

Bethany Lynn Armentrout PhD, R.N
University of Washington Department of Biobehavioral
and Nursing Informatics
Postdoctoral Scholar-Fellow

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Education

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| Ph.D. | Frances Payne Bolton School of Nursing, Case Western Reserve University, Cleveland, OH
Principal Advisor: Dr. Stephanie Griggs
Dissertation: Insight into Circadian Rhythms of Young Adults with Type 1 Diabetes | 2025 |
| B.S. | Nursing Science, Northern Arizona, Flagstaff, AZ | 2017 |
| A.D.N. | Nursing, Gateway Community College, Phoenix, AZ | 2016 |
| B.A. | Sociology and Criminology, The Ohio State University | 2009 |

Areas of Interest

Circadian rhythm, sleep behavior, diabetes, glycemic variability, insulin resistance, stroke, disease management, epigenetics and metabolomics, neuroscience, endocrinology, and metabolism

Professional Memberships

American Academy of Sleep Medicine, 2024-Present
Sleep Research Society, 2024-Present
American Association of Neuroscience Nursing, 2015- Present
American Association of Critical Care Nursing, 2016- Present

Research Experience

University of Washington, Biobehavioral and Nursing Informatics, Seattle, WA

T32 Postdoctoral Fellow-Scholar
9/2025-current

Case Western Reserve University, Frances Payne Bolton School of Nursing, Cleveland, OH

Laboratory Research Assistant to Dr. Stephanie Griggs
1/2024-5/2025

Supportive lab activities include inventory, participant device management, participant interview fidelity monitoring, biological specimen management and inventory, biological specimen processing and analysis, manuscript preparation, and unspecified research activities.

Case Western Reserve University, Frances Payne Bolton School of Nursing, Cleveland, OH

Laboratory Research Assistant to Dr. Eric Barbato
05/2023-01/2024

Supportive lab activities, including student training, RNA extraction, and PCR for various circadian projects, support in animal lab facility setup, data collection, and assistance with cell culture for a CRISPR CF mouse model project.

Case Western Reserve University, Frances Payne Bolton School of Nursing, Cleveland, OH

Laboratory Research Assistant to Dr. Grant O'Connell
08/2021-05/2023

Supportive lab activities, including RNA extraction from an extensive specimen pool, cleaning and maintenance activities, and research support.

Presentations

Armentrout B. (2025, April) The human circadian metabolome: A systematic review and meta-analysis.
Midwestern Nursing Research Society.

Publications

Armentrout, B. L. (2025). *Insight into Circadian Rhythms of Young Adults with Type 1 Diabetes* [Dissertation, Case Western Reserve University].

https://etd.ohiolink.edu/acprod/odb_etd/r/etd/search/10?p10_accession_num=case1744196467683274&clear=10&session=104975136302878

Armentrout, B. L., Wenzell, M. L., Strohl, K. P., Crawford, S. L., Wood, J. R., Li, C. R., Hickman, R. L., Jr, & Griggs, S. A. (2025). A randomized pilot sleep and circadian behavior clinical trial to improve glycemic and psychological outcomes in young adults with type 1 diabetes (NCT04975230). *Diabetes & metabolic syndrome*, 19(9), 103305. <https://doi.org/10.1016/j.dsx.2025.103305>

O'Connell, G. C., Smothers, C. G., Wang, J., & **Armentrout, B. L.** (2025). Body-Wide Expression Profiles of Commonly Assessed Cardiac Biomarkers in a Large Cohort of Human Tissue Donors. *Cardiology*, 1–17. Advance online publication. <https://doi.org/10.1159/000547289>

Griggs S, Howard Q, Pignatiello GA, **Armentrout BL**, Strohl KP, Grey M, Li CSR, Leuchtag M, & Hickman RL. A randomized pilot sleep health trial for young adults with type 1 diabetes. *Behavioral Sleep Medicine*. <https://doi.org/10.1080/15402002.2025.2522680>

Armentrout BL, Ahmed BH, Waraphok S, Huynh J, & Griggs S. (2025). Emotional Distress and Cardiovascular Health in Young Adults with Type 1 Diabetes. *Journal of cardiovascular development and disease*, 11(12), 391. <https://doi.org/10.3390/jcdd11120391>

Griggs S, **Armentrout BL**, Horvat Davey C, & Hickman RL. (2024, in press) A sleep health composite and diabetes symptom burden in young adults with type 1 diabetes. *Western Journal of Nursing Research*.

O'Connell, G. C., Smothers, C. G., Wang, J., Ruksakulpiwat, S., & **Armentrout, B. L.** (2024). Brain Expression Levels of Commonly Measured Blood Biomarkers of Neurological Damage Differ with Respect to Sex, Race, and Age. *Neuroscience*, 551, 79–93. Advance online publication. <https://doi.org/10.1016/j.neuroscience.2024.05.017>

O'Connell, G. C., Walsh, K. B., Smothers, C. G., Ruksakulpiwat, S., **Armentrout, B. L.**, Winkelman, C., Milling, T. J., Warach, S. J., & Barr, T. L. (2022). Use of deep artificial neural networks to identify stroke during triage via subtle changes in circulating cell counts. *BMC neurology*, 22(1), 206. <https://doi.org/10.1186/s12883-022-02726-x>

In Preparation:

Armentrout B & Griggs S. The human circadian metabolome: A systematic review and meta-analysis. *Journal of Sleep Research* (under review).

Teaching Experience

Case Western Reserve University, Frances Payne Bolton School of Nursing, Cleveland, OH

Teaching Assistant- Molecular Genetics for the Nurse Scientist (NURS 524)

08/2022-05/2025

- Assists with teaching plan and preparation
- Sets up lab for experiments
- Aids in teaching basic lab skills
- Assists with examination design

Case Western Reserve University, Frances Payne Bolton School of Nursing, Cleveland, OH

Teaching Assistant- Medical Microbiology, Immunity, and Infectious Disease (NURS 342)

01/2025-05/2025

- Assists in simulation scenario development
- Runs simulation lab around infectious disease
- Assists students with virtual lab activities and course content

Columbus State Community College, Department of Nursing, Columbus, OH

Clinical Adjunct Faculty

01/2020-05/2022

- Taught clinical skills to first semester nursing students in clinical setting
- Wrote lesson plans centered around skills and patient care
- Taught basic assessment skills and medication administration
- Offered real-time feedback to students to enhance learning and improve skill

Clinical Experience

The Ohio State University Wexner Medical Center, Columbus, OH

Neuro Critical Care Registered Nurse III

05/2018-06/2021

- Cared for diverse range of critically ill patients including hemorrhagic and ischemic strokes, postoperative craniotomies and spinal surgeries, seizures and other neurological disorders
- Communicated patient status, critical labs, and concerns with interdisciplinary team
- Cared for patients requiring continuous renal replacement therapy (CRRT), ventilators, external ventricular drains, vasoactive drugs, and various monitoring systems
- Offered compassionate care and education to patients and family members
- Precepted new graduate and experienced nurses
- Clinical ladder completion

Mount Carmel West, Columbus, OH

Emergency Department Staff Nurse

10/2017-05/2018

- Responsible for triaging patients and determining their level of need for medical assistance
- Closely monitored acute conditions and responded appropriately to changes in condition
- Utilized effective communication to provide discharge instructions to patients and families
- Responded to STEMI and stroke alerts and assisted in both trauma and cardiac arrest cases
- Completed Trauma Tactics course in order to deepen understanding of trauma nursing

Banner University Medical Center, Phoenix, AZ

Neuro ICU Staff Nurse

06/2016-09/2017

- Served on the Rapid Response and Stroke Alert Team
- Attended Neuro Academy to deepen understanding of complex neurological conditions
- Completed Banner University Medical Center Critical Care Academy
- Exercised leadership skills by serving as preceptor to nursing students

Leadership Roles

Case Western Reserve University, Francis Payne Bolton School of Nursing PhD Student Council (PSNA), Cleveland, OH

- Chair 03/2023-01/2024
- Treasurer 08/2021-03/2023

The Ohio State University Wexner Medical Center, Evidence Based Practice Council, Columbus, OH

05/2019-06/2021

Vice Chair

- Directly in the design of a microteaching implementation project around minimizing pain points in charting and software roll out updates.

The Ohio State University Wexner, Neuro ICU Bowel and Bladder Committee, Columbus, OH

11/2018-05/2019

- A small committee focused on eliminating catheter associated urinary infections and rectal tube complications in neuro ICU patients through flow chart process design, chart auditing, and staff education

The Ohio State University Wexner Medical Center, Critical Care Quality Committee, Columbus, OH

01/2019-06/2020

- Worked on the prevention of hospital wide acquired infections, chart auditing, and staff education

Honors and Awards

- **Dean's Legacy Award 2025**
- **Lifeline of Ohio Nurse of the Year 2020**
- **DAISY Award Winner 09/2020**

Licensure and Certifications

Washington Registered Nurse

RN70036538Exp. 07/22/270.