

August

August, 2018

CURRICULUM VITAE

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Pittsburgh, PA 15261

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EDUCATION

Undergraduate

1984-1989 University of Pittsburgh B.S.N. Nursing
Pittsburgh, PA

Graduate

1996-2004 University of Pittsburgh PhD Nursing
Pittsburgh, PA

2002 National Institute of Nursing Research/ Summer Genetics Institute
Georgetown University
Washington, D.C.

APPOINTMENTS AND POSITIONS

Academic

1999-2004 University of Pittsburgh Research Associate
School of Nursing
Department of Acute/Tertiary Care
Pittsburgh, PA

2005 - 2014 University of Pittsburgh Assistant Professor
School of Nursing
Department of Acute/Tertiary Care
Pittsburgh, PA

2012 - 2014 University of Pittsburgh Assistant Professor
School of Medicine Secondary Appointment
Critical Care Medicine
Pittsburgh, PA

2014 - present University of Pittsburgh Associate Professor

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| | School of Nursing Department of Acute/Tertiary Care Pittsburgh, PA | |
| 2014 - present | University of Pittsburgh School of Medicine Critical Care Medicine Pittsburgh, PA | Associate Professor Secondary Appointment |
| 2018 - present | Clemson University School of Nursing College of Behavioral, Social and Health Sciences Clemson, SC | Adjunct Professor |
| <u>Non-Academic</u> | | |
| 1988 – 1989 | University of Pittsburgh Medical Center, Montefiore University Hospital, Pittsburgh, PA | Clinical Nurse III Neuro/General Surgical Unit |
| 1989 – 1996 | University of Pittsburgh Medical Center, Presbyterian University Hospital, Pittsburgh, PA | Clinical Nurse III / Charge Nurse Neurovascular Intensive Care Unit |
| 1996 – 1999 | University of Pittsburgh Medical Center, Western Psychiatric Institute and Clinic, Pittsburgh , PA | Assistant Nurse Clinical Manager Geriatric Program |

LICENSURE AND CERTIFICATION

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| Expires 10/31/20 | RN Licensure | XXXXXXXXXX | Pennsylvania |
| 2012-2016 | Emergency Neurological Life Support Certification | | |

MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

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|----------------|--|
| 1992 - present | American Association of Neuroscience Nurses |
| 2010-2018 | Clinical Practice Guidelines (CPG) Editorial Board Member |
| 2012, 2015, | |
| 2018-present | Grant Review Committee |
| 2017-present | Abstract reviewer |
| 1998 - 2004 | Doctoral Nursing Student Organization |
| 1999 - 2000 | Vice President |
| 2000 - 2002 | President |
| 1999 -present | Sigma Theta Tau, National Honor Society in Nursing (Eta Chapter) |

2005-2012,
 2014, 2016 Member, Grant Review Committee
 2010-2011 Chair
 2005-2007 Governance Committee
 2007-2009 President

2000- present Society of Critical Care Medicine
 2006-present Abstract Reviewer
 2000-present Nursing Section
 2006-present Research Committee
 2018-present Chair Elect
 2006-present Neuroscience Section, member
 2006-2015 Research Committee/Scientific Review Committee
 2012-2015 Vice-chair/Chair/Immediate Past Chair
 2008-2012 Practice Survey Committee
 2010-present Moderator, Professor Walk Rounds at annual congress
 2011-2014 Benchmarking Committee
 2011-2013 Vice-chair/Chair
 2012-present Norma J. Shoemaker Nursing Excellence Award Committee
 2014-present Research Section Member
 2014-present Research Section Steering Committee Member
 2016 Secretary/Treasurer
 2017 Chair-Elect
 2018 Chair
 2015-2016 Research Clinical Trials Taskforce
 2015-present Congress Planning Committee
 2016-present Discovery Research Network Steering Committee
 2017-present Critical Care Knowledge Assessment Program (MCKAP)

2000-2018 Eastern Nursing Research Society
 2005-2009 Abstract Reviewer

2001-present American Association of Critical Care Nurses
 2005-2008 Member, Grant Review Committee
 2010-2013 Member, Grant Review Committee

2001-2009 Association of Clinical Research Professionals

2004-present International Society of Nurses in Genetics
 2005-2008 Member, Policy and Procedure Committee
 2006-present Abstract Reviewer
 2006-2009 Annual Conference Planning Committee
 2009 Conference Planning Committee Co-chair
 2007-2009 Research Committee
 2009-2011 Member-At-Large
 2011-2014 Chapters Taskforce
 2012-2018 Education Committee
 2012-2014 Co-chair
 2014-2015 Annual Conference Planning Committee
 2013-2014 President Elect
 2014-2015 President

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| 2015-2016 | Immediate Past President |
| 2005-present | Council for the Advancement of Nursing Science |
| 2009-present | Abstract Reviewer |
| 2007-present | National Neurotrauma Society |
| 2010-2012 | Abstract Reviewer |
| 2007-present | Women in NeuroTrauma Research (WINTR) member |
| 2010-present | Neurocritical Care Society |
| 2011-2012 | Conference Planning Committee |
| 2012-2013 | Moderator, Professor Walk Rounds at annual congress |
| 2012-present | Women in Neurocritical Care (WINC) member |
| 2013-2016 | Abstract Reviewer |
| 2015-present | American Nurses Association/Pennsylvania State Nurses Association |

HONORS

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|------|--|
| 1999 | Sigma Theta Tau, International Honor Society of Nursing member |
| 2004 | Elizabeth Lloyd Noroian Scholarship, University of Pittsburgh School of Nursing |
| 2008 | Sigma Theta Tau, International Honor Society of Nursing Eta Chapter Leadership in Nursing Research Award |
| 2009 | Research Award, Neurology Specialty, Society of Critical Care Medicine. |
| 2009 | Semi-finalist, Robert Wood Johnson Nurse Faculty Scholars Program |
| 2010 | Presidential Citation for outstanding contributions to the Society of Critical Care Medicine |
| 2010 | Fellow, Provost Faculty Diversity Seminar |
| 2011 | Dean's Distinguished Teaching Award Recipient |
| 2011 | Abstract Presentation Judge, 9 th Annual Safar Symposium |
| 2012 | International Society of Nurses in Genetics Founders Award for Excellence in Education |
| 2015 | Presidential Citation for outstanding contributions to the Society of Critical Care Medicine |
| 2016 | Fellow, Academy of Critical Care Medicine |
| 2016 | Presidential Citation for outstanding contributions to the Society of Critical Care Medicine |
| 2016 | Abstract Presentation Judge, 14 th Annual Safar Symposium |
| 2017 | PA Nightingale Award for Nursing Research Awardee |

2018 Thought Leader/Faculty, 5th Annual Neurocritical Care Research Conference: The future of Neurocritical Care Research- Looking for a Blue Ocean.

PUBLICATIONS

Refereed Articles (* = data-based)

1. Lovasik, D., Kerr, M.E., **Alexander, S.** (2001). Traumatic brain injury (TBI) research: A review of clinical studies. *Critical Care Nursing Quarterly*, 23(4), 24-41. PMID: 11852948.
2. *Lorenzi, L., Kerr, M.E., **Alexander, S.**, Crago, E., Yonas, H. (2003). Influence of delaying treatment after symptoms develop from subarachnoid hemorrhage (SAH) on outcome. *Journal of Neuroscience Nursing*, 35 (4), 210-214. PMID: 12942655
3. ***Alexander, S.**, Kerr, M.E., Yonas, H., Marion, D.W. (2004). The effects of admission alcohol level on CBF and outcomes after severe TBI. *Journal of Neurotrauma*, 21(5), 575-583. PMID: 15165365
4. *Kerr, M.E., Kamboh, M.I., Kong, Y., **Alexander, S.**, Yonas, H. (2006). Apolipoprotein E genotype and CBF in traumatic brain injured patients. *Advances in Experimental Medicine and Biology*, 578; 291-296. PMID: 16927707
5. ***Alexander, S.**, Kerr, M.E., Kim, Y., Kamboh, M.I., Beers, S.R., Conley, Y. (2007). APOE 4 allele presence and functional outcomes after severe traumatic brain injury. *Journal of Neurotrauma*, 24(5), 790-797. PMID: 17518534
6. *Lantern, L., Ruigrok, Y., **Alexander, S.**, Tang, J., Biroli, F., Dunn, L.T., Poon, W.S. (2007). Meta-analysis of APOE genotype and subarachnoid hemorrhage: clinical outcome and delayed ischemia. *Neurology*, 69(8), 776-84. PMID: 17709709
7. *Barr, T., **Alexander, S.**, Crago, E., Horowitz, M.B., Yonas, H., Kerr, M.E. (2008). Endovascular coiling versus surgical clipping and outcomes after SAH. *Neurosurgery Quarterly*. 18(1); 16-21.
8. **Alexander, S. A.**, Beach, M. (2008). Genes and acute neurologic disease and injury: A primer for the neurological intensive care nurse. *Critical Care Nursing Clinics of North America*.20(2);203-12. doi: 10.1016/j.ccell.2008.01.001.PMID: 18424349
9. ***Alexander, S. A.**, Kerr, M.E., Balzer, J., Horowitz, M., Kassam, A., Kim, Y., Hoffman, L., Conley, Y. (2008). Cerebrospinal fluid apolipoprotein E, calcium and cerebral vasospasm after subarachnoid hemorrhage. *Biological Research for Nursing*. 10(2); 102-112. PMID: 18829593
10. *Gallek, M., Sherwood, P., Horowitz, M. B., Kassam, A., Conley, Y., **Alexander, S.** (2009). APOE genotype and functional outcome following aneurysmal subarachnoid hemorrhage. *Biological Research for Nursing*. 10 205-212. doi: 10.1177/1099800408323221. PMID: 19017669. PMCID: 2744368.
11. Carwile, E., Wagner, A., Crago, E., **Alexander, S.** (2009). Estrogen and Stroke: A review of the literature. *Journal of Neuroscience Nursing*.41(1): 18-25. PMID: 19368068.
12. Presciutti, M., **Alexander, S.**, Schmidt, M. (2009). Neuro-monitoring in intensive care

focus on microdialysis and nursing implications. *Journal of Neuroscience Nursing*. 41(3): 131-139. PMID: 19517763

13. *Puccio, A. M., Hoffman, L. A., Bayir, H., Zullo, T. G., Fischer, M. Darby, J., **Alexander, S.**, Dixon, C. E., Okonkwo, D. O., Kochanek, P. M. (2009). Effect of Short Periods of Normobaric Hyperoxia on Local Brain Tissue Oxygenation and Cerebrospinal Fluid Oxidative Stress Markers in Severe Traumatic Brain Injury. *Journal of Neurotrauma*, 36; 1241-1249. doi: 10.1089/neu.2008-0624. PMID: 19505175. PMCID: 2850254.
14. ***Alexander, S. A.**, Poloyac, S. M., Hoffman, L., Gallek, M., Ren, D., Balzer, J., Kassam, A., B., Conley, Y. (2009). Endothelial Nitric Oxide Synthase Tagging Single Nucleotide Polymorphisms and Recovery from Aneurysmal Subarachnoid Hemorrhage. *Biological Research for Nursing*. 11 (1): 42-52. doi: 10.1177/1099800409334751. PMID: 19419976. PMCID: 2938012
15. * Chuang P, Conley YP, Poloyac SM, Okonkwo DO, Ren D, Sherwood PR, Hravnak MT, **Alexander S.A.** (2010) Neuroglobin genetic polymorphisms and their relationship to functional outcomes after traumatic brain injury. *Journal of Neurotrauma*. 2010; 27 (6):999-1006. doi: 10.1089/neu.2009.1129. PMID: 20345238. PMCID: 2943497.
16. * Hoh, N. Z., Wagner, A. K., **Alexander, S.**, Clark, R., Beers, S. R., Okonkwo, D. O., Ren, D., Conley, Y. P. (2010) BCL2 Genotypes: Functional and Neurocognitive Outcomes after Severe Traumatic Brain Injury. *Journal of Neurotrauma*. 27(8): 1413-1427. doi: 10.1089/neu.2009.1256. PMID: 20504155. PMCID: 2967822. PMCID: 2967822.
17. Barr, T., **Alexander, S.**, Conley, Y. (2011). Gene Expression Profiling for Discovery of Novel Targets in Human Traumatic Brain Injury. *Biological Research for Nursing*. 13(2): 140-53. doi: 10.1177/1099800410385671. PMID 21112922
18. *Thampatty B.P., Sherwood P.R., Gallek M., Crago E.A., Hricik A.J., Kuo C.J., Klamerus M.M., **Alexander S.A.**, Bender C., Hoffman L.A., Horowitz M.B., Kassam A.B., Poloyac S.M. (2011) Role of endothelin-1 in human aneurysmal subarachnoid hemorrhage: Associations with vasospasm and delayed cerebral ischemia. *Neurocritical Care*. 15(1): 19-27. doi: 10.1007/s12028-011-9508-9. PMID: 21286855. PMCID: 3134137.
19. *Gallek M., **Alexander S.**, Crago E., Sherwood P., Horowitz M., Poloyac S., Conley Y. (2013) Endothelin-1 and Endothelin Receptor Gene Variants and Their Association with Negative Outcomes Following Aneurysmal Subarachnoid Hemorrhage. *Biological Research for Nursing*. 15(4): 390-7. doi:10.1177/109980041245964. PMID: 22997346. PMCID: 3758781.
20. *Conley, Y.P., Okonkwo, D., Deslouches, S., **Alexander, S.**, Puccio, A., Beers, S., Ren, D. (2014). Mitochondrial Polymorphisms Impact Outcomes after Severe Traumatic Brain Injury. *Journal of Neurotrauma*. 31(1): 34-41. doi: 10.1089/neu2013.2855. PMID: 23883111. PMCID: 3880110.
21. *Kantor, E. Bayir, H., Ren, D., Provencio, J. J., Watkins, L., Crago, E., Horowitz, M.B., Ferrell, R.E. Conley, Y.P., **Alexander, S., A.** (2014). Haptoglobin Genotype and Functional Outcome after Aneurysmal Subarachnoid Hemorrhage. *Journal of Neurosurgery*. 120(2) 386-90. DOI: 10.3171/2013.10.JNS13219. PMID 24286153. PMCID: 4544750.
22. ***Alexander, S.**, Ren, D., Gunn, S., Kochanek, P., Tate, J., Ikonovic, M., Conley, Y. (2014) Interleukin-6 and apolipoprotein E as predictors of acute brain dysfunction and survival in ICU Patients. *American Journal of Critical Care*. 23(1): 49-57. doi: 10.4037/ajcc2014578. PMID: 24382617. PMCID:

4809634. Highlighted in AJCC ‘Evidence-based review and discussion points’ with interview by guest editor R. Hickman.

23. Li, Z., & **Alexander, S.A.** (2015) Current Evidence in the Management of Post-stroke Shoulder Pain. *Journal of Neuroscience Nursing*. 47(1): 10-19. doi: 10.1097/JNN.000000000000109. PMID 25503543.
24. *Gallek, M.J., **Alexander, S.A.**, Crago, E., Sherwood, P.R., Klamerus, M., Horowitz, M.B., Poloyac, S.M., & Conley, Y. (2015) Endothelin-1 gene polymorphisms influence cerebrospinal fluid endothelin-1 levels following aneurysmal subarachnoid hemorrhage. *Biological Research for Nursing*. 17(2):185-90. doi: 10.1177/1099800414536261. PMID: 24852947.
25. Gopalakrishna, A. & **Alexander, S. A.** (2015). Understanding Parkinson Disease: A Complex and Multifaceted Illness. *Journal of Neuroscience Nursing*.47(6):320-26. doi: 10.1097/JNN.000000000000162. PMID: 26528949.
26. *Giorgino, M.M., Kress, T., **Alexander, S. A.** & Beach, M. (2015). Emergency Preparedness Education for Nurses: Core Competency Familiarity Measured Utilizing an Adapted Emergency Preparedness Information Questionnaire (EPIQ). *Journal of Trauma Nursing*. 22(5); 240-8. doi: 10.1097/JTN.000000000000148. PMID: 26352654
27. *Hoffman, S.L., Kaufman, R., Ferrari, S., **Alexander, S.**, Rosenzweig, M., Wesmiller, S. (2016). Beyond BRCA: A Pilot Program to Assess and Improve Knowledge of Pharmacogenomic Testing Among Advanced Practice Providers in a Breast Cancer Treatment Setting. *Journal of the Advanced Practitioner in Oncology*.7, 382-9. doi:10.6004/jadpro.2016.7.4.2
28. *Khalil, H. Sereika, S.M., Dai, F., **Alexander, S.**, Conley, Y., Gruen, G., Meng, L., Siska, PI, Tarkin I., & Henker, R. (2016). OPRM1 and COMT Gene-Gene Interaction is Associated with Postoperative Pain and Opioid Consumption after Orthopedic Trauma. *Biological Research for Nursing*, 19(2); 170-179. doi: 10.1177/10990800416680474.
29. *Osier, N.D., Bales, J.W., Pugh, B., Shin, S., Wyrobek, J., Puccio, AM., Okonkwo, D.O., Ren, D., **Alexander, S.**, Dixon, C.E., Conley, Y.P. (2017) Variation in PPP3CC is associated with long-term recovery after severe brain injury. *Journal of Neurotrauma*, 34(1); PMID: 27225880 doi:10.1089/neu2015.4343
30. Osier, N. D., Pham, L., Savarese, A., Sayles, K., & **Alexander, S.** (2016) Animal Models in Genomic Research: Techniques, Applications and Roles for Nurses. *Applied Nursing Research*, 32; 247-56. Doi:10.1016/j.anpr.2016.07.016.
31. *Osier, N.D., Pham, L., Pugh, B.J., Puccio, A., Ren, D., Conley, Y.P., **Alexander, S.**, & Dixon, C.E. (2017) Brain injury results in lower levels of melatonin receptors subtypes MT1 and MT2. *Neurosci Lett*. 650; 18-24. doi: 10.1016/j.neulet.2017.03.053. Epub 2017 Apr 2. PMID:28377323
32. **Alexander, S.A.**, Kalmakis, K., Stewart Fahs, P. S., Groth, S. W. & Chasens, E. R. (2017) Biological Markers in Nursing Research. *Journal of Nursing Measurement*, 25(2); 275-91. <http://dx.doi.org/10.1891/1061-3749.25.2.1>
33. *Smithburger, P.L., Korenoski, A.S., Kane-Gill, S.L., & **Alexander, S.A.** (2017). Perceptions of family members, nurses, and physicians on involving the patient family in delirium prevention activities in a medical intensive care unit. *Critical Care Nurse*, 37 (6): 48-57. doi: 10.4037/ccn2017901.

34. *Smithburger, P.L., Korenoski, A.S., Kane-Gill, S.L., & **Alexander, S.A.** (2017). Intensive Care Unit Patient Family Opinions and Perceptions regarding Involvement with Delirium Prevention Activities: A Qualitative Study. *Critical Care Nurse*, 37(6): e1-e9. doi: 10.4037/ccn2017485.
35. *Anderson, M., Elmer, J., Shutter, L., Puccio, A., & **Alexander, S.** (2018). Integrating quantitative pupillometry into regular care in a Neuro-Trauma Intensive Care Unit. *Journal of Neuroscience Nursing*, 50(1); 30-36. doi: 10.1097/JNN.0000000000000333.
36. *Wright Heinsberg, L., Turi, E., Ren, D., Crago, E., **Alexander, S.**, Grimes Stanfill, A., & Conley, Y. (2018). Association of APOE genotype with activities of daily living following aneurysmal subarachnoid hemorrhage. *Biological Research for Nursing*, 20(2); 177-82. doi: 10.1177/1099800417746504.
37. Bulters D., Gaastra B., Zolnourian A., **Alexander S.**, Ren D., Blackburn S., Borsody M., Doré S., Galea J., Iihara K., Nyquist P. & Galea I. (2018). Role of haemoglobin scavenging in intracranial bleeding: biology and clinical implications. *Nature Reviews Neurology*, published online 06-20-2018. doi: 10.1038/s41582-018-0020-0.
38. *Paik G.P., Henker H., Appel N., Meng L., Bircher N., Sereika S., **Alexander S.A.**, & Henker R. (2018). Accuracy of temporal artery thermometry as an indicator of core body temperature in patients receiving general anesthesia. *Journal of PeriAnesthesia Nursing*.
39. Osier N., McGreevy E., Pham L., Puccio A., Ren D., Conley Y.P., **Alexander S.**, & Dixon C.E. (2018). Melatonin as a therapy for traumatic brain injury: A review of published evidence. *International Journal of Molecular Science*.19; 1539. doi:10.3390/ijms19051539.
40. Edwards K.A. Alexander S. Kanefsky R., Cashion A., & Gill, J. (In press). A use of the National Institutes of Health symptom science model to examine gene activity and related proteins in clinical populations in Traumatic Brain injury. *Nursing Research*.

Text and Chapters

1. **Alexander, S.** (2013). **Evidence-Based Nursing Care for Stroke and Neurovascular Conditions.** Wiley-Blackwell, Ames, IA.
2. **Alexander, S.** (2016) .**Chapter 12. Neurologic System.** In **Genomic Essentials for Graduate Level Nurses**, Editors: Diane Seibert, Quannetta Edwards, Ann Maradiegue, and Susan Tinley. Desteck Publications, Lancaster, PA. ISBN: 978-1-60595-094-5

Other Invited Publications

1. **Alexander, S.A.**, Gallek, M., Presciutti, M., Zrelak, P. (2008). Care of the patient with subarachnoid hemorrhage: A guide for clinical nurses. American Association of Neuroscience Nurses Clinical Practice Guideline Series (<http://www.aann.org/pubs/guidelines.html>).
2. Conley, Y.P. & **Alexander, S.** (2011). Genomic, Transcriptomic, and Epigenomic Approaches to Recovery following Acquired Brain Injury. *Physical Medicine & Rehabilitation*; S52-58. doi: 10.1016/j.pmrj.2011.04.004. PMID: 21703581.
3. **Alexander, S.A.** & Provencio, JJ. (2014) Editorial Response: Haptoglobin Genotype. *Journal of Neurosurgery*, 120(2); 384-5. PMID: 24645183.

4. Puccio, A.M. & **Alexander, S.A.** (2015) Genomics, Transcriptomics and Epigenomics in TBI Research. *Annual Reviews in Nursing Research*, 33(1): 75-109. doi: 10.1891/0739-6686.33.75. PMID: 25946384.
5. **Alexander, S.A.** (2017). Announcing the Primer in Genetics and Genomics Series. *Biological Research for Nursing*, 19(1); 5-6. Doi: 10.1177/1099800416677094.
6. Maserati, M. & **Alexander, S.** (2018). Genetics and genomics of acute neurologic disorders. *AACN Advanced Critical Care*. 29(1); 57-75.
7. **Alexander, S.A.** (2018). Primer in Genetics and Genomics Series: Final Remarks. *Biological Research for Nursing*, 20(3); 253-254.
8. **Alexander, S.A.** (2018). Five ways to find research opportunities outside academia. *Critical Connections*, July, 2018

Published Abstracts

1. **Alexander, S.**, Kerr, M.E., Bullian, L., Marion, D. (2001). Effect of alcohol intoxication on cerebral blood flow and outcomes following a severe traumatic brain injury. *Critical Care Medicine*, 28(12) A206 (Suppl.).
2. Kerr, M.E., Nemoto, E. Yonas, H., Kassam, A., Crago, E., **Alexander, S.** (2001). Vasospasm detection following SAH using cerebral oximetry. *Critical Care Medicine*, 28 (12) A208 (Suppl).
3. Lorenzi, L., Kerr, M.E., Yonas, H., Kassam, A, **Alexander, S.**, Crago, E. (2001). Influence of delaying treatment after symptoms develop from subarachnoid hemorrhage (SAH) on outcome: A preliminary analysis. *Critical Care Medicine*, 28 (12) A 209 (Suppl).
4. Kerr, M.E., **Alexander, S.**, Kim, Y., Kamboh, I., Marion, D. (2001). Effect of Apolipoprotein E genotype on cerebral blood flow in traumatic brain injured patients. *Critical Care Medicine*, 29 (12) A6 (Suppl).
5. **Alexander, S.**, Kim, Y., Kerr, M.E., Yonas, H. (2002). A Comparison of psychometric qualities of the SF-36 Physical Function Subscale and the Barthel Index in the subarachnoid hemorrhage population. *Critical Care Medicine*, 29 (12) A133 (Suppl).
6. Beatty, M.G., Kerr, M.E., **Alexander, S.**, Beers, S., Marion, D. (2002). Effects of the APOE Allele on memory following traumatic brain injury (TBI). *Critical Care Medicine*, 29 (12) A33 (Suppl).
7. Puccio, A.M., Kim, Y., Kerr, M.E., Beers, S.R., Wagner, A., **Alexander, S. A.**, and Marion, D.W. (2002). Psychometric analysis of the functional independence measure in severe traumatic brain injury: A comparison to the Glasgow outcome scale. *Critical Care Medicine*, 30 (12), A283 (Suppl).
8. Kim, Y., Kerr, M.E., **Alexander, S.**, and Yonas, H. (2002). Use of structural equation modeling (SEM) in quality of life measurement in the subarachnoid hemorrhage population. *Quality of Life Research*, 11(7), 671 (Suppl).
9. Kim, Y., Kerr, M.E., Puccio, A.M., Beers, S.R., **Alexander, S.**, and Crago, E. A. (2003). Repeatability and responsiveness of the FIM, DRS, and NRS in patients with severe traumatic brain injury. *Critical Care Medicine*, 30 (12), A565 (Suppl).

10. Puccio, A.M., Kim, Y., Kerr, M.E., Beers, S.R., Wagner, A., **Alexander, S.**, and Marion, D.W. (2003). Reliability and validity of the Functional Independence Measure in severe traumatic brain injury, *Eastern Nursing Research Society*, p. 116 [The Best Student Presentation Award].
11. **Alexander, S.**, Kerr, M.E., Yonas, H., (2004). Cerebrospinal fluid (CSF) calcium as a biomarker of vasospasm after subarachnoid hemorrhage (SAH). *Critical Care Medicine*, 31 (12) A11 (Suppl).
12. **Alexander, S.**, Kerr, M.E., Conley, Y., Yonas, H. (2005). Cerebrospinal fluid calcium levels and cerebral vasospasm after subarachnoid hemorrhage. *Biological Research for Nursing*, 6 (4) p. 301.
13. **Alexander, S.**, Kerr, M.E., Conley, Y., Kong, Y., Yonas, H. (2004). Apolipoprotein E Genotype and outcomes in the subarachnoid hemorrhage population. *Nursing and Health Sciences*, 7 (2), pp 143-44.
14. **Alexander, S.**, Walter, K., Conley, Y. (2006). APOE genotype and Glasgow Coma Score after severe traumatic brain injury. *Critical Care Medicine*, 33:A293 (Suppl.).
15. **Alexander, S.**, Gallek, M., Poloyac, S., Horowitz, M., Kassam, A., Conley, Y. (2007). eNOS Tagging SNPs and CV after SAH. *Critical Care Medicine*, 34 (Suppl.).
16. Gallek, M.J., Sherwood, P., Crago, E., **Alexander, S.**, Hoffman, L.A., Poloyac, S.M., Horowitz, M. (2007). Endothelin-1 cerebrospinal fluid levels are associated with the development of cerebral vasospasm in aneurysmal subarachnoid hemorrhage patients. *Critical Care Medicine*, 34:A80 (Suppl).
17. **Alexander, S.**, Poloyac, S., Balzer, J., Hoffman, L., Gallek, M., Kassam, A., Ren, D., Conley, Y. (2008) NO Pathway Biomarkers and CV after SAH. *Critical Care Medicine*. 36:A11(Suppl).
18. Chuang, P.Y., Conley, Y., **Alexander, S.**, Ren, D., Hravnak, M. (2008) Neuroglobin Genetic Polymorphisms and Their Relationship to Functional Outcome Following Traumatic Brain Injury. *Critical Care Medicine* 36: A10 (Suppl).
19. Kantor, E., Conley, Y.P., Ren, D., Bayir, H., Provencio, J. J., Crago, E., Horowitz, M., **Alexander, S.** (2009) Haptoglobin Genotype and Functional Outcome after Aneurysmal Subarachnoid Hemorrhage. *Critical Care Medicine* 37: A368 (Suppl).
20. Watkins, L., **Alexander, S.**, Ren, D., Crago, E., Conley, Y., Kagan, V., Bayir, H. (2009) Haptoglobins Containing α -2 Subunit Favor Angiographic Vasospasm in Aneurysmal Subarachnoid Hemorrhage. *Critical Care Medicine* 37: A19 (Suppl).
21. **Alexander, S.**, Poloyac, S., Ren, D., Crago, E., Horowitz, M., Conley, Y.P. (2009) DDAH2 Genotype Predicts Outcome after Subarachnoid Hemorrhage. *Critical Care Medicine* 37: A156 (Suppl).
22. NeSmith, E.G., Catravas, J.D., Marsland, A.L., **Alexander, S.A.**, Hawkins, M.L., Medeiros, R.S. (2009). The influence of accelerated biologic aging, chronic stress, and inflammatory response on outcomes following trauma. *Brain, Behavior, and Immunity*, 23(2), S51.
23. **Alexander, S.**, Tate, J., Ren, D., Gunn, S., Ely, E. W. (2010) Interleukin 6 and Delirium in ICU patients *Critical Care Medicine* 38 (12): A326 (Suppl).
23. Watkins, L., **Alexander, S.**, Kapralov, A., Ren, D., Crago, E., Conley, Y., Kagan, V., Bayir, H. (2010) Possible Role for Haptoglobin and Hemoglobin Aggregates in Pathomechanism of Aneurysmal Subarachnoid Hemorrhage. *Critical Care Medicine* 38 (12): A154 (Suppl).

24. **Alexander, S.,** Tate, J. Ren, D., Gunn, S., Conley, Y. (2011) APOE Genotype, Inflammation and Delirium in ICU Patients. *Critical Care Medicine*.39 (12):A7 (Suppl).
25. **Alexander, S.,** Conley, Y. (2013) Inflammatory Gene Methylation in ICU Patients with and without Delirium. *Critical Care Medicine*. 41 (12): A104 (Suppl). DOI: 10.1097/01.ccm.0000439574.72890.33
26. **Alexander, S.** (2014) Gene-Protein Interaction: A Methodology for Integration of Biomarkers into Nursing Research. *Nursing Research*, 63(2): E66.
27. **Alexander, S.,** Ren, D., McVerry, B.M., Gunn, S.M. (2014) Preadmission Smoking and Inflammation and Delirium in ICU Patients. *Critical Care Medicine*.42 (12): A1501 (Suppl). DOI: 10.1097/01.ccm.0000458083.70730.b4
28. Smithburger PL, **Alexander SA,** Gries CJ, Korenoski AS, Kane-Gill SL. (2015) Provider and family perceptions of family involvement in delirium prevention in an ICU. *Critical Care Medicine* 43(12)
29. **Alexander, S.** (2015) Medical History, Delirium and Recovery from the ICU. *Critical Care Medicine* 43(12)

RESEARCH

Research Awards as PI

Role: Principal Investigator Dates: 2003, Nov – 2004, Oct.
 Type: Professional Organization
 Funding Agency: American Nurses Foundation John Merck Scholar
 Title: Biomarkers to Predict Cerebral Vasospasm after Subarachnoid Hemorrhage.
 Award: \$5,000

Role: Principal Investigator Dates: 2004, July – 2005, June
 Type: Professional Organization
 Funding Agency: Neuroscience Nursing Foundation
 Title: The Impact of Isoform Specific ApoE-Calcium Interaction on Cerebral Vasospasm after Subarachnoid Hemorrhage
 Award: \$2,200

Role: Principal Investigator Dates: 2004, Sept – 2005, Aug
 Type: Professional Organization
 Funding Agency: Sigma Theta Tau International Research Award, Eta Chapter
 Title: APOE Genotype and Cerebral Vasospasm and Outcomes after Subarachnoid Hemorrhage
 Award: \$1,500

Role: Principal Investigator Dates: 2004, Sept - 2005, August
 Type: School of Nursing Endowed Research Award
 Funding Agency: The Leslie A. Hoffman Endowed Acute Care Nursing Research Fund
 Title: The Effect of Apolipoprotein E and Calcium on Cerebral Vasospasm after SAH
 Award: \$ 750

Role: Principal Investigator Dates: 2005, July - 2009, January
 Type: University of Pittsburgh

Funding Agency: Central Research Development Fund
 Title: CSF Ca⁺⁺ APOE protein and genotype and CV after TBI.
 Award: \$ 16,000

Role: Principal Investigator 0% Dates: 2008, February- 2011, February
 Type: Norma J. Shoemaker Grant for Critical Care Nursing Research
 Funding Agency: Society for Critical Care Medicine
 Title: Apolipoprotein E, Inflammatory Markers and Delirium in ICU Patients.
 Award: \$16,000

Role: Principal Investigator 0% Dates: 2008, September –2010, August
 Type: School of Nursing Endowed Research Award
 Funding Agency: Ruth Perkins Kuehn Research Award 2008
 Title: ADMA and Cerebral Vasospasm after Subarachnoid Hemorrhage
 Award: \$12,828

Role: Principal Investigator 27% Dates: 2008, September- 2011, July
 Type: R03 NR01152-01
 Funding Agency: NIH, NINR
 Title: Long Term Outcomes in ICU Patients: Delirium & Apolipoprotein E
 Award: \$99,831

Role: PI 0% Dates: 2015, July- 2016, June
 Type: Pilot study
 Funding Agency: University of Pittsburgh School of Nursing Genomics Hub
 Title: Epigenetic Changes Promoting Delirium after Intensive Care Unit Admission
 Award: \$5,000

Role: Principal Investigator 2.5% Dates: 2017, January – 2017, December
 Type: Weill Research Grant
 Funding Agency: SCCM
 Title: Temporal Inflammatory Gene Methylation Profiles and ICU Delirium
 Award: \$50,000

Research Awards as Co-I / Mentor

Role: Co-Investigator 10% (PI Yvette Conley, PhD) Dates: 2005, July - 2009, June
 Type: R01 NR008424
 Funding Agency: NIH, NINR
 Title: Mitochondrial Genetics of Recovery after Brain Injury
 Award: \$ 800,000

Role: Co-Investigator 5% (Co-PIs S. Poloyac, P. Sherwood) Dates: 2009, August-2014, July
 Type: R01 NR004339
 Funding Agency: NIH, NINR
 Title: Determining genetic and biomarker predictors of DCI and long term outcomes after aSAH
 Award: \$3,365,222

Role: Co- Mentor 0% (PI-Nesmith) Dates: 2010, August- 2013, June
 Type: K01 NR011471
 Funding Agency: NIH, NINR
 Title: Accelerated Biological Aging and Risk for Sepsis and Organ Failure Following Trauma

Award: \$93,363

Role: Sponsor (PI- Osier)

Dates: 2014, September – 2016, August

Type: F31 NR014957

Funding Agency: NIH, NINR

Title: Mechanism of Melatonin-Induced Neuroprotection in Traumatic Brain Injury.

Award: \$85,796

Role: Co-Investigator 5% (PI- Conley)

Dates: 2012, September- 2017, June

Type: R01 NR 013610

Funding Agency: NIH, NINR

Title: Epigenomics of Patient Outcomes after Aneurysmal SAH

Award: \$2,749,754

Role: Faculty

Dates: 2006, July- 2021, June

Type: T32 NR009759

Funding Agency: NIH, NINR

Title: Targeted Research and Academic Training of Nurses in Genomics

Award: \$223,876

Other Scholarly Activities

Research Grant Reviews

- | | |
|-----------------------------------|--|
| 2006-2015 | Society of Critical Care Medicine Vision grant reviewer |
| 2007-2013 | Department of Defense Congressionally Directed Medical Research Program Post-Traumatic Stress Disorder and Traumatic Brain Injury Research Program – Traumatic Brain Injury Award grant reviewer |
| 2008- 2013 | United States Army Medical Material Development Activity grant reviewer |
| 2005-2011, 2013, 2014, 2017 | Sigma Theta Tau International, Eta chapter grant reviewer |
| 2010- 2013 | American Association of Critical Care Nurses, grant reviewer |
| 2010- 2013 | Italian Ministry of Health grant reviewer |
| 2012- 2014, 2018-present | Neuroscience Nursing Foundation grant reviewer |
| 2013-present 2015-present | Department of Veterans Affairs (Neurobiology C) grant reviewer Permanent Member |
| 2015-2016 | Society of Critical Care Medicine THRIVE Grant reviewer |
| 2016-present | The Defense and Veterans Brain Injury Center (DVBIC) intramural research grant science reviewer |

- 2017 University of Pittsburgh Central Research Development Fund Grant reviewer
- 2017 National Institutes of Health/National Institute on Aging, Special Emphasis Panel. ZAG1 ZIJ-3(01). Relationship between Delirium and Alzheimer's disease
- 2017-present Society of Critical Care Medicine Research Grant reviewer- Weil and Discovery grants
- 2017 International Society for Nurses in Genetics Grant reviewer

Editorial Board/Regular Manuscript Reviewer

- 2005-present Journal of Neuroscience Nursing, regular reviewer
- 2007-present Biological Research for Nursing, regular reviewer
 2016-present Guest Editor, 'Primer in Genetics and Genomics Series'
 2018-present Editorial Board Member
- 2007- 2012 Nursing Research, regular reviewer
- 2008- present Journal of Neurotrauma, ad hoc reviewer
- 2010-2014 Open Critical Care Medicine Journal, regular reviewer, Editorial Advisory Board member
- 2012-present PLOS One, regular reviewer
 2014-present Editorial Board Member
- 2014-present Pediatric Critical Care Medicine, ad hoc reviewer
- 2014-present Journal of the Neurological Sciences, ad hoc reviewer
- 2014-present Stroke, ad hoc reviewer
- 2014-present Heart & Lung: The Journal of Acute & Critical Care, ad hoc reviewer
- 2015 Biomarkers, ad hoc reviewer
- 2015 BMC Neurology, ad hoc reviewer
- 2017-present Journal of Nursing Measurement, reviewer
- 2018 Nursing: Research and Reviews, ad hoc reviewer
- 2018 Neurology Reviews, ad hoc reviewer
- 2018 Neurocritical Care, ad hoc reviewer

PRESENTATIONS

International Paper

1. (2000, August). Continuous assessment of cerebrovascular regulation after subarachnoid hemorrhage (SAH), by near- infrared spectroscopy (NIRS). International Society on Oxygen Transport to Tissue. Nijmegen, Netherlands.
2. (2004, February). Cerebrospinal fluid (CSF) calcium as a biomarker of vasospasm after subarachnoid hemorrhage (SAH). Society of Critical Care Medicine 33rd International Educational and Scientific Symposium. Orlando, FL.
3. (2004, October). Apolipoprotein E genotype and outcomes in the subarachnoid hemorrhage population. International Society of Nurses in Genetics, Annual International Conference. Toronto, Canada.
4. (2007, February). Nursing year in review. Society of Critical Care Medicine 36th Critical Care Congress. Orlando, FL.
5. (2008, October). Influence of the Endothelial Nitric Oxide Synthase Gene and Recovery from SAH. 21st Annual ISONG Conference.
6. (2009, February). NO Pathway Biomarkers of CV after SAH. Society of Critical Care Medicine 38th Annual Critical Care Congress. Nashville, TN.
7. (2010, October). DDAH2 Genotype Predicts Outcome after Subarachnoid Hemorrhage. International Society of Nurses in Genetics 23rd Annual Conference. Dallas, TX.
8. (2012, February). APOE Genotype, Inflammation and Delirium in ICU Patients. Society of Critical Care Medicine 40th Annual Critical Care Congress. Houston, TX.
9. (2012, October) Genetics Influences on Risk of Stroke and Stroke Recovery. International Society of Nurses in Genetics, 25th Annual Conference. Philadelphia, PA.
10. (2014, November) Inflammatory Gene Methylation Profile as a marker of ICU Delirium. International Society of Nurses in Genetics 27th Annual Congress. Philadelphia, PA, USA.
11. (2017, November) ICU Delirium and Changes in IL6ST Methylation. International Society of Nurses in Genetics 30th Annual Congress, Reston, VA, USA.

Poster

1. (2000, August). Vasospasm detection following SAH using cerebral oximetry. International Society on Oxygen Transport to Tissue. Nijmegen, Netherlands.
2. (2002, January). Effect of Apolipoprotein E genotype on cerebral blood flow in traumatic brain injured patients. Society of Critical Care Medicine 31st International Educational and Scientific Symposium. San Diego, CA, USA.
3. (2005, October). APOE ϵ 2 allele, clotting, and hemorrhage in traumatic brain injury. International Society of Nurses in Genetics Annual International Conference. Salt Lake City, UT, USA.
4. (2008, February). eNOS Tagging SNPs and CV after SAH. Society of Critical Care Medicine 37th

International Educational and Scientific Symposium. Honolulu, HI, USA.

5. (2010, February). DDAH2 Genotype Predicts Outcome after Subarachnoid Hemorrhage. Society of Critical Care Medicine 39th Critical Care Congress. Miami, FL, USA.
6. (2011, January) Interleukin 6 and Delirium in ICU Patients. Society of Critical Care Medicine 40th Critical Care Congress. San Diego, CA, USA.
7. (2011, October) APOE Genotype and Delirium in an ICU Population. International Society of Nurses in Genetics 24th Annual International Conference. Montreal, Canada.
8. (2014) Inflammatory Gene Methylation in ICU Patients with and without Delirium. Society of Critical Care Medicine, 42nd Annual Critical Care Congress. San Francisco, CA, USA.
9. (2016) Medical History, Delirium and Recovery from the ICU. Society of Critical Care Medicine, 44th Annual Critical Care Congress, Orlando, FL, USA.

National

Paper

1. (1999, March). Charting the course for standardizing neurologic assessment in the ICU. 31st Meeting & Exposition of the American Association of Neuroscience Nurses. Philadelphia, PA.
2. (2002, September). An analysis of the SF-36 function subscale and the Barthel index for use in the subarachnoid hemorrhage population. State of the Science in Nursing Research. Washington, D.C.
4. (2004, October). Cerebrospinal fluid calcium levels and cerebral vasospasm after subarachnoid hemorrhage. National Congress on the State of the Science in Nursing Research. Washington, D.C.
5. (2006, April). Apolipoprotein E and outcome after subarachnoid hemorrhage. American Association of Neuroscience Nurses 38th Annual Meeting. San Diego, CA.
6. (2007, May). Basic genetics for nurses. National Teaching Institute & Critical Care Exposition. Atlanta, GA.

Poster

1. (2015, June). Smithburger, P. L., **Alexander, S.A.**, Kane-Gill, S., Korenoski, A., Gries, C.J. Healthcare provider perception of delirium prevention and family involvement in a medical intensive care unit. The 5th Annual American Delirium Society Meeting, Baltimore MD

Regional

Paper

1. (2001, April). Vasospasm detection following SAH using cerebral oximetry. 13th Annual Scientific Session of the Eastern Nursing Research Society. Atlantic City, N.J.
2. (2001, April). Effect of alcohol intoxication on cerebral blood flow and outcomes following a severe traumatic brain injury. 13th Annual Scientific Session of the Eastern Nursing Research Society. Atlantic City, N.J.
3. (2002, April). A comparison of psychometric qualities of the SF-36 physical function subscale and the

Barthel index in the subarachnoid hemorrhage population. 14th Annual Scientific of the Session of the Eastern Nursing Research Society. State College, PA.

4. (2005, April). Apolipoprotein E genotype and outcomes in the subarachnoid hemorrhage population. 17th Annual Scientific Session of the Eastern Nursing Research Society. New York City, NY.
5. (2006, April). APOE genotype and cognitive outcomes after severe TBI. Eastern Nursing Research Society 18th Annual Scientific Sessions. Cherry Hill, NJ.
6. (2008, March). Endothelial Nitric Oxide Synthase Tagging Single Nucleotide Polymorphisms and Outcome after Aneurysmal Subarachnoid Hemorrhage. Eastern Nursing Research Society 20th Annual Scientific Sessions. Philadelphia, PA.
7. (2009, March). Bringing Genetics into Your Program of Nursing Research. Eastern Nursing Research Society 21st Annual Scientific Sessions. Boston, MA.
8. (2014, April). Gene-Protein Interaction: A Methodology for Integration of Biomarkers into Nursing Research. Eastern Nursing Research Society 26th Annual Scientific Sessions. Philadelphia, PA
9. (2015, April). Consent and Human Subject Issues for Genetic and Genomic Research. Eastern Nursing Research Society 27th Annual Scientific Sessions, Washington, D.C.
10. (2016, April). Special Populations: Conducting Genetic, Genomic and Physiologic Research in Cognitively Impaired, Critically Ill Adults. Eastern Nursing Research Society 28th Annual Scientific Sessions, Pittsburgh, PA.

Local

Paper

1. (1990, September). Care of the patient with an arterio-venous malformation. Nursing Grand Rounds. Montefiore University Hospital. Pittsburgh, PA.
2. (1994, May). Myasthenia Gravis. Nursing Grand Rounds. Montefiore University Hospital. Pittsburgh, PA.
3. (2000, October). Influence of delaying treatment after symptoms develop from subarachnoid hemorrhage (SAH) on outcome: a preliminary analysis. Greater Pittsburgh 12th Annual Nursing Research Conference. Pittsburgh, PA.
4. (2005, April). The effect of APOE genotype on outcome in severe traumatic brain injured adults. Brain Trauma Research Center Monthly Lecture Series. Pittsburgh, PA.
5. (2007, April). Apolipoprotein E and severe traumatic brain injury: Book 2. Safar Center for Resuscitative Research Monthly lecture series. Pittsburgh, PA.

Poster

1. (2002, February). Effects of the APOE 4 allele on memory following traumatic brain injury (TBI). Sigma Theta Tau, Eta Chapter Poster Presentation Night. Pittsburgh, PA.

Invited Lectures

1. (2008, October). Traumatic Brain Injury: Saving Lives, Saving Brain. Pennsylvania State Nurses Association Annual Summit. State College, PA
2. (2009, March). Bringing Genetics into Your Program of Research. Eastern Nursing Research Biobehavioral Research Interest Group Sponsored Symposium. Boston, MA.
3. (2010, September). NO Means NO: Nitric Oxide as an Inhibitor of Cerebral Vasospasm after Subarachnoid Hemorrhage. Neurocritical Care Society, San Francisco, CA.
4. (2011, January). Apolipoprotein E, Inflammatory Markers and Delirium in ICU Patients. Nursing Section Business Meeting, Society of Critical Care Medicine. San Diego, CA.
5. (2011, June) Moderator. The Spectrum of Simulation- A Quest to Improving Healthcare Education. 9th Annual Safar Symposium. Pittsburgh, PA.
6. (2012, March). Blame It on Your Mother: Genetic Influences on Stroke and Recovery. UPMC Stroke Institute 12th Annual Acute Stroke Management Conference. Canonsburg, PA.
7. (2012, July). Pharmacogenetics/Pharmacogenomics: Science. National Nurse Practitioner Symposium, Copper Mountain, CO.
8. (2012, October). What can you do with a PhD? Academic Nursing Research. Nursing Section Breakfast, Neurocritical Care Society. Denver, CO.
9. (2012, October) Moderator. Found in Translation: What your patients need to know right now about translational research. Neurocritical Care Society. Denver, CO.
10. (2013, January). Neurocritical Care Research: One Investigators' Journey Down the Road Less Traveled. Center for Bio-Behavioral Clinical Research, School of Nursing, Virginia Commonwealth University. Richmond, VA
11. (2013, January). Neuroscience Nurses in Academia and Research. Arbeitstagung für neurologische Intensiv- & Notfallmedizin (Workshop for Neurological Intensive Care & Emergency Medicine). Mannheim, Germany.
12. (2013, January). Nursing in the United States of America: Past, Present and Future. Duale Hochschule Baden-Württemberg Stuttgart (Dual Academy of Baden-Wurttemberg, Stuttgart), Stuttgart, Germany.
13. (2013, February). Delirium: Risks, Recognition, Remedies and Recovery. Pulmonary, Allergy, and Critical Care Medicine Grand Rounds, Pittsburgh, PA.
14. (2013, May). Pharmacogenomics: Basic Science. National Conference for Nurse Practitioners. Nashville, TN.
15. (2013, May). Pharmacogenetics/Pharmacogenomics: Science. National Teaching Institute & Critical Care Exposition, Boston, MA.
16. (2013, September). Nursing Research in Neurocritical Care. Research Career Development Symposium in Neurocritical Care, 11th Annual Neurocritical Care Society Meeting, Philadelphia, PA.

17. (2013, October). Electronic Medical Records Improve Care in the NeuroICU Debate (Pro). 11th Annual Neurocritical Care Society Meeting, Philadelphia, PA.
18. (2013, October). Incorporating Genetics/Genomics into the MSN Curriculum to Meet the Essentials. ISONG Silver Anniversary Conference, Bethesda, MD.
19. (2014, November) Incoming Presidential Address, ISONG Annual Congress, Phoenix, Az.
20. (2014, November) Case Studies to Enhance Education: Unfolding Case Studies: Huntington Disease as an Exemplar for Multidisciplinary Pathophysiology Education. ISONG Annual Congress, Phoenix, Az.
21. (2015, July). The Science behind Pharmacogenetics/Pharmacogenomics: Basic Science. National Nurse Practitioner Symposium, Keystone, CO.
22. (2015, July). Delirium in the Intensive Care Unit. National Nurse Practitioner Symposium, Keystone, CO.
23. (2015, November). Presidential Welcome Message. ISONG Annual Congress, Pittsburgh, PA.
24. (2016, March/April). My Career as a Nurse Scientist: A Journey Down the Road Less Traveled. Honors Day Program, University of Pittsburgh, Pittsburgh, PA.
25. (2017, April). Clinical practice guidelines: Be part of the process. American Association of Neuroscience Nurses 49th Annual Meeting, Boston, MA.
26. (2017, November). Gut Microbiome Changes and ICU Delirium. Center for Microbiome & Medicine Data Blitz, Pittsburgh, PA.
27. (2018, February). How to be a good mentor; How to be a good Mentee. Roundtable discussion. Society of Critical Care Medicine Critical Care Congress. San Antonio, Tx.
28. (2018, February). Temporal Inflammatory Gene Methylation Profiles and ICU Delirium. Distinguished Investigator Lecture and SCCM-Weil Research Grant Recipients Lectures, Society of Critical Care Medicine Critical Care Congress. San Antonio, Tx.
29. (2018, March). SON Honors College Opportunities. Honors Day Program, Pittsburgh, PA.

TEACHING

University of Pittsburgh Medical Center

Guest Lecturer

- | | |
|-----------|--|
| 1994 | Transcranial Dopplers-Unit Based In-service. Neurovascular Intensive Care Unit. University of Pittsburgh Medical Center, Pittsburgh, PA. |
| 1997-1999 | Emergency Response Training. Western Psychiatric Institute and Clinic, Pittsburgh, PA. |
| 1997-2001 | Cardiopulmonary Resuscitation. University of Pittsburgh Medical Center, Pittsburgh, PA. |
| 2005 | Research Design. Physical Medicine and Rehabilitation. University of Pittsburgh Medical Center, |

Pittsburgh, PA.

- 2005 Research Methods. Physical Medicine and Rehabilitation. University of Pittsburgh Medical Center, Pittsburgh, PA.
- 2007 Research Design and Methods. Physical Medicine and Rehabilitation, University of Pittsburgh Medical Center, Pittsburgh, PA
- 2017- present Research in Special Populations: Cognitively Impaired Adults, Clinical and Translational Science, University of Pittsburgh, Pittsburgh, PA.

Children's Hospital of Pittsburgh

- 2006-2008 Brain Anatomy (for Pediatric Trauma Nurse Fellows)
- 2006-2008 Brain Disorders (for Pediatric Trauma Nurse Fellows)
- 2009 Critical Care Awareness Month Lecture Series.
Seizures and Antiepileptic Medications

University of Pittsburgh School of Education

- June 2006 Cardiovascular Risk (for Exercise Physiology Students)

University of Pittsburgh School of Nursing

Primary Teacher

- 2005-present NUR 2004 Pathophysiology across the Lifespan. (Fall and Summer terms for 2005-2006; Fall, Spring and Summer terms for 2006-present)
Core graduate course presented to approximately 200 students yearly enrolled in nurse practitioner, nurse anesthesia, clinical nurse specialist, nursing administration nursing education, informatics and research master's programs. This course is also offered to students from the graduate school of public health (EPIDEM 2004) and health and rehabilitative sciences (HRS 2004).
- 2009-present NUR 2204/2004 Pathophysiology across the Lifespan. (Fall)
Core graduate course presented to approximately 5-10 students in the ONLINE Clinical Nurse Leader program.
- 2012-present NUR 2004D Pathophysiology across the Lifespan. (Fall/Spring/Summer)
Core graduate course presented to 10-20 students yearly enrolled in select nurse practitioner programs. This course is offered via distance education and offered synchronously with NUR 2004.
- 2015-2016 NUR 3050 Grant Writing. (Summer)
Doctorate level course presented to 5 students in select Online Doctor of Nursing Practice Programs.
- 2015-2018 NUR 2008 Ethics for Advanced Practice Nurses (Fall/Spring/Summer)

Core graduate course presented to 25 students enrolled in various graduate programs in the School of Nursing. This course is offered online.

2018-present NUR 1085 Ethics in Nursing and Healthcare (Fall/Spring)
Core undergraduate course presented to about 25 students enrolled in the second degree undergraduate program in the School of Nursing.

Guest Lecturer School of Nursing

2001-2003 NUR 3030 Research Development. Annual lecture on 'Hiring Project Directors'.

February, 2004 NUR 1680 Introduction to Genetics and Molecular Therapies. 'DNA/RNA Replication'.

October, 2004 NUR 2004 Advanced Pathophysiology. 'Alterations in Neurologic Function'.

2007- 2016 NUR 3049 Doctoral Research Seminar. 'Genetic and Physiologic Neurologic Research'

2007- 2013 NUR 3040 Research Emphasis. 'Using Genetics to Understand Outcomes in Critically Ill Neuro Patients: Strategies for Success'

August, 2008 2008 Pharmacology Update. 'Genetic-driven Prescribing.'

September, 2008 NUR 1680 Introduction to Genetics and Molecular Therapies. 'Individualized Medical Management in the Genomic Era: Genetic Driven Therapies'

2009- 2013 NUR 3030 Research Development. 'Department of Defense Grants: Topics & Review Process'

2009- 2011 NUR 0067 Nursing research: Introduction to critical appraisal and evidence based practice. 'Genetic and Physiologic Neurologic Research'

June, 2009 2009 Pharmacology Update. Little People, Big Headaches: Medical Management of Migraines in Pediatric Populations.

June, 2009 2009 Pharmacology Update. Seizures and Epilepsy in Pediatric Populations: Concepts to Guide Medical Management.

March, 2010-2011 University of Pittsburgh Medical Center Health Plan Continuing Education Series. Lifetime Management of Sickle Cell Disease.

July, 2010-2017 NUR 3110 Research Instrumentation. 'Physiologic Research Methods.'

November, 2018 NUR 1085 Ethics in Nursing and Healthcare. 'Global Health.'

Clinical Supervision School of Nursing

2006 (Spring) Instructor: NUR 1033 Transitions into Nursing
2008 (Summer) Instructor: NUR 1033 Transitions into Nursing
2009 (Fall) NUR 0080 Foundations of Nursing Practice 1
2010 (Spring) NUR 0081 Foundations of Nursing Practice 2

Undergraduate Research Mentorship

| | |
|--------------|-----------------------|
| 2005 -2008 | Mollie Orr |
| 2007 - 2009 | Katie Flaherty |
| 2007 -2010 | Jenny Melchior |
| 2007 - 2010 | Ellen Kantor |
| 2009 - 2010 | Kelly Moon |
| 2009 | Tiffany Fletcher |
| 2009 - 2011 | Lyndsey Pretsch |
| 2010 | Emily Christopher |
| 2010 | Brooke Stewart |
| 2010 -2012 | Kristin Kamp |
| 2010- 2012 | Ariella Laiken |
| 2011 | Maryam Adebayo |
| 2011 | Sara Hervitz |
| 2011-2013 | Yelizaveta Tsyss |
| 2011-2014 | Apoorva Gopalakrishna |
| 2012-2013 | Meaghan Maydick |
| 2012-2015 | Lisa Nagy |
| 2014-2016 | Maeve O'Donnell |
| 2016-2018 | Grace Paik |
| 2017-2018 | Meryn Holtslander |
| 2017-present | Janette Kim |
| 2017-2018 | Hannah Beck |
| 2018-present | Akshay Roy |

Masters Research Practicum Preceptor

| | |
|---------------|--------------------------------|
| 2000 (Summer) | Kevin Gasior, MSN student |
| 2000 (Fall) | Dwight Herman, MSN student |
| 2001(Spring) | William Shaulis, MSN student |
| | Chris Yost, MSN student |
| 2002 (Spring) | Marina Ogden, MSN student |
| 2004 (Spring) | Brian Pelkey, MSN student |
| 2006 (Spring) | Dawn Mudar, MSN student |
| | Shai Goel, MSN student |
| 2006 (Summer) | Erin Carwille, MSN student |
| 2009 (Spring) | Sarah Klein, MSN student |
| 2010 (Spring) | Christina Blewitt, MSN student |
| | Paul J. McMullen, MSN student |
| 2010 (Summer) | LaShonda Gray, MSN student |
| | Jordan Thompson, MSN student |
| 2011 (Spring) | Marissa Berg, MSN student |
| | Nicole Cournoyer, MSN student |
| 2011 (Summer) | Archana Shah, MSN student |
| | Christina Sivak, MSN student |
| | Tawni Fuller, MSN student |
| 2012 (Spring) | David Gaggini, MSN student |
| | Shannon Barr, MSN student |
| 2012 (Summer) | James Durall, MSN student |

| | |
|---------------|--------------------------------|
| 2013 (Spring) | Sean Griffith, MSN student |
| 2014 (Summer) | E. Jamaal Hawkins, MSN student |
| 2015 (Summer) | Allyson Heard, MSN student |
| 2017 (Spring) | Jessica J. Davis, MSN student |

DNP Research Practicum Preceptor

| | |
|---------------|---------------------------|
| 2018 (Spring) | Greg Romano, DNP student |
| 2018 (Spring) | Kyle Sheerin, DNP student |
| 2018 (Spring) | Shawn West, DNP student |

Doctoral Practicum Preceptor

| | |
|---------------|--|
| 2005 (Spring) | Coordinating Clinical Trials Practicum Taura Barr, RN, PhD student |
| 2006 (Spring) | Manuscript Development Practicum Matt Gallek, RN, PhD student |
| 2006 (Summer) | Neuroanatomy Peiyong Chuang, PhD student |
| 2008 (Spring) | Coordinating Clinical Trials Practicum Claire Shaler, PhD student |
| 2013 (Spring) | Genetic Research Proposal Development Nicole Osier, RN, PhD student |
| 2013 (Summer) | Genetic Research Proposal Development II Nicole Osier, RN, PhD student |
| 2013 (Fall) | Research in Critical Care Tammy Eaton, RN, PhD student |
| 2014 (Fall) | Animal laboratory methodologies in TBI research Nicole Osier, RN, PhD student |
| 2017 (Spring) | Maighdlin Anderson, RN, DNP student Pupillometer Use in the Neuro-Trauma ICU Megan Maserati, RN, PhD student |
| 2018 (Fall) | Biomarkers of Traumatic Brain Injury Megan Maserati, RN, PhD student Biomarkers of Traumatic Brain Injury; Specific Aims |

Theses, Capstones and Dissertations

Bachelor of Philosophy Thesis Chair

Ellen Kantor, SN. "An Analysis of Haptoglobin Genotypes and Recovery from Aneurysmal Subarachnoid Hemorrhage". Final presentation August, 2011

BSN-Honors Thesis Committee Chair

Grace Paik, SN. "Is Temporal Artery Thermometry a Useful Indicator of Core Bod Temperature in Patients Receiving General Anesthesia?" Final presentation April, 2018.

Janette Kim, SN. DOES A FUNCTIONAL SNP VARIANCE IN INTERLEUKIN-6 LEAD TO INCREASED PHYSIOLOGY OF DELIRIUM IN ICU PATIENTS?,"
Final presentation scheduled: March 7, 2019

MS Thesis Committee

Tian He, BE. Haptoglobin after Subarachnoid Haemorrhage: Individual Patient Level Data (IPLD) Analysis. Final defense, April 2018.

DNP Doctoral Capstone Committee member

Kim (Weinholdt) Shatz RN, BSN, CCRN. "ICU Delirium" Final presentation April 2015

Madeline Georgino, RN, BSN, PCCN, CCRN. "Emergency Preparedness and Disaster Response: Trauma Nurse Education at a Level 1 Trauma Center Utilizing the Emergency Preparedness Information Questionnaire (EPIQ)." Final presentation December 2014

DNP Doctoral Capstone Committee chair

Maighdlin Anderson, RN, BSN, MSN, ACNP-BC. "Improved Care of Adult Patients With Severe Traumatic Brain Injury by the Use of an Automated Pupillometer During Regular Neurological Assessments." Final presentation March 2017.

PhD Doctoral Dissertation Committee member

Ava Puccio, RN, MSN, PhD "Effect of FiO₂ Elevation on Local Brain Tissue Oxygenation & Cerebrospinal Fluid Oxidative Stress Markers in Severe Traumatic Brain Injury." Defense, March, 2008

Matthew Gallek, RN, BSN, PhD "Endothelin-1 Polymorphisms and Endothelin-1 Cerebrospinal Fluid Protein Expression and their Relationships to Cerebral Vasospasm and Long Term Outcomes in Individuals Following Aneurysmal Subarachnoid Hemorrhage." Defense: May, 2008

Peiyong Chuang, MSN, PhD "Neuroglobin Genetic Polymorphisms and Their Relationship to Functional Outcome Following Traumatic Brain Injury." Defense: May, 2008.

Nicole Zangrilli- Hoh, RN, BSN, PhD "BCL2 Genotypes and Outcomes after Traumatic Brain Injury." Defense: September, 2008

Taura L. Barr, RN, BSN, PhD "Gene Expression Profiling & Biomarker Discovery in Ischemic Stroke." Defense: April, 2009.

Heba Khalil, RN "Gene-Gene Interactions and Opioid Response in Post-operative Pain Management." Defense: November, 2015.

Katie Edwards, RN (Clemson University School of Nursing/National Institute of Health, National Institute of Nursing Research Graduate Partners Program) "Peripheral Biomarkers of Inflammation Following Blast Exposure in a Clinical Population." Defense- March, 2018.

Lacey Wright Heinsberg, RN, BSN. "Epigenetic Variation of the Iron Homeostasis Pathway in Patient Outcome Following Aneurysmal Subarachnoid Hemorrhage."

Letitia Graves, RN, BSN. 'Genetics and Symptomology after Spinal Cord Injury.'

PhD Doctoral Dissertation Committee Chair

Nicole Osier, RN, BSN PhD Student "Mechanism of Melatonin-induced Neuroprotection

in Severe Traumatic Brain Injury.” Defense: July, 2016.

Megan Maserati, RN, BSN, PhD Student. ”Biomarkers of Mild and Moderate Traumatic Brain Injury”

Tammy Eaton, RN, BSN, MSN, PhD Student. ”Palliative Care Intervention in the Context of an ICU Survivors Clinic.”

Children’s Hospital of Pittsburgh/Safar Center for Resuscitative Research, Research Committee member
Laura Watkins, MD Critical Care Medicine Fellow

Jonas Nurse Leader Scholar Program Mentor

Tammy Eaton, RN, BSN, MSN, PhD student, University of Pittsburgh
Katie Edwards, RN, PhD student, Clemson University

Independent study

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|---------------|---|
| 2005 (Fall) | Basic Neuroanatomy. Taura Barr, PhD student |
| 2006 (Spring) | Manuscript development. Taura Barr, PhD student |
| 2006 (Summer) | Neurologic and epidemiologic research methods. Peiyong Chuang, PhD student |
| 2006 (Summer) | Advanced Pathophysiology. Kirsten Samuelson, pre-BSN student |
| 2006 (Fall) | Neuro-physiologic methods, analysis and manuscript development. Erin Carwille, MSN student |
| 2006 (Fall) | Neuroscience and neuroscience nursing manuscript development. Peiyong Chuang, PhD student |
| 2007 (Summer) | Graduate level teaching. Matthew Gallek, BSN, PhD student |
| 2007 (Fall) | Genetics in Neuroscience Nursing Peiyong Chuang, PhD student |
| 2008(Fall) | Genetic Based Research Strategies in Neuroscience Karen Kovach, PhD student |
| 2009 (Summer) | Theory and Framework Driving Physiologic Research Karen Kovach, PhD student |
| 2009 (Summer) | Advanced Pathophysiology. Michelle Henritzky, pre-BSN student |
| 2009 (Fall) | Advanced Pathophysiology. Deborah Woome, MSN student |
| 2010 (Fall) | Evidenced based rehabilitation for stroke patients Christian Page, MSN student |
| 2011 (Fall) | Neurologic Research in Acute Brain Injured Populations Nicole Osier, PhD student |
| 2011 (Fall) | Concepts in Advanced Pathophysiology Susan Albrecht, PhD, RN Teresa Lucchetti, MSN student Rebecca Robinson, MSN student |
| 2011 (Fall) | Professional Writing for Publication Kristin Kamp, BSN student |

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| 2012 (Spring) | Professional Writing for Publication Kristin Kamp, BSN student Ariella Laiken, BSN student |
| 2012 (Fall) | Select Topics in Advanced Pathophysiology Oliver Douglas Smith, MSN student Allyson Kornarhens, MSN student Amy Wojdyla, MSN student |
| 2013 (Fall) | Exploring Human Brain Injury Nicole Osier, BSN, PhD student Select Topics in Advanced Pathophysiology Justin Bala Hampton, PhD/DNP student Julie Eiler, MSN student Heather Madera, MSN student Emily Matone, MSN student International Healthcare Utilization Research Lisa Nagy, BSN student |
| 2014 (Spring) | Manuscript Preparation (translational research dissemination) Nicole Osier, BSN, PhD student International Healthcare Utilization Research II Lisa Nagy, BSN student Select Topics in Advanced Pathophysiology Joseph Kim, MSN student |
| 2014 (Summer) | PhD Dissertation (Thesis Research) Nicole Osier, BSN, PhD student Capstone Project (Directed Studies) Samuel Hoffman, BSN, MSN, DNP student |
| 2014 (Fall) | F31 Proposal Development Tammy Eaton, RN, PhD student PhD Dissertation (Thesis Research) Nicole Osier, BSN, PhD student |
| 2015 (Spring) | F31 Proposal Development Tammy Eaton, RN, PhD student PhD Dissertation (Thesis Research) Nicole Osier, BSN, PhD candidate |
| 2015 (Summer) | Grant Proposal Development Megan Maserati, RN, DNP, PhD student PhD Dissertation (Thesis Research) Nicole Osier, BSN, PhD candidate |
| 2015 (Fall) | Select Topics in Advanced Pathophysiology Roseanne DeCastro, MSN student |
| 2017 (Spring) | Select Topics in Advanced Pathophysiology Janelle Pickering, DNP student Joshua Bentzen, MSN student |
| 2017 (Spring) | Select Topics in Advanced Pathophysiology Martina Cade, DNP student Ajaypal Singh, DNP student |
| 2018 (Fall) | Select Topics in Advanced Pathophysiology Jody Bodenschatz, BSN, DNP student Jeffrey Jurosky, BSN, DNP student Research Fundamentals Janette Kim, SN |

Select Topics in Nursing and Healthcare Ethics
 Bruce Egbudin, SN
 James Kunst, SN
 Raquel Ferris, SN

SERVICE

University of Pittsburgh Medical Center

1/92-7/96 Member, Unit based Quality Improvement Committee
 6/93-7/96 Member, Unit based Patient Education Committee
 8/93-7/96 Member, Primary Nursing Task Force
 6/97-9/99 Member, Medical Emergency Committee, WPIC
 11/98-9/99 Member, Nursing Documentation Committee
 11/98-9/99 Member, Nursing Roles Committee

University of Pittsburgh

2009-present University of Pittsburgh Postdoctoral Association Data & Dine Symposium
 Table host/Abstract judge

2014 Women in Medicine & Science Forum, *'Self Promotion: Building Your Brand for Success'* Group
 Facilitator

2012-2018 Member, University of Pittsburgh Faculty Senate Library Committee
 2013-2014 Chair

2018-present Member, University of Pittsburgh Bylaws and Procedures Committee

University of Pittsburgh School of Nursing

4/03 – 9/04 Student representative, Search Committee, Assistant Dean for Scientific & International Affairs

2005-present Member, MSN Council

2005-2009
 2018-present Member, Evaluation and Steering Committee

2005-2007 Member, Cameos of Caring Scholarship Review Committee

2005 Member, Scholarship Review Committee

2006 Member, Clinical Instruction Review Committee

2006, 2009,
 2011, 2012,
 2014 Grant Reviewer, Ruth Perkins Kuehn Research Review Committee

2006-2007 Chair, Evidenced Based Practice Implementation Evaluation Taskforce

2007-present Member, PhD Council

- 2009-2011 Member, PhD Program Outcome Evaluation subcommittee
- 2007, 2010,
2011, 2013 Grant reviewer, Leslie A. Hoffman Endowed Acute Care Nursing Research Fund Committee
- 2005-present Member, BSN Council
- 2008-2010 Member, PhD Curriculum Committee
2009 Chair
- 2008-2009 Chair, MSN Quality Improvement Committee
- 2012-present Member, DNP Council
- 2012 Member, PhD Council Career Development Task Force
- 2012 Member, PhD Council Research Course Task Force
- 2012 Member, Cameos of Caring Advanced Practice Award Selection committee member
- 2013- 2015 Member, PhD Program Progression and Graduation Committee
2014-2015 Chair
- 2014-2015 Refreshing the Curriculum Taskforce 10
Advocacy
Education
- 2015-present Member, Nursing University Honors College Committee
- 2017-present Member, Planning and Budget Committee
2018 Chair
- 2018 Member, MSN Council Advancement, Progression and Graduation Taskforce.

Consultation

- 2005 Review of credentials for promotion to Associate Professor without tenure.
Wayne State University, Detroit, MI
- 2005 Genetics (1) and Neuroscience (4) chapter reviews. LeMone Publishing.
- 2006-2010 Research program design Brain Trauma Research Center visiting physicians/fellows.
- 2012-2015 Surviving Critical Care Clinic development committee, University of Pittsburgh Medical Center.
- 2012-present Delirium assessment and management in the Intensive Care Units committee, University of Pittsburgh Medical Center.
- 2013 Biological Research in Intensive Care/Acute Care Settings. Center for Bio-Behavioral Clinical Research, Virginia Commonwealth University.

- 2013 Professional Nursing Development. Duale Hochschule Baden-Württemberg Stuttgart (Dual Academy of Baden-Wurttemberg, Stuttgart), Stuttgart, Germany.
- 2014 Review of credentials for promotion to Associate Professor without tenure. Rush University, Chicago, Ill.
- 2015 Family involvement in prevention of ICU Delirium. University of Pittsburgh Medical Center.
- 2015 Review of credentials for promotion to Associate Professor Duke University, Durham, NC.
- 2015 Faculty Mentor for Visiting Scholar, P. Amay-Ray, Professor, School of Nursing, Universidad Nacional de Colombia, Bogota, Columbia; Incorporating Genetics and Genomics into Nursing Resarch and Education.
- 2015 Review of Hartford Award for Research and Practice (HARP) Research Proposal, Oregon Health and Science University, Hartford Center of Gerontological Nursing Excellence at OHSU, Portland, OR.
- 2015 Review of credentials for promotion to Associate Professor University of California Los Angeles School of Nursing, Los Angeles, CA.
- 2016 Review of credentials for promotion to Associate Professor without Tenure (Tenure Stream) University of Pittsburgh Johnstown, School of Nursing, Johnstown, PA.
- 2016 Review of credentials for promotion to Associate Professor with Tenure in the School of Nursing and Health Studies at Northern Illinois University, Dekalb, IL.
- 2017 Review of credentials for promotion to Associate Professor in the Tenure Stream University of Texas Health Science Center at Houston, School of Nursing, Houston, TX.
- 2017 Delirium in Nursing Home Residents, grant review. Asuzu Pacific Univeristy School of Nursing, Azusa, CA.
- 2018 Faculty Mentor for Visiting Scholar Yanwei Long, MSN, Xiangya Hospital, Changsha, P.R. China; Neuroscience Nursing Resarch and Education.

Community

- 2005 Volunteer, Young Women in Science Day