TAURA L. BARR, PHD, RN, FAHA Robert Wood Johnson Foundation Nurse Faculty Scholar Alum

Co-Founder and Chief Science Officer, Valtari Bio Inc Founder and CEO Deep Roots Healing LLC 523 Yukon Drive Moorefield WV 26836 724-710-0541 <u>tbarr@valtaribio.com</u> <u>taurabarr@gmail.com</u>

EDUCATION

Doctor of Philosophy, Nursing Research, emphasis in Translational Neuroscience, University of Pittsburgh & National Institutes of Health, National Institute of Nursing Research, Graduate Partnership Program, 2009

Bachelor of Science, Nursing, University of Pittsburgh, 2004

CERTIFICATIONS

Holistic Nurse Certification in progress

YogaFaith Registered Yoga Instructor, RYT 200 ID: 277754

Registered Nurse- West Virginia, Multi-State, September 2010-Present #79595

Registered Nurse-Pennsylvania, August 2004-Present #RN557830

Registered Nurse-Maryland, September 2006-2012 #R175589

Basic CPR 2000-Present

NIH Stroke Scale Certification 2007-Present

Advanced Cardiac Life Support 2006-2011

Certified Phlebotomy, University of Pittsburgh Presbyterian Hospital June 2001

PROFESSIONAL EXPERIENCE

Academic

Visiting Professor, Case Western Reserve University, January 2016-August 2018 Consultant, Duke University School of Nursing, January 2016-May 2017 Adjunct Faculty, University of Pittsburgh School of Nursing, January 2013-November 2015 Adjunct Faculty, Department of Emergency Medicine, West Virginia University, May 2011-November 2015

- Tenure Track Assistant Professor, School of Nursing, West Virginia University, July 2010-November 2015
- Nurse Specialist (Research), GS-0610, Grade 12, Step 01, Tissue Injury Unit, Intramural National Institute of Nursing Research, Bethesda MD, Director: Raymond Dionne DDS PhD April 2009-June 2010
- Research Volunteer, National Institutes of Neurological Disorders and Stroke, Clinical Investigations Section of the Stroke Branch, Bethesda MD, Director: John Hallenbeck MD; Mentor; Paola Castri MD, PHD June 2008-April 2009

- Graduate Partnerships Program Pre-Doctoral Research Fellow, National Institutes of Neurological Disorders and Stroke, Stroke Diagnostics and Therapeutics Section of the Stroke Branch, Co-Primary Mentor: Steven Warach MD PhD and the National Institute on Aging, Laboratory of Neurogenetics, Co-Primary Mentor: Andrew Singleton PhD Bethesda MD August 2006-April 2009
- Summer Genetics Institute Fellow, National Institute of Nursing Research, Bethesda MD June 2006-July 2006
- Student Worker, University of Pittsburgh School of Nursing, Director: Ellen Olshansky DNSc, RNc, FAAN, Pittsburgh, PA, November 2005-May 2006
- Research Volunteer, University of Pittsburgh School of Nursing, Director: Yvette Conley PHD, Pittsburgh PA, October 2005-April 2006
- Research Volunteer, University of Pittsburgh, School of Medicine, Safar Center for Resuscitation Research, Director: Robert S. Clark MD, Pittsburgh PA, August 2004-January 2006
- Research Assistant, Neurology, Critical Care, University of Pittsburgh School of Nursing, Director: Mary Kerr PhD RN, Pittsburgh PA January 2001-April 2004

Industry

Founder & CEO, Deep Roots Healing LLC, <u>www.deeprootshealing.org</u> Moorefield WV October 2015-Present

Co-Founder & Chief Science Officer, Valtari Bio LLC, <u>www.valtaribio.com</u>, Morgantown WV February 2014-Present

Consultant, Mueller Law Offices, Austin Texas, November 2012-January 2013

Scientific Advisory Committee Chair, VuEssence Inc, Odessa, Fl June 2012-March 2013

Administrative

Founder & CEO, Deep Roots Healing LLC, <u>www.deeprootshealing.org</u> Moorefield WV October 2015-Present

Co-Founder & Chief Science Officer, Valtari Bio Inc, <u>www.valtaribio.com</u>, Morgantown WV February 2014-Present

Vice Chair American Heart Association Cardiovascular and Stroke Nursing Council July 2014-August 2016

Associate Director of Clinical Translational Research, WVU Stroke Center, July 2014-November 2015

Nursing Practice

Registered Travel Nurse, Progressive Nursing Staffers, ICU Specialty, Maryland Hospitals, April 2008-January 2009

Registered Nurse, Clinician II, Suburban Hospital, Post-Anesthesia Care Unit, Weekend Alternative, Bethesda MD, September 2006-August 2008

Registered Nurse, University of Pittsburgh medical center, Presbyterian Hospital, Neurovascular/Neurotrauma ICU, Unit 4F Pittsburgh PA, April 2004-January 2005

Nurse Intern, University of Pittsburgh medical center, Presbyterian Hospital, Intermediate ICU, Unit 10C, Pittsburgh PA, May 2003-August 2003

Nursing Assistant, University of Pittsburgh medical center, Presbyterian Hospital, Neurovascular/Neurotrauma ICU, Unit 4F Pittsburgh PA, January 2001-March 2004

HONORS/AWARDS

National/International

Nominee, Aspen Institute Health Innovators Fellowship, 2017, 2018, 2019

Inducted into the Fellowship of the American Heart Association, 2014

Featured Story: Wanted: Young Nurse Faculty, Robert Wood Johnson Foundation, 2013 Interview, Sciences Pages of American Academy of Neurology online, 2010

Featured Story, *Neurology In Focus*, Genomic biomarkers and cellular pathways of ischemic stroke by RNA gene expression profiling, 2010

Inductee, 2010 Who's Who Among Executives and Professionals Throughout the World, 2009

State/Local

Start-up of the Year Award, CereDx, West Virginia biotechnology conference November 2015 WVU Early Career Innovator Award, 2014

Featured Story with Paul Chantler, WVU Health A New Era: A Translational Approach to Rural Heart Disease, Fall 2012

WVU School of Nursing, Innovative Teaching in Graduate Education Award, 2012

WVU Health Sciences Center Research Day Poster Presentation Winner, Undergraduate Mentee, Noelle Lucke-Wold, 2012

Featured Story, WVU Health Spring 2012. Family Stories Drive Health Research, 2012 New Investigator Research Award, WVU School of Nursing, 2011

First WVU Clinical Translational Science Institute KL2 Scholar, 2010

Cover Story, Pitt Nurse Fall 2009 "Nurses discover hidden links through summer 'gene camp', 2009

Cover Story, Pitt Nurse, Fall 2007 "From bench to practice to policy", page 5-8, 2007 BSN Graduation Speaker, Elected, 2004

BSN Graduation, Honors, 2004

Lucas and Chaffee Memorial Undergraduate Scholars Award \$2,500, 2003 Undergraduate Conway Endowed Student Nursing Award \$2,000, 2002 Undergradaute Scholars Award, University of Pittsburgh, \$10,000, 2001 Undergraduate Dean's List 2001-2004

Honor Societies

Sigma Theta Tau, Eta Chapter, 2001-2010

SCHOLARLY ACTIVITIES

Fundraising Activities

Start-up Company

Angel Investment to create and support Valtari Bio; Barr, T. CSO and Co-Founder; \$3 million raised from January 2016-Present

Research Grants Awarded

Externally Funded

Completed, Principal Investigator

- Barr, T (PI) "A GPS (Genomic Profile of Ischemic Stroke) for Stroke Recovery" Robert Wood Johnson, Nurse Faculty Scholars Program. \$300,000 September 2012-February 2016 40% salary support
- Barr, T (PI), HHSN268201200348P "The West Virginia Community Genetics Family Health History Awareness Project"; National Human genome Research Institute, \$99,000, 9/24/2012-9/23/2013
- Barr, T (PI), HHSN263201100872P "Validation of a gene expression profile of ischemic stroke". NIH/NINR Intramural Contract. \$67,340 September 2011-August 2012
- Barr, T (PI) HHSN268201100321P West Virginia Community Genetics Forum. NHGRI Intramural Contract. \$21,500 September 2011-March 2012.
- Barr, T (Research Scholar), "Mechanisms of Post-Stroke Immune Dysfunction" WV IDeA Clinical Translational Research Grant. Role: Research Scholar 10% salary support 2010-2012
- Barr, T (PI), 300602-1.01-60855 "Characterization of the human blood genomic response to traumatic brain injury". Center for Neuroscience and Regenerative Medicine (Department of Defense and Uniform Services University) Henry Jackson Foundation.
 \$250,000 June 2009-July 2011

Completed, Co-Investigator

Co-Investigator

- Simpkins, J (PI) West Virginia Stroke COBRE; National Institutes of Health. Sub-Project 2P20 GM109098 PI: Barr, T, "A genomic biosignature of Post-stroke immune suppression", \$720,000; September 2014-May-2019. 50% salary support
- Dino, G. (PI) "West Virginia Prevention Research Center" US DHHS/CDC, \$615,000 Co-Investigator: Barr, T. (10% salary support)
- Huber, J (PI) NIH RO1 NS 061954 Supplement; Collaborative Activities to Promote Translational Research (CAPTR) program 8/2/2010-3/31/2014, Evaluating the functional role of A-kinase anchor protein 7 (AKAP7) in blood-brain barrier disruption following Stroke, \$60,500 West Virginia University, Basic Pharmaceutical Sciences, Barr, T. Co-Investigator, 2011-2012
- Singleton, A (PI), "KCNK17 Polymorphisms in acute ischemic stroke"; internal funding National Institute on Aging Co-Investigator Barr, T. \$50,000, January 2008-December 2008
- Warach, S (PI), "Gene expression profiling of human acute ischemic stroke"; Internal funding National Institute of Neurological Disorders and Stroke; National Institute on Aging Co-Investigator Barr, T. \$100,000 August 2006-May 2009

University-Supported

- Barr, T (PI) "Monitoring gene expression post-stroke to predict stroke outcome". Marshall University Genomic Core, INBRE and ACORN network, \$24,500 August 2011-September 2012, Completed
- Barr, T (PI) "Phospho-kinase Screening to Characterize Biomarkers of Ischemic Stroke". WVU Internal Senate Grant Application, \$10,200 September 2011-August 2012, Completed
- Barr, T (PI) "Gene Expression Profiling for Outcome Prediction following Mild Traumatic Brain Injury". WVU Internal Clinical Genomics Discovery Grant, \$5,000, November 2001, Completed
- Theeke, L. (PI) "Genomic Expression of Chronically III Lonely Older Adults" WVU School of Nursing Pilot Funding. Co-Investigator: Barr, T \$6,000 January 2011-December 2011. Completed

Horstman, P (PI) "Quality of Life in Stroke Survivors Living in Appalachia" WVU School of Nursing Pilot Funding. Co-Investigator: Barr, T. \$1,000. March 2011, Completed

PUBLICATIONS

Dissertation: University of Pittsburgh, April 20, 2009, "Gene Expression Profiling in Human Acute Ischemic Stroke"

Articles: (*student/pre-post-doc/mentee formal); **Corresponding Author

Peer-reviewed

- O'Connell G, Stafford P, Walsh K, Adeoye O, Barr T. High-throughput profiling of circulating antibody signatures for stroke diagnosis using small volumes of whole blood. Neurotherapeutics *In Press*.
- O'Connell G, Walsh K, Burrage E, Adeoye O, Chantler P and Barr T. High-throughput profiling of the circulating proteome suggests sexually dimorphic corticosteroid signaling following ischemic stroke. *Physiological Genomics*, 20 JUL 2018 doi.org/10.1152/physiolgenomics.00058.2018
- O'Connell GC, Treadway MB, Tennant CS, Lucke-Wold N, Chantler PD, Barr TL. Shifts in Leukocyte Counts Drive the Differential Expression of Transcriptional Stroke Biomarkers in Whole Blood. Transl Stroke Res. 2018 Mar 17. doi: 10.1007/s12975-018-0623-1. [Epub ahead of print]
- 4. Hickey KT, Taylor JY, **Barr TL**, Hauser NR, Jia H, Riga TC, Katapodi M. Nursing genetics and genomics: The International Society of Nurses in Genetics (ISONG) survey. Nurse Educ Today. 2018 Apr; 63:12-17.
- Grant C. O'Connell*, PhD; Madison B. Treadway, BS; Ashley B. Petrone; Connie S. Tennant; Noelle Lucke-Wold; Paul D. Chantler; **Taura L. Barr****; Leukocyte dynamics influence reference gene stability in whole blood: Data-driven qRT-PCR normalization is a robust alternative for measurement of transcriptional biomarkers. *Laboratory Medicine* 2017 Nov 8;48(4):346-356
- Asano S, O'Connell GC, Lemaster KC, DeVallance ER, Branyan KW, Simpkins JW, Frisbee JC, Barr TL, Chantler PD. Circulating leucocytes perpetuate stroke-induced aortic dysfunction. Exp Physiol. 2017 Oct 1;102(10):1321-1331.
- Grant C. O'Connell*; Connie S. Tennant; Noelle Lucke-Wold; Yasser Kabbani; Abdul R. Tarabishy; Paul D. Chantler; **Taura L. Barr****. Monocyte-lymphocyte crosscommunication via soluble CD163 directly links innate immune system activation and adaptive immune system suppression following ischemic stroke. Scientific Reports 2017 Oct 11;7(1):12940.
- 8. Grant C. O'Connell*; Paul D. Chantler; **Taura L. Barr****. High inter-sample variability in nucleic acid extraction efficiency necessitates the use of spike-in control for accurate qPCR-based measurement of plasma cell-free DNA levels. *Laboratory Medicine 2017 Nov 8;48(4):332-338*
- 9. Grant C. O'Connell*; Paul D. Chantler; **Taura L. Barr****. Stroke-associated pattern of gene expression previously identified by machine-learning is diagnostically robust in an independent patient population. *Genomics Data 2017 Sep 1;14:47-52.*
- McBride AB, Campbell J, Barr T, Duffy J, Haozous E, Mallow J, Narsavage G, Ridenour N, Theeke L. The impact of the Nurse Faculty Scholars program on schools of nursing. Nurs Outlook. 2017 May - Jun;65(3):327-335.
- 11. Grant C. O'Connell*; Madison B. Treadway; Ashley B. Petrone; Connie S. Tennant; Noelle Lucke-Wold; Paul D. Chantler; **Taura L. Barr****. Peripheral blood AKAP7

expression as a marker for lymphocyte mediated post-stroke blood brain barrier disruption. *Scientific Reports 2017 Apr 26;7(1):1172*

- Grant C. O'Connell*; Ashley B. Petrone; Connie S. Tennant; Noelle Lucke-Wold; Yasser Kabbani; Abdul R. Tarabishy; Paul D. Chantler; **Taura L. Barr****. Circulating extracellular DNA levels are acutely elevated in ischaemic stroke and associated with innate immune system activation. *Brain Injury 2017;31(10):1369-1375.*
- 13. Petrone, A*; Gionis, V; Giersch, R; **Barr, T****. Immune biomarkers for the diagnosis of mild traumatic brain injury, *NeuroRehabilitation*, In Press, 2017;40(4):501-508
- 14. Lee, H; Gill, J; **Barr, T**; Yun, S; Kim, H. Primer in Genetics and Genomics, Article 2-Advancing Nursing Research With Genomic Approaches. *Biological Research In Nursing, 2017 Mar;19(2):229-239.*
- O'Connell; Treadway; Petrone; Tennant; Lucke-Wold; Chantler; Barr**. Machine Learning Approach Identifies a Pattern of Gene Expression in Peripheral Blood Which Can Accurately Detect Ischemic Stroke, NPJ Genomic Medicine 1, Article number: 16038 (2016).
- Theeke LA, Mallow JA, Moore J, McBurney A, VanGilder R, Barr T, Theeke E, Rellick S, Petrone A. Using Gene Expression Analysis to Examine Changes in Loneliness, Depression and Systemic Inflammation in Lonely Chronically III Older Adults. Open J Nurs. 2016 Aug;6(8):620-631.
- 17. Petrone, A (mentee)*; O'Connell, G; Regier, M; Chantler, P; Simpkins, J; and **Barr, T****. The role of arginase-1 in post-stroke immunosuppression and ischemic stroke severity. Transl Stroke Res. 2016 Apr;7(2):103-10.
- Johnson, F.* (Mentee) and Barr, T**. Rethinking Recovery: Incorporating Holistic Nursing Perspectives in Post-Stroke Care. Holistic Nursing Practice: January/February 2017 - Volume 31 - Issue 1 - p 3–6.
- Petitte, T; Mallow, J; Barnes, E; Petrone, A (mentee); Barr, T; Theeke, L. A Systematic Review of loneliness and Common Chronic Physical Conditions in Adults. Open Psychol J. 2015;8(Suppl 2):113-132. Epub 2015 May 15.
- Mallow, J*; Theeke, L; Crawford, P; Prendergast, E; Conner, C; Richards, T; McKown, B; Bush, D; Reed, D; Stabler, M; Zhang, J; Dino, G., Barr, T **. Understanding genomic knowledge in rural Appalachia: The West Virgina Genome Community Project. Online Journal of Rural Nursing and Healthcare, Vol 16, No 1 (2016)
- 21. Jessica Gill, PhDa; Panagiotis Matsangas, PhDc; Lindsay Scattergood, BAa; Morgan Heinzelmann, BSa; **Taura Barr**, PhDb; Tristin Baxter, AASd; Amber Cabjeros, RN, MPHa; Hannah Raka; Hyunhwa Lee, PhDa; Vincent Mysliwiec, MDd. CPAP Adherence Increases IGF-1 Concentrations in Active Duty Military Personnel with Obstructive Sleep Apnea, *Under Review*
- 22. Mysliwiec V, Gill J, Matsangas P, Baxter T, **Barr T**, Roth BJ. IGF-1: a potential biomarker for efficacy of sleep improvement with automatic airway pressure therapy for obstructive sleep apnea? Sleep Breath. 2015 *Epub ahead of print*.
- Heinzelmann M, Lee H, Rak H, Livingston W, Barr T, Baxter T, Scattergood-Keepper L, Mysliwiec V, Gill J. Sleep restoration is associated with reduced plasma C-reactive protein and depression symptoms in military personnel with sleep disturbance after deployment. Sleep Med. 2014 Dec;15(12):1565-70.
- Barr, T**; VanGilder, R; Chantler, P; Huang, S. Systemic Transcriptional Alterations of Innate and Adaptive Immune Signaling Pathways in Atherosclerosis, Ischemia Stroke, and Myocardial Infarction. J Bioanal Biomed. 2015 Apr; 7(2): 029–034.
- 25. Heinzelman, M; Reddy, S; French, L; Wang, D; Lee, H; **Barr, T**; Baxter, T; Mysliwiec, V; Gill, J. Military personnel with chronic symptoms following blast traumatic brain injury have differential expression of neuronal recovery and epidermal growth factor receptor genes. Frontiers in Neurology 2014 Oct, 9:5:198.

- 26. Barr, T, PhDb; Whitney Livingstona; Pedro Guardadoa; Tristin Baxter, AASc; Vincent Mysliwiec, MDc; Jessica Gill, PhDa. Military Personnel with Traumatic Brain Injuries and Insomnia Have Reductions in PTSD and Improved Perceived Health Following Sleep Restoration; A Relationship Moderated by Inflammation. Annu Rev Nurs Res. 2015;33:249-66
- 27. Petrone, A* (Mentee); Simpkins, J; **Barr, T****. 17β-estradiol and inflammation: implications for ischemic stroke. Aging Dis. 2014 Oct 1;5(5):340-5.
- 28. Doll, D* (Mentee); **Barr, T**; Simpkins, J. Cytokines: Their Role in Stroke and Potential Use as Biomarkers and Therapeutic Targets. Aging Dis. 2014 Oct; 5(5): 294–306.
- 29. Jessica Gill, PhDa; Hyunhwa Lee, PhDa; Swarnalatha Y. Reddy, PhDa; Dan Wang, PhDa; Hyung-Suk Kim, PhDa; Morgan Heinzelmann, BSa; **Taura Barr,** PhDb; Tristin Baxter, AASc; Vincent Mysliwiec, MD. A diagnosis of insomnia is associated with differential expression of sleep-regulating genes in military personnel. Biological Research in Nursing, 2015 *17(4): 384-92.*
- 30. Doll, D; Rellick, S; **Barr, T**; Ren, X; Simpkins, W. Rapid Mitochondrial dysfuncation mediates TNF alpa induced neurotoxicity. 2014, J Neurochem, 2015 132(4):443-51.
- 31. Gill, J.; Lee, H.; Barr, T.; Baxter, T.; Heinz, M.; Rak, H.; Mysliwiec, V. Lower Health Related Quality of Life in U.S. Military Personnel is Associated with Service-Related Disorders and Inflammation. Psychiatry Res 2014 Apr 30;216(1):116-22. (2 Citations, Google Scholar)
- 32. **Barr, T***; VanGilder, R.; Rellick, S.; Doll, D.; Brooks, S.; Chen, D.; Denvir, J.; Warach, S.; Singleton, A.; Matarin, M. A genomic profile of the immune response to stroke with implications for stroke recovery. Biological Research in Nursing, 2015 May;17(3):248-56.
- 33. Theeke, L.; Horstman, P; Culp, S.; Barr, T.; Gutmann, L; Domico, J; Lucke-Wold, A; Quality of Life and Loneliness in Stroke Survivors Living in Appalachia. Journal of Neuroscience Nursing, 2014, Vol 46, Issue 6, E3-15.
- VanGilder, R.* (Mentee); Davidov, D.; Stinehart, K.; Huber, J; Turner, R; Wilson, K; Haney, E; Davis, S; Chantler, P; Theeke, L; Rosen, C; Crocco, T; Gutmann, L; Barr, T**. C Reactive Protein and Long-term Ischemic Stroke Prognosis, Journal of Clinical Neuroscience, 2014, Vol 21(4), 547-553. (1 Citation, Google Scholar)
- 35. Brooks, S* (Mentee); Spears, C; Cummings, C; VanGilder, R; Stinehart, K; Gutmann, L; Domico, J; Culp, S; Carpenter, J; Rai, A; Barr, T**. The Neutrophil-Lymphocyte Count Ratio predicts Outcome in Acute Ischemic Stroke Patients undergoing Endovascular Therapy, Journal of Neurointerventional Surgery 2013;0:1–6.. http://inis.bmj.com/site/podcasts/
- 36. Vincent Mysliwiec, MD1; Jessica Gill, PhD2; Hyunhwa Lee, PhD2, Tristin Baxter, AAS1; Roslyn Pierce, BS1; **Taura Barr**, PhD3, Barry Krakow MD, Bernard Roth MD. Sleep Disorders in US Military Personnel: A High Rate of Comorbid Insomnia and Obstructive Sleep Apnea, CHEST, 2013 144(2):549-57. (9 Citations, Google Scholar)
- 37. VanGilder, R* (mentee); Huber, JD; Rosen CL; **Barr, T**.** The transcriptome of Cerebral Ischemia. Brain Reseach Bulletin 2012, 88 (4), 313-319. (10 Citations, Google Scholar)
- VanGilder, R* (mentee); Rosen, C.; Barr, T.; Huber, J. Targeting the neurovascular unit for treatment of neurological disorders. *Pharmacology and* Therapeutics 2011 Jun;130(3):239-47 (33 Citations, Google Scholar)
- 39. Kwako, L; Glass, N; Campbell, J; Melvin, K; Barr, T; Gill, J; Traumatic Brain Injury in Intimate Partner Violence: A Critical Review of Outcomes and Mechanisms. <u>Trauma</u>, <u>Violence and Abuse</u> July 2011 vol. 12 no. 3 115-126 (14 Citations, Google Scholar)
- Barr, T**; Conley, Y; Dillman, A; Ding, J; Warach, S; Singleton, A; Matarin, M; Genomic biomarkers and cellular pathways of ischemic stroke by RNA gene expression profiling. <u>Neurology</u> 2010; 75:1–1 (44 Citations, Google Scholar)

- Barr T**, Alexander S, Conley Y. Gene Expression Profiling for Discovery of Novel Targets in Human Traumatic Brain Injury. <u>Biological Research in Nursing</u> 2011 Apr;13(2):140-53 (2 Citations, Google Scholar)
- 42. Sarnik, A; Conley, Y; Okonkwo, D; Barr, T; Fink, E; Szabo, C; Kochanek, P; Clark, R. Influence of PARP-1 Polymorphisms in Patients after Traumatic Brain Injury. 2010 <u>Journal of Neurotrauma</u> 27:1-7 (13 Citations, Google Scholar)
- Barr T**, Latour LL, Lee KY, Schaewe T, Luby M, Chang G, El-Zammar Z, Alam S, Kidwell C, Warach S. Blood–Brain Barrier Disruption in Humans Is Independently Associated With Increased Matrix Metalloproteinase-9. 2010 <u>Stroke</u> 41(3):e123-e128. (75 Citations, Google Scholar)
- 44. Barr T, Alexander, S., Crago, B., Horowitz, M., Yonas, H., Kerr, M. The Impact of Endovascular Coiling Versus Surgical Clipping on Functional Outcome After Intracranial Aneurysm Rupture. 2008 March; <u>Neurosurgery Quarterly</u> 18 (1):16-21. (2 Citations, Google Scholar)
- 45. **Barr, T**.**, Conley, Y. Poly (adp-polymerase)-1 and brain injury: Implications for nursing practice. <u>*J Neurosci Nurs.*</u> 2007 Oct;39(5):278-84. (45Citations, Google Scholar)

Editorials

1. **Barr, T**** & Simpkins, J. Ischemic Stroke: A Consequence of a Diseased Immune System? Aging Dis. 2014 Oct; 5(5): 292–293.

Book Chapters

- Barr, T; Gionis, V; Giersch, R. Harnessing the power of the human immune system via multi-omic immune profiling in stroke treatment and recovery In Neuroprotective Therapy for Stroke and Ischemic Disease, 2017. <u>https://link.springer.com/chapter/10.1007/978-3-319-45345-3_11</u>
- Petrone AB*, Rudy CC, Barr TL, Simpkins JW, and Reed MN (2014). Neuroprotective Effects of Estrogen Following Neural Injury. In Estrogen Effects on Traumatic Brain Injury. Vassar College. 91-111, 2015; DOI: 10.1016/B978-0-12-801479-0.00007-3.
- Miranda N. Reed1,5, PhD; Danielle N. Doll2,5, BS; James W. Simpkins3,5, PhD; and Taura L. Barr, RN, PhD4. (2014) Aging and Stroke: The Human Condition. Nestle Purina Companion Animal Nutrition Summit, in Press
- Brooks, S. (mentee)*; VanGilder, R; Barr, T**. "Genomics for the Advancement of Clinical Translation in Stroke" Special edition, Rational basis for clinical translation in stroke therapy in Frontiers in Neurotherapeutics, Micieli, G. & Amantea, D (Eds), 2014, eBook ISBN: 978-1-4665-9498-2
- Van der Brug, M; Matarin, M; Barr, T^{**}; Characterization of RNA in Biochemical and Molecular Biological Assessments IN Animal Models of Acute Neurological Injuries II; Editor Chen, J.; Xu, X.-M.; Xu, Z.C.; Zhang, J.H. (Eds.) 2012, 700 p. 171 illus., 119 in color.
- 6. **Barr, T**.**, Sacco, D., Olshansky, E. Sexually Transmitted Diseases In Medical Surgical Nursing: A pathophysiologic approach. Lippincott Williams, Philadelphia PA 2007.

<u>Books</u>

1. Saved by Grace, Dr. Taura L. Barr in *Inspiration for a Woman's Soul: Opening to Gratitude & Grace*, 2016, Inspired Living Publishing

Community Publications

- 1. Nurse, the frontline of family history. West Virginia STEAM, WV Public Broadcasting, Youtube Video, <u>http://www.pbslearningmedia.org/collection/wv-steam/</u>
- Serious Illnesses Changed Our Perspectives for 2014 and Beyond. Robert Wood Johnson Foundation Human Capital Blog, January 29, 2014 <u>http://www.rwjf.org/en/blogs/humancapital-blog/2014/01/serious_illnessesch.html</u>
- 3. Documenting Family health history, preventing chronic health problems. Hur Herald: Calhoun county West Virginia News, March 9, 2013

Community and Holistic Health Blog

https://Taurabarr.wordpress.com

COMMENCMENT SPEACHES

1. University of Texas Austin, School of Nursing, A Life of Success and Significance, December 8, 2018,

PODIUM PRESENTATIONS (Denotes Invited)**

International

- 1. ****Barr T.** Antibody Profiling in Stroke. AHA International Stroke Conference Nursing Symposium Session Speaker, Honolulu HI February 6-8, 2019
- O'Connell G, Stafford P, Walsh K, Adeoye O, Barr T. High-throughput profiling of circulating antibody signatures for stroke diagnosis using small volumes of whole blood. AHA International Stroke Conference, Honolulu HI February 6-8, 2019
- O'Connell, Gr; Petrone, A; Treadway, M; Tennant, C; Lucke-Wold, N; Chantler, P; Barr, T. Machine learning approach identifies a pattern of gene expression in the peripheral blood which can accurately detect ischemic stroke. American heart Association International Stroke Conference, Houston Tx, February 21-24, 2017.
- **International society of nurses in genetics Annual Conference, Featured Speaker, Barr, T"Building the confidence to become a genomics nurse: Taking the Intimidation out of genetics and genomics", Scottsdale, AZ November 2014
- 5. **Taura L. Barr**, Reyna L. VanGilder, Ashely Petrone, Paul D. Chantler, Chiang-Ching Huang. Systemic Transcriptional Alterations of Innate and Adaptive Immune Signaling Pathways in Atherosclerosis, Ischemia Stroke, and Myocardial Infarction. Accepted oral presentation. International Society of Nurses in Genetics November 2014. Scottsdale AZ.
- 6. Theeke, L; Smith, M; Mallow, J; **Barr, T**; Barnes, E; Theeke, E. The development of the LISTEN (Loneliness intervention using story theory to enhance nursing-sensitive outcomes): Integrating state of the science knowledge abut a health phenomenon into a cognitive behavioral intervention. Accepted oral presentation, Council for the advancement of nursing science conference September 2014, Washington DC.
- Barr, T; Cohn, E; Djukić, M; Breitenstein, S; Gillespie, G. Symposium: Reflections on Methodological Strategies for Addressing Complexity in Nursing Research. Accepted Symposium, Council for the advancement of nursing science conference September 2014, Washington DC.
- 8. **Barr, T**; Laurie Theeke; Jennifer Mallow; Patricia Crawford; Elizabeth Prendergast; Chuck Connor; Tony Richards; Barb McKown; Donald Reed; Donna Bush; Megan Stabler; Juhua Luo ; Geri Dino For the West Virginia GENOME Community Project.

Genomic Knowledge in Rural Appalachia: The West Virginia Genome Community Project. Accepted oral presentation. Council for the advancement of nursing science conference September 2014, Washington DC.

- 9. **Barr, T**, Reyna L. VanGilder, Ashley Petrone, Paul D. Chantler, Chiang-Ching Huang. Correlation of innate and adaptive immune networks in stroke and atherosclerosis. Accepted oral presentation. Council for the advancement of nursing science conference September 2014, Washington DC.
- Ashley B. Petrone (Mentee), Reyna L. VanGilder, Connie Tennant, Michael Regier, James W. Simpkins and Taura L. Barr. Sex Differences in IL-6 Levels Following Stroke: Implications for Stroke Severity and Outcome. Accepted oral presentation. Council for the advancement of nursing science conference September 2014, Washington DC.
- **American Heart Association, Scientific Sessions, Featured Speaker, Barr, T, "Genomics of Stroke and Translation in to the Emergency Department", Los Angeles CA, November 2012
- 12. **National Community Committee Genomics Webinar, Featured Speaker, **Barr, T.** "West Virginia Community Genomics Forums", Online, June 2012
- Barr, T., Latour, L., Lee, K., Schaewe, T., Luby, M., Chang, G., El-Zammar, Z., Alam, S., Kidwell, C., Warach, S. (2008) MMP-9 and Blood brain barrier disruption in humans. American Heart Association International Stroke Conference in New Orleans February 2008.
- Barr, T., Latour, L., Lee, K., Schaewe, T., Luby, M., Chang, G., El-Zammar, Z., Alam, S., Kidwell, C., Warach, S. (2008) MMP-9 and Blood brain barrier disruption in humans. The Center for the Advancement of Nursing Science Conference in Washington DC October 2008.
- 15. **Barr, T.,** Lai, Y., Alexander, S., Conley, Y., Clark, R.S. (2006) Poly (adp-ribose) quantification in an adult traumatic brain injury population. The International Society of Nurses in Genetics conference in New Orleans October 2006
- 16. **Barr, T.,** Lai, Y., Alexander, S., Conley, Y., Clark, R.S. (2006) Poly (adp-ribose) quantification in an adult traumatic brain injury population. The Center for the Advancement of Nursing Science Conference in Washington DC October 2006.

National

- **NINR National Advisory Council, Open Session Speaker, "Innovative diagnostic and monitoring strategies to improve care for stroke and brain injury patients", Bethesda MD September 2018
- 2. **NINR National Advisory Council, Open Session Speaker, "Mechanisms of stroke induced immune suppression, Bethesda MD May 2012
- Lee, H., Wang D., Pierce R., Baxter T., Dionne R., Kim H., Mysliwiec V., Barr, T. Gene expression profiling in mild traumatic brain injury, post-traumatic stress disorder and their comorbid condition among post-deployed military service members. Amer Soc Neurochem, Baltimore 2012
- 4. **National Human Genome Research Institute Workshop "What does it mean to be Genomically literate?" Featured presenter, "West Virginia Community Genetics Forum", Rockville, MD, November 2011
- 5. **NIH Clinical Center Grand Rounds, "An Inflammatory Profile for Stroke Diagnosis and Outcome Prediction", Bethesda Md November 2011
- 6. **NINR Research Festival Featured Speaker, "Genomic approaches for the characterization of neurological disease", Bethesda MD, November 2009
- 7. **NINR National Advisory Council, Open Session Speaker, "Gene expression profiling of complex diseases", Bethesda MD, September 2007

<u>Regional</u>

- 1. **Barr, T**; VanGilder, R; Petrone, A; Chantler, P; Huang, C; Correlation of innate and adaptive immune networks in stroke and atherosclerosis, Accepted oral presentation Sigma Theta taura Fall Research Conference, October 2014 Morgantown WV
- 2. **Barr, T.** Family Health Stories as a Tool to Educate Communities about Genomics and Individual Risk for Disease SIGMA THETA TAU ALPHA RHO CHAPTER RESEARCH CONFERENCE ADVANCING INTERPROFESSIONAL HEALTH RESEARCH, Morgantown WV November 1, 2012
- 3. Doll, D. (Mentee) A Gene Profile for Predicting Time of Stroke Onset. SIGMA THETA TAU ALPHA RHO CHAPTER RESEARCH CONFERENCE ADVANCING INTERPROFESSIONAL HEALTH RESEARCH, Morgantown WV November 1, 2012
- 4. **Sigma Theta Tau Regional Conference, Featured Speaker, "West Virginia Community Genetics Project", Morgantown WV November 2012
- 5. **West Virginia-INBRE Steering committee meeting, featured speaker, "Monitoring gene expression to predict stroke recovery", Morgantown WV, July 2012
- 6. **Barr, T**. Family Health History and Epigenetics in Rural Appalachian Communities: The West Virginia Community Genetics Forum. Appalachian Health Summit, Lexington Ky March 29, 2012.
- 7. **Sigma Theta Tau Regional Conference, Featured Speaker, "Inflammatory and immune profiles of stroke", Morgantown WV May 2011
- **Center for Neuroscience and Regenerative Medicine, Biomarkers Core Presenter, "Characterization of the human blood transcriptome response to TBI: Study Update", Uniformed Services University, Bethesda MD, June 2011
- 9. **Barr, T.** "Genomic Characterization of Ischemic Stroke and Clinical Translation" WVU Stroke Conference, Flatwoods WV May 2011
- VanGilder, R. (mentee), Warach, S., Chen, D., Singleton, A., Matarin, M., Barr, T. (2010) Inflammatory Regulation through TLR Signaling may play a role in Ischemic Stroke Outcome. Sigma Theta Tau Research Conference, Morgantown WV, October, 2010.

<u>Local</u>

- 1. **Take Your Nursing Innovation to the Marketplace, Workshop Sponsored by Case Western Reserve University. "Launching A Biotech Company and Surviving" <u>https://case.edu/nursing/research/workshops-policy-updates/nursing-innovation-in-the-marketplace</u>
- 2. ** Florida International University Workshop Presenter, "Integrating Genetics and Genomics in Research, Teaching and Practice", May 4-5, 2016.
- 3. **Florida International University 2015 Faculty Retreat, Keynote Speaker, "Academic Entrepreneurship, the Good the Bad and the Ugly", August 20, 2015.
- 4. **West Virginia University, Mary Babb Randolf Cancer Center Osborn Retreat, Featured speaker, "CTLA4 Signaling and Stroke Recovery", Morgantown, WV, August 2012
- **West Virginia University Neuroscience Retreat, Featured Speaker "Inflammatory and Immune Profiles of Ischemic Stroke: Bedside to Bench & Back", Stonewall Jackson Resort, June 2011
- 6. **Grand Rounds, "An inflammatory profile for stroke diagnosis and outcome prediction", West Virginia University Hospitals, Emergency Medicine, Morgantown, WV March 2011
- **Ruby Memorial Hospital, Nursing Research Council, "Role of the Nurse Scientist in Clinical Translational Stroke Research", West Virginia University Hospitals, Morgantown, WV, March 2011

- 8. **Grand Rounds, "An inflammatory profile for stroke diagnosis and outcome prediction", West Virginia University Hospitals, Neurology, Morgantown, WV November 2010
- 9. **Grand Rounds, "Gene expression profiling and biomarker discovery in ischemic stroke", Suburban Hospital, Bethesda MD August 2008

ONLINE PODCASTS

Barr, T. Editor's Choice Article, "Admission neutrophil-lymphocyte ratio predicts 90 day outcome after endovascular stroke therapy", Journal of Neurointerventional Surgery, Podcast http://feeds.bmj.com/jnis/podcasts

POSTER PRESENTATIONS

International

- 1. **Barr, T**. O'Connel, G. Chantler, P. Warach, S. Early Differential Expression Of Chemotactic Genes In Peripheral Blood May Predict Poststroke Blood Brain Barrier Disruption. International Stroke Conference AHA February 6-8, 2019 Honolulu HI
- Barr, T.**; Paul Chantler; Ashley Petrone; Steven Brooks; Jefferson Frisbee; James Simpkins. Arginase-1 is a novel biomarker of post-stroke immune suppression. Poster AHA International Stroke Conference February 2015, TN
- Ashley Petrone (Mentee)*; Reyna VanGilder; Michael Regier; James Simpkins; Taura Barr. Peripheral Immune Protein Profiles Can Differentiate Ischemic Stroke from Transient Ischemic Attack and are Correlated with Stroke Severity. Poster AHA International Stroke Conference February 2015, TN
- Jun, S; Sarkar, S.N.; Tennant, C; Hu, H; Quintana, D; Doll, D; Ren, X; Barr, T; Simpkins, J. Time course response of miR-34a, miR-132 and miR-146 to ischemic stroke. Accepted for poster. Washington DC, November 2014, Neuroscience.
- 5. Connie Tennant, RN, BSN (Mentee)*; Reyna VanGilder PhD; Stephen Davis MPA, MSW, LGSW; Martha Power, RN, CFNP; Patricia Horstman MSN; Patricia Altemus, MS; Laurie Gutmann, MD; John Brick, MD; Todd Crocco, MD; Charles Rosen, MD, PhD; Jeffrey S. Carpenter, MD; James Simpkins, PhD; Taura Barr, RN, PhD. For the West Virginia University Stroke Center. Community Based Participatory Research for the Development and Implementation of a Genomic Biomarkers Study of Ischemic Stroke and Traumatic Brain Injury (TBI). Accepted poster presentation. Council for the advancement of nursing science conference September 2014, Washington DC.
- Huang, C; Chantler, P; VanGilder, R; Barr, T. Systemic transcriptional alterations of innate-adaptive immune signaling pathways in atherosclerosis, ischemic stroke, and myocardial infarction. Accepted poster presentation. Arteriosclerosis, thrombosis, and vascular biology 2014 Scientific Sessions, May 2014, Toronto Canada
- Doll, D; Rellick, S; Barr, T; Simpkins, J. Neuronal mitochondrial function and neuronal cell viability are affected by pro-inflammatory cytokines. Society for Neuroscience November 2013 San Diego Ca.
- Vincent Mysliwiec, MD, FCCP; Jessica Gill, PhD; Hyunhwa Lee, PhD; Tristin Baxter, AAS; Morgan Heinzelmann, PhD; **Taura L. Barr**, PhD; Bernard J. Roth, MD, FCCP. Prospective Observational Study of Military Personnel with Obstructive Sleep Apnea: Changes in Symptoms of Service Related Illnesses and IGF-1 Expression. CHEST Conference October 2013
- Taura L Barr1; Reyna VanGilder1; Stephanie Rellick1; Steven Brooks1; Danielle Doll1; Ann Noelle Lucke-Wold1; Dongquan Chen2; James Denvir3; Steven J Warach4; Andrew B Singleton5; Mar Matarin6. <u>A Genomic Profile of Immune Mediated</u> <u>Mechanisms Associated with Stroke Recovery.</u> AHA International Stroke Conference, Honolulu HI February 2013.

- Danielle N Doll1 (Mentee); Steven D Brooks1; Stephanie L Rellick1; Reyna L VanGilder1; Alan Cantor2; Maha Sallam3; Taura L Barr1. <u>A Biomarker Algorithm that</u> <u>Represents Time from Stroke Symptom Onset.</u> AHA International Stroke Conference, Honolulu HI February 2013.
- Reyna VanGilder (Mentee)*; Stephanie Rellick; Jason Huber; Charles Rosen; Ryan Turner; Taura Barr**. <u>An Association Between Tlr And Jak Signaling Following Cerebral</u> <u>Ischemia: A Translational Approach.</u> AHA International Stroke Conference, Honolulu HI February 2013.
- Steven D Brooks (Mentee)*; Kyle Stinehart; Stephanie Rellick; Danielle Doll; Reyna VanGilder; Taura Barr**. <u>Arginase-1 and S100a12 are Novel Candidates for the Study</u> of Post Stroke Immune Suppression. AHA International Stroke Conference, Honolulu HI February 2013.
- 13. Lucke-Wold (mentee)*, Rellick, VanGilder, Huber, Yung, Rosen, **Barr****. <u>MMP-9 as a</u> <u>Peripheral Marker of Brain Injury.</u> The Council for the Advancement of Nursing Science National Meeting, Washington DC September 13-15, 2012.
- 14. **Barr, T****; Conley, Y; Dillman, A; Ding, J; Warach, S; Singleton, A; Matarin, M; <u>Gene</u> <u>expression profiling for ischemic stroke diagnosis</u>. The Center for the Advancement of Nursing Science Conference, 2010, Washington DC, September 27-29.
- 15. Barr, T**; Conley, Y; Dillman, A; Ding, J; Warach, S; Singleton, A; Matarin, M; Inflammatory regulation as a biomarker of ischemic stroke diagnosis: evidence from gene expression profiling. AHA International Stroke Conference 2010, San Antonio Texas February 23-25.
- 16. Barr, T; Latour, L; Kidwell, C; Lee, K; Merino, J; Warach, S. (2009) <u>Age is the major risk</u> <u>factor of early blood brain barrier disruption in acute ischemic stroke.</u> American Heart Association International Stroke Conference in San Diego February 2009.
- Palfreyman, T., Beatty, M. (2004). <u>Comparison of coiling versus clipping on six month</u> <u>outcomes following subarachnoid hemorrhage</u>. SCCM Society of Critical Care Medicine. Orlando, Fl., February 2004.

National

- 1. Stephen Davis; Dent Gitchel; Shelley Layman; Sebastian Diaz; Diana Martinelli; Todd Crocco; **Taura Barr**; Stephen Otto; and Hollyn Larrabee. Development and Psychometric Properties of the Stroke Assessment and Treatment Intent (SATI) Scale. American College of Emergency Physicians Conference, October 2015; Boston MA.
- VanGilder RL (mentee)*, Turner R, Rellick SL, Barr TL, Rosen CL, Huber JD. <u>The</u> <u>Effects of Lipopolysaccarhide Preconditioning on a Diffuse Axonal Injury.</u> TBI National Capital Area TBI Research Symposium, Bethesda MD, May 22 2012.
- Barr, T**; Reyna VanGilder; Alexa Richie; Jason Huber; Dongquan Chen; Steve Davis; Laurie Gutmann; Todd Crocco; Jeffrey Coben; Charles Rosen; James Meschia. <u>Validation of a Gene Expression Profile for Ischemic Stroke and Outcome Prediction.</u> United States Critical Illness and Injury Trials Group (USCIITG) Annual Fall Meeting, 2010, Bethesda MD, November 9-10
- Barr, T^{**}; Conley, Y; Dillman, A; Ding, J; Warach, S; Singleton, A; Matarin, M; <u>Gene</u> <u>expression profiling for ischemic stroke diagnosis</u>. NINR's 25th Anniversary Scientific Symposium: Bringing Science to Life, 2010, Bethesda MD, September 30
- Barr, T; Conley, Y; Dillman, A; Ding, J; Warach, S; Singleton, A; Matarin, M; <u>Inflammatory regulation as a biomarker of ischemic stroke diagnosis: evidence from</u> <u>gene expression profiling.</u> NIH, NCRR Third Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE) 2010, Bethesda MD, June 16-18.

<u>Regional</u>

- Theeke, L.; Barr, T.; Rellick, S.; Mallow, J. Genomic Expression Changes of Chronically III Lonely Older Adults who Participated in the LISTEN intervention trial. Southern Nursing Research Society Annual Meeting. February 2014,
- 2. **Barr, T**.; Lucke-Wold, N.; Mallow, J.; Horstman, P. Theeke, L. Life After Stroke in Appalachia. Southern Nursing Research Society Annual Meeting. February 2014,
- 3. West Virginia University's Linking Innovation, Industry and Commercialization (LIINC) event. **Barr, T.** <u>Genomic Biomarkers of Stroke and Cardiovascular Disease.</u> January 2013.
- Barr, T; Conley, Y; Dillman, A; Ding, J; Warach, S; Singleton, A; Matarin, M; <u>In search of</u> <u>a gene expression profile for acute ischemic stroke.</u> GPP Research Festival, Bethesda Md, November 2009
- Barr, T; Matarin, M; Ding, J; Conley, Y; Warach, S; Singleton, A. (2009) <u>In search of a gene expression profile for acute ischemic stroke.</u> Eastern Nursing Research Society, Boston, Ma, March 2009.
- Barr, T; Nalls, M; Singleton, A; Arepalli, S; Rich, S; Hardy, J; Meschia, J; Matarin, M. (2009) <u>Polymorphisms in *KCNK17* are not associated with ischemic stroke.</u> Eastern Nursing Research Society, Boston, Ma, March 2009.
- Barr, T., Conley, Y., Latour, L., Singleton, A., Warach, S. (2007) <u>Blood Brain Barrier</u> <u>Disruption and Gene Expression Following Acute Ischemic Stroke in Humans.</u> Graduate Partnership Program Research Festival. Bethesda, Md, May 2007.
- Palfreyman, T., Beatty, M. (2004). <u>Comparison of coiling versus clipping on sixmonth</u> <u>outcomes following subarachnoid hemorrhage</u>. Eastern Nursing Research Society. Boston, Ma, March 2004.

Local

- 1. VanGilder, R (mentee); Chantler, P.; Huang, S.; **Barr, T**. Analysis of a Genomic Immune Profile in Stroke and Atherosclerosis. Neuroscience Retreat, Stonewall Report, WV, June 23-24, 2013.
- DN Doll, SL Rellick, TL Barr, JW Simpkins, Neuronal mitochondrial function and neuronal cell viability are affected by pro-inflammatory and anti-inflammatory cytokines. 2013 Neuroscience Retreat, Stonewall Report, WV, June 23-24, 2013. (Second Place-Graduate Student Division)
- Brooks, S (Mentee); Stinehart; Spears; Cummings; Gutmann; Domico; Culp; Carpenter; Rai; Barr*. A Neutrophil-lymphocyte ratio cut-point predicts poor outcome after endovascular stroke therapy. (First place poster award) WVU Stroke Conference April 2013.
- 4. Stephanie L. Rellick, Debbie Piktel, **Taura L. Barr**, James W. Simpkins and Laura F. Gibson, The bone marrow microenvironment induces a dormant phenotype in leukemic cells, Van Liere Poster, March 1, 2013.
- 5. Everett Nixon, Stephanie Rellick, **Taura Barr** and James Simpkins, Assessment of the mitochondrial function in human lymphocytes, Van Liere Poster, March 1, 2013.
- Lucke-Wold (mentee), Rellick, VanGilder, Huber, Yung, Rosen, Barr. <u>MMP-9 as a</u> <u>Peripheral Marker of Brain Injury.</u> WVU Center for Neuroscience Retreat, Snowshoe Resort WV, July 27-28, 2012.
- Stinehart (mentee); Spears; Cummings; Gutmann; Domico; Culp; Carpenter; Rai; Barr. <u>The Neutrophil-Lymphocyte Count Ratio as a Predictor of Ischemic Stroke Prognosis.</u> WVU Center for Neuroscience Retreat, Snowshoe Resort WV, July 27-28, 2012.

- VanGilder (Mentee), Rellick, James Denvir, Todd Crocco, Laurie Gutmann, Barr. <u>A</u> <u>Genomic Profile of Stroke Recovery.</u> WVU Center for Neuroscience Retreat, Snowshoe Resort WV, July 27-28, 2012.
- Brooks (Mentee), Doll, Rellick, VanGilder; Huber, Rosen, Cantor, Sallam, Barr. <u>A Gene</u> <u>Profile for Predicting Time of Stroke Onset</u>. WVU Center for Neuroscience Retreat, Snowshoe Resort WV, July 27-28, 2012
- Noelle Lucke-Wold (Mentee), Stephanie L. Rellick, Reyna VanGilder, Jason Huber, Brian Yung, Charles Rosen, Taura L. Barr. <u>MMP-9 as a Peripheral Marker of Brain</u> <u>Injury.</u> 2nd Place Student Poster, Van Leire Research Day, 2012, WVU Health Sciences Center, March 2012.
- 11. Sarah Ellison (Mentee), Stephanie L. Rellick, Reyna VanGilder, James Denvir, Todd Crocco, Laurie Gutmann, **Taura L. Barr**. <u>A Genomic Profile of Stroke Recovery</u>. Van Leire Research Day, 2012, WVU Health Sciences Center, March 2012.
- 12. Christopher Chauncey Spears (Mentee); Christopher Cummings; Laurie Gutmann; Jennifer Domico; Stacey Culp; Jeffrey Carpenter; Ansaar Rai; **Taura L. Barr**. <u>The</u> <u>Neutrophil-Lymphocyte Count Ratio as a Predictor of Ischemic Stroke Prognosis.</u> Van Leire Research Day, 2012, WVU Health Sciences Center, March 2012.
- Sarah Ellison (Mentee), Stephanie L. Rellick, Ph.D, Reyna VanGilder, Ph.D., Taura L. Barr, RN, Ph.D. <u>Gene Expression: A Potential Clinical Diagnostic for Ischemic Stroke</u> Summer Student Seminar WVU Health Sciences Center, March 10 2012.
- 14. VanGilder R (Mentee); Warach, S; Chen D; Denvir, J; Singleton A; Matarin, M; Barr, T. Immune Suppression post Ischemic Stroke may be Regulated by TLR4 and CTLA4 signaling. Van Leire Research Day, 2010, WVU Health Sciences Center, March 10 2011.
- 15. Klimanis, S (Mentee); Castri, P; **Barr, T.** (2009) AKAP7: A novel candidate for blood brain barrier disruption. NIH Summer Student Research Festival, Bethesda Md, August 2009.
- Barr T, Matarin M, Ding J, Conley Y, Warach S, Singleton S. (2008) <u>Genetic</u> <u>mechanisms of acute ischemic stroke.</u> NINR Summer Genetics Institute. Bethesda Md, June 2008.

PATENTS/DISCLOSURES

- Provisional application, Genomic patterns of expression for blood brain barrier disruption, 62/403,366, filed 10/3/16; Primary Inventor: Barr, T; Negotiating terms of licensing deal for Valtari Bio
- 2. Provisional application, Markers of Stroke and Stroke Severity, Primary Inventor: Barr, T PCT/US16/41585, filed 7/8/16; Exclusive License owned by Valtari Bio
- 3. Non-provisional application, Biomarker Algorithm for Determining the Time of Stroke Symptom Onset and Method, 14, 167,059, Primary Inventor: Barr, T; Exclusive License owned by Valtari Bio
- 4. Biomarkers for Acute Ischemic Stroke, Primary Inventor: Barr, T, National Institutes of Health Patent Application WO/2011/106322, Co-Exclusive License owned by Valtari Bio

ACADEMIC TEACHING

NURSING/INTERPROFESSIONAL CLASSES TAUGHT

<u>Undergraduate</u>

- Nursing Independent Study NUR495, Course coordinator, 1-3 cr, West Virginia University Summer, Fall 2011, Ann Noelle Lucke-Wold; Summer, Fall 2012 Kate McCarthy,
- Guest Lecturer, NUR727, Health Assessment and Communication, Genetics and Genomics in Nursing (BSN and Accelerated), Spring 2011, 2012, 2013, 2014
- Course Coordinator, NUR493R/488 Special Topics Genetics and Genomics in health and disease, 2cr West Virginia University, Fall 2012

DNP/Masters

- Co-instructor, N628, Health Policy, Finance, and Ethics, MSN, 6cr, West Virginia University, Spring 2014
- Co-Course Coordinator, NUR704, Health Care leadership DNP, 3cr West Virginia University, Spring 2014
- Guest Lecturer, PUBH691, Academic Associates, Stroke Clinical Trials, 3cr, West Virginia University, Spring 2012, 2013
- Co-instructor, NUR627, Research and Systematic Analysis, MSN, 5cr West Virginia University, Spring 2012, 2013, 2014

<u>PhD</u>

Course Coordinator, NUND 450/532, Applied Statistics, Case Western Reserve University, 2017, 2018

- Co-Course Coordinator, NUR945, Clinical immersion experience for biomedical PhD Students in Ischemic Stroke, 3cr, West Virginia University, Fall 2014
- Guest Lecturer, NBAN795 Advanced Neuroscience II, Stroke, West Virginia University, Fall 2014
- Guest Lecturer, Applied Healthcare Genetics 907, Building a program of research in genetics, Clemson University School of Nursing, April 10, 2014
- Guest Lecturer, Nursing PhD Residency Day, Nursing and Genomics, West Virginia University, Fall 2014
- Co-Course Coordinator, NBAN793, Stroke: From Bench to bedside to community, 2cr, West Virginia University, Spring 2014
- Guest Lecturer, BMS740, Neurobiology II Elective Module, 4cr. Stroke, West Virginia University, Spring 2011, 2012, 2013, 2014
- Guest Lecturer, NURS Measure in Nursing, Physiologic Measures, West Virginia University November 2011

Neuroscience PhD Journal Club Co-Course Coordinator, NBAN 793, 1cr, West Virginia University, Spring 2011, Spring 2012, Spring 2013

POST-GRADUATE

- Summer Genetics Institute Lecturer, National Institute of Nursing Research, Bethesda MD, June 2008, 2009, 2011, 2012, 2013, 2014, 2015
- Course Coordinator, Incorporating Genetics & Genomics into Nursing Curriculum, Online Course for Nursing Faculty & Instructors, Fall 2015
- WVU Healthcare Stroke Conference Presenter, Flatwoods WV, 6 Continuing education credits offered

NURSING/INTERPROFESSIONAL MENTORING

<u>Undergraduate</u>

Second degree, Nursing student Research Assistantship, Francis Johnson, West Virginia University, September 2014-August 2015

- Undergraduate Nursing Student Research Mentor, Ann Noelle Lucke-Wold, West Virginia University, June 2011-August 2013
- Medical Student Research Mentor, Kyle Stinehart, West Virginia University, May 2012-August 2012
- Medical Student Research Mentor, Christopher C. Spears, West Virginia University, October 2011-November 2011
- Medical Student Summer Research Mentor, Sarah Ellison, West Virginia University, June 2011-August 2011
- NIH Summer Student Mentor, Sarma Klimanis, Junior BSN Nursing Student, Florida State University, Project: Protein profile of AKAP-7 in stroke patients with blood brain barrier disruption, May 2009-August 2009

Post-Baccalaureate

NIH Post-Baccalaure ate Student Mentor, Indira Gowda BSN RN, September 2009-March 2010

DNP/Masters/MD

Resident Research Mentor, Brian Young MD, Neurosurgery, West Virginia University, August 2011-September 2013

<u>PHD</u>

Mentor, Research Training Program in the Behavioral & Biomedical Sciences (BBS), West Virginia University Spring 2013-Present

POST-DOCTORAL

Post-Doctoral Fellow Mentor, Stephanie Rellick PhD Cancer Cell Biology, West Virginia University, July 2011-April 2013

Post-Doctoral Fellow Mentor, Reyna VanGilder PhD Pharmaceutical sciences, West Virginia University, July 2010-August 2014

MEDICAL

Research Assistantship, Seun Samuel MD, West Virginia University, January 2015-June 2015

HONORS COLLEGE

Madison Treadway, BS Biology Honors Student, West Virginia University, January 2015-November 2015

Frank (Tony) Lacy BS Biology Honors Student, West Virginia University, January 2013-August 2013

DISSERTATION ADVISEMENT (Including Interprofessional)- West Virginia University

Committee Chair

Karen Jageillo, PhD Nursing, 2015-September 2015 Grant O'Connell PhD Basic Pharmaceutical Sciences, 2014-November 2015 Ashley Petrone, PhD Neuroscience 2013-November 2015, Graduated December 2015 Steven Brooks PhD Neuroscience, 2012-2013, switched tracks 2013

Committee Member

Tori Hall, PhD Basic Pharmaceutical Sciences, 2014-Present Sara Fournier, PhD Exercise Physiology 2013-April 2015, Graduated Jiahong Sun, PhD Neuroscience 2013-September 2015, Graduated Danielle Doll, PhD Neuroscience 2012-September 2015, Graduated Alisa Elliott, PhD Neuroscience 2011-November 2015 Ryan Turner, MD PHD Neuroscience 2010-2013 Amy Prostko, PhD Neuroscience 2011-2012

Qualifying Examination Committee Member

April Shapiro, PhD Nursing, 2014 Sara Fournier, PhD Exercise Physiology, 2014 Alisa Elliot, PhD Neuroscience, 2014 Paula Webster, PhD Neuroscience, 2014 Danielle Doll, PhD Neuroscience, 2012

SERVICE

UNIVERSITY SERVICE

University Committees

WVU CTSI Leadership Team member, Spring 2014-November 2015 WVU Health Sciences Research Advisory Committee, March 2012-September 2013 WVU Graduate Faculty status, 2011-November 2015

College Committees

WVU School of Nursing Faculty recruitment, promotion and tenure review committee 2014-November 2015

WVU School of Nursing PhD Admissions committee, 2014-November 2015

WVU Neuroscience Program Literature Review Committee and Curriculum Update Committee, January 2013-November 2015

WVU SON PhD Curriculum Change Committee, March 2012-January 2013 WVU School of Nursing Research Strategic Planning Advisory Committee, May 2011-July 2012 WVU SON Graduate Faculty Committee, Fall 2010-November 2015

PROFESSIONAL SERVICE

Future of Nursing West Virginia, RN Entrepreneur Course Coach http://www.futureofnursingwv.org/rn-entrepreneur-course

Consultation/Editorial/Review Boards/Panels

Journal Reviewer

Reviewer, Annals of Clinical and Translational Neurology, 2013-Present Reviewer, Microcirculation, 2013-Present Reviewer, Journal of Stroke, 2009-Present Reviewer, Biological Research in Nursing, 2009-Present Reviewer, Journal of Neurotrauma, 2009-Present Reviewer, Journal of Professional Nursing, 2006-Present

Grant Reviewer

American Nurses Foundation Grant Reviewer, 2014-Present AHA Subject Based Peer Review Committee Member, SURF 2, Spring 2013 & 2014 Grant Reviewer, 2012 Psychological Health and Traumatic Brain Injury Research Program (PH/TBI RP) for the Department of Defense (DoD) Congressionally Directed Medical Research Programs (CDMRP), February 2013 Neuroscience Nurse Foundation, 2009-Present

Abstract Reviewer

American Heart Association International Stroke Conference Abstract Reviewer, 2014, 2015, 2016

2015 AHA State of the Science Stroke Nursing Symposium Abstract Reviewer, 2014, 2015, 2016

Guest Editor

Guest Editor, Special Edition for International Archives of Translational Medicine, Novel Biomarkers June 2015

Guest Editor, Special Edition for Journal of Aging and Disease, June 2013

Editorial Board Memberships

Microcirculation, Fall 2015-Present

Professional Association Leadership and Membership

International

Member, 2017 American Heart Association Stroke Nursing Symposium Committee, Houston Tx February 21, 2017

- Member, International Society of Nurses in Genetics Annual Conference planning Committee 2015
- Appointed Vice Chair, American Heart Associations' Council on Cardiovascular Nursing, Stroke Nursing Committee, July 2014-August 2016
- Appointed to the American Heart Associations' Council on Cardiovascular Nursing, Stroke Nursing Committee, June 2012-Present
- Member, American Heart Association, 2007-Present
- Member, International Society of Nurses in Genetics, 2006-Present

National

Member, American Association of Neuroscience Nurses, 2014-Present Member, American Nurses Association, 2014-Present Invited participant, Personal Genetics Education Project and the 2012 Genomes Environments

Traits (GET) Conference, Harvard Medical School, Boston, MA, April 24-25, 2012 Invited participant, National Human Genome Research Institute (NHGRI) workshop "What Does

It Mean to be Genomically Literate?" Rockville, MD November 17-18, 2011

Member, Council for the advancement of Nursing Science Conference, 2010-Present

Member, Society for Clinical Translational Science, 2010-Present

Member, CTSA Nurse Scientist Special Interest Group, 2010-Present

Invited participant, First Annual GenoCommunity Think Tank, West Virginia University

Representative, St. Louis, MO September 2010

Regional

Member, Eastern Nursing Research Society 2004-2011 Member, Society of Critical Care Medicine 2004, 2011 Member, Nursing Student Association, University of Pittsburgh, School of Nursing 2000-2004

<u>Local</u>

Member, WVU Stroke Initiative Working Group, 2010-Present

WVU CTSI Grant Reviewer, June 2012

Member, WVU Institutional Review Board, 2010-2013

Member, Center for Neuroscience and Regenerative Medicine, Bethesda MD Biomarkers Core Committee, 2010-2011

Member, Doctoral Nursing Student Organization, University of Pittsburgh, Co-chair of endowed nursing scholarship committee, 2004-2009

Community Service

Regional/Local

YogaFaith Instructor, Weekly Non-profit Ministry at Duffey United Methodist Church Moorefield WV 2018 to present

Duffey United Methodist Church AWANA Club Volunteer <u>https://www.awana.org/</u> 2018 to present

- DNA Day K-12 Workshop, Sponsored by the WV Community Genomics Program and WVU Stroke Center, Central Greene Elementary School Waynesburg PA, May 6, 2015.
- Osher Lifelong Learning institute, Morgantown WV, Presentation on "Stroke Awareness, signs and Symptom", Barr, T; Johnson, F; Power, M; Schaffer, A. and Simpkins J. March 19, 2015
- Calhoun County Committee on Aging, Grantsville, WV, "Family health stories and knowing your disease risk", July 2012
- Calhoun County Committee on Aging, Grantsville, WV, "Family health history, genes and the environment", February 2012
- WV Asthma Camp Genetics Education, Mentees Danielle Doll and Steven Brooks, September 2012
- McDowell County Visitor and Veterans Center, Kimball, WV, "Family health history, genes and the environment", December 2011
- Mount Hope Youth Center, Mount Hope WV, Educational Seminar, "Family health history, genes and the environment", August 2011

PROFESSIONAL DEVELOPMENT

Iron Dresses, Glam Squad, Women in Business, Harrisonburg VA Conference Member and Attendee November 2018

Holistic Business School, Global Association for Holistic Practitioners, Madison WI, 2017,2018

Strengths based leadership workshop, Mountaineer Leadership Academy, Morgantown WV, March 2014

Participant, Teaching Scholars Program, West Virginia University, Spring 2012-October 2015

Attendee, Scientific writing and manuscript development, Office of Intramural Training and Education, Bethesda MD April 2008

Attendee, Leadership Skills Workshop, Office of Intramural Training and Education, Bethesda MD, February 2008

Attendee, Scientists Teaching Science: An introduction to best practices in science education, Office of Intramural Training and Education, Bethesda MD January 2008

Attendee, Introduction to the Principles and Practice of Clinical Research, NIH Clinical Center, Bethesda MD, October 2007-March 2008