

Curriculum Vitae

Name: Theresa A. Koleck (formerly Timcheck), PhD, RN

Business Address: University of Pittsburgh, School of Nursing
440 Victoria Building, 3500 Victoria Street
Pittsburgh, PA 15261

Birthplace: Pittsburgh, PA

Citizenship: USA

E-Mail Address: tak150@pitt.edu

Education and Training

Undergraduate 8/2007 – 4/2011	University of Pittsburgh Pittsburgh, PA	BSN Nursing Summa Cum Laude
Graduate 5/2011 – 4/2016	University of Pittsburgh Pittsburgh, PA	PhD Nursing Minor, Healthcare Genetics
Postgraduate 6/2016 – 5/2018	Columbia University New York, NY	Postdoctoral Research Fellowship Nursing Biomedical Informatics

Appointments and Positions

Academic 5/2020 – Present	University of Pittsburgh School of Nursing Pittsburgh, PA	Assistant Professor, Tenure Stream
6/2018 – 3/2020	Columbia University School of Nursing New York, NY	Associate Research Scientist

Licensure and Certification

2011 – Present Registered Professional Nurse (RN630283) Pennsylvania

Membership in Professional and Scientific Societies

2021 – Present, Oncology Nursing Society (ONS)
2012 – 2014

2020 – Present Council for the Advancement of Nursing Science (CANS)

2016 – Present American Medical Informatics Association (AMIA)

2012 – Present International Society of Nurses in Genetics (ISONG)
2021 – 2022 2022 ISONG Conference Co-Chair
2020 – 2021 2021 ISONG Conference Co-Chair
2015 – 2019 ISONG Conference Planning Committee, Poster Blitz Chair
2015 – 2016 Student Task Force Committee Member

2012 – Present Sigma Theta Tau International Honor Society of Nursing
2017 – 2022 Research Committee Chair, Eta Chapter
2015 – 2016 Leadership Succession Committee Chair, Eta Chapter
2014 – 2016 Scholars Night Event Organizer, Eta Chapter
2014 – 2015 Leadership Succession Committee Member, Eta Chapter

2015 – 2017 American Society of Human Genetics (ASHG)

2011 – 2016 University of Pittsburgh Doctoral Nursing Student Organization (DNSO)
2012 – 2016 Secretary

2011 – 2016 Eastern Nursing Research Society (ENRS)

Honors

2022 “Characterizing Shared and Distinct Symptom Clusters in Common Chronic Conditions through Natural Language Processing of Nursing Notes” paper featured in the American Medical Informatics Association (AMIA) Nursing Informatics Year in Review

2022 Invited to serves as an *All of Us* Research Program Researcher Ambassador

2022 Awarded *Research in Nursing & Health’s* 2021 Paper of the Year for “Characterizing Shared and Distinct Symptom Clusters in Common Chronic Conditions through Natural Language Processing of Nursing Notes”

- 2022 Invited to present at *All of Us* Research Program virtual Office Hours
- 2022 Invited by the *All of Us* Research Program to provide a video testimonial regarding experience using the *All of Us* Research Program Researcher Workbench due to being a “great representative for nurses in *All of Us*”
- 2021 “Identifying Symptom Information in Clinical Notes Using Natural Language Processing” paper featured in the “Informatics Year in Review” presentation at the American Medical Informatics Association (AMIA) 2021 Annual Symposium
- 2021 *American Journal of Health Promotion* Paper of the Year award co-author
- 2019 All of Us Research Program Researcher Workbench Alpha-Phase User Tester
- 2018 Featured in Columbia Nursing Magazine “Masters of Information” article
https://issuu.com/columbianursing/docs/columbia_nursing_fall_2018
- 2016 University of Pittsburgh School of Nursing Outstanding Graduate Research Award
- 2015 University of Washington Summer Institute in Statistical Genetics Scholarship & Travel Award
- 2015 Sigma Theta Tau International (STTI) Eta Chapter Ruth Perkins Kuehn Scholarship
- 2015 Featured on the International Society of Nurses in Genetics “Meet of Members” webpage http://www.isong.org/ISONG_members.php
- 2015 Best Poster Abstract in the Career Development & Leadership Category at the Women in Science and Medicine Association Doctoral Directions: Learning to Lead in Biomedicine Conference
- 2014 Nightingale Awards of Pennsylvania PhD Degree Scholarship
- 2014 University of Pittsburgh Graduate and Professional Student Government Travel Grant Award
- 2014 University of Pittsburgh Graduate Nursing Student Organization Travel Grant Award
- 2013 University of Pittsburgh Bessie Li Sze Memorial Scholarship
- 2012 University of Pittsburgh Bessie Li Sze Memorial Scholarship
- 2012 University of Pittsburgh PhD Student Poster Representative for the Eastern Nursing Research Society (ENRS) 24th Annual Scientific Sessions
- 2011 University of Pittsburgh “Keeper of the Light” (highest undergrad nursing GPA)

Publications

Refereed Articles

(*Denotes data-based; § Denotes senior author; ^ Denotes shared first authorship)

1. ^Baumgartel, K., Zelazny, J., **Timcheck, T.**, Snyder, C., Bell, M., & Conley, Y. (2012). Molecular genomic research designs. *Annual Review of Nursing Research*, 29, 1-26. doi:10.1891/0739-6686.29.1
2. ***Koleck, T. A.**, Bender, C. M., Sereika, S. M., Ahrendt, G., Jankowitz, R. C., McGuire, K. R., Ryan, C., & Conley, Y. P. (2014). Apolipoprotein E genotype and cognitive

- function in postmenopausal women with early stage breast cancer. *Oncology Nursing Forum*, 41(6), E313-25. doi:10.1188/14.ONF.E313-E325
3. **Koleck, T. A.** & Conley, Y. P. (2016). Identification of candidate genes for symptom variability in breast cancer survivors based on disease characteristics at the cellular level. *Journal of Breast Cancer: Targets and Therapy*, 8, 29-27. doi:10.2147/BCTT.S88434
 4. ***Koleck, T. A.**, Bender, C. M., Sereika, S. M., Brufsky, A. M., Lembersky, B. C., McAuliffe, P. F., Puhalla, S. L., Rastogi, P., & Conley, Y. P. (2016). Polymorphisms in DNA repair and oxidative stress genes associated with pre-treatment cognitive function in breast cancer survivors: An exploratory study. *SpringerPlus*, 5, 422. doi:10.1186/s40064-016-2061-4
 5. *Hopkins, K. G., **Koleck, T. A.**, Ren, D., & Blazeck, A. M. (2016). The development and psychometrics of SEAT: Self-Efficacy Assessment Tool. *International Journal of Nursing Education*, 8(2), 185-190. doi:10.5958/0974-9357.2016.00072.6
 6. ***Koleck, T. A.**, Bender, C. M., Sereika, S. M., Ryan, C. M., Ghotkar, P., Brufsky, A. M., Jankowitz, R. C., McAuliffe, P. F., Clark, B. Z., & Conley, Y. P. (2017). Associations between pathologic tumor features and preadjuvant therapy cognitive performance in women diagnosed with breast cancer. *Cancer Medicine*, 6(2), 339-48. doi: 10.1002/cam4.964
 7. *Myers, J. S., **Koleck, T. A.**, Sereika, S. M., Conley, Y. P., & Bender, C. M. (2017). Perceived cognitive function for breast cancer survivors: Association of genetic and behaviorally related variables for inflammation. *Supportive Care in Cancer*, 25(8), 2475-2484. doi: 10.1007/s00520-017-3654-3
 8. ***Koleck, T. A.**, Bender, C. M., Clark, B. Z., Ryan, C. M., Ghotkar, P., Brufsky, A., McAuliffe, P. F., Rastogi, P., Sereika, S. M., & Conley, Y. P. (2017). An exploratory study of host polymorphisms in genes that clinically characterize breast cancer tumors and pretreatment cognitive performance in breast cancer survivors. *Journal of Breast Cancer: Targets and Therapy*, 9, 95-110. doi: 10.2147/bctt.s123785
 9. *Jha, R. M., **Koleck, T. A.**, Puccio, A. M., Okonkwo, D. O., Park, S-Y., Zusman, B. E., Clark, R. S. B., Shutter, L. A., Wallisch, J. S., Empey, P. E., Kochanek, P. M., & Conley, Y. P. (2018). Regionally clustered ABCC8 polymorphisms in a prospective cohort predict cerebral oedema and outcome in severe traumatic brain injury. *Journal of Neurology, Neurosurgery, and Psychiatry*, 89(11), 1152-1162. doi: 10.1136/jnnp-2017-317741
 10. *Bender, C. M., Merriman, J. D., Sereika, S. M., Gentry, A. L., Casillo, F. E., **Koleck, T. A.**, Rosenzweig, M. Q., Brufsky, A. M., McAuliffe, P., Zhu, Y., & Conley, Y. P. (2018). Trajectories of cognitive function and associated phenotypic and genotypic factors in breast cancer. *Oncology Nursing Forum*, 45(3), 308-326. doi: 10.1188/18.ONF.308-326
 11. *Merriman, J., Sereika, S. M., Conley, Y. P., **Koleck, T. A.**, Zhu, Y., Phillips, M. L., Bertocci, M. A., Brufsky, A. M., & Bender, C. M. (2018). Exploratory study of associations between DNA repair and oxidative stress gene polymorphisms and cognitive problems reported by postmenopausal women with and without breast cancer. *Biological Research for Nursing*, 21(1), 50-60. doi: 10.1177/1099800418799964
 12. ***Koleck, T. A.**, Suero-Tejeda, N., & Bakken, S. (2018). The influence of Latino symptom status on participation in usual activities and satisfaction with participation in social roles. *Hispanic Health Care International*, 16(3), 134-144. doi: 10.1177/1540415318803947

13. Lor, M., **Koleck, T. A.**, & Bakken, S. (2018). Information visualizations of symptom information for patients and providers: a systematic review. *Journal of the American Medical Informatics Association*, 26(2), 162-171. doi: 10.1093/jamia/ocy153
14. *Jha, R. M., Desai, S. M., Zusman, B. E., Puccio, A. M., Okonkwo, D. O., Park, S-Y., **Koleck, T. A.**, Shutter, L. A., Kochanek, P. M., & Conley, Y. P. (2019). Downstream TRPM4 polymorphisms are associated with intracranial hypertension and statistically interact with ABCC8 polymorphisms in a prospective cohort of severe traumatic brain injury. *Journal of Neurotrauma*, 36(11), 1804-1817. doi: 10.1089/neu.2018.6124
15. *Lor, M., **Koleck, T. A.**, Bakken, S., Yoon, S., & Navarra, M. (2019). Association between health literacy and medication adherence among Hispanics. *Journal of Racial and Ethnic Health Disparities*, 6(3), 517-524. doi: 10.1007/s40615-018-00550-z
16. **Koleck, T. A.**, Dreisbach, C., Bourne, P. E., & Bakken, S. (2019). Natural language processing of symptoms documented in free-text narratives of electronic health records: a systematic review. *Journal of the American Medical Informatics Association*, 26(4), 364-379. doi: 10.1093/jamia/ocy173
17. Dreisbach, C., **Koleck, T. A.**, Bourne, P. E., & Bakken, S. (2019). A systematic review of natural language processing and text mining of symptoms from electronic patient-authored text data. *International Journal of Medical Informatics*, 125, 37-46. doi: 10.1016/j.ijmedinf.2019.02.008
18. *Hickey, K. T., Wan, E., Garan, H., Biviano, A. B., Marrow, J. P., Sciacca, R. R., Reading, M., **Koleck, T. A.**, Caceres, B., Zhang, Y. Goldenthal, I., Riga, T. C., & Creber, R. M. (2019). A nurse-led approach to improving cardiac lifestyle modification in an atrial fibrillation population. *The Journal of Innovations in Cardiac Rhythm Management*, 10(9), 3826-3835. doi: 10.19102/icrm.2019.100902
19. Bakken, S., Arcia, A., **Koleck, T.**, Merrill, J. A., & Hickey, K. T. (2019). Informatics and data science for the Precision in Symptom Self-Management Center. *Studies in Health Technology and Informatics*, 264, 1827-1828. doi: 10.3233/SHTI190668
20. Zhu, Y., **Koleck, T. A.**, Bender, C. M., Conley, Y. P. (2020). Genetic underpinnings of musculoskeletal pain during treatment with aromatase inhibitors for breast cancer: a biological pathway analysis. *Biological Research for Nursing*, 22(2), 263-276. doi: 10.1177/1099800419895114
21. *Caceres, B. A., Hickey, K. T., Bakken, S. B., Biviano, A. B., Garan, H., Goldenthal, I. L., **Koleck, T. A.**, Masterson-Creber, R., Turchioe, M. R., & Jia, H. (2020). Mobile electrocardiogram monitoring and health-related quality of life in patients with atrial fibrillation: findings from the iPhone Helping Evaluate Atrial Fibrillation Rhythm Through Technology (iHEART) Study. *The Journal of Cardiovascular Nursing*, 35(4), 327-336. doi: 10.1097/JCN.0000000000000646
22. §Dreisbach, C. & **Koleck, T. A.** (2020). The state of the data science in genomic nursing. *Biological Research for Nursing*, 22(3), 309-318. doi: 10.1177/1099800420915991
23. *Arockiaraj, A. I., Liu, D., Shaffer, J. R., **Koleck, T. A.**, Crago, E. A., Weeks, D. E., & Conley, Y. P. (2020). Methylation data processing protocol and comparison of blood and cerebral spinal fluid following aneurysmal subarachnoid hemorrhage. *Frontiers in Genetics*, 11, 671. doi: 10.3389/fgene.2020.00671
24. ***Koleck, T. A.**, Mitha, S. A., Biviano, A., Caceres, B. A., Corwin, E. J., Goldenthal, I., Creber, R. M., Turchioe, M. R., Hickey, K. T., & Bakken, S. (2020). Exploring depressive symptoms and anxiety among patients with atrial fibrillation and/or flutter at

- the time of cardioversion or ablation. *Journal of Cardiovascular Nursing*, 36(5), 470-481. doi: 10.1097/JCN.0000000000000723
25. *Caceres, B. A., Turchioe, M. R., Pho, A., **Koleck, T. A.**, Creber, R. M., Bakken, S. B. (2020). Sexual identity and racial/ethnic differences in awareness of heart attack and stroke symptoms: findings from the National Health Interview. *American Journal of Health Promotion*, 35(1), 57-67. doi: 10.1177/0890117120932471
 26. ***Koleck, T. A.**, Tatonetti, N. P., Bakken, S. B., Mitha, S., Henderson, M. M., George, M., Miaskowski, C., Smaldone, S., & Topaz, M. (2020). Identifying symptom information in clinical notes using natural language processing. *Nursing Research*, 70(3), 173-183. doi: 10.1097/NNR.0000000000000488
 27. *Topaz, M., **Koleck, T. A.**, Onorato, N., Smaldone, A., & Bakken, S. (2021). Nursing documentation of symptoms is associated with higher risk of emergency department visits and hospitalizations in homecare patients. *Nursing Outlook*, S0029-6554(20), 30714-4. doi: 10.1016/j.outlook.2020.12.007
 28. *Masterson Creber, R. M., Reading Turchioe, M., Biviano, A., Caceres, B., Garan, H., Goldenthal, I., **Koleck, T.**, Mitha, S., Hickey, K., & Bakken, S. (2021). Cardiac symptom burden and arrhythmia recurrence drives digital health use: results from the iHEART randomized controlled trial. *European Journal of Cardiovascular Nursing*, Epub ahead of print. doi: 10.1093/eurjcn/zvab009
 29. ***Koleck, T. A.**, Topaz, M., Tatonetti, N. P., George, M., Miaskowski, C., Smaldone, A., & Bakken, S. (2021). Characterizing shared and distinct symptom clusters in common chronic conditions through natural language processing of nursing notes. *Research in Nursing & Health*, 44(6), 906-919. doi: 10.1002/nur.22190
 30. ***Koleck, T. A.** & Lor, M. (2021). Do limited English proficiency and language moderate the relationship between mental health and pain? *Pain Management Nursing*, 23(4):443-451. doi: 10.1016/j.pmn.2021.10.005
 31. *^Lor, M., & **Koleck, T. A.** (2022). Patient race, ethnicity, language, and pain severity in primary care: a retrospective electronic health record study. *Pain Management Nursing*, 23(4), 385-390. doi: 10.1016/j.pmn.2022.01.007
 32. *Lor, M., **Koleck, T. A.**, Lee, C., Moua, Z., & Uminski, J. E. (2022). Documentation of pain care and treatment for limited English proficiency minority patients with moderate-to-severe pain in primary care. *Wisconsin Medical Journal*, 121(2), 86-93.
 33. Heinsberg, L. W., **Koleck, T. A.**, Ray, M., Weeks, D. E., & Conley, Y.P. (2022) Advancing nursing research through interactive data visualization with R shiny. *Biological Research for Nursing*, 25(1), 107-116. doi: 10.1177/10998004221121109
 34. *§Dreisbach, C., Grayson, S., Leggio, K., Conway, A., & **Koleck, T.** (2022). Predictors of unrelieved symptoms in *All of Us* Research Program participants with chronic conditions. *Journal of Pain and Symptom Management*, 64(6), 555–566. doi: 10.1016/j.jpainsymman.2022.08.018
 35. *South, K., Bakken, S., **Koleck, T.**, Barcelona, V., Elhadad, N., & Dreisbach, C. (2022). Women's experiences of symptoms of suspected or confirmed COVID-19 illness during the pandemic. *Nursing for Women's Health*, 26(6), 450-461. Epub ahead of print. doi: 10.1016/j.nwh.2022.09.005
 36. §Grayson, S. C., Patzak, S. A., Dziewulski, G., Shen, L., Dreisbach, C., Lor, M., Conway, A., & **Koleck, T. A.** (2022). Moving beyond Table 1: A critical review of the

- literature addressing social determinants of health in chronic condition symptom cluster research. *Nursing Inquiry*, 30(1), e12519. doi: 10.1111/nin.12519
37. **Koleck, T. A.**, Mitha, S., Biviano, A., Caceres, B. A., Corwin, E. J., Goldenthal, I., Creber, R. M., Turchioe, M. R., Hickey, K. T., & Bakken, S. (2023). Response to mental health of cardiac procedure patients should be a priority for all healthcare providers. *The Journal of Cardiovascular Nursing*, 38(2), 118–119. doi: 10.1097/JCN.0000000000000970
 38. *Davis, T., **Koleck, T.**, Conway, A., Bender, C., & Conley, Y. (2023). Genetic variability of oxidative stress and DNA repair genes associated with pre-treatment cancer-related fatigue in women with breast cancer. *Supportive Care in Cancer*, 31(6), 345. doi: 10.1007/s00520-023-07816-1
 39. *Wagner, M. A., **Koleck, T. A.**, Conway, A., Bender, C. M., & Conley, Y. P. (2023). Variability of DNA repair and oxidative stress genes associated with worst pain in breast cancer survivors on aromatase inhibitors. *Genes*, 14(11), 2031. doi: 10.3390/genes14112031
 40. *§Lor, M., Xion, S., Yang, N.B., & **Koleck, T.A.** (2023). Systematic review of pain research among limited English proficiency patient populations in health care. *Pain Management Nursing*, 15, S1524-9042(23)00201-1. doi: 10.1016/j.pmn.2023.11.005

Book Chapters and Books

1. Bakken, S. & **Koleck, T. A.** (2019). Big data challenges from a nursing perspective. In M. Househ, A. Kushniruk, & E. Borycki (Eds.) *Big Data Big Challenges: A Healthcare Perspective*. New York, NY: Springer.
2. Bakken, S., **Koleck, T. A.**, Dreisbach, C., Hickey, K. T. (2020). Precision health from a big data perspective. In S. Dorsey & A. Starkweather (Eds.) *Genomics of Pain and Co-Morbid Symptoms*. New York, NY: Springer Nature.

Research

Principal Investigator

Funding Agency and Grant Number: National Institute of Nursing Research F31NR014590
Title of Grant: Cognitive Function and Breast Cancer: Genomics and Disease Characteristics
Years Inclusive and Percent Effort: December 2013 – April 2016
Total Amount of Award: \$16,000 tuition/year; ~\$22,000 stipend/year; \$4,200 institutional allowance/year

Funding Agency and Grant Number: Sigma Theta Tau International Eta Chapter Research Award
Title of Grant: Cognitive Function and Breast Cancer: Genomics and Disease Characteristics
Years Inclusive and Percent Effort: March 2014 – April 2016
Total Amount of Award: \$2,500 total

Funding Agency and Grant Number: Nightingale Awards of Pennsylvania

Title of Grant: PhD Degree Scholarship

Years Inclusive and Percent Effort: April 2014 – March 2016

Total Amount of Award: \$3,000 total

Funding Agency and Grant Number: University of Pittsburgh School of Nursing PhD Student Research Award

Title of Grant: Cognitive Function and Breast Cancer: Genomics and Disease Characteristics

Years Inclusive and Percent Effort: July 2014 – Aug 2015

Total Amount of Award: \$1,058 total

Funding Agency and Grant Number: American Cancer Society DSCN-14-076-01-SCN

Title of Grant: Doctoral Degree Scholarship in Cancer Nursing

Years Inclusive and Percent Effort: July 2014 – June 2016

Total Amount of Award: \$15,000/year

Funding Agency and Grant Number: National Institute of Nursing Research K99NR017651

Title of Grant: Advancing Chronic Condition Symptom Cluster Science Through Use of Electronic Health Records and Data Science Techniques

Years Inclusive and Percent Effort: June 2018 – March 2020, 75%

Total Amount of Award: \$20,000 research expenses/year; \$50,000 salary support/year

Funding Agency and Grant Number: National Institute of Nursing Research R00NR017651

Title of Grant: Advancing Chronic Condition Symptom Cluster Science Through Use of Electronic Health Records and Data Science Techniques

Years Inclusive and Percent Effort: June 2020 – May 2023, 75% (Current NCE)

Total Amount of Award: \$249,000 total costs/year

Funding Agency and Grant Number: University of Pittsburgh School of Nursing Center for Research and Education Pilot/Feasibility Program

Title of Grant: Natural Language Processing for the Identification of Dimensions of the Symptom Experience from Text-Based Clinical Notes

Years Inclusive and Percent Effort: January 2022 – September 2023

Total Amount of Award: \$14,352 total

Co-Investigator

Principal Investigator and Institution: Suzanne Bakken (Center PI) & Maxim Topaz (Pilot PI), Columbia University

Funding Agency and Grant Number: National Institute of Nursing Research P30NR016587

Title of Grant: Precision in Symptom Self-Management (PriSSM) Center Pilot Study - Advancing Symptom Science in Home Care through Natural Language Processing and Patient-Reported Outcomes

Years Inclusive and Percent Effort: November 2019 – November 2021, contributed effort

Principal Investigator and Institution: Rebekah Miller (PI), University of Pittsburgh

Funding Agency and Grant Number: Pitt Seed Projects

Title of Grant: Disrupting Health Dis- and Misinformation in the Patient-Care Setting: Open Educational Resources for Nurse Education

Years Inclusive and Percent Effort: July 2022 – June 2023, 5%

Consultant

Principal Investigator and Institution: Suzanne Bakken (Center PI) & Caitlin Dreisbach (Pilot PI), Columbia University

Funding Agency and Grant Number: National Institute of Nursing Research P30NR016587

Title of Grant: Precision in Symptom Self-Management (PriSSM) Center Pilot Study - Clustering and Validation of COVID-19 Symptom Phenotypes for Hispanic/Latina Women

Years Inclusive and Percent Effort: November 2020 – May 2022, symptom phenotyping consultant

Mentor

Principal Investigator and Institution: DeVito Dabbs, University of Pittsburgh

Funding Agency and Grant Number: National Institute of Nursing Research T32 2NR008857

Title of Grant: Technology Research in Chronic and Critical Illness

Years Inclusive and Percent Effort: July 2005 – June 2027, affiliated faculty/mentor

Trainee

Principal Investigator and Institution: Yvette Conley, University of Pittsburgh

Funding Agency and Grant Number: National Institute of Nursing Research T32NR009759

Title of Grant: Targeted Research and Academic Training Program for Nurses in Genomics

Years Inclusive and Percent Effort: April 2011 – November 2013

Total Amount of Award: \$16,000 tuition/year; ~\$22,000 stipend/year

Principal Investigator and Institution: Suzanne Bakken, Columbia University

Funding Agency and Grant Number: National Institute of Nursing Research T32NR007969

Title of Grant: Reducing Health Disparities Through Informatics

Years Inclusive and Percent Effort: June 2016 – May 2018

Total Amount of Award: \$8,850 training related expenses/year; ~\$44,000 stipend/year

Other Scholarly Activities

Manuscript Reviewer

Applied Clinical Informatics

Bioscience Reports

Computers, Informatics, Nursing

Health Informatics Journal

Journal of the American Medical Informatics Association
Journal of Medical Internet Research
Journal of Nursing Measurement
Journal of Pain and Symptom Management
Scientific Reports
The Lancet Oncology
Western Journal of Nursing Research

National Institutes of Health Study Section Reviewer

7/2023 Topics in Clinical Informatics and Data Analytics Special Emphasis Panel
2/2022 Clinical Data Management and Analysis (CDMA)
6/2022 Agency for Healthcare Research and Quality Special Emphasis Panel

Unpublished Presentations

International

1. **Koleck, T. A., & Conley, Y. P.** (2013, October). *Identification of candidate genes for investigation of symptom variability in women with and receiving treatment for breast cancer*. Poster presentation at the International Society of Nurses in Genetics Silver Anniversary Conference, Bethesda, MD.
2. **Koleck, T. A.** (2014, November). *Research Oncology – The Science of Symptoms: Use of DNA repair and oxidative stress gene risk/protective scores to predict cognitive function in women with breast cancer*. Invited podium presentation at the International Society of Nurses in Genetics World Congress on Nursing and Genomics, Scottsdale, AZ.
3. **Koleck, T., Bender, C., Sereika, S., Ghotkar, P., & Conley, Y.** (2015, November). *Oncotype DX Recurrence Score associated with pre-adjuvant therapy executive function performance in postmenopausal women with breast cancer*. Poster presentation at the 2015 International Society of Nurses in Genetics World Congress: Epigenetics Across the Life Span, Pittsburgh, PA.
4. **Zhu, Y., Conley, Y., Koleck, T., Merriman, J., Sereika, S., & Bender, C.** (2017, November). *Pre-systemic treatment pain severity and variant in CYP19A1 rs700519 genotype contribute to worse pain severity during aromatase inhibitor treatment for breast cancer*. Poster presentation at the 2017 International Society of Nurses in Genetics World Congress: Precision Nursing – Through Research, Education and Practice, Reston, VA.
5. **Koleck, T. A., Bakken, S., Hickey, K., & Tatonetti, N.** (2017, November). *Clinical documentation of genetic counseling-related emotional distress in electronic health record narratives*. Podium presentation at the 2017 International Society of Nurses in Genetics World Congress: Precision Nursing - Through Research, Education and Practice, Reston, VA.
6. **Koleck, T. A., Tatonetti, N. P., & Hickey, K. T.** (2018, October). *Clinical evaluation and genetic testing for an underlying cardiac channelopathy following an out-of-hospital*

- cardiac arrest*. Podium presentation at the 2018 International Society of Nurses in Genetics World Congress: Building Connections to Genomic Health, Orlando, FL.
7. **Koleck, T. A.** & Dreisbach, C. (2018, October). *State of the (data) science in nursing and genomics*. Invited plenary session presentation at the 2018 International Society of Nurses in Genetics World Congress: Building Connections to Genomic Health, Orlando, FL.
 8. **Koleck, T. A.** & Dreisbach, C. (2018, October). *State of the (data) science in nursing and genomics lab*. Invited workshop at the 2018 International Society of Nurses in Genetics World Congress: Building Connections to Genomic Health, Orlando, FL.
 9. Bakken, S., Arcia, A., **Koleck, T.**, Merrill, J. A., & Hickey, K. T. (2019, August). *Informatics and data science for the Precision in Symptom Self-Management Center*. Poster presentation at the 17th World Congress of Medical and Health Informatics (MedInfo2019), Lyon, France.
 10. Bakken, S., **Koleck, T.**, Arcia, A., & Smaldone, A. (2019, August). *Precision health approaches for advancing symptom science and self-management*. Panel presentation at the 17th World Congress of Medical and Health Informatics (MedInfo2019), Lyon, France.
 11. **Koleck, T. A.**, Hickey, K. T., Merrill, J. A., & Bakken, S. (2019, November). *Tailored genetic workshops, individual consultation, and a biobank/data repository to improve nurse scientist genetic knowledge*. Podium presentation at the 2019 International Society of Nurses in Genetics World Congress: Transforming Health Through Genomic Nursing, San Antonio, TX.
 12. Lor, M. & **Koleck T. A.** (2021, June). *Do limited English proficiency and language moderate the relationship between mental health and pain?* Poster presentation at the 2021 International Association for the Study of Pain Virtual World Congress on Pain, Virtual.
 13. **Koleck, T. A.** (2021, November). *Data-driven characterization of symptom clusters in a diverse cohort of adults diagnosed with cancer: an analysis of National Institutes of Health All of Us Research Program participant data*. Poster presentation at the 2021 International Society of Nurses in Genetics World Congress: Promoting Diversity, Inclusion, and Health Equity in Genomic Nursing, Virtual.
 14. Yvette, C. & **Koleck, T. A.** (2021, November). *Leveraging national databases to accelerate your research*. Pre-congress workshop at the 2021 International Society of Nurses in Genetics World Congress: Promoting Diversity, Inclusion, and Health Equity in Genomic Nursing, Virtual.
 15. Davis, T., **Koleck, T.**, Conway, A., Bender, C., & Conley, Y. (2022, November). *Genetic variation of DNA repair and oxidative stress genes in women with breast cancer-related fatigue pre-treatment*. Poster presentation at the 2022 International Society of Nurses in Genetics World Congress: Holistic Approaches to Precision Health: Intersection of Research, Education, Practice, and Policy, Durham, NC.
 16. Dreisbach, C. & Koleck, T. (2023, June). *All of Us Research Program: Opportunities for Clinicians Using R*. Session presentation at R Medicine 2023, Virtual.
 17. **Koleck, T.A.**, & Dreisbach, C. (2023, November). *All of Us Research Hub: An overview of genomic data opportunities for nurse scientists*. Expert lecture at the 2023 International Society of Nurses in Genetics World Congress: Genomic Nursing: Building & Strengthening Bridges Between Advances & Practice, Providence, RI.

National

1. **Timcheck, T. A.**, Wesmiller, S., Bender, C. M., & Conley, Y. P. (2012, November). *Apolipoprotein E genotype and cognitive function in postmenopausal women with early stage breast cancer receiving adjuvant chemotherapy and/or hormonal therapy*. Poster presentation at the Oncology Nursing Society Connections: Advancing Care Through Science Conference, Phoenix, AZ.
2. **Koleck, T. A.**, Sereika, S. M., Bender, C. M., & Conley, Y. P. (2013, November). *DNA repair gene variation and cognitive function in postmenopausal women with early stage breast cancer*. Podium presentation at the Oncology Nursing Society Connections: Advancing Care Through Science Conference, Dallas, TX.
3. **Koleck, T.**, Bender, C., Sereika, S., & Conley, Y. (2015, October). *Variation in genes used for multigene expression profiling are associated with pretreatment cognitive function in postmenopausal women with breast cancer*. Poster presentation at the American Society of Human Genetics Annual Meeting, Baltimore, MD.
4. Arockiaraj, A., **Koleck, T. A.**, Shaffer, J. R., Sherwood, P. R., Crago, E. A., Poloyac, S. M., Weeks, D. E., & Conley, Y. P. (2016, October). *EWAS of delayed cerebral ischemia in stroke patients*. Poster presentation at the American Society of Human Genetics Annual Meeting, Vancouver, BC, Canada.
5. Myers, J., **Koleck, T.**, Sereika, S., Conley, Y., Bender, C. (2017, May). *Genetic and behavioral factors associated with perceived cognitive function for breast cancer survivors*. Poster presentation at the Oncology Nursing Society 42nd Annual Congress, Denver, CO.
6. Bender, C., Merriman, J., **Koleck, T.**, Sereika, S., Zhu, Y., & Conley, Y. (2017, May). *Variants in DNA repair genes associated with cognitive function in women with breast cancer*. Poster presentation at the Oncology Nursing Society 42nd Annual Congress, Denver, CO.
7. Jha, R., Puccio, A., Okonkwo, D., Zusman, B., **Koleck, T.**, Wallisch, J., Shutter, L., Kochanek, P., & Conley, Y. (2018, February). *TRPM-4 single-nucleotide polymorphisms correlate with cerebral edema in traumatic brain injury*. Poster presentation at the Society of Critical Care Medicine 47th Critical Care Congress, San Antonio, TX.
8. Zhu, Y., Bender, C., **Koleck, T.**, & Conley, Y. (2018, May). *Genes associated with musculoskeletal symptoms during treatment of aromatase inhibitor for breast cancer: a literature review with biological pathway analysis*. Podium presentation at the Oncology Nursing Society 43rd Annual Congress, Washington, DC.
9. Hickey, K., **Koleck, T.**, & Reading, M. (2018, September). *Precision cardiac symptom self-management with mHealth*. Podium presentation at the Council for the Advancement of Nursing Science 2018 State of the Science Congress on Nursing Research: Precision Health, Washington, DC.
10. Lor, M., **Koleck, T. A.**, & Bakken, S. (2018, November). *Visualizations to enhance communication of symptom information for patients and providers: a systematic review*. Poster presentation at the American Medical Informatics Association 2018 Annual Symposium, San Francisco, CA.
11. **Koleck, T. A.**, Bakken, S., & Tatonetti, N. P. (2018, November). *Comparison of electronic medication orders versus administration records for identifying prevalence of*

- postoperative nausea and vomiting*. Poster presentation at the American Medical Informatics Association 2018 Annual Symposium, San Francisco, CA.
12. **Koleck, T. A.**, Bakken, S., & Tatonetti, N. P. (2019, November). *Chronic condition symptom enrichment from electronic health records*. Poster presentation at the American Medical Informatics Association 2019 Annual Symposium, Washington, DC.
 13. Wagner, M. A., **Koleck, T. A.**, Bender, C. M., & Conley, Y. P. (2021, February). *Polymorphisms in DNA repair and oxidative stress genes associated with pre-treatment pain in breast cancer*. Poster presentation at the Symptom Science Advances in Oncology Nursing sponsored by National Institute of Nursing Research, the National Cancer Institute Center for Cancer Research, and the Oncology Nursing Society, Virtual Event.
 14. Driesbach, C., South, K., **Koleck, T. A.**, Barcelona, V., Elhadad, N., Mamykina, O., & Bakken, S. (2021, May). *Clustering and validation of COVID-19 symptom phenotypes in Hispanic/Latina women*. Poster presentation at the American College of Obstetricians and Gynecologists (ACOG), 2021 ACOG Annual Clinical and Scientific Meeting: Personalizing Care: A Way to the Future, Virtual.
 15. **Koleck, T. A.** (2021, August). *Application of digital phenotyping in precision health intervention: using All of Us Research Program participant data for symptom science*. Invited presentation at the University of Texas at Austin School of Nursing Precision Health (T32) Methodology Summer Boot Camp, Virtual.
 16. Dreisbach, C., South, K., **Koleck, T. A.**, Barcelona, V., Mamykina, L., Elhadad, N., & Bakken, S. (2021, November). *Informing symptom science using a citizen science application in the COVID-19 pandemic*. Late breaking presentation at the American Medical Informatics Association 2021 Annual Symposium, San Diego, CA.
 17. **Koleck, T. A.**, Patzak, S. A., Dziejewski, G., Shen, L., Dreisbach, C., Lor, M., Conway, A., & Grayson, S. C. (2022, September). *A critical review of social determinants of health in chronic condition symptom cluster research*. Podium presentation at the Council for the Advancement of Nursing Science 2022 State of the Science Congress on Nursing Research: Social & Structural Determinants of Health, Washington, DC.
 18. **Koleck, T. A.** & Dreisbach, C. (2022, September). *Predictors of unrelieved symptoms in individuals with chronic conditions: A cross-sectional study of the All of Us survey data*. Invited presentation at All of Us Researcher Workbench Office Hours, Virtual.
 19. **Koleck, T. A.**, Grayson, S., Leggio, K., Conway, A., & Dreisbach, C. (2022, November). *Symptom phenotypes and predictors of unrelieved symptoms in individuals with chronic conditions: a cross-sectional analysis of the All of Us Research Program survey data*. Poster presentation at the American Medical Informatics Association 2022 Annual Symposium, Washington, DC.
 20. Davis, T., **Koleck, T.**, Conway, A., Bender, C., & Conley, Y. (2023, February). *Genetic variation of DNA repair and oxidative stress genes in women with breast cancer-related fatigue pre-treatment*. Podium presentation at the Sigma Theta Tau International Honor Society of Nursing's (Sigma's) Creating Healthy Work Environments 2023, Austin, TX.
 21. Dreisbach, C., Grayson, S., Leggio, K., Conway, A., & **Koleck, T.** (2023, May). *Predictors of unrelieved symptoms in individuals with chronic conditions: The relevance of the All of Us Research Program survey data to interdisciplinary care*. Poster presentation at the 2023 Annual Conference for the American Academy of Physicians Associates, Nashville, TN.

22. Miller, R., **Koleck, T.**, Lechtenberg, U. (2023, May). *Developing and validating the nursing student misinformation attitudes, confidence, and knowledge assessment tool*. Podium presentation at the Medical Library Association | Special Libraries Association 2023 Annual Conference, Detroit, MI.
23. **Koleck, T. A.**, Dreisbach, C., Leggio, K., Grayson, S., Conway, A., & Lor, M. (2023, September). *Promoting health equity research: A practical guide to using the social determinants of health survey in the All of Us Research Program*. Poster presentation at the 2023 Council for the Advancement of Nursing Science Advanced Methods Conference, Virtual.
24. Dreisbach, C., Grayson, S., Lor, M., Leggio, K., Conway, A., & **Koleck, T. A.** (2023, November). *User guide for social determinants of health survey data in the All of Us Research Program*. Podium presentation at the American Medical Informatics Association 2023 Annual Symposium, New Orleans, LA.
25. **Koleck, T.A.** (2024, February). *Precision health and nursing science: Exemplars from nursing research*. Invited presentation at the Friends of the National Library of Medicine (FNML) Precision Health: What Does It Mean for Nursing Practice? Webinar, Virtual.

Regional

1. **Timcheck, T.**, Wesmiller, S., Bender, C., & Conley, Y. (2012, March). *Apolipoprotein E genotype and cognitive function in postmenopausal women with early stage breast cancer prior to initiation of adjuvant therapy*. Poster presentation at the Eastern Nursing Research Society 24th Annual Scientific Sessions, New Haven, CT.
2. **Koleck, T. A.** (2016, September). *Symptom science: associations between breast cancer biology and cognitive performance in breast cancer survivors*. Invited presentation at the Excelsa Health 2nd Annual Dissemination of Nursing QI, Evidence, & Research Forum: Nursing Implications for At Risk Populations, Westmoreland Hospital, Greensburg, PA.
3. **Koleck, T. A.** (2019, May). *An introduction to targeted cancer therapies*. Invited presentation at the Genomics for Nursing Research and Practice International Society of Nurses in Genetics Regional Meeting, Pittsburgh, PA.
4. Lor, M. & **Koleck, T. A.** (2021, March). *Patient race, ethnicity, language, and pain severity in primary care: A retrospective electronic health record study*. Podium presentation at the Midwest Nursing Research Society 45th Annual Research Conference, Des Moines, IA.
5. Wagner, M. A., **Koleck, T. A.**, Bender, C. M., & Conley, Y. P. (2021, October). *Polymorphisms in DNA repair and oxidative stress genes associated with pain in breast cancer survivors at baseline and at six months after initiation of aromatase inhibitor therapy*. Podium presentation at the Great Lakes Breast Cancer Symposium, Virtual.
6. Dreisbach, C., Li, X., Zaman, A., **Koleck, T.**, Erickson, E., & Groth S. (2024, April) *Understanding contraception prescription patterns in the All of Us Research Program*. Poster presentation at the Eastern Nursing Research Society (ENRS) 36th Annual Scientific Sessions.

Local

1. Baumgartel, K. L., **Koleck, T. A.**, Osier, N., & Conley, Y. P. (2015, March). *Molecular genomics fellowship program for future nurse scientists*. Poster presentation at the Women in Science and Medicine Association Doctoral Directions: Learning to Lead in Biomedicine Conference, Pittsburgh, PA.
2. **Koleck, T. A.** (2017, June). *The genetics of objective neuro-cognitive function pre-surgery to post-chemo/aromatase inhibitor therapy*. Invited presentation at the 29th Annual UPMC Hillman Cancer Center Scientific Retreat and Satellite Conference, Pittsburgh, PA.
3. Driesbach, C., South, K., **Koleck, T. A.**, Barcelona, V., Elhadad, N., Mamykina, O., & Bakken, S. (2021, April). *Clustering and validation of COVID-19 symptom phenotypes in Hispanic/Latina women*. Presentation at Columbia University Data Science Institute Virtual Data Science Day 2021, Virtual.
4. Wagner, M. A., **Koleck, T. A.**, Bender, C. M., & Conley, Y. P. (2021, October). *Polymorphisms in DNA repair and oxidative stress genes associated with pain in breast cancer survivors at baseline and at six months after initiation of aromatase inhibitor therapy*. Poster presentation at the UPMC Hillman Cancer Center 2021 Annual Scientific Retreat, Pittsburgh, PA.
5. Davis, T., **Koleck, T.**, Conway, A., Bender, C., & Conley, Y. (2022, October). *Oxidative stress and DNA repair genetic variability and gene risk models for pre-treatment cancer-related fatigue in women with early-stage breast cancer*. Podium presentation at the UPMC Hillman Cancer Center 2022 Annual Scientific Retreat, Pittsburgh, PA.

Teaching**Primary Teacher**

Term/ Years	Course Number & Title	No. of Students	Level	Didactic or Clinical
Summer 2022	NUR3060 Independent Study: <i>Harmonizing Electronic Health Record Information and Complex Omics Data Sets</i> Student: Susan Grayson	1	PhD	Research practicum
Fall 2021	NUR0067 Nursing Research: An Introduction to Critical Appraisal and Evidence-based Practice	80-104	Undergrad	Didactic
Spring 2022				
Fall 2022				
Spring 2023				

Fall 2023				
Spring 2024				
Fall 2021	NUR3060 Independent Study: <i>Symptom Clusters and Social Determinants of Health</i> Student: Susan Grayson	1	PhD	Research practicum
Fall 2021	NUR3060 Independent Study: <i>Natural Language Processing</i> Student: Karina Kraevsky-Phillips	1	PhD	Research practicum
Spring 2021	NUR0086 Nursing Informatics	98	Undergrad	Didactic
Summer 2023		20		
2018-2019	Columbia University School of Nursing P30 Precision in Symptom Self-Management (PriSSM) Center Genomics Workshop Series	30	Faculty and Graduate	Didactic

Lecturer / Guest Lecturer

Term/ Years	Course Number & Title	No. of Students	Level	Topic of Lecture
Fall 2022 Summer 2023	NUR3082 Introduction to Machine Learning in Healthcare	5	Graduate	Unstructured Data and Natural Language Processing (NLP)
Summer 2022	NUR0086 Nursing Informatics	25	Undergrad	Healthcare Information Systems and Workforce Development
Spring 2022	NUR3292 Responsibilities and Activities of Scientists	8	Graduate	Discussed career and research path as a junior tenure stream faculty member
Summer 2021	NUR2681 Advanced Topics in Human Genetics	6	Graduate	Facilitated case resolutions for hereditary cancers, cystic fibrosis, and mitochondrial disorders

Spring 2019	Columbia University School of Nursing K Award Workshop	5	Postdoctoral Research Fellows	Navigating the Transition from Postdoctoral Trainee to Associate Research Scientist
Annually 2017-Present	Columbia University School of Nursing N9550 Research Synthesis Through Visualization of Health Data	10	Graduate	Visualization in Genomic Analysis for Symptom Science
Fall 2016	Columbia University School of Nursing Doctoral Research Seminar Series	10	Graduate	Finding and Selecting Your 'Perfect' Postdoctoral Position
Annually 2016-2019	NUR1680 Introduction to Genetics and Molecular Therapeutics	75	Undergrad	Cancer Genetics
Annually 2015-2019	NUR2680 Introduction to Genetics and Molecular Therapeutics	50	Graduate	Cancer Genetics

PhD Dissertation Committees

Student: Tara Davis

Relationship: Committee Member

Project Title: The Multi-omics of Breast Cancer Related-Fatigue and its Mitigation by Exercise

Defense Date: July 25, 2023

Student: Katelyn Leggio

Relationship: Committee Member

Project Title: Utilizing the All of Us Research Program: Exploring the Use of Wearable Activity Trackers in Adults with Heart Failure

Defense Date: April 4, 2023

BSN Honors Committees

Student: Justine Wang

Relationship: Committee Member

Project Title: Examining the Effect of Tumor Features, BDNF, and 5-HTT Genotypes on Depressive Symptoms in Breast Cancer

Defense Date: March 29, 2019

Student: Gabriela Dziewulski

Relationship: Chair

Project Title: Social Determinants of Health and Their Effect on Physical and Mental Health Among Adults with Limited English Proficiency

Defense Date: April 14, 2023

Postdoctoral Fellow

Mentee: Carolina Gustafson

Relationship: Technology Research in Chronic & Critical Illness (T32NR008857) Postdoctoral Fellow

Years: 2023-Present

Undergraduate Research Mentorship Program

Mentee: Erisa Baci

Relationship: Undergraduate Research Mentorship Program (URMP)

Years: 2023-Present

Activities: Conducting a comprehensive literature review; Using the *All of Us* Research Program; Assisting with statistical analysis and manuscript preparation; Responsible conduct of research

Mentee: Kaleigh McGlynn

Relationship: Undergraduate Research Mentorship Program (URMP)

Years: 2023-Present

Activities: Conducting a comprehensive literature review; Using the *All of Us* Research Program; Assisting with statistical analysis and manuscript preparation; Responsible conduct of research

Mentee: Gabriela Dziejwski

Relationship: Undergraduate Research Mentorship Program (URMP)

Years: 2020-2023

Activities: Conducting a comprehensive literature review; Extraction and analysis of symptom data from electronic health records using natural language processing (NLP) and manual review; Data management; Assisting with statistical analysis and manuscript preparation; Responsible conduct of research

Mentee: LingXue Shen

Relationship: Undergraduate Research Mentorship Program (URMP)

Years: 2020-2022

Activities: Conducting a comprehensive literature review; Extraction and analysis of symptom data from electronic health records using natural language processing (NLP) and manual review; Data management; Assisting with statistical analysis and manuscript preparation; Responsible conduct of research

Mentee: Puja Ghotkar

Relationship: Undergraduate Research Mentorship Program (URMP)

Years: 2014-2016

Activities: Performing PCR and TaqMan allelic discrimination in the University of Pittsburgh School of Nursing molecular genetics laboratory; Performing various data management activities, including entering data obtained from medical records into data management software and compiling genotype and neuropsychological test data from multiple sources; Assisting with genetic data analysis; Conducting a comprehensive literature review; Composing and presenting a research abstract

Other Mentoring Activities

Mentee: Susan Grayson

Relationship: National Research Service Award (F31) Co-investigator

Application Title: Psychoneurological Symptoms and Their Association with Markers of Genomic Instability from Circulating Tumor DNA in Metastatic Breast Cancer

Years: 2021-Present

Activities: Merging and analyzing complex symptom and omic datasets; Integrating social determinant of health information into analyses

Mentee: Morgan Henderson

Relationship: Research Assistant (Short-Term Casual Role – 15-20 hours/week)

Years: 2019

Activities: Extraction and analysis of symptom data from electronic health records using natural language processing (NLP) and manual review; Data management; Assisting with statistical analysis and manuscript preparation; Responsible conduct of research

Mentee: Sofie Patzak

Relationship: Research Assistant (Temporary staffing – 20 hours/week)

Years: 2020-2021

Activities: Conducting a comprehensive literature review; Extraction and analysis of symptom data from electronic health records using natural language processing (NLP) and manual review; Data management; Assisting with statistical analysis and manuscript preparation; Responsible conduct of research

Service

School of Nursing

2021 – Present

Honors Committee

2021 – Present

BSN Council

2021

PhD Program Preliminary Examination Reviewer