependent Sex Determination**

*Dakota Thompson<sup>1</sup>, Ethan Simons<sup>2</sup>, Autumn Joy<sup>2</sup>, Turk Rhen<sup>2</sup>.*

*<sup>1</sup>Beloit College, <sup>2</sup>Department of Biology, University of North Dakota*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

**Transient Knockdown of KRT6 Induces the Downregulation of KRT5 and P63 with No Effect on SOX2 in As<sup>3+</sup>-transformed UROtsa cells**

*Mason Trahan, Becker Lindner, Kaitlyn Berwald, Kaija Kinnunen, Danping Guo, Aaron Mehus, Seema Somji*

*Department of Pathology, University of North Dakota School of Medicine and Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

**Downregulation of KRT5, KRT6A, KRT6B, and KRT6C in Tretinoin Treated As<sup>3+</sup> Transformed UROtsa Cells**

*Victoria Trochez<sup>1</sup>, Kaitlyn Berwald<sup>2</sup>, Becker Lindner<sup>2</sup>, Kaija Kinnunen<sup>2</sup>, Danping Guo<sup>2</sup>, Sarmad Al-Marsoum<sup>2</sup>, Seema Somji<sup>2</sup>*

*<sup>1</sup>Department of Biology, Dickinson State University; <sup>2</sup>Department of Pathology, University of North Dakota School of Medicine & Health Sciences*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

**Impact of medical-grade probiotic VSL#3 on brain neutrophil content in a DSS-induced colitis mouse model**

*Anastasia Usatii<sup>1</sup>, Bijayani Sahu<sup>2</sup>, Suba Nookala<sup>2</sup>, and Colin K. Combs<sup>2</sup>*

*<sup>1</sup>University of Minnesota, Minneapolis, MN; <sup>2</sup>Department of Biomedical Sciences, School of Medicine and Health Sciences, University of North Dakota, Grand Forks, ND*

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022

### **Revealing further diversity of the Diplostomidae (Digenea) parasitic in New World kingfishers**

Zoe S. Von Holten<sup>1</sup>, Tyler J. Achatz<sup>1</sup>, Alan Fecchio, Lynda LaFond<sup>3</sup>, Vasyl V. Tkach<sup>3</sup>

<sup>1</sup>Middle Georgia State University, <sup>2</sup>Universidad Nacional de la Patagonia San Juan Bosco, Esquel, Chubut, Argentina, <sup>3</sup>University of North Dakota

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 **Proteasomal Gene Expression Differences of PSMB2, PSMB7, PMSC1, PSMC4 among HRTPT, HREC24T and RPTEC/TERT1 Cells**

*Tanner Whelan, Kaitlyn Berwald, Becker Lindner, Danping Guo, Sarmad Al-Marsoummi, Scott Garrett*  
Department of Pathology, UND School of Medicine & Health Sciences

UND SMHS Summer Undergraduate Research Experience Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Behavioral Research Core Facility: Infrastructure and Advanced Equipment for Behavioral Phenotyping in Rodents**

*Van A. Doze and Ellen M. Olson, Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND 58202*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **North Dakota State University**

### **Phenolic plant extracts induce apoptosis in bone metastatic breast cancer grown on 3D in vitro nano-clay based bone-mimetic scaffold**

*Aisosa Bello*<sup>1</sup>, *Preetham Ravi*<sup>2</sup>, *Quyen Hoang*<sup>2</sup>, *Kalpana Katti*<sup>2</sup>, *Dinesh Katti*<sup>2</sup>, *Kalidas Shetty*<sup>3</sup>, *Dipayan Sarkar*<sup>3</sup>

<sup>1</sup>Dickinson State University; <sup>2</sup>Civil, Construction, and Environmental Engineering and <sup>3</sup>Plant Sciences, North Dakota State University

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Alternative splicing of human telomerase reverse transcriptase in diabetic CD34+ hematopoietic stem/progenitor cells**

*Andrew Toelle, Yagna Jarajapu, Jesmin Jahan*

*Department of Pharmaceutical Sciences, North Dakota State University*

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022



### **Coarse-Grained Modeling of Dynamics and Mechanical Properties of PCL-Clay Nanocomposites**

Caleb Patrick, Wenjie Xia, Dawei Zhang, Wenjian Nie, Amara Arshad

*Civil, Construction, and Environmental Engineering, North Dakota State University*

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Calibrating the Built Environment Using Biosensing Equipment**

Claire Olson, Ganapathy Mahalingam

*Department of Architecture, North Dakota State University*

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Exploring Hardware Optimization for Genomic Application**

DeRae Steiner<sup>1</sup>, Sumitha George<sup>2</sup>

<sup>1</sup>Valley City State University, <sup>2</sup>Electrical and Computer Engineering, North Dakota State University

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **A Reusable DNA-Based Probe for Viral RNA Detection in Wastewater and Air**

Drew Jordahl, Zhongyu Yang

*Chemistry and Biochemistry, North Dakota State University*

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Role of Integrin Subunits in Cancer Cell Proliferation**

Emily Stover, Md Saimon Mia, Sijo Mathew

*Department of Pharmaceutical Sciences, North Dakota State University*

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Nutritional Effects on Offspring Ovarian Development**

Isabella Jurgens, Carl Dahlen, Fiederike Baumgaertner, Sarah R Underdahl, Jennifer L Hurlbert, Kerri A Bochantin, Kevin K Sedivec, James D Kirsch, Sheri T Dorsam, Ana Clara B Menezes, Wellison JS Diniz, Alison K Ward, Kacie L McCarthy, Joel S Caton, Kendall C Swanson

*Department of Animal Science, North Dakota State University*

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Patient Misidentification Prevention**

Jared Maul, Jeremy Straub

*Department of Computer Science, North Dakota State University*

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Synthesis and characterization of nanoclay based scaffolds for bone tissue regeneration and cancer testbeds**

Julia Johnson, Dinesh Katti, Kalpana Katti, Quyen Hoang, Sharad Jaswandkar, Krishna Kundu, Preetham Ravi Civil, Construction, and Environmental Engineering, North Dakota State University

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Predicting Drug-like and Toxicological Properties of Fullerene Derivative Nanostructures by Application of Computational and Machine Learning Approaches**

Long Nguyen<sup>1</sup>, Stephen Szwiec<sup>2</sup>, Mariam Zamani<sup>2</sup>, Bakhtiyor Rasulev<sup>2</sup>

*Minot State University, Department of Coatings and Polymeric Materials, North Dakota State University*

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Efficient Aniline Synthesis via Direct C-H Amination with Ammonia**

Megan Richard, Pinjing Zhao, Charles McNeff

*Department of Chemistry and Biochemistry, North Dakota State University*

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Differential cytochrome-P450 enzymes expression in airway smooth muscle**

Noah Keller<sup>1</sup>, Sathish Venkatachalem<sup>2</sup>, Ashish Kumar<sup>2</sup>, Niyati Borkari<sup>2</sup>, Nilesh Ambhore<sup>2</sup>

<sup>1</sup>Minot State University, <sup>2</sup>Department of Pharmaceutical Sciences, North Dakota State University

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

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### **Characterization of Nodular and non-Nodular LAM phenotype**

Sahil Lohana, Sathish Venkatachalem, Jacob Tesch, Premanand Balraj, Ashish Kumar Department of Pharmaceutical Sciences, North Dakota State University

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

**Sex variability on age-associated changes in kidney integrin expression** Samuel Fernholz, Sijo Mathew, Delowar Hossain, Saimon Mia Department of Pharmaceutical Sciences, North Dakota State University

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Construction of Enantioselective Hindered Carbon Centers by Cyclopropanation Reactions**

Samuel Stevens, Hari Subramanian, Mukund P. Sibi

Department of Chemistry and Biochemistry, North Dakota State University

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Prosthetic Joint Infection**

Savannah Drey, Ali Amiri, Chad Ulven, Luke Gibbon

Department of Mechanical Engineering, North Dakota State University

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Automation of Histological Image Analysis of Heart Failure Tissue**

Xavier Pahl, Ang Guo

Department of Pharmaceutical Sciences, North Dakota State University

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022

### **Thiol-dependence of SARS-CoV-2 binding to the ACE-2 receptor**

Kundai Mutungi<sup>1</sup>, Gudrun Lukat-Rodgers<sup>2</sup>, Kenton Rodgers<sup>2</sup>, Bryan Schmidt<sup>1</sup>. <sup>1</sup>Division of Science, Minot State University, Minot, ND; <sup>2</sup>Department of Chemistry and Biochemistry, North Dakota State University, Fargo, ND.

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### **NDSU Genetic Engineering Corps: A Better Alternative to Azo Dyes**

*Mia Haugan, Drew Jordahl, Wyatt Warkenthien, Taylor Pennington, Jake Schumacher, Caroline Osborne, Deanna Milner, Sierra Preabt, Miranda Vanderhyde*

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Environmental noise reduction for tunable resistive pulse sensing of extracellular vesicles**

*Nega Ejjiugu<sup>1</sup>, Khalid Abdelgadir<sup>2</sup>, Zachariah Flaten<sup>1</sup>, Cameron Hoff<sup>2</sup>, Chen-Zhong Li<sup>3</sup>, and Dali Sun<sup>1,2</sup>*  
1Biomedical Engineering Program, North Dakota State University; 2Department of Electrical and Computer Engineering, North Dakota State University; 3Center for Cellular and Molecular Diagnostics, Department of Biochemistry and Molecular Biology, Department of Biomedical Engineering, Tulane University

NDSU Summer Undergraduate Biomedical Research Program Symposium, Aug 2022 Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Cankdeska Cikana Community College**

#### **Differential expression of COL4A3, COL4A4, ITGA6, and CLDN10 in CD133-/CD24+ and CD133+/CD24+ cell lines**

*Alexis Lohnes<sup>1</sup>, Shae Wells<sup>1</sup>, Brent Voels<sup>1</sup>*

*1Cankdeska Cikana Community College, 214 First Ave Fort Totten, ND 58335*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Mosquito Species Population Dynamics in Benson County North Dakota**

*Starla Littlewind<sup>1</sup>, Marlaysia Haskell<sup>1</sup>, Taylor Painter<sup>2</sup>, Joseph Mehus<sup>2</sup>, Brent Voels<sup>1</sup>* 1Cankdeska Cikana Community College, 214 1st Ave Fort Totten, ND

*2Mayville State University, 330 3rd St NE, Mayville, ND*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Mayville State University**

### **Screening Common Coumarins for Application as Fluorescent HSA Drug Binding Site Reporters**

*Kaitlin Ensign, Thomas P. Gonnella*

*Department of Chemistry, Mayville State University, Mayville, ND.*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

**Utilizing Fluorescent Coumarins to Report on HSA Drug Binding** *Gerrit Bjornstad, Sydney Brekken, Thyra Peterick, Thomas P. Gonnella* *Department of Chemistry, Mayville State University, Mayville, ND.* Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Mosquito Population Dynamics & Trap Style Significance at Agricultural Sites in Traill Co. North Dakota

*Jesse J. Halverson, Keylim B. Muñoz Rivera, Taylor R. Painter, Joseph O. Mehus* *Biology Department, Mayville State University, Mayville, ND*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Mosquito Research in Traill County, ND: Focus on Specific Aims**

*Taylor R. Painter, Joseph O. Mehus*

*Biology Department, Mayville State University, Mayville, North Dakota* Annual ND INBRE Undergraduate Research Symposium, Oct 2022

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

### **Mosquito Photography and Dichotomous Key Development**

*Keylim B. Muñoz Rivera, Jesse J. Halverson, Taylor R. Painter, Laura A. Jacobson, Lily K. Pyle, Austin E. de Laroque, Joseph O. Mehus*

*Biology Department, Mayville State University, Mayville, North Dakota*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Minot State University**

### **Rapid synthesis of N-[1-(4-hydroxyphenyl)ethyl]-N-methylformamide**

*Monica J. Anderson, Hassan S. Elshanbary, Lioudmila I. Bobyleva, MS, and Mikhail M. Bobylev, PhD* *Division of Science – Chemistry, Minot State University, Minot, ND 58707*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

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**The effects of methamphetamine with reuptake inhibitors on primary cell cultures of chromaffin cells.**

*Spencer Gordon, Bryan Schmidt. Division of Science, Minot State University, Minot, ND.*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

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**Use of catecholamine reuptake inhibitors to enhance epinephrine detection after methamphetamine stimulation of adrenal cells.**

*Clay Mantz, Kaitie Hanson, Spencer Gordon, Paolo Panales, Noah Keller, Bryan Schmidt. Division of Science, Minot State University, Minot, ND.*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

**An improved step in the synthesis of naproxen**

*Daniela Nardelli, Lioudmila I. Bobyleva, MS, and Mikhail M. Bobylev, PhD\* Division of Science – Chemistry, Minot State University, Minot, ND 58707*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

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**Primary bovine adrenal cell culture for methamphetamine studies.**

*Paolo Panales, Kaitie Hanson, Spencer Gordon, Clay Mantz, Noah Keller, Bryan Schmidt. Division of Science, Minot State University, Minot, ND*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

**Rapid Synthesis of N-(2,4-dichlorobenzyl)-N-phenylformamide** *Branden Z. Pelzer, Lioudmila I. Bobyleva, and Mikhail M. Bobylev Division of Science – Chemistry, Minot State University, Minot, ND 58707*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

Rapid Synthesis of N-[1-(1-naphthyl)ethyl]-N-ethylformamide

*Christopher M. Scott, Lioudmila I. Bobyleva, MS, and Mikhail M. Bobylev, PhD Division of Science – Chemistry, Minot State University, Minot, ND 58707 Annual ND INBRE Undergraduate Research Symposium, Oct 2022*

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

**Rapid Synthesis of N-ethyl-N-[1-(4-isopropylphenyl)ethyl]formamide** *Lynn I. Vick, Lioudmila I. Bobyleva, MS, and Mikhail M. Bobylev, PhD Division of Science – Chemistry, Minot State University, Minot, ND 58707*

*Annual ND INBRE Undergraduate Research Symposium, Oct 2022*

8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE), Dec 2022

**Rapid synthesis of N-ethyl-N-[1-(4-methoxyphenyl)ethyl]formamide** *Aziza Z. Ziadinova, Lioudmila I. Bobyleva, MS, and Mikhail M. Bobylev, PhD Division of Science – Chemistry, Minot State University, Minot, ND 58707 Annual ND INBRE Undergraduate Research Symposium, Oct 2022*

### **Turtle Mountain Community College**

#### **Maternal Risk of Pre-eclampsia: Influence of Fetal rs1205 Genotype**

*Crystal Azure,<sup>1</sup> Hailey Davis,<sup>1</sup> Craig Poitra,<sup>1</sup> Tyler Parisien,<sup>1</sup> Lyle G. Best,<sup>1,2</sup>*

*<sup>1</sup>Turtle Mountain Community College, Belcourt, ND, <sup>2</sup>University of North Dakota, Grand Forks, ND*

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#### **Maternal Risk of Pre-existing or Gestational Diabetes and Genetic Variant rs13085136**

*Shayden Standish,<sup>1</sup> Crystal Azure,<sup>1</sup> Tyler Parisien,<sup>1</sup> Bethany Davis,<sup>2</sup> Lyle G. Best,<sup>1,3</sup> <sup>1</sup>Turtle Mountain Community College, Belcourt, ND, <sup>2</sup>Translational Genomics Research Institute (TGen), Phoenix, AZ, <sup>3</sup>University of North Dakota, Grand Forks, ND*

*Annual ND INBRE Undergraduate Research Symposium, Oct 2022*

#### **Putative novel variants of the CRP gene in an American Indian pre-eclampsia cohort**

*Lyle G. Best,<sup>1</sup> Shelley Cole,<sup>2</sup> Karin Haack,<sup>2</sup> Dara Torgerson,<sup>3</sup>*

*<sup>1</sup>Turtle Mountain Community College, Belcourt, ND and University of North Dakota, Grand Forks, ND  
<sup>2</sup>Texas Biomedical Research Institute, San Antonio, TX <sup>3</sup>Department of Epidemiology and Biostatistics, University of California San Francisco, San Francisco, CA, USA*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **United Tribes Technical College**

#### **In vitro TWIST1 Expression across Various Stages of Bladder Cancer**

*Audrey M Hall<sup>1</sup>, Emily Biggane<sup>2</sup>*

*1 Environmental Science & Research Department, United Tribes Technical College, Bismarck, ND, 2 Intertribal Research and Resource Center, United Tribes Technical College, Bismarck, ND*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **University of Mary**

#### **Looking into Our Defense Against HIV-1**

*Blaise L. Boyle, James A. Peliska, PhD., Paul D. Witzke* University of Mary

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#### **Effects of Sodium-Potassium Pump Blockade on Cellular Growth in HepG2 Liver Carcinoma Cells**

*Jaycee Frank, Kayla Hagan, Joseph P Biggane*

*University of Mary, School of Arts and Sciences, Biology Department*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

#### **Determining Pathways of Information Flow in States of ERK2**

*Kaitlin M. Kriefall & Daniel A. Barr PhD, Department of Chemistry, University of Mary, Bismarck, ND*

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#### **CRISPR/Cas9 Knockout of a Retinol Dehydrogenase in *Drosophila melanogaster***

*Walther R. Noble, Celia Y. Brekken, David S. Ronderos PhD, Department of Biology, University of Mary, Bismarck, ND.*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022



### **The Role of Calcium Binding Protein Cbp53E in the Visual System**

*Gavin E. Olson: Department of Biology, University of Mary, Estevan G. Quintana: Department of Biology University of Mary, Dr. David S. Ronderos: Department of Biology, University of Mary*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Effects of Sodium-Potassium Pump Blockade on Cellular Membrane Potential in HepG2 Liver Carcinoma Cells**

*Ashlin B. Schaeffbauer, Abigail J. Folk, Joseph P Biggane*

*University of Mary, School of Arts and Sciences, Biology Department*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **Physiological signals and machine learning in prediction of grades**

*Maya Wald<sup>1</sup>, John Soupir<sup>1</sup>, Margaret Kuhar<sup>1</sup>, Chandler Olson<sup>1</sup>, Benjamin Ahlbrecht<sup>1</sup>, Dr. Daniel Barr<sup>2</sup>, Dr. Khalid Oweis<sup>1</sup>*

*1School of Engineering, University of Mary, Bismarck, ND; 2School of Arts and Sciences, University of Mary, Bismarck, ND*

Annual ND INBRE Undergraduate Research Symposium, Oct 2022

### **DNA Recognition and Binding by the lac Repressor Headpiece**

*Lorren Postl, Daniel Barr University of Mary*

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## **Public Health**

### **Andrew Williams, Assistant Professor**

### **Public Health Program - Department of Population Health**

1. All publications from 2022 (include citations).

Stevens, D., Rohn, M., Hinkle, S., **Williams, A.D.**, Kumar, R., Lipsky, L., Grobman, W., Sherman, S., Kanner, J., Chen, Z., Mendola, P. "Maternal body composition and gestational weight gain in relation to asthma control during pregnancy." PLOS One. 2022 April 20. DOI: [doi.org/10.1371/journal.pone.0267122](https://doi.org/10.1371/journal.pone.0267122)

Sebens, Z. & **Williams, A.D.** "Socioeconomic barriers to early prenatal care among American Indian and white women in North Dakota." *The Journal of Rural Health*. 2022 Mar;38(2):314-322. doi: 10.1111/jrh.12649. Epub 2022 Feb 14.

2. All scholarly presentations from 2022 (include meeting information and information about who and what was presented).

#### INVITED TALKS/LECTURES:

**Williams, A.D.** & Sletten, S.R. "Human Subjects Research." Research Experience for Medical Students (REMS) 1. University of North Dakota School of Medicine & Health Sciences. Virtual. November 8, 2022.

**Williams, AD.** "Racial disparities in breastfeeding in North Dakota." Faculty Fridays, UND Public Health Program. Virtual. November 18, 2022.

**Williams, A.D.** "A talk in 2 parts: A) Research B) Career." FMSC 710 Maternal and Child Health from a Life Course Perspective (doctoral course). University of Maryland School of Public Health. November 1, 2022.

**Williams, AD.** "Stress and Health in American Indian Pregnancies." 1<sup>st</sup> Annual Indigenous Trauma & Resilience Research Center Symposium." Virtual. April 22, 2022.

**Williams, AD.** "Healthy Start CIGNAL for Maternal and Child Health in Rural Communities - Expert Meeting." National Institute for Children's Health Quality. Virtual. March 23, 2022.

**Williams, AD.** "Focus on skills, not degrees." University of North Dakota Public Health Association. Virtual. February 4, 2022.

#### POSTER PRESENTATIONS - CONFERENCES:

^Breigenzer, A. & \***Williams, A.D.** "The Association Between Risky Sex Behaviors and Depressive Symptomology in Young Adults using NHANES, 2005-2016" Society for Pediatric and Perinatal Epidemiologic Research 55th Annual Meeting, Chicago. June 2022.

^Kanichy M, ^Schmidt L, Njau G, Schmidt M, Stepanov A, **Williams AD.** "Exposure to Domestic Violence and racial disparities in breastfeeding in North Dakota (ND PRAMS 2017-2019)." Society for Pediatric and Perinatal Epidemiologic Research 55th Annual Meeting, Chicago. June 2022.

^Schmidt L, ^Kanichy M, Njau G, Schmidt M, Stepanov A, **Williams AD**. “Adverse Childhood Experiences, Domestic Violence and Racial Disparities in Early Prenatal Care in North Dakota (ND PRAMS 2017-2019)”. Society for Pediatric and Perinatal Epidemiologic Research 55th Annual Meeting, Chicago. June 2022.

^Breigenzer, A. & \***Williams, A.D.** “The Association Between Risky Sex Behaviors and Depressive Symptomology in Young Adults using NHANES, 2005-2016” Society for Epidemiologic Research 55th Annual Meeting, Chicago. June 2022.

^Kanichy M, ^Schmidt L, Njau G, Schmidt M, Stepanov A, **Williams AD**. “Exposure to Domestic Violence and racial disparities in breastfeeding in North Dakota (ND PRAMS 2017-2019).” 42nd Annual Frank Low Research Day, University of North Dakota School of Medicine and Health Sciences. Virtual. April 21, 2022.

^Schmidt L, ^Kanichy M, Njau G, Schmidt M, Stepanov A, **Williams AD**. “Adverse Childhood Experiences, Domestic Violence and Racial Disparities in Early Prenatal Care in North Dakota (ND PRAMS 2017-2019)”. 42nd Annual Frank Low Research Day, University of North Dakota School of Medicine and Health Sciences. Virtual. April 21, 2022.

^Mauch, L. & **Williams, A.D.** “Joint exposure to urban-rural status, medically underserved area residence, and risk of severe COVID-19 outcomes in 2020.” 42nd Annual Frank Low Research Day, University of North Dakota School of Medicine and Health Sciences. Virtual. April 21, 2022.

^Kanichy M, ^Schmidt L, Njau G, Schmidt M, Stepanov A, **Williams AD**. “Exposure to Domestic Violence and racial disparities in breastfeeding in North Dakota (ND PRAMS 2017-2019).” 16<sup>th</sup> Annual Women’s Health Research Conference, University of Minnesota. Virtual. February 15, 2022.

^Schmidt L, ^Kanichy M, Njau G, Schmidt M, Stepanov A, **Williams AD**. “Adverse Childhood Experiences, Domestic Violence and Racial Disparities in Early Prenatal Care in North Dakota (ND PRAMS 2017-2019)”. 16<sup>th</sup> Annual Women’s Health Research Conference, University of Minnesota. Virtual. February 15, 2022.

3. All book chapters from 2022 (include citations).

NA

4. All funded grants on which faculty participated in 2022.

*North and South Dakota Perinatal Quality Collaborative.* Centers for Disease Control and Prevention Statewide Perinatal Quality Collaboratives. 1 NU58DP007252-01-00. 2022-Present. My Role: Principal Investigator/Executive Director (4% effort). Award to date: \$275,000.

*Purpose:* Build capacity for the North and South Dakota Perinatal Quality Collaborative to implement quality improvement projects. A 5-year award, with a two-year focus on perinatal substance use disorders, then reducing maternal hemorrhage, followed by a project to reduce primary cesarean deliveries, with community and maternal mortality review committees to inform the year-5 project.

*COVID-19 Health Disparities.* North Dakota Department of Health. G21.255. July 2021 – Present. My Role: Principal Investigator (2% Effort). Award to date: \$135,516.

*Purpose:* To examine health disparities in pregnancy outcomes during the COVID-19 pandemic. We are also examining use of telemedicine services among pregnant women in North Dakota, as well as the impact of COVID-19 hospital policies on social support during delivery and postpartum.

*Stress and Health in American Indian Pregnancies (SHAIP) Study.* NIH/NIGMS. 1P20GM139759 (sub award: 5898). Principal Investigator: Donald Warne (2021-2022); Jonathan Geiger (interim 2022-current). 2021-Present. My Role: Project Leader (50% Effort). Award to date: \$536,320.

*Purpose:* To examine the association between maternal Adverse Childhood Experiences and obstetric and infant health among American Indian women and their infants in North Dakota.

## 5. Any other scholarly activity from 2022.

Wrote, submitted, and was awarded a CDC grant for perinatal quality work:

*North and South Dakota Perinatal Quality Collaborative.* Centers for Disease Control and Prevention Statewide Perinatal Quality Collaboratives. 1 NU58DP007252-01-00. 2022-Present. My Role: Principal Investigator/Executive Director (4% effort). Award to date: \$275,000.

Was awarded NIH Loan Repayment award (submitted in 2021):

*Telehealth and pregnancy outcomes among American Indian women in North Dakota.* NIH/NIMHD. 1 L60 MD017794-01. NIH Loan Repayment Program. My Role: Principal Investigator.

Organized a session at 2022 Annual Meeting of the Society for Epidemiologic Research:

Session Co-organizer. Indigenous Health (oral abstract session). 2022 Annual Meeting of the Society for Epidemiology Research. June 2022.

Selected as a member of the Topical Advisory Panel for the *International Journal of Environmental Research and Public Health*

## Public Health Program - Department of Population Health

1. All publications from 2022 (include citations).

Running Bear U, Hanson JD, Noonan C, Miller C, Trojan J, Manson SM. Factors associated with readmission to alcohol and opioid detoxification in the Alaska Interior. The American Journal of Addiction, March 2022. <https://doi.org/10.1111/ajad.13288>

2. All scholarly presentations from 2022 (include meeting information and information about who and what was presented).

Social Determinants of Health and Historical Trauma – The Impact on American Indians and Alaska Natives, Webinar series presentation, International Association for Indigenous Aging (IA2), in partnership with the National Association of Chronic Disease Directors, online presentation, 4/26/2022.

Scoping Review of American Indian Boarding School Attendees' Physical Health Status, College of Education and Human Development Research Fair, poster presentation, Grand Forks, ND, 4/6/2022

Impact of American Indian Boarding Schools on Perceived Stress, Allostatic Load, and Resilience - Indigenous Trauma & Resilience Center Symposium, presentation, Grand Forks, ND 4/22/2022

Impact of American Indian Boarding Schools on Perceived Stress, Allostatic Load, and Resilience - Indigenous Data Science Academy, presentation, Grand Forks, ND, 6/1/2022

3. All book chapters from 2022 (include citations).  
n/a

4. All funded grants on which faculty participated in 2022.

COBRE, Indigenous Trauma & Resilience Research Center, Impact of Boarding School on Perceived Stress, Allostatic Load, and Resilience Project, Award UND0026903, Project UND0027118.

5. Any other scholarly activity from 2022.

Podcast: Interview with Celine Gounder from American Diagnosis on my previous boarding school work, which was included in S4E8, Tribal Values, Tribal Justice.

<https://podcasts.apple.com/dk/podcast/s4e8-tribal-values-tribal-justice-abby-abinanti-ursula/id1282044849?i=1000569877528>

Radio Interview: Interviewed with Ashley Thornberg from Main Street which is a regional talk show of the Prairie Public radio network, an NPR affiliate, on my boarding school work which aired 10/27 the day before Orange Shirt Day.

Abstract submission on Individual and Parental Attendance at Indian Boarding Schools In The United States: Associations With Posttraumatic Stress Disorder (PTSD) And Allostatic Load, DOHaD World Congress 2022 Conference, Vancouver, Canada, 8/28/2022. First author presented research. Contributed as second author to content.

**1. S. Cristina Oancea, Associate Professor**  
**Public Health Program - Department of Population Health**

1. Publications - none in 2022
2. Poster presentations (five)
  - a. SC Oancea, CL Chang. *Trend analysis of the association between physical activity for leisure and obesity before and after the start of the Covid-19 pandemic*. 2022 Society of Epidemiologic Research Conference; Chicago, IL; June 14-17, 2022
  - b. SC Oancea, J Passini. *Examining the association between history of heart attack and experiencing frequent mental distress among United States veterans and adult civilians: a national level study*. 2022 Society of Epidemiologic Research Conference; Chicago, IL; June 14-17, 2022
  - c. J Passini, SC Oancea. *Examining the association between history of heart attack and experiencing frequent mental distress among United States veterans and adult civilians: a national level study*. UND Frank Low Research Day; Grand Forks, ND; April 21, 2022 (received Best Poster presentation award)
  - d. CL Chang, SC Oancea. *Trend analysis of the association between physical activity for leisure and obesity before and after the start of the Covid-19 pandemic*. UND Frank Low Research Day; Grand Forks, ND; April 21, 2022
  - e. R Guyer, SC Oancea. *The association between seat belt use and screening for colorectal, prostate, cervical, and female breast cancer: Results from the 2020 BRFSS study*. UND Frank Low Research Day; Grand Forks, ND; April 21, 2022
3. Invited Oral presentations (one)
  - a. SC Oancea. *The Public Health path to INBRE research: past, present and future*. 2022 North Dakota INBRE Annual Symposium; Grand Forks, ND; October 08, 2022
4. Funded Grants:
  - a. PI on the Norway Grant
  - b. Lead Epidemiologist on the NDSCR grant

- c. Co-investigator on the North Dakota IDEA Networks of Biomedical Research Excellence (INBRE) Health and the Environment, Administrative Supplement; Project name: Virtual Indigenous Data Science (VIDS) Academy

**2. Laura Hand, Associate Professor**

**Public Health Program - Department of Population Health**

**(Also Assistant Professor in Political Science & Public Administration and Associate Professor in Dean's Office CoBPA)**

- 1. All publications from 2022 (include citations).

Sandberg, B., Hand, L. C., & Russo, A. (2022). Re-envisioning the role of "big data" in the nonprofit sector: A data feminist perspective. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 1-12.

Samanta, A., & Hand, L. "Examining the "in-between" of public encounters: Evidence from two seemingly disparate policy contexts." *Public Policy and Administration* 37.2 (2022): 129-153.

- 2. All scholarly presentations from 2022 (include meeting information and information about who and what was presented).

Dakota Conference – Presentation of State Alzheimer's Plan – Methods and Analysis – with Rebecca Quinn and Gretchen Dobervich, June 10, 2022

- 3. All book chapters from 2022 (include citations).

Jensen, J., & Hand, L. (2022). Qualitative Research and Case Studies in Public Administration. In B. G. Peters & I. Thynne (Eds.), *The Oxford Encyclopedia of Public Administration*. Oxford University Press.

- 4. All funded grants on which faculty participated in 2022.

Funded contract with North Dakota Department of Health – State Alzheimer's Plan Year 2

- 5. Any other scholarly activity from 2022.

**3. Amber Lyon, Assistant Professor**

**Public Health Program - Department of Population Health**

- 1. All publications from 2022 (include citations). N/A

2. All scholarly presentations from 2022 (include meeting information and information about who and what was presented).
  - a. NDPHA June 8th, 2022 9:30-10:10 am  
EPR/EH with Amber Lyon-Colbert  
Zoom  
Link: <https://und.zoom.us/j/95036970813?pwd=M3ZucmQzVHNseGVLTzFaTUc3YTpwdz09>  
Meeting ID: 950 3697 0813  
Password: 996667
  - b. 2022 Dakota Conference on Rural and Public Health June 10th, Session Moderator for Indigenous Health
  - c. ASPPH Climate and Health March 22, 2022
3. All book chapters from 2022 (include citations). N/A
4. All funded grants on which faculty participated in 2022.
  - a. CDC/North Dakota Public Health Department \$1.4 M COVID Seroprevalence Grant through 6/2022
5. Any other scholarly activity from 2022:
  - a. "Responding to The Climate Change and Health Crisis, A Framework for Academic Public Health".

[Climate  
ASPPH  
CCH-  
\(asp-ph-  
assets.s3.amazonaws.com\)](#)


[Climate Change &  
Health – ASPPH  
asp-ph.org](#)


[Change & Health –  
Framework + Summary  
prod-web-](#)

## **Pediatrics**

Kirk Wyatt, MD	<p>Below are the PubMed IDs for publications I co-authored last year. The abstracts may be viewed by entering the PubMed ID in pubmed.gov.</p> <p>36261229</p> <p>35969120</p> <p>35941881</p> <p>35410925</p> <p>35001056</p>
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Christopher DeCock, MD	<ol style="list-style-type: none"> <li>1. No publications, but working on a paper with Dr. Daniel Sulmasy. Will also likely be submitting a paper on my own. I was asked in the Spring but did not think it was good enough to publish.</li> <li>2. I hope to present at the Catholic Medical Association next year. I have done Pediatric Grand Rounds at Sanford and Ethics Grand rounds here at Essentia. I also presented at the UND-Sanford-Essentia Ethics Conference in the Spring.</li> <li>3. No book chapters.</li> <li>4. No Grants.</li> <li>5. I am an observer for the Uniform Law Commission revision of the Uniform Determination of Death Act. I am also a peer reviewer for Ethics and Medics and the Linacre Quarterly. Will obtain a Masters of Science in Bioethics from University of Mary in late April, early May 2023</li> </ol>
Aime Hinshaw, MD	Hinshaw, Amie MD*; Cares, Kristen MD†; Thomas, Ron PhD†; El-Baba, Mohammad MD†. Efficacy of Infliximab Biosimilar for Maintenance Therapy in Pediatric Inflammatory Bowel Disease Following Infliximab Originator. JPGN Reports 3(4):p e256, November 2022.   DOI: 10.1097/PG9.0000000000000256
Mohamed Mohamed, MD	 homengtubeprogra m Revised 10.5.22.ppt
Kari Casas, MD	one publication in 2022:  Meuwissen M, Verstraeten A, Ranza E, Iwaszkiewicz J, Bastiaansen M, Mateiu L, Nemegeer M, Meester J, Afenjar A, Amaral M, Ballhausen D, Barnett SS, Barth M, Asselbergh B, Spaas K, Heeman B, Bassetti J, Blackburn PR, Schaer M, Blanc X, Zoete V, <b>Casas K</b> , Courtin T, Doummar D, Guerry F, Keren B, Pappas J, Rabin R, Shinawi M, Vulto-van Silfhout AT, Wagner M, Ziegler A, Schaefer E, Gerard B, De Bie CI, Abbot MA, Sullivan, Antonarakis SE, Loeys B. 2022. Heterozygous variants in <i>CTR9</i> , which encodes a major component of the PAF1 complex, are associated with a neurodevelopmental disorder. <i>Genet in Med</i> 24(7):1583-1591.
Arveity Setty, MD	<ol style="list-style-type: none"> <li>1. A domain-knowledge modeling of hospital-acquired infection risk in Healthcare personnel from retrospective observational data: A case study for COVID-19   Phat K. Huyn1,2, Arveity R. Setty3,4, Quan M. Tran5, Om P. Yadav6, Nita Yodo2, TrungQ. Le1,2</li> <li>2. A Noise-robust Koopman Spectral Analysis of an Intermittent Dynamics Method for Complex Systems: A Case Study in Pathophysiological Processes of Obstructive Sleep Apnea. IISE   Huynh, Phat &amp; Setty, Arveity &amp; Le, Trung &amp; Le, Trung.   Transactions on Healthcare Systems Engineering. 1-22. 10.1080/24725579.2022.2141379.</li> <li>3. Koopman Spectral Analysis of Intermittent Dynamics in Complex Systems: A Case Study in Pathophysiological Processes of Obstructive Sleep Apnea.   Huynh, Phat &amp; Setty, Arveity &amp; Le, Trung.</li> <li>4. Koopman Spectral Analysis of Intermittent Dynamics in Complex Systems: A Case Study in Pathophysiological Processes of Obstructive Sleep Apnea.   Huynh, Phat &amp; Setty, Arveity &amp; Le, Trung.</li> <li>5. Causal Inference in Longitudinal Studies Using Causal Bayesian Network with Latent Variables. 10.1109/RAMS51457.2022.9893992.   Huynh, Phat &amp; Irish, Leah &amp; Yadav, Om Prakash &amp; Setty, Arveity &amp; Le, Trung.</li> </ol>
Amanda Dahl, MD	2 publications (snap shot of journal below), 2 scholarly presentations, 0 book chapters, 0 grant funding.

	<p>Scholarly presentations</p> <ul style="list-style-type: none"> <li>- 1/28/2022 – Diabetes Detection and Management given to Family Medicine Residents</li> <li>- 2/8/2022 – Puberty....what is it good for? Grand Rounds</li> </ul> <p>Other scholarly activity – American Diabetes Association summer camp, Winter diabetes camp, Newborn Screening Advisory Meeting Council member, Special Health Services Medical Advisory Committee member</p> <p>➤ <a href="#">J Appl Lab Med. 2022 Sep 1;7(5):1037-1046. doi: 10.1093/jalm/jfac037.</a></p> <p><b>Comprehensive Diabetes Autoantibody Laboratory–Based Clinical Service Testing in 6044 Consecutive Patients: Analysis of Age and Sex Effects</b></p> <p><a href="#">Amanda Dahl</a><sup>1</sup>, <a href="#">Sarah Jenkins</a><sup>2</sup>, <a href="#">Sean J Pittock</a><sup>3</sup>, <a href="#">John Mills</a><sup>4</sup>, <a href="#">Jessica Foster</a><sup>4</sup>, <a href="#">Andrew McKeon</a><sup>4</sup>, <a href="#">Siobhan Pittock</a><sup>1</sup></p> <p>Affiliations <a href="#">+ expand</a></p> <p>PMID: 35899533 DOI: <a href="#">10.1093/jalm/jfac037</a></p> <p>P: IMMUNOLOGY   JUNE 01 2021</p> <p><b>1143-P: ZnT8 Autoantibody Positivity Does Not Predict Pediatric Diabetes Presentation or Subsequent Clinical Course</b> </p> <p><a href="#">AMANDA R. DAHL</a>; <a href="#">SARAH JENKINS</a>; <a href="#">JADE ZBACNIK</a>; <a href="#">JESICA FOSTER</a>; <a href="#">SIOBHAN PITTOCK</a></p> <p> Check for updates</p> <p><a href="#">Diabetes 2021;70(Supplement_1):1143-P</a></p> <p><a href="https://doi.org/10.2337/db21-1143-P">https://doi.org/10.2337/db21-1143-P</a></p>
Faisal Siddiqui, MD	<p><b>Location:</b> Poster presentation at Pediatric Academic Society meeting (PAS) April 2022, Denver Colorado</p> <p><b>Topic:</b> Gestational Diabetes and associated maternal, neonatal and perinatal outcomes in an African- American Inner City Population</p> <p><b>Authors:</b> Ahreen Allana, Faisal Siddiqui, Mahasin Taha, Adedapo Kiladejo, Mmeyereneabasi Omede, Simran Patel, Lori Hoepner, Lawrence Fordjour, State University of New York Downstate Medical Center College of Medicine, Brooklyn, NY, United States</p> <p><b>Location:</b> Poster presentation at Pediatric Academic Society meeting (PAS) April 2022, Denver Colorado</p> <p><b>Topic:</b> Adverse neonatal outcomes in women with pre-gestational and gestational diabetes mellitus in an African American inner-city population in Brooklyn, NY.</p> <p><b>Authors:</b> Adedapo Kiladejo, Ahreen Allana, Faisal Siddiqui, Mahasin Taha, Mmeyereneabasi Omede, Simran Patel, Lori Hoepner, Lawrence Fordjour, State University of New York Downstate Medical Center College of Medicine, Brooklyn, NY, United States</p> <p><b>Location:</b> Poster presentation at American Academic of Pediatric meeting (AAP) October 2022, Anaheim, CA</p> <p><b>Topic:</b> Social Media as a Path to Acquire Dental Home for Preschool Children</p> <p><b>Authors:</b> Mohamed Tayeb Elasma Mohamed Ali, MD; Mohamed A. Hendaus, MD; Rasha Abbas, MD; Mohamed Elkalaf, ABHS; Faisal Siddiqui, MD; Tasneim Osman Abdalla, MD; Mohamed Doklajjah, MD; Eman Bamashmous, MD; Aly Soliman, MD; Ahmed Alhammadi, MD. Sidra Medical and Research Center Doha, Qatar</p>

Christopher Tiongson, MD	<p>Pediatric Grand Rounds—Sanford Health</p> <p>August 20, 2022 “Updated AAP Newborn Jaundice Guidelines 2022”</p> <p>Regional presentation to pediatric clinicians in North Dakota and northwestern Minnesota.</p> <p>And according to Pub Med this paper was published in 2022. Thought it was 2021, but officially Jan-Mar 2022!</p> <p>6. Greenmyer JR, Montgomery M, Hosford C, Burd M, Miller V, Storandt MH, Lakpa KL, Tiongson C. Guilt and Burnout in Medical Students. <i>Teach Learn Med.</i> 2022 Jan-Mar;34(1):69-77. doi: 10.1080/10401334.2021.1891544. Epub 2021 Mar 15. PMID: 33722144.</p>
Stephanie Hanson, MD	<p>I am a sub investigator for the PLEDGE study which is a type 1 diabetes screening study sponsored by Sanford Health and the Helmsley Charitable Trust</p>
Grant Syverson, MD	<ol style="list-style-type: none"> <li>1. Soulsby WD, Balmuri N, Cooley V, Gerber LM, Lawson E, Goodman S, Onel K, Mehta B; CARRA Registry Investigators. Social determinants of health influence disease activity and functional disability in Polyarticular Juvenile Idiopathic Arthritis. <i>Pediatr Rheumatol Online J.</i> 2022 Mar 7;20(1):18.</li> <li>2. Shiff NJ, Shrader P, Correll CK, Dennos A, Phillips T, Beukelman T; CARRA Registry Investigators. Trajectories of disease activity in patients with JIA in the Childhood Arthritis and Rheumatology Research Alliance Registry. <i>Rheumatology (Oxford).</i> 2022 Jun 15.</li> <li>3. Neely J, Ardalan K, Huber A, Kim S; Childhood Arthritis and Rheumatology Research Alliance Investigators. Baseline characteristics of children with juvenile dermatomyositis enrolled in the first year of the new Childhood Arthritis and Rheumatology Research Alliance registry. <i>Pediatr Rheumatol Online J.</i> 2022 Jul 19;20(1):50.</li> <li>4. Ringold S, Dennos AC, Kimura Y, Beukelman T, Shrader P, Phillips TA, Kohlheim M, Schanberg LE, Yeung RSM, Horton DB; Childhood Arthritis and Rheumatology Research Alliance Registry Investigators. Disease Recapture Rates After Medication Discontinuation and Flare in Juvenile Idiopathic Arthritis: An Observational Study Within the Childhood Arthritis and Rheumatology Research Alliance Registry. <i>Arthritis Care Res (Hoboken).</i> 2022 Aug 3.</li> <li>5. Balevic SJ, Randell R, Weiner D, Beard C, Schanberg LE, Hornik CP, Cohen-Wolkowicz M, Gonzalez D; with the CARRA Registry investigators. Pharmacokinetics of hydroxychloroquine in paediatric lupus: data from a novel, direct-to-family clinical trial. <i>Lupus Sci Med.</i> 2022 Nov;9(1).</li> <li>6. Hahn T, Daymont C, Beukelman T, Groh B, Hays K, Bingham CA, Scalzi L; CARRA Registry investigators. Intraarticular steroids as DMARD-sparing agents for juvenile idiopathic arthritis flares: Analysis of the Childhood Arthritis and Rheumatology Research Alliance Registry. <i>Pediatr Rheumatol Online J.</i> 2022 Nov 25;20(1):107.</li> </ol> <p>Sherman, M.A., Kim, H., Banschbach, K., Brown, A., Gewanter, H., Lang, B., Perron, M., Robinson, A., Spitznagle, J., Stingl, C., <b>Syverson, G.</b>, Tory, H., Spencer, C., Tarvin, S. Treatment escalation patterns to start biologics in refractory moderate juvenile dermatomyositis among members of the Childhood Arthritis and Rheumatology Research Alliance. <i>Pediatr Rheumatol</i> <b>21</b>, 3 (2023).</p> <p>Book Chapter:</p> <p><b>Syverson G.</b>, Nelson Essentials of Pediatrics, 9<sup>th</sup> Edition, Section 15, <i>Rheumatic Diseases of Childhood</i>. Published February 21, 2022</p> <p>Funded Grant:</p> <p>CARRA Pediatric Rheumatology Disease Registry</p>

Grand Rounds Participants	<ol style="list-style-type: none"> <li>1. Jan 25, 2022 "Ethics of COVID" Christopher DeCock</li> <li>2. Feb 8, 2022 "Puberty" Amanda Dahl</li> <li>3. Feb 15 "Enuresis" Batoul Majed</li> <li>4. Feb 22 "Periodic Fevers" Christopher Failing</li> <li>5. June 14 "Brain Death" DeCock</li> <li>6. July 26 "JIA" Failing</li> <li>7. Aug 23 "Juvenile Dermatomyositis" Failing</li> <li>8. Sept 13 "KAMP KACE: camp for kids with cancer" Melanie Chihak</li> <li>9. Oct 25 "Overview of Developmental Pediatrics" Whitney Rolling</li> <li>10. Dec 6 "Chronic Recurrent Multifocal Osteomyelitis" Failing</li> <li>11. Dec 13 "Neonatal Anemia" Mohamed Hamza</li> </ol>
Chris Failing	<p>Presented at pediatric grand rounds at Sanford on the following dates</p> <ol style="list-style-type: none"> <li>a. 2/22/22: Periodic fever syndromes</li> <li>b. 7/26/22: An overview of JIA</li> <li>c. 9/23/22: An overview of juvenile dermatomyositis</li> <li>d. 12/6/22: Chronic recurrent multifocal osteomyelitis</li> </ol> <p>Presented an overview of JIA at the family medicine residency didactic half-days in Feb 2022.</p>

## **Indigenous Health Department**

### **1. Daniel Henry, Ph.D.**

All publications from 2022. (include citations)

Wiechmann, J. C., Clemente, I., McCullough, B., DeCoteau, A., Henry, D. Mennem, A., Conn, D.R. & Anderson, N.C. (2022). "That's so MHA Nation to Give Blankets": An Institutional Critique. *Curriculum and Teaching Dialogue* (in press).

All scholarly presentations from 2022. (include meeting information and information about who and what was presented)

Dissertation, *Tribal Colleges: Influences on Native American Students Completing STEM degrees*, had over 60 downloads last year, but no data on citations from it.

All book chapters from 2022 (include citations)

All funded grants on which faculty participated in 2022.

INMED Grant, COBRE Grant, NERO Grant, NARCH Grant, IPERT III Grant

### **2. Grace Karikari Ph.D.**

All publications from 2022. (include citations)

Grace Karikari, David K. Lohrmann, Lesa Huber, et al.. "Attitudes of Graduating Health Practitioners Toward Older Persons in Ghana" (2022). Indigenous Health Faculty Publications.

<https://commons.und.edu/ih-fac/1>

Asante, Samuel, and Grace Karikari. "Social Relationships and the Health of Older Adults: An Examination of Social Connectedness and Perceived Social Support." *Journal of Ageing and Longevity* 2.1 (2022): 49-62.

Ashirifi, Gifty D., Grace Karikari, and Margaret E. Adamek. "Prioritizing the National Aging Policy in Ghana: Critical Next Steps." *Journal of Aging & Social Policy* 34.1 (2022): 127-144.

All scholarly presentations from 2022. (include meeting information and information about who and what was presented)

Karikari, G. (2022). Overlooked Areas in Global Health Budgeting and Finance. Oral Virtual Presentation. Fort Lewis College Global Health Class. Public Health Department. Health Sciences Division (September 27, 2022)

Asante, S. & Karikari, G. (2022). Achieving UN's Decade of Healthy Ageing goals in Ghana: Issues and policy recommendations. Poster Presentation at the American Public Health Association (APHA) 2022 Annual Meeting and Expo. Boston. MA (November 6-9, 2022)

Asante, S. & Karikari, G. (2022). Achieving Universal Health Coverage for Older Adults: A Review of Ghana's National Health Insurance Scheme. Poster Presentation at the GSA 2022 Annual Scientific Meeting. Indianapolis. IN (November 2-6, 2022)

All funded grants on which faculty participated in 2022.

(Applied – Not funded yet): Collegiate Aviation Mental Health Assessment Scale Study (CAMHASS) Co-PI for 2022 – 2025. Proposal submitted to the Federal Aviation Administration. Project ID ERAC0004649. Amount \$765,556.00 (Submitted)

Granger, A. M., K. B. Kahn, and J. S. Steele (2022). "Surveilling threat: The roles of ideology and threat perceptions in support for Islamophobic policy". In: *Analyses of Social Issues and Public Policy*.

Hiatt, S., J. Steele, C.-Y. Wu, and L. Miller (2022). *“THE READYR PROGRAM’S INTERIM FEASIBILITY, ACCEPTABILITY, AND EFFECTS ON VALUES-BASED CARE AND RELATIONSHIP QUALITY”*. In: *Innovation in Aging* 6. Suppl 1, p. 393.

Miller, L. M., D. N. Solomon, C. J. Whitlatch, S. O. Hiatt, C.-Y. Wu, C. Reynolds, W.-T. M. Au-Yeung, J. Kaye, and J. S. Steele (2022a). *“The Remote Assessment and Dynamic Response Program: Development of an In-Home Dementia-Related Care Needs Assessment to Improve Well-Being”*. In: *Innovation in Aging* 6.2, igac006.

Miller, L. M., J. Steele, C.-Y. Wu, H. H. Dodge, M. M. Gonzales, J. Kaye, and K. Lyons (2022b). *“Depressive symptoms in older adult couples: Associations with dyadic physical health, social engagement, and close friends”*. In: *Frontiers in Psychology*.

Au-Yeung, W.-T. M., L. M. Miller, J. S. Steele, N. Mattek, Z. T. Beattie, L. C. Silbert, and J. A. Kaye (2022b). *“Predicting Major Decline in Older Adults: The Role of Time Spent Out of Home”*. In: *Alzheimer’s & Dementia* 18, e066860.

All scholarly presentations from 2022. (include meeting information and information about who and what was presented)

Au-Yeung, W.-T. M., L. M. Miller, J. S. Steele, N. Mattek, Z. T. Beattie, L. C. Silbert, and J. A. Kaye (June 2022a). *“Predicting Major Decline in Older Adults: The Role of Time Spent Out of Home”*. In: *In Alzheimer’s Association International Conference*.

All funded grants on which faculty participated in 2022.

Title: *“Indigenous Trauma & Resilience Research Center, Center of Biomedical Research Excellence (COBRE)”*  
Agency: NIH – National Institutes of Health. J Geiger Ph.D. (PI), Role: Subcontract PI.

Title: *“READR (Remote Assessment and Dynamic Response)”* Agency: OR- CATECH (Oregon Center For Aging and Technology). Collaborator(s): L. Miller, Ph.D. (Co-Principal Investigator). Role: Principal Investigator.

Any other scholarly activity from 2022.

20–22 Research Education Scholar, NIA-funded Oregon Alzheimer’s Disease Research Center.

### **3. Julie Smith-Yliniemi Ph.D.**

Scholarly Productivity 2022

All scholarly presentations from 2022. (include meeting information and information about who and what was presented)

Smith-Yliniemi, J. (2022). *Anti-Racism and Moving Towards Health Equity Panel*. Presented for Georgetown University Medical School. Virtual presentation.

Smith-Yliniemi, J. & Smith B. & Smith K. (2022). *Managing Mental Health during a Pandemic: Utilizing the Strengths of Cultural, Community, and Spirituality*. Presented at the National Board for Certified Counselors (NBCC) Conference, Washington, DC.

Smith-Yliniemi, J. (2022). *Educational video series and multi-media approach on the opioid crisis in our communities*. Presented for Rural Responses to the Opioid Epidemic.

Smith-Yliniemi, J. (2022). *Person-centered communication training series for physicians*. Presented for Community Health Association of the Dakotas.

Kelliher, A & Smith-Yliniemi, J. (2022). *Indigenous Mental Health and Cultural Awareness*. Presented at North Dakota Pediatric and Primary Care Behavioral Health Symposium.

Kelliher, A & Smith-Yliniemi, J. (2022). *Indigenous Pediatric Mental Health and Cultural Considerations*. Presented at Pediatric Mental Health TeleECHO clinic.

All book chapters from 2022 (include citations)

Hemming, L., & Yliniemi J. A. (2022). Section 2: The Client's Worldview

Chapter 8: Culturally Responsive Counseling for Clients of Native American Descent. *Multicultural Counseling: Responding with Cultural Humility, Empathy, and Advocacy*.

All funded grants on which faculty participated in 2022.

Indigenous Trauma and Resilience Research Center &  
Dakota Community Collaborative of Translational Activity (DaCCoTA)

*Director, Community Engagement & Outreach*

NIH-funded Center of Biomedical Research Excellence (COBRE) & NIH-funded Clinical & Translation Research Center (CTR). Collaborate with communities, academic institutions, and agency partners to focus on community-engaged research to improve population health outcomes and reduce health disparities.

Any other scholarly activity from 2022.

Youth Homeless Demonstration Project Committee

*North Dakota Coordinated Community Plan Grant*

Commission on Native Children Native Advisory Committee

*United States Department of Justice: The Task Force on American*

*Indian and Alaska Native (AI/AN) Children Exposed to Violence*

Train the Trainer- Professional: Mind-Body Medicine

*Center of Mind Body Medicine- Washington, DC.*

Participated in a five-day train-the-trainer for integrating mind-body medicine into clinical practice, medical education, and trauma healing.

#### **4. Kyle Hill Ph.D.**

Scholarly Productivity 2022

All publications from 2022. (include citations)

Estes, M., Sittner, K., Hill, K., Gonzalez, M., Handelin, T., (2022). Community Engagement and Giving Back among North American Indigenous Youth. *Journal of Community Engagement and Scholarship*. Accepted for Publication on October 10<sup>th</sup>, 2022.

Hill, K. (2022). Indigenous Climate Justice: Anticolonial Prescriptions for the Anthropocene. *ReFrame: Mental Health and Climate Justice, The Mariwala Health Initiative Journal*. Accepted for publication, in review.

Grubin, F., Maudrie, T. L., Neuner, S., Conrad, M., Waugh, E., Barlow, A., Coser, A., Hill, K., Pioche, S., Haroz, E. E., & O'Keefe, V. M. (2022). Development and Cultural Adaptation of Psychological First Aid for COVID-19 Frontline Workers in American Indian/Alaska Native Communities. *Journal of prevention (2022)*, 1-21.

Brockie, T., Hill, K., Davidson, P., Decker, E., Krienke, L. K., Nelson, K. E., Nicholson, N.,

Werk, A. M., Wilson, D., Around Him, D., (2022). Strategies for culturally safe research with Native American communities: An integrative review. *Contemporary Nurse*. 58 (1)  
<https://doi.org/10.1080/10376178.2021.2015414>.

Walls, M., Hautala, D., Cole, A., Kosabuski, L., Weiss, N., Hill, K., & the Healing Pathways

Team (2022). Socio-Cultural Integration and Holistic Health among Indigenous Young Adults. *BMC Public Health*. 22:1002.

All scholarly presentations from 2022. (include meeting information and information about who and what was presented)



Hill, K., DeJarnett, N. K., Salas, R., Beyeler, N., Gelb, L., Pugh, P., Burga, I., Hassanein, N., Testa, L., (2022). 2022 *Lancet* Countdown U.S. Policy Brief launch event. Invited panel presentation for the 2022 Lancet Countdown Policy Brief, October 26<sup>th</sup>, 2022.

Hill, K., Kuhl, J., Omrani, O., Issa, R., Gelb, L., Pugh, P., Burga, I., Hassanein, N., Testa, L., (2022). Webinar 2 - Mobilizing health professionals towards climate and health justice. Invited panel presentation for the Envisioning Environmental Equity Webinar series, University College London, Institute for Global Health, October 12<sup>th</sup>, 2022.

Hill, K. (2022). Restor(y)ing relationship to the land as an Indigenous determinant of health. Presentation National Tribal & Indigenous Climate Conference, St. Paul, MN, September 1<sup>st</sup>, 2022.

Hill, K. (2022). Social & Ecological Determinants of Indigenous Health: Reclaiming Ways Past for a Better Future. Invited presentation for the Indigenous Public Health Leaders Program, American Indian Public Health Resource Center, North Dakota State University, August, 17<sup>th</sup>, 2022.

Hill, K. (2022). Social and Ecological Determinants of Health and Impacts on Behavioral Health Delivery in American Indian Communities. Invited panel presentation for the Tribal Health Equity Summit, National Indian Health Board, August 16<sup>th</sup>, 2022.

Hill, K. (2022). Keeping our Planet in Mind: Risks, Vulnerabilities, and Sub-populations. Invited panel presentation for the Centre on Climate Change and Planetary Health, Centre for Global Mental Health, London School of Hygiene and Tropical Medicine, April 27<sup>th</sup>, 2022.

Hill, K. (2022). Social & Ecological Determinants of Indigenous Health: Reclaiming Ways Past for a Better Future. Invited presentation, Bemidji State University, Bemidji, MN, April 12<sup>th</sup>, 2022.

Hill, K. (2022). Asemaa: Decolonizing Tobacco Use in Northern Plains American Indians. Invited seminar at the Masonic Cancer Center, University of Minnesota, Tobacco Research Programs Seminar Series 2021-2022

All book chapters from 2022 (include citations)

Hill, K., Russett, H., (2022). Landback: Climate Justice and the Confluence of Indigenous Youth Mental Health and the Anthropocene. *Young People's Mental Health and Climate Change: Responses from Many Disciplines*. Elizabeth Haase, MD and Kelsey Hudson, Ph.D., co-editors (In preparation).

Redvers, N., Aubrey, P., Celidwen, Y., Hill, K. (2022). Indigenous Peoples: Traditional knowledge, climate change, and health. Forthcoming.

All funded grants on which faculty participated in 2022.

*ND state/CDC Tribal Tobacco Control Grant – PI (2021-2023)*

*Great Plains Initiative CTN (3UG1DA013732-22), National Institutes Health, NIDA, Co-Investigator (2021-2023)*

Any other scholarly activity from 2022.

### Technical Reports

World Health Organization (2022). Mental health and Climate Change: Policy Brief

### **5. Melanie Nadeau Ph.D.**

Scholarly Productivity 2022

All publications from 2022. (include citations)

Articles – Peer Reviewed

Hirchak KA, Nadeau M, Vasquez A, Hernandez-Vallant A, Smith K, Pham C, Oliver KA, Baukol P, Lizzy K, Shaffer R, Herron J, Campbell ANC, Venner KL. Centering culture in the treatment of opioid use disorder with American Indian and Alaska Native Communities: Contributions from a National Collaborative Board. *American Journal of Community Psychology*.

2022 August: 1-10. <https://doi.org/10.1002/ajcp.12620>

Nadeau M, Best LG, Klug M, Wise K. Exploring Clinical Risk Factors among American Indian Women. *Frontiers in Public Health – Life-Course Epidemiology and Social Inequalities in Health*. Accepted 2022 May: 10: 840280. <https://doi.org/10.3389/fpubh.2022.840280>

Nadeau M, Wise K, Farfan Cuela V, Olson D, Saravana K. Identification of Cancer Related Risk and Protective Factors for American Indian Youth: A Mixed Studies Review. *Frontiers in Public Health*. 2022 April; 10:828776. <https://doi.org/10.3389/fpubh.2022.828776>

Invited Commentary

The health and wellbeing of Indigenous adolescents: a global collective for an equitable and sustainable future. Global Collective for Indigenous Adolescent Health and Evidence-Based Action. *The Lancet* Volume 399, Issue 10322, P341-343, January 22, 2022. [https://doi.org/10.1016/S0140-6736\(21\)02719-7](https://doi.org/10.1016/S0140-6736(21)02719-7)

All scholarly presentations from 2022. (include meeting information and information about who and what was presented)

### Presentations at professional meetings

Invited to present “Sexual Health in the American Indian Population” at the Make Every Connection Together Conference. Health Equity, Hepatitis, HIV, STIs, TB and Harm Reduction. Bismarck, ND. June 20<sup>th</sup>, 2022.

Invited to present “Identification of Cancer Related Risk and Protective Factors for American Indian Youth: A Mixed Studies Review” at the Wellness & Research in Indian Country symposium. Hosted by Missouri Breaks & Avera Research Institute. Rapid City, SD. May 12<sup>th</sup>, 2022.

Presented “Indigenous Research Equity: Indigenous People’s Sovereignty, Data and Research” at the 8<sup>th</sup> Annual Tribal College Research Symposium. Cankdeska Cikana Community College, Spirit Lake Dakota Nation. April 21<sup>st</sup>, 2022.

Invited presenter for panel discussion titled “Building Equity into Evaluation”. The objective was to highlight the importance of equity-centered infrastructure, including incorporating cultural humility and values frameworks, for measuring the impact of efforts to advance health equity. National Academy of

Medicine Culture of Health Program Virtual Stakeholder Meeting: Measuring Impact to Achieve Health Equity Outcomes. January 25<sup>th</sup>, 2022.

#### Presentations to the public

Invited to serve on the panel for [Peer Review Week](#) focused on “[Research Integrity: Creating and supporting trust in research](#)”. The panel discussed how graduate students are taught about practices that support research integrity. September 20, 2022

Invited to present “Engaging Tribal Communities in Research” by the Equal Opportunity/Civil Rights (EEO/CR) Committee at the ARS-USDA Grand Forks Human Nutrition Research Center. September 2022.

Invited to present “Risk Factors for Breast Cancer among American Indian Women” at the Inaugural Virtual Data Science Academy hosted by the ND-INBRE and Indigenous Trauma and Resilience teams at the University of North Dakota. Virtual. June 30<sup>th</sup>, 2022.

Invited to present “Conducting Research Utilizing Indian Health Service Data ~ Research Challenges and Recommendations” at the Inaugural Virtual Data Science Academy hosted by the ND-INBRE and Indigenous Trauma and Resilience teams at the University of North Dakota. Virtual. June 30<sup>th</sup>, 2022.

Invited to present “Cultural Aspects of Data Collection and Use” at the Inaugural Virtual Data Science Academy hosted by the ND-INBRE and Indigenous Trauma and Resilience teams at the University of North Dakota. Virtual. June 27<sup>th</sup>, 2022.

Invited to present “Engaging Tribal Communities in Research” for the DaCCoTA Community Engagement & Outreach Core Training Event. Virtual via zoom. June 15<sup>th</sup>, 2022.

Invited to present “Identification of Cancer Related Risk and Protective Factors for American Indian Youth: A Mixed Studies Review” for the T32 Cancer Health Disparities Seminar at the University of Minnesota via Zoom. May 9<sup>th</sup>, 2022.

Invited keynote for National Native HIV/AIDs Awareness Day. Indigenous Association. Free, family-friendly event open to all. Fargo, ND. March 20<sup>th</sup>, 2022.

Invited to present “An Indigenous Perspective for Conducting Community Driven Research, Evaluation and Tool Development in Tribal Communities”. Tufts University. Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy. Online and in person. February 16<sup>th</sup>, 2022.

All funded grants on which faculty participated in 2022.

#### Funded:

Warne D, Smith C, Nadeau M, Redvers N. (Project period: November 2022 – March 2026) NARCH UND sub award. Faculty (Nadeau) salary and fringe \$40,291

Smith C, Nadeau M, Singhal S, Oancea C, Salentiny A. (Project Period: September 2021 – April 2022) NIH NIGMS supplemental award of \$287,000 for data science.

Co-PI

Contributed to proposal writing

Delivery of a module for the proposed 10-week Data Science training

Lead evaluator

Warne D, Nadeau M, Redvers N, Running Bear U, Williams A. (Project Period: 2021 – 2025) Centers of Biomedical Research Excellence (COBRE)(PAR-19-313), National Institute of General Medical Sciences, NIH. \$2,094,806

Contributed to proposal writing

Scientific review score = 24 (funding line <30)

Designated as PI for Community & Outreach Core (CEOC)

Will not be able to serve as CEOC based on 50% FTE commitment to Career Development Award (DaCCoTA CTR)

Nadeau M. (Project Period: August 2020-July 2023) DaCCoTA Community Engagement Clinical Translational Research Scholars Award. One of the primary goals of the DaCCoTA is to create a culture of clinical/translational research (CTR) by training faculty to develop both the skills to conduct research and an appreciation for the continuum of translational research. Dr. Nadeau was \$480,000.

Principal Investigator

Wrote and submitted proposal

Any other scholarly activity from 2022.

Invited Blog

IPE TIG Week: Taking a Culturally Grounded Approach to Tribal Community Engagement and

Capacity Building. American Evaluation Association 365 A TIP-A-DAY BY AND FOR EVALUATORS. November 14<sup>th</sup>, 2022. <https://aea365.org/blog/ipe-tig-week-taking-a-culturally-grounded-approach-to-tribal-community-engagement-and-capacity-building-by-melanie-nadeau/>

Abstract Submissions – accepted

Richardson M., Hirchak K, Oluwoye O, Nadeau M, Bajet K, Brigman M, Herron J, Hernandez-Vallant A, Vasquez A, Pham C, Oliver K, Baukol P, McDonell M, Venner K., Campbell A. The Cultural Adaptation of Western Frameworks: A Scoping Review of Dissemination and Implementation Science to Strengthen Substance Use Treatment for Indigenous Communities. Poster submitted to *American Public Health Association 2022 Annual Meeting & Expo*. Boston, MA. November 2022.

Richardson M. Hirchak KA. Oluwoye O. Nadeau M. Brigham M. Mills S. Bajet K. Herron J. Hernandez-Vallant A. Vasquez A. Pham C. Oliver K. Baukol P. McDonell M. Venner K. Campbell A. “Coming Together for Something Good: Recommendations from a Scoping Review for Dissemination and Implementation Science to Improve Indigenous Addiction Treatment”. Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS). October 2022.

Review and Referee Work

Invited proposal review

Invited to review submissions to the Robert Wood Johnson Foundation's Health Policy Research Scholars Program. April 2022.

#### Invited Manuscripts Reviews

Reviewed article "Exercise medicine considerations for pregnancy-associated breast cancer: Characteristics, prognosis, and treatment" for Women's Health. September 2022 and December 2022.

Reviewed article "All Systems Are Interrelated: Multilevel Interventions with Indigenous Communities" for Contemporary Clinical Trials. October 2022.

Reviewed article "Effectiveness of COVID-19 mRNA vaccines in preventing COVID-19-associated outpatient visits and hospitalizations among American Indian and Alaska Native persons, January–November 2021: a case-control analysis using surveillance data" for Open Forum Infectious Disease. September 2022.

Reviewed article "Facilitating the urgent public health need to improve data sharing with Tribal Epidemiology Centers" for Public Health Reports. March 2022, May 2022, and September 2022.

#### **6. Shawnda Schroeder Ph.D.**

##### Scholarly Productivity 2022

##### 1. All publications from 2022. (include citations)

Kelly, D., Schroeder, S. & Leighton K. (2022). Anxiety, depression, stress, burnout, and professional quality of life among the hospital workforce during a global health pandemic. *Journal of Rural Health*, 38(1), doi: 10.1111/jrh.12659

Schroeder, S. (November 2022). North Dakota Department of Health Oral Health Program: Full evaluation of the Oral Health Program's activities under the Centers for Disease Control and Prevention (CDC) grant, State Actions to Improve Oral Health Outcomes (year four). [Report]. Funded and peer-reviewed by the *North Dakota Department of Health Oral Health Program* and the *Centers for Disease Control and Prevention*. Available at: [health.nd.gov/prevention/oral-health-program/oral-health-program-evaluation](https://health.nd.gov/prevention/oral-health-program/oral-health-program-evaluation)

Schroeder, S., Tribal Health Liaisons & Dental Advisory Board. (May 2022). Healthy baby, healthy smile. [Infographic]. Funded and peer-reviewed by the *North Dakota Department of Health Oral Health Program*, the *Health Resources and Services Administration*, and the *Centers for Disease Control and Prevention*. Available at: [health.nd.gov/prevention/oral-health-program/adolescents](https://health.nd.gov/prevention/oral-health-program/adolescents)

Schroeder, S., Tribal Health Liaisons & Dental Advisory Board. (May 2022). Protecting the smiles of our Indigenous children. [Infographic]. Funded and peer-reviewed by the *North Dakota Department of Health Oral Health Program*, the *Health Resources and Services Administration*, and the *Centers for Disease Control and Prevention*. Available at: [health.nd.gov/prevention/oral-health-program/adolescents](https://health.nd.gov/prevention/oral-health-program/adolescents)

Schroeder, S., Tribal Health Liaisons & Dental Advisory Board. (May 2022). Indigenous teen dental habits to promote social, physical, and mental health. [Infographic]. Funded and peer-reviewed by the *North Dakota Department of Health Oral Health Program*, the *Health Resources and Services Administration*, and the *Centers for Disease Control and Prevention*. Available at: [health.nd.gov/prevention/oral-health-program/adolescents](https://health.nd.gov/prevention/oral-health-program/adolescents)

Schroeder, S., Tribal Health Liaisons & Dental Advisory Board. (May 2022). Maintaining healthy adult smiles and setting an example for Indigenous youth. [Infographic]. Funded and peer-reviewed by the *North Dakota Department of Health Oral Health Program, the Health Resources and Services Administration, and the Centers for Disease Control and Prevention*. Available at: [health.nd.gov/prevention/oral-health-program/oral-health-adults](https://health.nd.gov/prevention/oral-health-program/oral-health-adults)

Schroeder, S., Tribal Health Liaisons & Dental Advisory Board. (May 2022). Protecting the health of you and your Tribe through good dental hygiene. [Infographic]. Funded and peer-reviewed by the *North Dakota Department of Health Oral Health Program, the Health Resources and Services Administration, and the Centers for Disease Control and Prevention*. Available at: [health.nd.gov/prevention/oral-health-program/oral-health-adults](https://health.nd.gov/prevention/oral-health-program/oral-health-adults)

Schroeder, S., Tribal Health Liaisons & Dental Advisory Board. (May 2022). Protecting oral tradition by promoting oral health among our Elders. [Infographic]. Funded and peer-reviewed by the *North Dakota Department of Health Oral Health Program, the Health Resources and Services Administration, and the Centers for Disease Control and Prevention*. Available at: [health.nd.gov/prevention/oral-health-program/older-adults](https://health.nd.gov/prevention/oral-health-program/older-adults)

Schroeder, S., Quinn, R., Hand, L, Dobervich, G. North Dakota Alzheimer's and dementia state plan: Current status of, and recommendations for, meeting the needs of individuals and families with Alzheimer's disease and other dementias. Funded and peer-reviewed by the North Dakota Department of Health. Available at: [ruralhealth.und.edu/assets/4702-20934/alzheimer-dementia-plan-nd.pdf](https://ruralhealth.und.edu/assets/4702-20934/alzheimer-dementia-plan-nd.pdf)

Schroeder, S. (January 2022). Protecting your adult smile. [Infographic]. Funded and peer-reviewed by the *North Dakota Department of Health Oral Health Program, the Health Resources and Services Administration, and the Centers for Disease Control and Prevention*. Available at: [health.nd.gov/prevention/oral-health-program/oral-health-adults](https://health.nd.gov/prevention/oral-health-program/oral-health-adults)

Schroeder, S. (January 2022). Taking care of your teeth in later life. [Infographic]. Funded and peer-reviewed by the *North Dakota Department of Health Oral Health Program, the Health Resources and Services Administration, and the Centers for Disease Control and Prevention*. Available at: [health.nd.gov/prevention/oral-health-program/older-adults](https://health.nd.gov/prevention/oral-health-program/older-adults)

Schroeder, S. (January 2022). North Dakota school-based sealant program: 2020-2021. [Infographic]. Funded and peer-reviewed by the *North Dakota Department of Health Oral Health Program, the Health Resources and Services Administration, and the Centers for Disease Control and Prevention*. Available at: [health.nd.gov/sites/www/files/documents/Files/HSC/HP/OralHealth/Documents/ND\\_School\\_Seal\\_Based\\_Fact\\_Sheet\\_January-2022.pdf](https://health.nd.gov/sites/www/files/documents/Files/HSC/HP/OralHealth/Documents/ND_School_Seal_Based_Fact_Sheet_January-2022.pdf)

2. All scholarly presentations from 2022. (include meeting information and information about who and what was presented)

Zimmerman, J., Sang, H., Schroeder, S. & Ganai, S. (2022). An exploration of spatial barriers to colorectal cancer care accessibility in North Dakota. Western Surgical Association's Annual Meeting. November 2022. Santa Barbara, CA.

06/22/2022      *Oral Health Data Visualization, Using Data to Tell the Story*

Association of State and Territorial Dental Directors

Live webinar

05/12/2022     *Assessing the Effect of COVID-19 on the Well-Being of North Dakota Hospital Employees*

National Rural Health Association, Annual Meeting

Albuquerque, New Mexico

05/06/2022     *Community Needs and Educational Resources*

North Dakota Oral Health Coalition

Bismarck, North Dakota

04/27/2022     How Medical-Dental Integration is Working in North Dakota

TeleECHO™ Clinic: Dentistry as Primary Care (Virtual)

04/26/2022     *Impact of the Pandemic on Provider Mental Health in North Dakota*

Summit on Behavioral Health in Energy Country

Watford City, North Dakota

04/18/2022     *Rural Inequities in Accessing Behavioral Health Care*

North Dakota Nurses Association, Spring Meeting (Virtual)

04/12/2022     *Building Oral Healthcare Capacity among Primary Care Providers: TeleECHO™ Virtual Learning Model*

National Oral Health Conference

Fortworth, Texas

3. All book chapters from 2022 (include citations)

N/A

4. All funded grants on which faculty participated in 2022.

*Aligning early Childhood and Medicaid (ACEM) Initiative*

September 1, 2023 – March 31, 2023,     \$18,000.00

UND Grant Number:     ERAC0005440

Center for Health Care Strategies

Role: Principal Investigator and research lead.

PI: Shawnda Schroeder

*DaCCoTA Community Engagement Pilot: An Exploratory Sequential Mixed-Methods Investigation of Disparities in Colorectal Cancer Care in North Dakota*

September 1, 2022 – August 31, 2023, \$50,198.00

UND Grant Number: ERAC0004425

National Institute of Health

Role: Co-Principal Investigator with Dr. Ganai (Sanford Health, oncology), qualitative research lead.

PI: Shawnda Schroeder

*Evaluation of the State-Based Oral Disease Prevention Program (CDC) [CDC-RFA-DP18-1810]*

September 1, 2023 – August 31, 2022, \$104,663.00

North Dakota Department of Health Flow through CDC

Role: Principal Investigator: Write contracts, manage budgets, supervise/lead a team of researchers, write evaluation reports, develop surveys, manage work plan

PI: Shawnda Schroeder

*Evaluation of State-Based Oral Disease Program (HRSA-22-050)*

September 1, 2022 – August 31, 2023, \$30,000.00

UND Grant Number:

North Dakota Department of Health Flow through Health Resources and Services  
Administration (HRSA)

Role: Principal Investigator: Write contracts, manage budgets, supervise/lead a team of researchers, write evaluation reports, develop surveys, manage work plan

PI: Shawnda Schroeder

*Evaluation of State-Based Oral Disease Program 2 (HRSA)*

September 1, 2021 – August 31, 2022, \$35,000.00

North Dakota Department of Health Flow through Health Resources and Services  
Administration (HRSA)

Role: Principal Investigator: Write contracts, manage budgets, supervise/lead a team of researchers, write evaluation reports, develop surveys, manage work plan; 0.28 FTE

PI: Shawnda Schroeder

*Rural Behavioral Health Program Working Group (Sanford Health)*

June 1, 2020 – May 31, 2022, \$16,724 (10% FTE) Annually



Sanford Health Fargo

Role: Principal Investigator: Serve on the working group to develop the Behavioral Health Bridge in partnership with Sanford Health. Develop websites and rural behavioral health modules.

PI: Shawnda Schroeder

5. Any other scholarly activity from 2022.

August 2022 Accepted: National Institute of Health, Promoting Indigenous Research Leadership Program; Grand Forks, North Dakota

## **Education and Faculty Affairs Direct Reports**

### **Grants**

#### ***E.L. Johnson, MD***

National Science Foundation (NSF) NSF RII Track-2 FEC Edge AI Project 2022-present  
University of South Alabama, Alabama A&M, University of Arkansas,  
North Dakota State University, University of North Dakota,  
Nueta Hidatsa Sahnish College

#### ***R. Van Eck, PhD***

\$75M HRSA supplemental grant for telehealth interprofessional team-based assessment and care planning (D. Jurivich, PI)

AMA Innovation Grant (PI) AMA \$30,000 funding completed in 2022

Geriatrics Workforce Enhancement Program (Program Director, Curriculum Engagement) HRSA \$3.75M July 1, 2019 – June 30, 2024

DACCOTA Dakota Cancer Collaborative on Translational Activity (Evaluation Core Director) NIH \$20.3M September 2018 – 2023

### **Publications**

1. Weyrauch S, **Johnson EL**. Interprofessional Management of Medically Complex Older Adults with Diabetes. APTA Home Health Quarterly Report 2022 Summer; 57(3) 1-6.
2. **Johnson EL**, Miller E. Remote Patient Monitoring in Diabetes: How to Acquire, Manage, and Use All of the Data. Diabetes Spectr. 2022 Feb 15;35(1):43-56. doi: 10.2337/dsi21-0015. Epub 2022 Feb 8.
3. Renger, Jessica ; Renger, Ralph; **Van Eck, Richard**; Basson, Marc; Foltysova, Jirina (under review). Using System Navigators to Evaluate Complex Intervention Interdependencies. *Evaluation Journal of Australasia*.

4. Renger, R., Renger, J., **Van Eck, R. N.**, Basson, M., Foltysova, J. (under review). A comparative case study illustrating the influence of a system perspective on the outcome evaluation of simple versus complex interventions. *Evaluation Journal of Australasia*.
5. Renger, J., Renger, R., **Van Eck, R. N.**, Basson, M., and Renger, J. (in Press). Tracking and Reporting Milestones. *Canadian Journal of Program Evaluation*.
6. Souvannasacd, E., Renger, **R.**, **Van Eck, R. N.**, Basson, M. D., Renger, J. (2022). Lessons Learned in Evaluating System Interdependencies Using Qualitative Methods. *Evaluation Journal of Australasia*.

## Presentations

1. **Johnson EL**, Werremeyer A, Lindseth G, Petros T. Keynote Panel: Interprofessional Collaborations in practice, research, and education. Bridging Research with Practice: an Interprofessional Collaboration Conference Hosted by North Dakota Nurses Association October 21, 2022, Holiday Inn, Fargo, ND.
2. **Johnson EL**, Relling D, Hanson D, et al. Interprofessional Telehealth Simulations for Health Science Students. Bridging Research with Practice: an Interprofessional Collaboration Conference Hosted by North Dakota Nurses Association October 21, 2022, Holiday Inn, Fargo, ND.
3. Aroda V, **Johnson EL**. ADA Hands On Webinar: Clinical Update-Treatment Intensification with Non-insulin Therapies. American Diabetes Association Webinar August 9, 2022.
4. Weyrauch S, **Johnson EL**. Interprofessional Management of Complex Older Adults with Diabetes. American Physical Therapy Association Combined Sections Meeting (virtual), February 3, 2022.
5. **Van Eck, R. N.**, Salentiny, A., & **Johnson, E. J.** (under review). Badging for Competency in Undergraduate Medical Education: A Case Study of Integration in Required Curriculum. Paper presentation submission to AAMC Learn, Serve, Lead, 2023.
6. **Johnson, E. J.**, **Van Eck, R. N.**, & Salentiny, A. (under review). Use of a Points System to Assess and Track IPC Activity for Badging in Undergraduate Medical Education. Paper submission to the Collaboration Across Borders conference.
7. **Johnson, E. J.**, Relling, D., **Van Eck, R. N.**, Allen, J., Janssen, S., Burns, C., & Hanson, D (2022). Interprofessional Telehealth Simulations for Health Science Students. Paper presentation for Bridging Research with Practice: Interprofessional Collaboration, Health Science Research and Evidence Based Practice Conference, Fargo, ND, October 19–20, 2022.
8. Salentiny, A.M. and **Van Eck, R. N.** (2022). *Evolving Needs and Preferences: Observations and Implications from Two Years of Pandemic-Era Faculty Development Needs Assessments*. Presented at the annual meeting of the AAMC CGEA conference, March 30–31, 2022 (virtual).
9. **Van Eck, R. N.**, Salentiny, A. M., Carr, P., & Dunlevey, J. R. (2022). *Using Instructional Design and Performance Support Technology to Support MD Curriculum Redesign for Improved Mapping, Linking, Student Workload, and Teaching Modality*. Poster presented at the annual meeting of the AAMC CGEA conference, March 30–31, 2022 (virtual).

### **Media presentation**

1. **EL Johnson.** American Diabetes Association. Know Your Diabetes By Heart. Online education program, Fall 2022.

2022 Presentations **Tim Shea** from the Sim Center

**SimOps 2022** (a conference produced by the Society for Simulation in Healthcare – SSIH, an international simulation society)

- **Shea, T.** (2022) Making Low Cost Suction & Bleeding Trainers. Presented at SimOPs (Simulation Operation Technician conference) 2022, Cincinnati, OH.
- **Shea, T.** (2022) Cardiac Rhythms for the beginning Sim Tech. Presented at SimOPs (Simulation Operation Technician conference) 2022, Cincinnati, OH.
- **Shea, T.** (2022) Manikin and Room Modifications. Presented at SimOPs (Simulation Operation Technician conference) 2022, Cincinnati, OH.
- **Shea, T.** (2022) Making Moulage Gelatin. Video presented SimOPs (Simulation Operation Technician conference) 2022, Cincinnati, OH.
- **Shea, T.** (2021) The Art of Making Low Cost Task Trainers Pre-Con. Presented at SimOPs (Simulation Operation Technician conference) 2022, Cincinnati, OH.

**IMSH 2022** (the International Meeting on Simulation in Healthcare, largest simulation conference in the world)

- **Shea, T.** (2022) Making Low Cost Suction & Bleeding Trainers. Presented at International Meeting on Simulation in Healthcare (IMSH 2022), Los Angeles, CA.
- **Shea, T.** (2022) Cardiac Rhythms for the beginning Sim Tech. Presented at International Meeting on Simulation in Healthcare (IMSH 2022), Los Angeles, CA.

- **Shea, T.** (2022) Manikin and Room Modifications. Presented at International Meeting on Simulation in Healthcare (IMSH 2022), Los Angeles, CA.

#### Presentations by the Simulation Center's team with SIM-ND

- January 11-12, 2022: SIM-ND Facilitator Training (Retreat)
  - Courtney Maguire, Tawni Harvala, Tim Shea, Jessi Nicola, Dakota Feist
  - Topics: Operations, Moulage, Manikin overview and troubleshooting, Event set-up, SIM-ND truck training, Pedi sim manikin training
- February 22-24, 2022: ND Safety Council
  - Courtney, Tawni, Jessi +Sim-ND teams
  - Simulation Scenarios:
    - Fall from height, head injury
    - Suspension trauma
    - trench collapse
    - anhydrous burn
- April 6-8, 2022: State EMS Conference
  - Courtney, Tawni, Jessi +Sim-ND teams
  - Simulation Scenarios:
    - Adult hypoglycemia
    - Adult opioid overdose
    - Pediatric drowning (cold water)
    - Pediatric trauma (bike accident)
- April 8, 2022: Evolution of Care in Nursing Conference (Minot State University)
  - Courtney and Tawni
  - PPT Presentation: Enhancing Clinical Judgement through Simulation
- September 27, 2022: Department of Corrections
  - Courtney, Dakota +Sim-ND teams
  - Simulation Scenarios:
    - NSTEMI
    - Asthma
- September 28, 2022: State Trauma Conference
  - Courtney, Jessi + Sim-ND teams
  - Simulation Scenarios:
    - Pediatric trauma
- October 14, 2022: SW EMS Conference: Medora
  - Courtney, Tawni, +Sim-ND teams
  - Simulation Scenarios:
    - Adult CHF
    - Adult Cardiac Arrest AED
    - Peds Warm Water Drowning
- December 1, 2022: MN Rural Electric Safety
  - Courtney, Tawni, Colette, Jessi
  - Simulation Scenarios:
    - Suspension Trauma
    - Head Injury from fall

## Biomedical Sciences

### I. All publications from 2022. (include citations)

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13. Vomhof-DeKrey, Singhal S, Singhal SS, Stover AD, Rajpathy O, Preszler E, Garcia L, Basson MD. RNA sequencing of intestinal enterocytes pre- and post-Roux-en-Y gastric bypass reveals alteration in gene expression related to enterocyte differentiation, restitution, and obesity. *Cells.* In press.
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81. **Khan N, Halcrow PW, Afghah Z, Baral A, Geiger JD, Chen X.** [HIV-1 Tat endocytosis and retention in endolysosomes affects HIV-1 Tat-induced LTR transactivation in astrocytes](#). FASEB J. 2022 Mar;36(3):e22184. doi: 10.1096/fj.202101722R. PMID: 35113458
  82. Campbell KS, Keller PG, Heinzl LM, **Golovko SA, Seeger DR, Golovko MY**, Kerby JL. [Detection of imidacloprid and metabolites in Northern Leopard frog \(\*Rana pipiens\*\) brains](#). Sci Total Environ. 2022 Mar 20;813:152424. doi: 10.1016/j.scitotenv.2021.152424. Epub 2021 Dec 20. PMID: 34942261.
  83. **Halcrow PW, Kumar N, Afghah Z, Fischer JP, Khan N, Chen X**, Meucci O, **Geiger JD.** [Heterogeneity of ferrous iron-containing endolysosomes and effects of endolysosome iron on endolysosome numbers, sizes, and localization patterns](#). J Neurochem. 2022 Apr;161(1):69-83. doi: 10.1111/jnc.15583. Epub 2022 Feb 23. PMID: 35124818
  84. Wu Y, Yu Q, Zhang M, Zhou Y, Su X, **Wu M**, Lv J, Xia Z. [Hemin-primed dendritic cells suppress allergic airway inflammation through releasing extracellular vesicles](#). J Leukoc Biol. 2022 Apr;111(4):837-848. doi: 10.1002/JLB.3A0321-175R. Epub 2021 Jul 23. PMID: 34296788
  85. Greenmyer JR, Montgomery M, Hosford C, Burd M, Miller V, Storandt MH, **Lakpa KL**, Tiongson C. [Guilt and Burnout in Medical Students](#). Teach Learn Med. 2022 Jan-Mar;34(1):69-77. doi: 10.1080/10401334.2021.1891544. Epub 2021 Mar 15. PMID: 33722144.
  86. **Hovde MJ, Bolland DE**, Armand A, Pitsch E, Bakker C, Kooiker AJ, Provost JJ, **Vaughan RA**, Wallert MA, **Foster JD.** [Sodium hydrogen exchanger \(NHE1\) palmitoylation and potential functional regulation](#). Life Sci. 2022 Jan 1;288:120142. doi: 10.1016/j.lfs.2021.120142. Epub 2021 Nov 11. PMID: 34774621
  87. **Solaymani-Mohammadi S.** [Mucosal Defense Against Giardia at the Intestinal Epithelial Cell Interface](#). Front Immunol. 2022 Feb 17;13:817468. doi: 10.3389/fimmu.2022.817468. PMID: 35250996
  88. **Saotome M, Poduval DB, Nair R, Cooper M, Takaku M.** [GATA3 truncation mutants alter EMT related gene expression via partial motif recognition in luminal breast cancer cells](#). (2022) Frontiers in Genetics. doi.org/10.3389/fgene.2022.820532
  89. Goutman SA, Guo K, Savelieff MG, Patterson A, Sakowski SA, Habra H, Karnovsky A, **Hur J**, Feldman EL. [Metabolomics identifies shared lipid pathways in independent amyotrophic lateral sclerosis cohorts](#). Brain. 2022 Jan 28:awac025. doi: 10.1093/brain/awac025. Epub ahead of print. PMID: 35088843.
  90. Boison D, Masino SA, Lubin FD, Guo K, Lusardi T, Sanchez R, Ruskin DN, Ohm J, **Geiger JD, Hur J.** [The impact of methodology on the reproducibility and rigor of DNA methylation data](#). Sci Rep. 2022 Jan 10;12(1):380. doi: 10.1038/s41598-021-04346-w. PMID: 35013473; PMCID: PMC8748700
  91. Ni Y, Alu A, Lei H, Wang Y, **Wu M**, Wei X. [Immunological perspectives on the pathogenesis, diagnosis, prevention and treatment of COVID-19](#). Mol Biomed. 2021 Jan 20;2(1):1. doi: 10.1186/s43556-020-00015-y. PMID: 35006419.
  92. **Khan N, Halcrow PW, Afghah Z, Baral A, Geiger JD, Chen X.** [HIV-1 Tat endocytosis and retention in endolysosomes affects HIV-1 Tat-induced LTR transactivation in astrocyte](#) FASEB J. 2022 Mar;36(3):e22184. doi: 10.1096/fj.202101722R. PMID: 35113458
  93. Halcrow, P.W., Kumar, N., Hao, E., Khan, N., Meucci, O. and **J.D. Geiger.** (2022) Mu Opioid Receptor-Mediated Release of Endolysosome Iron Increases

Levels of Mitochondrial Iron, Reactive Oxygen Species, and Cell Death. Journal of Neurolmmune Pharmacology and Therapeutics <https://doi.org/10.1515/nipt-2022-0013>

94. Duplication of renal arteries with unusual extra renal division pattern and positional relationship to hilar structures, **Tessema C**, Int J Anat Var Vol 15 No 4, April 2022, DOI: 10.37532/1308-4038.15(4).185
  95. Three unusual variations of testicular vasculature in a single cadaver: case report and short review of pathophysiologic correlations with varicocele, **Tessema C**, Int J Anat Var Vol 15 No 10, October 2022, DOI: 10.37532/1308-4038.15(6).201
  96. Unique case of aberrant nerves to serratus anterior muscle with unusual branching pattern of the posterior cord of the left brachial plexus. **Tessema C**. Int J Anat Var Vol 15 No 8, August 2022, DOI: 10.37532/1308-4038.15(8).210
  97. Complete Aberrance of the major visceral branches of abdominal aorta, **Tessema C**, Int J Anat Var Vol 15 No 6, June 2022, DOI: 10.37532/1308-4038.15(10).221
  98. Massive ossification in the parietal lateral lacunae of human superior sagittal sinus, **Tessema C**, Int J Anat Var Vol 15 No 11, November 2022, DOI: 10.37532/1308-4038.15(11).225
- II. All scholarly presentations from 2022. (include meeting information and information about who and what was presented)
- 27**

**Basson:**

Abstracts:

Wang Q, Gallardo-Macias R, Gupta R, Golovko MY, Gurvich VJ, Basson MD. A novel water-soluble small molecule FAK activator promotes intestinal mucosal healing. Gastroenterology 162(7):S1053, 2022. (Presented at Digestive Disease Week 2022)

**Brisette:**

Posters:

**\*= presenter**

Anderson\*, C., Ekic, A., Casselli, T., and C.A. Brisette (2022). Role of *B. burgdorferi* extracellular matrix binding proteins in the colonization of mouse dura mater. 7<sup>th</sup> Annual Host Pathogens Interaction Symposium, Grand Forks, ND. October 4, 2022.

Casselli\*, T., Divan, A., Vomkof-DeKrey, E.E, Tourand, Y., Pecoraro, H.L., and C.A. Brisette (2022). A murine model of Lyme disease demonstrates that *Borrelia burgdorferi* colonizes the dura mater and induces inflammation in the central nervous

system and associated barrier tissues. 7<sup>th</sup> Annual Host Pathogens Interaction Symposium, Grand Forks, ND. October 4, 2022.

Cleveland\*, D., Tourand, Y., and C. Brissette (2022). Loss of infectivity in mice after long-term in vitro passage of relapsing fever spirochete, *Borrelia miyamotoi*. 7<sup>th</sup> Annual Host Pathogens Interaction Symposium, Grand Forks, ND. October 4, 2022.

Casselli, T., Tourand\*, Y., Stevenson, B., Zuckert, W.R., and Brissette, C.A. (2022) Inverse correlation of transformation efficiency and murine infectivity in the Lyme disease agent *Borrelia mayonii*. 7<sup>th</sup> Annual Host Pathogens Interaction Symposium, Grand Forks, ND. October 4, 2022.

Cleveland\*, D., Tourand, Y., and C. Brissette (2022). Loss of infectivity in mice after long-term in vitro passage of relapsing fever spirochete, *Borrelia miyamotoi*. Midwest Microbial Pathogenesis Conference. Madison, WI. October 1, 2022.

Anderson\*, C., Ekic, A., Casselli, T., and C.A. Brissette (2022). Role of *B. burgdorferi* extracellular matrix binding proteins in the colonization of mouse dura mater. Midwest Microbial Pathogenesis Conference. Madison, WI. October 1, 2022.

Casselli\*, T., Divan, A., Vomkoff-DeKrey, E.E., Tourand, Y., Pecoraro, H.L., and C.A. Brissette (2022). A murine model of Lyme disease demonstrates that *Borrelia burgdorferi* colonizes the dura mater and induces inflammation in the central nervous system and associated barrier tissues. Midwest Microbial Pathogenesis Conference. Madison, WI. October 1, 2022.

Casselli\*, T., Divan, A., Vomkoff-DeKrey, E.E., Tourand, Y., Pecoraro, H.L., and C.A. Brissette (2022). A murine model of Lyme disease demonstrates that *Borrelia burgdorferi* colonizes the dura mater and induces inflammation in the central nervous system and associated barrier tissues. International Conference on Lyme Borreliosis and Other Tick-Borne Diseases. Amsterdam, NL. September 5, 2022.

Saylor\*, T.C., Casselli, T., Lethbridge, K.G., Brissette, C.A., Zuckert, W.R., and B. Stevenson (2022). The Lyme disease spirochete possesses genetically encoded responses to doxycycline, but not to amoxicillin. Gordon Research Conference on The Biology of Spirochetes, Ventura, CA. June 1, 2022.

Anderson\*, C., Ekic, A., Casselli, T., and C.A. Brissette (2022). Role of *B. burgdorferi* extracellular matrix binding proteins in the colonization of mouse dura mater. Gordon Research Conference on The Biology of Spirochetes, Ventura, CA. May 29, 2022.

Casselli\*, T., Divan, A., Vomkoff-DeKrey, E.E, Tourand, Y., Pecoraro, H.L., and C.A. Brissette (2022). A murine model of Lyme disease demonstrates that *Borrelia burgdorferi* colonizes the dura mater and induces inflammation in the central nervous system and associated barrier tissues. Gordon Research Conference on The Biology of Spirochetes, Ventura, CA. May 29, 2022.

Cleveland\*, D., and C.A. Brissette (2022). Characterization of relapsing fever spirochete, *Borrelia miyamotoi*, disease progression and tissue sequestration in immunocompetent hosts. Gordon Research Conference on The Biology of Spirochetes, Ventura, CA. May 29, 2022.

Ekic\*, A., Anderson, C., and Brissette, C.A. (2022) Determining the role of BB0406 laminin binding protein in mouse dura colonization. Frank Low Research Day. April 21, 2022. University of North Dakota, Grand Forks, ND. (online).

Talks: (all given by C. Brissette)

October 3, 2022. Lyme disease: A tick-borne infection. Unwanted Hitchhikers- A community event sponsored by the University of North Dakota Center of Biomedical Research Excellence in Host-Pathogen Interactions. Grand Forks, ND.

July 12, 2022. Inflammation without penetration: Colonization of the dura mater by *Borrelia burgdorferi*. Research Experiences for Undergraduates. UND SMHS, Grand Forks, ND.

June 27, 2022. Lessons from a mouse model of neuroborreliosis-how host responses might impact perinatal Lyme disease. Perinatal Transmission of Lyme Disease. The Banbury Center at Cold Spring Harbor Laboratory, NY.

May 31, 2022. Inflammation without penetration: Colonization of the dura mater by *Borrelia burgdorferi*. Gordon Research Conference on The Biology of Spirochetes. Ventura, CA.

**Brown-Borg:**

‘Impact of somatotrophic signaling on health and aging’

Presentation at the Biological Sciences Presidential Symposium of the 77th Annual Meeting of the

Gerontological Society of America

Indianapolis, IN

November 3, 2022

‘Understanding somatotrophic signaling and aging through GH deficiency and overexpression’

Presentation at the Robert and Arlene Kogod Center on Aging-Mayo Clinic Rochester

Rochester, MN

May 9, 2022

**Geiger:**

Mu Opioid Receptor-Mediated Release of Endolysosome Iron Increases Levels of Mitochondrial Iron, Reactive Oxygen Species, and Cell Death. Dr. Peter W. Halcrow. Society of Neuroimmune Pharmacology. Nashville, TN May 2022

HERV-K (HML-2) Envelope Protein Induces Mitochondrial Depolarization and

Neurotoxicity Via Endolysosome Iron Dyshomeostasis. Dr. Peter W. Halcrow. American Society of Cell Biology, Washington DC Dec. 2022

Mu Opioid Receptor-Mediated Endolysosome Iron Release Increases Mitochondrial Iron, Reactive Oxygen Species, and Cell Death. Dr. Peter W. Halcrow. American Society of Cell Biology, Washington DC Dec. 2022

#### Invited speaker engagements

“Investigations on the greater lysosome system”, American Society for Intercellular Communication, Bolger Center, Maryland, Oct. 2022

“An ‘iron-ic’ story about the involvement of endolysosomes in the pathogenesis of age-related neurological disorders”, Zoom seminar, NINDS May 2022

#### **Nilles:**

Kaitlin Reitz, Nathan A. Velaris, Jessica Zola, Abiola Sholarin, Bernadette Meberg, Matthew L. Nilles, David S. Bradley. Staphylococcal enterotoxin G & I coding mRNA display propensity for novel vaccine adjuvants. FLR 2022

Jessica Zola, Nathan A. Velaris, Kaitlin Reitz, Abiola Sholarin, Bernadette Meberg, Matthew L. Nilles, David S. Bradley. The potential of HLA-DQ8-conjugated liposomes as an allele-neutral delivery vehicle for Staphylococcal enterotoxin I cancer immunotherapy. FLR 2022

- III. All book chapters from 2022 (include citations)  
**1**

#### Brissette:

Brissette, C., Kraiczy, P. (2022) Pathogenesis and immune defense. In Lyme Borreliosis. K-P Hunfeld, J. Gray (eds) Springer Nature Switzerland AG. Pg.47-75

- IV. All funded grants on which faculty participated in 2022.  
**65**



**Basson**

NIH 1 U54 GM128729 Dakota Cancer Collaborative on Translational Activity

(Basson PI 30% effort)

Total direct costs 15,718,200 over five years September 30,2018- August 31, 2023.

State of North Dakota Hyperbaric oxygen therapy for post-concussion syndrome

Basson PI 14% effort May 1, 2021-April 30, 2023

\$335,000

NIH N3C year two subcontract (Covid database study)

Basson PI on subcontract 5% effort October 2021-October 2022

Total costs \$63,860

NIH RECOVER subcontract OTA OT2HL161847-01 (Covid prospective cohort study)

Basson PI on subcontract 5% effort October 2021-October 2025

Total costs 1,840,555 + enrollment-dependent additions

EPSCOR Engaging pre-college students in working with authentic biomedical data to develop understandings about experimental design and clinical research.

Summers/Tanis co-PIs. Basson co-I 1% effort

Total direct costs \$15,000 October 1, 2021- May 31, 2022

Bioscience Innovation Grant to WoundExam, Corp., Department of Agriculture, North Dakota. "Multi-mode assessment of wounds using a compact and handheld optical imaging system" \$100K direct costs 2021-2022.

Basson UND contact PI 5% effort

State of North Dakota UND0027377, Hyperbaric Oxygen Therapy – SLFRF

\$2.1M direct costs 12/1/21-6/30/23

Basson PI 1% effort

NIH MBARC     A novel drug to promote mucosal healing and combat aspirin and NSAID mucosal damage.

\$100,000 direct costs     9/1/22-8/31/23

Basson PI 5% effort

### **Bradley**

NIH 5P20GM113123

Host Pathogen COBRE

Bradley – Flow Core Director

NIH 5P20GM113123

Host Pathogen COBRE

Role: Bradley, Brissette (Co-PIs)

### **Brissette**

UND Epigenetics & Epigenomics COBRE Pilot

“Identification of pathogenic meningeal T cell responses during infection with *Borrelia burgdorferi*”

Role: PI; 5% effort

07/01/2022-06/30/2023

Total costs: \$40,000

ND EPSCOR ACES

“Modeling single cell interactions with scaffold proteins”

Role: Co-PI (Nuri Oncel, Co-PI), 5% effort

09/01/2022-06/30/2023

Total costs: \$25,000

NIH/NIAID 1R01AI158304-01A1

Bacterial and host factors in the pathogenesis of Lyme neuroborreliosis

Role: PI; 25% effort

06/23/2022-05/31/2026

Total costs: \$1,692,000

NIH/NINDS R25NS110050

Indians Into Medicine: Native Educator University Research Opportunity in Neuroscience (INMED: NEUROscience)

Role: Mentor (S. Sletten, PI, H. Brown-Borg, MPI, UND); 5% effort  
1/01/2022-12/31/2026  
Total costs: \$539,800

UND SMHS Office of the Dean

Dean's Meritorious Grant Award

Bacterial and host factors in the pathogenesis of Lyme neuroborreliosis

Role: PI; 5% effort

1/15/2021-10/14/2022

Total costs: \$50,000

Global Lyme Alliance

Cerebrospinal fluid immune response in a tractable murine model of Lyme  
neuroborreliosis

Role: PI; 5% effort

10/12/2021-10/11/2022

Total costs: \$55,000

NSF 2117014

MRI: Acquisition of an Atomic Force Microscope

Role: Co-PI (N. Oncel, Lead PI, UND)

9/01/2021-2/28/2023

Total costs: \$252,841

NIH/NIGMS 2P20GM113123-06

Center for Excellence in Host-Pathogen Interactions

Role: Program Coordinator (D. Bradley, PI); 25% effort

8/05/2021-7/31/2026

Total costs: \$10,523,094

NIH/NIAID 1R21AI149220-01 (NCE)

*Borrelia miyamotoi* meningoencephalitis

Role: PI; 10% effort

1/01/2020-12/31/2022

Total costs: \$387,750

NIH/NIAID R01AI144126-01A1

SpoVG and PlzA regulation of Lyme disease spirochete infection process

Role: Co-I (B. Stevenson, PI, University of Kentucky); 5% effort

4/01/2020-3/31/2024

Total costs: \$2,898,476

DoD W81XWH2010168 (NCE)

Epigenetic Memory in Refractory Lyme Arthritis

Role: Co-I (A. Dhasarathy, PI, UND); 10% effort

5/01/2020-4/30/2023

Total costs: \$417,000

**Brown-Borg**

UND SMHS Pilot Grant

‘Mechanisms of resistance to fatty liver disease in longevous mice’ PI

2022-2023

NIH National Institute of Neurological Disorders and Stroke R25NS110050

Indians into Medicine: Native Educator University Research Opportunity in  
Neuroscience

MPI (Brown-Borg, Summers, Henry)

2021-2026

NIH National Institute on Aging R56 AG067724-01

‘Frailty: Prediction of onset and progression’

MPI (Brown-Borg, Thompson)

2020-2022

NIH U54 GM128729

'Dakota Cancer Collaborative on Translational Activity (DaCCoTA)'  
Pilot Projects Program Core Director, Co-PI (M Basson-PI)  
2021-2023

**Casselli**

NIH: 1R03AI159391-01A1  
Identification of linear plasmid lp38-encoded virulence determinants in the Lyme disease spirochete *Borrelia burgdorferi*  
Role: PI  
11/1/2021–10/31/2022  
Total costs: \$70,500

**Chen**

NIH R01 MH119000 08/01/19 –7/31/24

Tat endolysosome escape and HAND

Role: Multi-PIs: **Chen X (50%)** and Geiger JD (50%)

Amount: \$2,375,000

3R01MH119000-02S1 07/24/20 –7/31/24

Alzheimer's-focused administrative supplements for NIH grants that are not focused on Alzheimer's disease (R01MH119000)

Role: Multi-PIs: **Chen X (50%)** and Geiger JD (50%)

Amount: \$352,500

**Combs**

1R01 AG069970

NIH / West Virginia Subaward

Impact of sex differences on molecular determinants of AD risk and responsiveness to treatment

Role: PI

9/15/2021–5/31/2026

Total costs: \$3,147,179 Combs portion: \$417,402

NIH: RF1AG069378

Communicating Intestinal Inflammation to the Brain in Alzheimer's Disease

Role: PI

9/1/2020–8/31/2024

Total costs: \$1,420,768

NIH: 1P20GM134969

NIH / Sanford

Center for Biobehavioral Mechanisms in Eating Behavior

Role:

4/1/21–3/31/26

Total costs: \$11,511,625 Combs portion: \$17,249

NIH: 1RF1AG072727

Oral Cavity and Brain Cross-talk in Alzheimer's Disease

Role: PI

5/1/2021–4/30/2024

Total costs: \$1,230,093

NIH 5P20GM113123

Host Pathogen COBRE

Combs – Histology Core Director

NIH COBRE 5P20GM104360

Center of Biomedical Research Excellence, Epigenomics of Development and Disease

Role: Program Coordinator (A. Dhasarathy)

Phase 2 7/1/2019 – 6/30/2024 (overall 9/10/2013-6/30/2024)

Total costs Phase 2: \$10,450,140 (percent of salary paid, no project costs)

DoD W81XWH2010168 (NCE)

Epigenetic Memory in Refractory Lyme Arthritis

Role: Co-I (A. Dhasarathy, PI, UND);

5/01/2020-4/30/2023

Total costs: \$417,000

ND EPSCOR - NSF

ND EPSCOR Track I Innovative and Strategic Program Initiatives for Research and Education- North Dakota (ND-ACES)

Role: Team Co-lead, cellular systems (A. Dhasarathy, PI; Kelly Rusch, NDSU, PI)

7/1/2020 – 6/30/2025

Total costs: \$20,000,000 (AD funds \$353,610 over 5 years)

EPSCOR – ND ACES

Undergraduate Research Assistantship (URA) Program for undergraduate student

Role: PI (A. Dhasarathy)

1/1/20201 – 6/30/2022

Total costs: \$22,022

DaCCoTA (pilot grant)

Phenotypic and Epigenomic Impact of SARS- Cov-2 (Covid-19) Nucleocapsid Protein in Breast Cancer

Role: PI (A. Dhasarathy)

9/1/2021 – 8/31/2022

Total costs: \$49,998

NIH INBRE (pilot grant) 5P20GM103442

The Regulation and Role of SPARC in Cadmium-Induced Bladder Cancer

Role: Team Co-PI (A. Dhasarathy, PI; Emily Biggane, PI)

5/1/2021 – 4/30/2023

Total costs: \$112,800

NIH COBRE 5P20GM104360 (supplement 3P20GM104360-09S1)

Growing Local: Sustaining Epigenomics Research at UND

Role: Co-I (A. Dhasarathy; R. Vaughan, PI, S. Nechaev, Co-I, D. Darland, Co-I)

7/1/2022 – 6/30/2023

Total costs: \$10,450,140 (supplement portion \$142,686)

### **Eliazer**

Center of Biomedical Research Excellence, Epigenomics of Development and Disease

Role: Project Leader (S. Eliazer)

Phase 2 7/1/2019 – 6/30/2024 (overall 9/10/2013-6/30/2024)

Total costs Phase 2: \$10,450,140 (\$208,500 project total costs)

### **Geiger**

Title: Ketogenic diet and adenosine: Epigenetics and anti-epileptogenesis

Agency: NIH R01NS065957

PIs: Drs. Boison, Geiger and Masino (MPIs)

Dates: 6/15/2018-4/30/2022

Amount: \$2,254,373

Title: Effects of opiates on neurons and their impact on HIV neuropathology



Agency:NIH R01 2R01DA032444-08

PIs: Dr. Meucci (PI), Dr. Geiger (co-I)

Dates: 05/01/2019-4/30/2024

Amount: \$3,057,115

Title: Tat endolysosome escape and HAND

Agency:NIH R01MH119000

PIs: Drs. Chen and Geiger (MPIs)

Dates: 08/01/2019-7/31/2024

Amount: \$2,376,469

Title: P20, COBRE, Indigenous Trauma and Resilience Research Centre

Agency:NIGMS, 5P20GM139759

PI J.D. Geiger (PI - Interim)

Dates: 03/01/2021-02/28/2026

Amount: \$10,000,000

### **Grove**

NIH 5P20GM113123

Host Pathogen COBRE

Grove – Imaging Core Director

### **Haage**

NIH COBRE 5P20GM104360 (Pilot grant)

Center of Biomedical Research Excellence, Epigenomics of Development and Disease

(Pilot project title: Talin as a novel regulator of gene expression)

Role: PI

7/1/2022 – 6/30/2023

Total pilot project costs: \$27,800

**Henry**

NIH INBRE (pilot grant) 5P20GM103442

Title

Role: PI (K. Henry)

5/1/2022 – 4/30/2023

Total pilot project costs: \$55,601

**Hur**

NIH 5P20GM113123

Host Pathogen COBRE

Hur – Data Analysis Core Director

**Lei**

NIH: 5R01MH118258

Cellular and molecular mechanisms of vasopressin in anxiety

Role: PI

8/6/2019–5/31/2023

Total costs: \$1,042,500

**Mehedi**

NIH 5P20GM113123

Host Pathogen COBRE

Mehedi – Project 4

**Milavetz**

NIH COBRE 5P20GM104360

Center of Biomedical Research Excellence, Epigenomics of Development and Disease

Role: Senior Management Advisor (B. Milavetz)

Phase 2 7/1/2019 – 6/30/2024 (overall 9/10/2013-6/30/2024)

Total costs Phase 2: \$10,450,140 (percent of salary paid, no project costs)

**Nechaev**

NSF: 1750379

Organization of Global Transcriptomes by Stepwise control of POL II activity at gene promoters

Role: PI

April 1, 2018–March 31, 2023

Total costs: \$400,000

NIH COBRE 5P20GM104360

Center of Biomedical Research Excellence, Epigenomics of Development and Disease

Role: Genomics Technology Advisor (S Nechaev)

Phase 2 7/1/2019 – 6/30/2024 (overall 9/10/2013-6/30/2024)

Total costs Phase 2: \$10,450,140 (percent of salary paid, no project costs)

NIH COBRE 5P20GM104360 (supplement 3P20GM104360-09S1)

Growing Local: Sustaining Epigenomics Research at UND

Role: Co-I (S. Nechaev; R. Vaughan, PI, A. Dhasarathy, Co-I, D. Darland, Co-I)

7/1/2022 – 6/30/2023

Total costs: \$10,450,140 (supplement portion \$142,686)

**Roche**

NIH COBRE 5P20GM104360

Center of Biomedical Research Excellence, Epigenomics of Development and Disease

Role: Project Leader (B. Roche)

Phase 2 7/1/2019 – 6/30/2024 (overall 9/10/2013-6/30/2024)

Total costs Phase 2: \$10,450,140 (\$208,500 project total costs)

**Rosenberger**

NIH: 1R03AI152213

Epigenetic modulation of purinergic signaling in microglia

Role: PI

3/6/2020–2/28/2023 (includes a 1 year no cost extension)

Total costs: \$141,000

**Solaymani-Mohammadi**

NIH 5P20GM113123

Host Pathogen COBRE

Shahram – Project 2

**Takaku**

NIH COBRE 5P20GM104360

Center of Biomedical Research Excellence, Epigenomics of Development and Disease

(Project Title: Mechanisms of GATA3 mediated cell reprogramming in breast cancer)

Role: Project Leader (M. Takaku)

Phase 2 7/1/2019 – 6/30/2024 (overall 9/10/2013-6/30/2024)

Total costs Phase 2: \$10,450,140 (\$208,500 project total costs)

EPSCOR – ND ACES

Early cancer detection by cell-free chromatin and machine learning

Role: PI (M. Takaku)

1/1/2020 – 6/30/2022

Total costs: \$46,000

DaCCoTA

AI-based early cancer diagnosis using chromatin architectures in cfDNA

Role: Co-I (M. Takaku; X. Wang, PI)

9/1/2021 – 8/31/2022

Total costs: \$40,000

Chiba University (temp award) no award number

Identify molecular mechanisms

Role: PI (M. Takaku)

8/29/2022-12/31/2023

Total costs: \$91,000

**Vaughan**

NIH COBRE 5P20GM104360

Center of Biomedical Research Excellence, Epigenomics of Development and Disease

Role: PI (R. Vaughan)

Phase 2 7/1/2019 – 6/30/2024 (overall 9/10/2013-6/30/2024)

Total costs Phase 2: \$10,450,140

NIH COBRE 5P20GM104360 (supplement 3P20GM104360-09S1)

Growing Local: Sustaining Epigenomics Research at UND

Role: PI (R. Vaughan, PI, A. Dhasarathy, Co-I, S. Nechaev, Co-I, D. Darland, Co-I)

7/1/2022 – 6/30/2023

Total costs: \$10,450,140 (supplement portion \$142,686)

**Watt**

NIH COBRE 5P20GM104360

Center of Biomedical Research Excellence, Epigenomics of Development and Disease

Role: Project Leader (J. Watt)

Phase 2 7/1/2019 – 6/30/2024 (overall 9/10/2013-6/30/2024)

Total costs Phase 2: \$10,450,140 (\$208,500 project total costs)

V. Any other scholarly activity from 2022.

**Basson:**

[Inhibiting fak-akt interaction to inhibit metastasis](#). MD Basson, LA Kuhn, S Raschka - US Patent App. 16/632,748, 2020. Patent awarded March 16, 2022.

Mentored PhD theses

1. Al-Marsoum S. Role of Schlafen 12 in lung adenocarcinoma and triple negative breast cancer. (University of North Dakota PhD thesis) 2022
2. Oncel S. Effects of small molecule FAK activators on gastrointestinal mucosal healing. (University of North Dakota PhD thesis) 2022.

**Neurology**

**Dr. Jau- Shin Lou**

**PUBLICATIONS**

1. Fadil R, Huether A, Verma AK, Brunnemer R, Blaber AP, **Lou JS**, Tavakolian K. "Effect of Parkinson's disease on cardiac and muscle-pump baroreflexes during orthostatic challenge", *Frontiers in Physiology*, June, 2022.

**Abstracts**

1. Huether A, , Fadil R, MS, Brunnemer R, Harlow T, Stutz A, Matcha S, Hanson A, Blaber A, Tavakolian K, **Lou JS**. The Effect of Leg Muscle Contractions on Blood Pressure Regulation in PD Patients . Presented at Movement Disorders Congress, 2021
2. Fadil R, Huether A, Brunnemer R, Blaber AP, **Lou JS**, Tavakolian K. "Skeletal Muscle Pump Impairment in Parkinson's disease: Preliminary results", *Computing in Cardiology (CinC) Conference*, Brno, Czech Republic, Sep 12 - 15, 2021.
3. Fadil R, Huether A, Brunnemer R, Blaber AP, **Lou JS**, Tavakolian K. "Early Detection of Parkinson's Disease Using Center of Pressure Data and Machine Learning", the 43rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Nov 1 - 5, 2021

**Sanford Health**

1. Necrotizing myopathy. Presented at Sanford Neurology Grand Round 2021
2. Mitochondria myopathy. Presented at Sanford Neurology Grand Round, 1/2021
3. Peripheral Neuropathies. Presented at Internal Medicine Grand Round, 1/2021

**INMED Program**

2. All funded grants on which faculty participated in 2022.
  - a. INMED Grant (PI)

1. Summer Institute Banquet: attendees were UND SI Students, Indigenous Health Staff, and faculty, INMED staff & Faculty, Speakers included Donald Warne & Jim Warne- JULY 2022
2. Med Prep Courses: attendees were potential UND students and Instructors for recruitment efforts for the SMHS at UND MAY 2022
3. INMED SMHS Graduation Banquet: attendees were UND SMHS Graduates, Indigenous Health staff, INMED Staff & Faculty Speakers Donald Warne MAY 2022
4. Time-out Wacipi Pow-wow: attendees included GF Community ,MC-Daniel Henry INMED staff 7 Faculty, UND Alumni, AISES, RAIN Program, INPSYD, & Diversity & Inclusion APRIL 2022
5. CLIMB Program/Pre-matriculation program for incoming INMED (Indians Into Medicine) :attendee's students-In Person, INMED Staff, Speakers: Dr. Don Warne, Dr. Yvette Lapierre, Dr, Kelliher 06/13/22 & 06/24/22
- a. NEURO Grant (CO-PI)
- b. NARCH Grant (PI)
- c. IPERT III Grant (PI)
- d. COBRE Grant (Liaison)
- e.

## **Center for Rural Health**

### **I. 45**

**Highlighted portion shows work for faculty members Brad Gibbens, Dr. Collette Adamsen, Dr. Jacque Gray (Research Associate Professor Emerita). Other CRH staff have completed scholarly work as well.**

1. Kauffman, G. (2022). 'A Life-Changing Partnership': First Tribally-Affiliated Medical School in the U.S. Builds Workforce Pipeline to Underserved Communities. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/tribally-affiliated-medical-school/>
2. Sande, K. (2022). 20 Years of RHlhub: A Message from the Director. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/celebrating-20-years/>
3. Kauffman, G. (2022) Aiming For 'Real and Accessible': EMS Simulations Give Rural Providers Hands-On Experience. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/ems-simulation/>
4. Mead, A. (2022). Increasing Knowledge of Palliative Care in South Dakota. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/sd-palliative-care-network/>
5. Miller-Temple, K. (2022). Rural Health Clinic Program at 45 Years: Created for Access and Still Delivering Care. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/rhc-program/>
6. Miller-Temple, K. (2022). A Career of Influencing Rural Healthcare Delivery: Bill Finerfrock and the NARHC Origin Story. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/bill-finerfrock-narhc/>
7. Kauffman, G. (2022). 'Filling the Cracks': How a Rural Maine Community Kept its 24/7 Urgent Care Open with Paramedics. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/maine-integrated-paramedics/>
8. Miller Temple, K. (2022). Philanthropy, Cross-Collaboration, and the Ecosystem That Is Rural Healthcare Delivery: Q&A with Dr. Shao-Chee Sim. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/shao-chee-sim/>

9. Mead, A. (2022). Telehealth Brings Important Services to Rural Long-Term Care Facilities. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/long-term-care-telehealth/>
10. Kauffman, G. (2022). Breaking the Cycle: Missouri Community Paramedicine Program Brings Primary Care to High-Risk Patients. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/missouri-community-paramedicine/>
11. Miller Temple, K. (2022). Training Rural to Serve Rural: Baccalaureate-MD Programs and Their Rural Results. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/rural-ba-md-programs/>
12. Mead, A. (2022). National Health Service Corps 50th Anniversary: Q&A with Dr. Luis Padilla. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/nhsc-anniversary-luis-padilla/>
13. Miller Temple, K. (2022). Staving Off One's Mortality: Rural Kidney Health and Its Disparities. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/rural-kidney-health/>
14. Mead, A. (2022). RESEP Clinics Help Rural Residents Access Care and Compensation After Radiation Exposure. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/resep-clinics/>
15. Mead, A. (2022). Bringing Mental Health Services to Rural Residents. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/mental-health-access/>
16. Miller Temple, K. (2022). The Codes of Care: How Words and Numbers Have Transformative Power for Rural Healthcare. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/medical-coding/>
17. Mead, A. (2022). Parent Partners Provide Mentoring and Support in Rural Iowa. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/parent-partners-iowa/>
18. Miller Temple, K. Educating Future Healthcare Providers: Health Literacy Opportunities for Webisode Manners. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/health-literacy-provider-education/>
19. Miller Temple, K. From Idea to Reality: Federal Funding Supports Quapaw Nation's Community Paramedicine Program. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/quapaw-community-paramedicine/>
20. Miller Temple, K. A New Era of Health Literacy? Expanded Definitions, Digital Influences, and Rural Inequities. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/digital-health-literacy/>
21. Mead, A. (2022). "It's the relationships": Q&A with Peggy Broussard Wheeler. *Rural Monitor*. <https://www.ruralhealthinfo.org/rural-monitor/peggy-broussard-wheeler/>
22. Bernhardt, K. (2022). North Dakota Qualified Service Provider Survey Report. <https://ruralhealth.und.edu/assets/4988-22376/nd-qsp-survey-report-2022.pdf>.
23. Bernhardt, K., Starkweather, J., & Peterson, M. L. (2022). North Dakota Telebehavioral Health Report.
24. North Dakota Behavioral Health Epidemiological Profile. (2022). [https://www.hhs.nd.gov/sites/www/files/documents/BH/EPI\\_2022.pdf](https://www.hhs.nd.gov/sites/www/files/documents/BH/EPI_2022.pdf).
25. Kelly, D., Schroeder, S., & Leighton, K. (2022). Anxiety, depression, stress, burnout, and professional quality of life among the hospital workforce during a global health pandemic. *The Journal of Rural Health*. 2022 Autumn: 38(4): 795-804, doi:10.1111/jrh.12659
26. Schroeder, S., Kelly, D., & Leighton, K. (2022). Influence of years of experience and age on hospital workforce compassion satisfaction, anxiety, depression, stress, and burnout during pandemic: Implications for retention. *Psychology, Health & Medicine*. 2022 Winter: 1-14, <https://doi.org/10.1080/13548506.2022.2159988>
27. Ostmo, P. (2022). Opioid Use Disorder and Treatment: Rural-Urban Comparisons. *Rural Health Gateway Recap*. <https://www.ruralhealthresearch.org/recaps/14>.



28. Ostmo, P. & Rosencrans, J. (2022). Rural Mental Health. Rural Health Gateway Recap. <https://www.ruralhealthresearch.org/recaps/15>.
29. Ostmo, P. & Rosencrans, J. (2022). Travel Burden to Receive Health Care. Rural Health Gateway Recap. <https://www.ruralhealthresearch.org/recaps/16>.
30. Ostmo, P. & Rosencrans, J. (2022). Maternal Health Disparities: An Intersection of Race and Rurality. Rural Health Research Recap. <https://www.ruralhealthresearch.org/recaps/17>.
31. Ostmo, R. & Rosencrans, J. (2022). Aging in Place. Rural Health Research Recap. <https://www.ruralhealthresearch.org/recaps/18>.
32. Gray, J. S., Wheeler, M. J., & Bender, N. M. (2022, April 21). The Three Sisters Garden: A Cultural Approach to Cultivating American Indian/Alaska Native (AI/AN) Psychological Service Providers. Psychological Services. Advance online publication. <http://dx.doi.org/10.1037/ser0000655>, <https://psycnet.apa.org/PsycARTICLES/journal/ser/onlinfirst>
33. Neff-Warner, L.R., Littman, A.J., O'Leary, M., Sarche, M., Nelson, L.A., Gray, J.S., and Fretts, A.M. (2022). Diet Quality and Depression in a Cohort of American Indians: The Strong Heart Family Study. American Indian and Alaska Native Mental Health Research, 29(3): 90-121. doi: 10.5820/aian.2903.2022.90
34. Gibbens, B. (2022). Policy Brief: Telehealth in Rural North Dakota, Vol. 1. <https://ruralhealth.und.edu/assets/5070-22843/telehealth-in-rural-nd-part-1.pdf>.
35. Gibbens, B. (2022). Policy Brief: Telehealth in Rural North Dakota, Vol. 2. <https://ruralhealth.und.edu/assets/5070-22841/telehealth-in-rural-nd-part-2.pdf>.
36. Gibbens, B. (2022). North Dakota Rural Health Association Policy Descriptions.
37. Gibbens, B. (2022). Critical Access Hospital and Rural Health Safety Net (Update of Infographic).
38. Gibbens, B. (2022). Final Evaluation of the Rural Opioid Prevention Education Support (ROPES) Program, City County Health District, Valley City, North Dakota.
39. Schroeder, S., Quinn, R., Hand, L., Dobervich, G. (2022). North Dakota Alzheimer's and Dementia State Plan. <https://ruralhealth.und.edu/assets/4702-20934/alzheimer-dementia-plan-nd.pdf>.
40. Danielson, R., Davis, S., & Adamsen, C. (2022). Understanding the Characteristics and Well-Being of American Indian and Alaska Native Grandparent Caregivers. *Innovating in Aging*, Volume 6 (Issue Supplement\_1), November 2022, Page 541. <https://doi.org/10.1093/geroni/igac059.2053>
41. Lee, Y., Braun, K., Wu, Y., Adamsen, C., & Davis, S. (2022). Cultural and Social Activities and Mental Health Among Indigenous Older Adults in the United States. *Innovation in Aging*, Volume 6, Issue Supplement\_1, November 2022, Page 497. <https://doi.org/10.1093/geroni/igac059.1910>
42. Rural Health Information Hub Topic Guide, 2022. Cancer Prevention and Treatment in Rural Areas [online]. Rural Health Information Hub. <https://www.ruralhealthinfo.org/topics/cancer>.
43. Rural Health Information Hub Topic Guide, 2022. Rural Healthcare Payment and Reimbursement [online]. Rural Health Information Hub. <https://www.ruralhealthinfo.org/topics/healthcare-payment>.
44. Rural Health Information Hub Topic Guide, 2022. Rural Emergency Hospitals [online]. Rural Health Information Hub. <https://www.ruralhealthinfo.org/topics/rural-emergency-hospitals>.
45. Rural Health Information Hub, 2022. Rural Emergency Preparedness and Response Toolkit [online] Rural Health Information Hub. <https://www.ruralhealthinfo.org/toolkits/emergency-preparedness>.

**VI. All scholarly presentations from 2022. (include meeting information and information about who and what was presented)**

## Posters:

Adamsen, C., Danielson, R., Chang, C., Davis, S.(2022). Cigarette and Alcohol use by American Indian/Alaska Native grandparent caregivers 55 and older. American Public Health Association, Boston, MA, November 6, 2022.

Adamsen, C., Danielson, R., Davis, S.(2022). Understanding the Characteristics and Well-Being of American Indian and Alaska Native Grandparent Caregivers. Gerontological Society of America, Indianapolis, IN, November 2, 2022.

## Presentations:

1. Miller Temple, K. Invited Guest Lecture: Reflections on a Rural-to-Rural Health Career Path December 2022, July 2022. Center for Health Innovation and Implementation Science, Indiana University.
2. Miller Temple, K. Language and Health Literacy: The Power of Plain, October 2022. Florida Literacy Coalition Health Literacy Summit.
3. Miller Temple, K. and Reese, J. Rural Housing and Health, May 2022, National Rural Health Association Annual Meeting.
4. Miller Temple, K. RHlhub Resources: General and Behavioral Health-specific, April 2022, University of Iowa Masters public health students.
5. Miller Temple, K. A Physician Writer's View: Rural Health Programs and Research, June 2022. UND College of Nursing PhD Program.
6. Reese, J. Finding Funding with the Rural Health Information Hub. April 2022. West Virginia Governor's Substance Use Disorder Council.
7. Nelson, A. From the Comfort of Your Phone: Using the Devices You Already Have to Generate Content for Your Organization. April 2022. National Cooperative of Health Networks Annual Conference.
8. Reese, J. Finding Funding with the Rural Health Information Hub. May 2022. Finding Funding in Kentucky webinar series.
9. Reese, J. MWAETC Sustainability Panel. May 2022. Mountain West AIDS Training and Education Center Summit.
10. Reese, J. What's New at RHlhub. September 2022. Grantmakers in Aging Meeting.
11. Reese, J. Writing a Budget Narrative. September 2022. Presentation to University of North Dakota SMHS Public Health and Indigenous students.
12. Bernhardt, K., Peterson, M.L., Starkweather, J. 2022. State Epidemiological Outcomes Workgroup Data Familiarization Webinar Series Part 1. What is data? Introduction of the broader view of data. Webinar
13. Bernhardt, K., Peterson, M. L., & Starkweather, J. 2022. State Epidemiological Outcomes Workgroup Data Familiarization Webinar Series Part 2: Data Considerations in the SEOW Context. Webinar

14. Bernhardt, K., Peterson, M.L., Starkweather, J. (2022). State Epidemiological Outcomes Workgroup Data Familiarization Webinar Series Part 3. Working examples from the EPI profile 1. Webinar.
15. Bernhardt, K., Peterson, M. L., & Starkweather, J. 2022. State Epidemiological Outcomes Workgroup Data Familiarization Webinar Series Part 4: Working Examples from the Epi Profile 2. Webinar.
16. Bernhardt, K., Peterson, M. L., & Starkweather, J. 2022. State Epidemiological Outcomes Workgroup Data Familiarization Webinar Series Part 5: Special Topics. Webinar.
17. Peterson, M.L. 2022. Behavioral Health Workforce in North Dakota. Dakota Medical Foundation's F-M Region Children's Mental Health Roundtable.
18. Martin, C., Relling, D. Chepeus, J., Peterson, M.L., & Sigmund-Gaines, M. 2022. Mining Your Data – Exploring Trends in Licensure. Federation of State Boards of Physical Therapy Annual Education Meeting.
19. Ostmo, P. January 2022. Research Dissemination: Planning for Success from the Start. The Rural Training Track Collaborative Annual Scholarly Intensive for Rural Programs. Virtual.
20. Ostmo, P. March 1, 2022. The Rural Health Research Gateway. Federal Office of Rural Health Policy Partners Presentations. Virtual.
21. Ostmo, P. March 1, 2022. The Rural Health Research Gateway. National Rural Health Association Rural Health Fellows Meeting.
22. Adamsen, C. October 18, 2022. An Overview of Indigenous Elders' Needs. GSA Indigenous People's Interest Group.
23. Adamsen, C., Dionne, J. August 10, 2022. Advancing Native American Diversity in Aging Research: Aging Research and Healthy Aging – Aging Research 101. Guest Lecture Presentation, National Institutes of Health, Advancing Native Students in Aging Research, University of Minnesota, Minneapolis St. Paul, MN.
24. Adamsen, C. June 30, 2022. Identifying our Needs: A Survey of Elders VIII – Title VI Needs Assessment. Title VI Virtual Chat.
25. Adamsen, C. June 29, 2022. Identifying Our Needs: A Survey of Elders. Virtual Indigenous Data Science Academy, University of North Dakota, School of Medicine and Health Sciences, Indigenous Health Department.
26. Adamsen, C. June 28, 2022. National Resource Center on Native American Aging. Virtual Indigenous Data Science Academy, University of North Dakota, School of Medicine and Health Sciences, Indigenous Health Department.
27. Adamsen, C., Hudgins, K., Wilson, T. April 12, 2022. Serving Native Elders in Indian Country and Beyond: The Impact of Title VI Programs and Opportunities for Partnerships. On Aging Conference, New Orleans, LA.
28. Adamsen, C., Hudgins, K., Lloyd, J., Crowder, J. March 10, 2022. Reporting and Needs Assessments and Logic Models. Title VI Virtual Chat.
29. Adamsen, C., Hudgins, K., J., Crowder, J. February, 23, 2022. Native Urban Elder Needs Assessment Survey Project. Title VI Virtual Chat.
30. Adamsen, C. January 27, 2022. National Council on Urban Indian Health Monthly Membership Meeting.
31. Gray, J.S. April 9, 2022. Keynote Address: Community Interventions to address Indigenous Elder Needs During COVID-19. Southwestern Psychological Association Conference, Baton Rouge, LA.
32. Archer, P.J. May 8, 2022. NIEJI Resources and Tribal Elder Abuse Services Survey. Shoshone Bannock Tribes Adult Protection Services (APS) 10TH Annual "Taking a Stand Against Elder Abuse" Conference. Pocatello, ID.

33. Hume, Wendelin (October 5, 2022) "National Indigenous Elder Justice Initiative (NIEJI) and Cultural Sensitivity and Safety" presented at University of North Dakota DEI Conference.
34. Hume, Wendelin (October 6, 2022) "Introduction to Missing Murdered Indigenous Peoples" presented at Missing Murdered Indigenous Peoples Awareness Symposium Event hosted by Student Social Work Association.
35. Gibbens, B. February 16, 2022. Population Health Within a Rural Health Context. Nursing 830 Clinical Applications, North Dakota State University College of Nursing.
36. Gibbens, B. February 14, 2022. Population Health: Equity, Disparities, and Rural Health. NURS 565 Rural Populations and Rural Health, University of North Dakota College of Nursing and Professional Disciplines.
37. Gibbens, B. May 24, 2022. Looking at SDOH through a Rural Health Lens, presented to the North Dakota Department of Health, Health Equity. Virtual, throughout North Dakota including all public health units.
38. Gibbens, B. June 21, 2022. Rural Health Policy: Rural Health within the US Health Policy Process. Doctorate level 586 Rural Health Programs and Research, University of North Dakota College of Nursing and Professional Disciplines.
39. Gibbens, B. November 4, 2022. The Grant Writing Basics. Grand Forks Public Health Department.
40. Gibbens, B. December 8, 2022. Maternal Child Health Issues in North Dakota: Cause and Solutions, presented to the North Dakota Council of Abused Women Services, Virtual.

VII. All funded grants on which faculty participated in 2022.

**Adamsen**

Grant: National Resource Center on Native American Aging

Grant Number: 90OIRC003

Funder: Administration For Community Living

Role: PI (50% effort)

Dates: 8/1/20 – 7/31/25

Total Award: \$247,350 per year + \$113,333 required match

Grant: MN Tribal Elder Survey with Supplement

Grant Number: 194148

Funder: Minnesota Department of Human Services

Role: PI (6% effort)

Dates: 5/18/21 – 6/30/22

Total Award: \$150,000

Grant: Native Urban Elder Needs Assessment Survey

Grant Number: None specified, UND0023614

Funder: AARP

Role: PI (10% effort)

Dates: 11/16/18 – 12/31/23

Total Award: \$240,000 + \$20,000

Grant: Expanding Native Aging in Place Project

Grant Number: R-2010-08010

Funder: Margaret A. Cargill Foundation

Role: PI (5% effort)

Dates: 7/1/21 – 6/30/24

Total Award: \$2,100,000 total

Grant: National Initiative to Address COVID-19 Health Disparities Among Populations at High-Risk and Underserved, Including Racial and Ethnic Minority Populations and Rural Communities

Grant Number: NH75OT000095 / G19.1334 (subaward to UND)

Funder: CDC / ND Dept of Health

Role: PI for project entitled North Dakota Tribal Caregivers Project (5% effort)

Dates: 6/21/21 – 5/31/23

Total Award: \$3,210,865 total, PI's Project = \$323,689

Grant: Improving the Well-Being of Native Elders & Caregivers During COVID-19: Enhancing Tribal Services and Expanding Capacity of Sovereign Nations and Tribal Communities

Grant Number: 1085.1 CDC, Project 033

Funder: Centers for Disease Foundation / International Association for Indigenous Aging (IA2)

Role: PI for Native Elder Caregiving Curriculum Project (5% effort)

Dates: 6/15/21 - 8/31/22

Total Costs: \$31,875

Grant: Tribal Long-Term Services and Supports Resource Center

Grant Number: None specified, UND0025041 (subaward to UND)

Funder: Administration for Community Living / National Indian Council on Aging

Role: PI (5% effort)

Dates: 12/1/19 – 8/31/22

Total Costs: \$26,000 per year

Grant: INBRE

Grant Number: n/a

Funder: NIH

Role: Co-PI for sub-section related to virtual data science academy (10% effort), Award PI is D. Sens

Dates: 10/16/22 - active

Total Award: \$12,755

### **Gibbens**

Grant: Area Health Education Centers

Grant Number: U77HP26849

Funder: DHHS, Bureau of Health Workforce

Role: PI (5% Effort)

Dates: 9/1/22 – 8/31/27

Total Costs: \$288,500 year + required match

Grant: Area Health Education Centers COVID

Grant Number: T1KHP39139

Funder: DHHS, Bureau of Health Workforce

Role: PI (5% Effort)

Dates: 5/1/20 – 4/30/22

Total Costs: \$95,455 + required match

Grant: Geriatric Workforce Enhancement Program

Grant Number: n/a

Funder: HRSA

Role: PI for Rural Health (3% effort), Award PI is D. Juivich

Dates: 1/1/22 – 12/31/22

Total Costs: \$62,194

Grant: National Indigenous Elder Justice Initiative

Grant Number: 90IERC003

Funder: Administration for Community Living

Role: Evaluator (5% effort)

Dates: 9/1/21 – 8/31/23

Total Costs: \$300,000 + required match

Grant: National Initiative to Address COVID-19 Health Disparities Among Populations at High-Risk and Underserved, Including Racial and Ethnic Minority Populations and Rural Communities

Grant Number: NH75OT000095 / G19.1334

Funder: CDC / ND Dept of Health

Role: PI for project entitled Rural Health System Analysis Redesign (5% effort)

Dates: 6/21/21 – 5/31/23

Total Award: \$3,210,865 total, PI's Project = \$652,999

Grant: Medicare Rural Hospital Flexibility w/Supplement

Grant Number: U2W333121

Funder: DHHS / HRSA Office of Rural Health Policy

Role: Rural Health Content Expert (35% FTE)

Dates:

Total Costs: \$1,065,742

Grant: State Office of Rural Health

Grant Number: H95RH00118

Funder: DHHS / HRSA

Role: Rural Health Content Expert (15% FTE)

Dates: 7/1/22 – 6/30/23

Total Costs: \$223,410 + required match

**Gray**

Grant: National Indigenous Elder Justice Initiative

Grant Number: 90IERC003

Funder: Administration for Community Living

Role: PI (36% effort)

Dates: 9/1/21 – 8/31/23

Total Costs: \$300,000 + required match

Grant: Mending the Circle, Elder Abuse in Indian Country – Protective Orders, Guardianships, and Other Tools

Grant Number: Professional Services Agreement / UND0027447

Funder: VAWA, ICWA / Whitener Group, LLC

Role: PI

Dates: August 2022

Total Costs: \$4,000