

CURRICULUM VITAE

Date of Preparation: April 28, 2018

Reba A. Umberger, PhD, RN, CCRN-K

Assistant Professor

College of Nursing, Department of Acute and Tertiary Care

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EDUCATION

<u>Institution</u>	<u>Location</u>	<u>Degree</u>	<u>Year</u>	<u>Major/Specialty</u>
Northwest Mississippi Junior College	Senatobia, MS	A.S.N	1987	Nursing
University of Memphis	Memphis, TN	B.S.	1994	Biology (Microbiology)
University of Tennessee Health Science Center	Memphis, TN	M.S.	2004	Epidemiology
National Institute of Nursing Research/ Georgetown University	Bethesda, MD	NIH Fellow	2008	Summer Genetics Institute
University of Tennessee Health Science Center	Memphis, TN	Ph.D.	2011	Nursing

**Graduate non-degree courses were also taken at UTHSC and U of M between B.S. and M.S. degrees, and a Bioinformatics for Epidemiologists course was taken after the M.S. degree.*

HONORS AND AWARDS

<u>Organization and Award or Honor</u>	<u>Dates</u>
Joint Research Day: Gamma Chi Chapter of Sigma Theta Tau, University of Tennessee College of Nursing, and University of Tennessee Medical Center First Place Poster for Research Projects	November 2016
Sigma Theta Tau Gamma Chi Chapter: Research Excellence Award	April 2015
University of Tennessee Medical Center, Second place research poster	May 2013

Selected for UT Knoxville's Grant Writing Institute 2012	UMBERGER 2 Summer 2012
UT Knoxville's Faculty First Award, Development of Online Epidemiology Course for Clinical Practice	2012
American College of Chest Physicians: 75 th Anniversary Commemorative Edition Publication included our Chest 2007 article in top 75 seminal studies published from 1934 to 2009. The selection – made among 36,250 scientific publications - was based on the “number of citations received since publication” and “its significant impact on the practice of medicine.”	2009
NIH Fellow, NINR Summer Genetics Institute	2008
Inducted into Sigma Theta Tau International Honor Society, Beta Theta at Large Chapter	2007
Promise of Nursing Faculty Fellowship Scholarship, National League for Nursing Foundation for Nursing Education	2006
NWJC, Outstanding Leadership and Significant Student Contribution Award	1987
NWJC, Student Government Representative, Nursing School Honor's Council, Secretary of Student Nurses Association	1986
All-American Academic	1984
Who's Who Among American High School Students	1984

BOARD CERTIFICATION

American Association of Critical Care Nurses	CCRN-K Certified
American Heart Association	Basic Life Support ACLS (past instructor)
American Medical Association	Basic Disaster Life Support (past)

LICENSURE

Tennessee State Board of Nursing	Registered Nurse RN 75287, 1987
Mississippi State Board of Nursing	Registered Nurse #697052, 1987 (active compact state)

SOCIETY MEMBERSHIPS

American Association of Critical Care Nurses
 American Nurses Association
 American Thoracic Society (Nursing Assemblies)

International Society of Nurses in Genetics
 Mississippi Nurses Association
 Sigma Theta Tau International (Gamma Chi and Beta Theta at Large Chapters)
 Society of Critical Care Medicine (Nursing Section and Nursing Research Subcommittee)
 Southern Nursing Research Society (RIGS: Research in Clinical Settings and Biobehavioral Group)

UNIVERSITY AND COLLEGE APPOINTMENTS

University of Tennessee Health Science Center	Memphis, TN	Assistant Professor	July 2017 to present
University of Tennessee	Knoxville, TN	Assistant Professor	January 2012 to June 2017

HOSPITAL/CLINICAL APPOINTMENT

Prior Hospital Research Privileges between 1995-2006 at VAMC Memphis, Regional Medical Center at Memphis, University of Tennessee Bowld Hospital, Baptist Memorial Hospital Medical Center and East, and St. Francis Hospital under supervision of UT Pulmonary and Critical Care Division, Memphis Lung Research Program, Dr. Umberto Meduri and Dr. Stacey Headley.

PRACTICE/PROFESSIONAL EXPERIENCE

Veterans Affairs Medical Center, Memphis	Memphis, TN	Research Associate (WOC)	April 2012 to present
Veterans Affairs Medical Center, Memphis	Memphis, TN	Staff Nurse (Medical Intensive Care) and Research Investigator	October 2006 to December 2011
Memphis Lung Research Program, University of Tennessee Health Science Center	Memphis, TN	Research Nurse Director	May 1999 to October 2006
Memphis Lung Research Program, University of Tennessee	Memphis, TN	Research Nurse Coordinator	August 1997 to May 1999
Baptist Memorial Healthcare Foundation (Contract: University of Tennessee, Pulmonary Division)	Memphis, TN	Research Nurse Coordinator	August 1995 to August 1997
University of Tennessee Bowld Hospital	Memphis, TN	Supplemental CICU Staff Nurse	August 1995 to August 1997

Pulmonary and Critical Care Division, University of Tennessee	Memphis, TN	Research Nurse (part-time)	January 1993 to February 1994
Trinity Health Care (Formerly Upjohn Healthcare)	Memphis, TN	Supplemental ICU and ER Staff Nurse	June 1988 to August 1987
Regional Medical Center at Memphis	Memphis, TN	Staff Nurse (MICU, PCU) Patient Care Coordinator (CICU), Supplemental Staffing (ER)	June 1987 to August 1995

GOVERNMENT SECTOR APPOINTMENTS

Veterans Affairs Medical Center, Memphis	Memphis, TN	Research Associate (WOC)	April 2012 to present
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TEACHING EXPERIENCE

<u>Course Number</u>	<u>Course Title</u>	<u>Semester and Year</u>
UTHSC CON <u>Undergraduate</u> N421	Pathophysiology (with Dr. Norris) Role: Faculty	Fall 2017, Spring 2018
UTK CON <u>Undergraduate</u> N320	Pathophysiology (online RN-BSN) Restructured program, 16 week course compressed to 8 weeks	Spring 2017
N319	Pathophysiology (ASBN, face-to-face weekly 4-hour lectures) Coordinating and providing all content.	Fall 2015
N319	Pathophysiology (online RN-BSN) Assisting on a teaching team	Fall 2014, Fall 2013
N488	Nursing Honors Capstone	Summer 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016
N494	Alternative Preceptorship (writing intensive version)	Spring 2014

<u>Graduate</u>		
N609	Research Practicum	Spring 2017
N582	Scholarly Inquiry and Advanced Practice Nursing	Spring 2013, Summer 2013, Summer 2014, Fall 2014, Spring 2015
N610	Nursing Science Seminar	Summer 2014, Fall 2015
N608	Quantitative Research	Spring 2014
N603	Research Inquiry	Spring 2013, Spring 2016
N579 (prior N577)	Epidemiology for Clinical Practice Role: Developed course, Course Coordinator/Lead	Fall 2012, Spring 2013 Fall 2013, Fall 2014, Fall 2016
N532	Global Disaster Nursing Lectures: Epidemiology overview and Cholera outbreak in Haiti	Spring 2012
UTK CON Guest Lectures		
N535	Global Disaster Nursing III (Tropical Medicine) Guest lecture: Tuberculosis: A global perspective.	Spring 2014
N388	Nursing Honors Guest lecture: Research Overview	Fall 2014
N319	Pathophysiology (traditional students) Guest lecture: Respiratory Infections, Lung Cancer, Pediatric Respiratory Issues, and Sepsis	Fall 2016
UTHSC CON		
	Teaching Assistant Work: Doctoral Nursing Theory Course (with Carolyn Graff) Acute Care (Lectures: Sepsis, Shock, and Bioterrorism)	Spring 2010 Fall 2009

COMMITTEES AND OFFICES HELD

College Service

UTHSC College of Nursing

PhD program committee	2017-present
Evaluation committee for Research Manager for Office of Research and Scholarship	Spring 2018

Other committee service (TBD) will begin in the Spring 2018

UTK College of Nursing

<u>Committees</u>	<u>Dates</u>
Graduate Curriculum Committee	2016-2017
Scholarship and Awards Committee (Co-chair 2014-2015, Chair 2015-2016)	2012-2016
Coordinate the DAISY Faculty (2013-2016) and In-Training Awards (2014-2016)	2012-2016
College of Nursing IRB	2014-2017

<u>Task Forces</u>	
MSN N582 Experience	April 2015
PhD Program: Quantitative Research Summer 2014	
PhD Program: Mentoring	2014
DNP Program: Review of combined epidemiology and stats course among aspirant schools	2014

<u>Other</u>	
Faculty Search Committee	2014
Strategic Planning Imperative C: Building Research Capacity	2012

University of Tennessee Knoxville

<u>Committee and Role</u>	
Graduate Council (Elected as additional Representative while Dr. Roman is Chair)	2016-2017
Faculty Senate – (not elected, temporary emergency meeting stand-in for a Senator)	2015

<u>Other</u>	
Facilitator of a “Life of the Mind” Freshman Book Discussion group	2016
Poster judge for Women in STEM 2 nd Annual Conference	2016
Reviewed CON UG Summer Internship applications for the Office of Research	2014, 2015
Review panel/Judge at the CEMPH Research Conference	2013

University of Tennessee Health Science Center

QEP Marketing Committee	2018
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Professional Service

Organization role	
VA Cooperative Studies Program #574, Member of the Executive Committee See ClinicalTrials.gov project NCT01283009.	2010-present
VAMC Memphis, CAM-ICU Committee	2009

Community Service

University of Tennessee Medical Center Service

Assisted with a Journal Club at Medical Critical Care Council 2015

Participated in Sepsis Initiatives at UTMC. Invited to participate on the Sepsis Advisory Council by Dr. James Shamiyeh. 2015

VA- Medical Center Memphis

Engaged in sepsis initiatives at the VAMC in Memphis 2017-present

Organizing a nursing journal club starting with long term outcomes in sepsis 2018

Journal Reviewer

International Journal of Health Sciences Education 2018-present

Biological Research in Nursing 2017-present

International Journal of Molecular Sciences 2016-present

Dimensions of Critical Care Nursing 2015-present

Issues in Mental Health Nursing 2014

McMaster's Online Rating of Evidence (MORE) - Clinical Relevance Online Rating System 2007-present
(Reviewer/rater for clinical relevance of selected pulmonary and critical care articles)

Organization and Role**Dates**

Southern Nursing Research Society

Abstract Reviewer round 1 and round 2 2016

Abstract Reviewer round 1 and round 2 2015

Sigma Theta Tau International Honor Society, Gamma Chi Chapter 2014-present

Immediate Past President 2016-2018

President 2014-2016

President Elect 2013-2014

Electronic Delegate 2014-2015

Coordinated aspects of Martha Rogers memorial service reception led by the 2014

Society of Rogerian Scholars

Poster judging Gamma Chi Research Day awards 2014

International Society of Nurses in Genetics 2010-present

Member of the research committee. 2010-2015

Grant reviewer 2014

Society of Critical Care Medicine 1992, 2010-

Member of the Nursing and Critical Care sections 2010-present

Member of the Nursing Research Subcommittee 2013-present

Mentoring work group, developed proposal (represented the Nursing Section) 2017

Appointed to the Thrive Task Force (3-year appointment)
Appointed to the Scientific Review Committee (3-year appointment)

UMBERGER 8
2018-2021
2018-2021

Memberships only:

Mississippi Nurses Association, member 2017-present
American Nurses Association, member 2017-present
American Thoracic Society, member
American Association of Critical Care Nurses, member

Other:

Netherlands Organization for Scientific Research (ad hoc grant reviewer) 2018

GRADUATE AND OTHER STUDENTS TRAINED/MENTORED

Mentoring Students in Research

PhD Dissertation Committees

Kirkland, L. (2015). *Meaningful Experiences That Keep Newly Licensed Registered Nurses at the Bedside*. The University of Tennessee College of Nursing Dissertation Committee members: Thomas, S. (chair), Gunther, M., Greenberg, K. & **Umberger, R.**
Ruskie, S. (2015). *Nurses' Experience of the Environment of Disaster: A Phenomenological Investigation*. The University of Tennessee College of Nursing Dissertation Committee members: Thomas, S. (chair), Gunther, M., McRae, J. & **Umberger, R.**
Dunlap, T. (ongoing). *Title pending, topic CPAP Adherence*. The University of Tennessee College of Nursing Dissertation Committee members: Beebe, L. (chair), Baghdoyan, H.A., Roman, M. & **Umberger, R.**

PhD Advisees

2013 Adelman
2014 Adelman, Todt
2015 Adelman, Todt, Dunlap (dissertation phase with Bebee), Scott, Ruskie (dissertation-graduated)
2016 Adelman, Todt, Dunlap (dissertation phase with Bebee), Scott (dissertation phase with Thomas)
2017 Adelman, Todt, Dunlap (dissertation phase with Bebee),
2018 None

PhD Preliminary Exam Committee

Todt, K. (2016). *Preliminary Exam Committee – Pilot Exam*. Umberger (chair), Wyatt, and Lindley.

PhD Comprehensive Exam Committee

none

MSN Comprehensive Exam Committee

Neal, C. (2016). PhD student taking PMH portion of exam. Role: Committee member
Sheppard, D. (2015). MSN student taking all sections of the exam. Role: Committee Member

Vickery, D., O'Dell, K., Snow, H. (2016) MSN student taking all sections of the exam. Role: Committee Member

MSN-Mentored Research Experience and Scholarly Projects (N582)

<u>Year</u>	<u># students</u>	<u>Projects</u>
2013	1	Assisted with funded EMR project
2013	2	Assisted with a literature review: inflammation and new onset A-fib
2013	1	ICU infections (data entry project)
2014	1	Assisted with PMERF project and preliminary literature review of Candida Score
2014	1	Assisted with literature review: Matrix table and annotated bibliography of sepsis survivors
2015	2	Assisting with Sepsis Survivor Study as well as aspects of other research projects as needed
2015	2	Assisting with cytokine assays as well as aspects of other research as needed
2015	2	Assisted with abstract, poster development, and publication involving the Candida Score
2015	1	Assisted with development of education material for a grant proposal

Undergraduate Nursing Honors Program Thesis Mentor

Worsham, B. (2013-2015). *An Evaluation of the Precious Prints Project: The emotional impact of preparing a keepsake on NICU, PICU, and ER nurses*. The University of Tennessee College of Nursing, Nursing Honors Program. Role: Mentor

Woodward, B. (2014-2016). *Unit level Changes in Central Line-Associated Bloodstream Infection Before and After Implementation of the Affordable Care Act and Mandatory Reporting Legislation*. The University of Tennessee, College of Nursing, Nursing Honors Program, Chancellor's Honors Program. Role: Mentor

Summer Undergraduate Research Intern

Jurgulux, L. (2012). Assisted with UTMC Project: *Retrospective chart review of ICU infections*. This project was funded by the UTK Office of Research. An amount of \$2,000 paid for the student to work 20 hours per week during the summer. The student also received the Sylvia Hart STTI Gamma Chi research award for her work. Role: PI and Mentor

Community Engagement of Nurses in Research: Research Assistants

Slager, J. (2014-2016). PMERF project: Assist with obtaining signatures on letters mailed to potential participants. E. Talbott later assisted with dissemination of findings to ICU nurses, unit council, and participated as a co-investigator on the follow-up project among caregivers of sepsis survivors.

Simpson, M. (2013). EMR project: Assisted with records review and sepsis verification.

Miller, C. (2012). Retrospective infections in the ICU project: Unit infection prevention nurses assisted with location of information in electronic medical records and collection of length of stay.

RESEARCH AND OTHER EXTERNAL SUPPORT

Internal

Umberger, R. (2017) *New Faculty Start-up funds*. The University of Tennessee Health Science Center \$100,000 Role: PI (funded)

- Anderson, J., Hardy, L., Koszalinski, R., McLennon, S., Rose, K. & **Umberger, R.** (2016). *Application for SARIF Funds by the UT College of Nursing – expanding lab for biobehavioral and genetic research*. Scholarly and Research Incentive Fund (SARIF) Opportunities Fund Award - The University of Tennessee, Knoxville. \$ 27,762 (CON and ORA 1:1 split of \$13,881). Role: co-investigator (Funded, November 2016)
- Umberger, R.** & Beebe, L. (consultant) (2016). *Optimizing social support for survivors of sepsis: a randomized controlled pilot and feasibility study*. Faculty Rapid Cycle Research Application, The University of Tennessee, Knoxville –College of Nursing. \$10,000. Role: PI (Not funded)
- Umberger, R.** (2015) *Request for additional high sensitivity cytokine kits to validate findings*. Center for Health Science Research, RAPID Research Enhancement Program - The University of Tennessee, Knoxville College of Nursing. \$5,000. Role: PI (not funded)
- Umberger, R.,** (2014) *Support for biomarker measures in patient with sepsis*. Scholarly and Research Incentive Fund (SARIF) Opportunities Fund Award - The University of Tennessee, Knoxville. \$3,666. Role: PI (funded)
- Umberger, R.** (2013) *A Phenomenological Approach to Understanding Recovery Following Critical Care Illness*. Center for Health Science Research, Pilot and Feasibility Grant Application - The University of Tennessee, Knoxville. \$6,000. Role: PI (not funded)
- Umberger, R.** & Indranoi, C.Y. (2013) *Feasibility of electronic data capture from electronic medical records for research purposes and validation of SIRS scores*. Health Information Technology and Simulation Research Unit - The University of Tennessee, Knoxville. \$6,000. Role: PI (funded)
- Umberger, R.,** & Holston, E. (2012). *SARIF equipment proposal to support faculty research in the area of genomics*. Scholarly and Research Incentive Fund (SARIF) Equipment Fund Award - The University of Tennessee, Knoxville. \$20,000. Role: Co-I (not funded)
- Umberger, R.** (2012). *Developing an Online Epidemiology Course for Graduate Nursing Students*. Faculty First Award - The University of Tennessee, Knoxville. \$2,000 for equipment and support in-kind. Role: PI (funded)
- Umberger, R.** (2012) *New Faculty Start-up funds*. The University of Tennessee, Knoxville College of Nursing and Office of Research. \$20,000 Role: PI (funded 2012-2015)
- Umberger, R.** (2011). *Travel award for SNRS presentation*. College of Graduate Health Sciences, The University of Tennessee Health Science Center. \$500. Role: PI & doctoral student (funded)
- Umberger, R.** (2009). *Dissertation funding to purchase cytokine kits*. College of Nursing Dissertation Support - University of Tennessee Health Science Center. \$1,400. Role: PI & doctoral student (funded)
- Umberger, R.** (2010). *Travel award for SNRS presentation*. College of Graduate Health Sciences, The University of Tennessee Health Science Center. \$500. Role: PI & doctoral student (funded)
- Umberger, R.** (2008). *Travel award for SNRS presentation*. College of Graduate Health Sciences, The University of Tennessee Health Science Center. \$500. Role: PI & doctoral student (funded)

External

- Umberger, R.,** Yende, S., Conley, Y., Fitzpatrick, E., Cao, X. (submitting June 25, 2018). *Mechanisms of long-term immune suppression in survivors of sepsis*. NINR. R15 2019-2022 \$300,000
- Umberger, R.** & Thomas, S. (2016). *Informal caregivers of survivors of sepsis: focus groups and pilot surveys to understand quality of life, coping, caregiver burden, and resilience*. The Physicians' Medical Education and Research Foundation (PMERF). Remaining funds from prior study approved for new project. Role: PI (funded)

- Umberger, R. & Beebe, L.** (2015) *Optimizing social support for survivors of sepsis and caregiver dyads: a randomized controlled pilot and feasibility study*. Society of Critical Care Medicine – THRIVE grant. \$50,000 Role: PI (not funded)
- Umberger, R., Yende, S., Conley, Y., Saxton, A., & Gunusov, V.** (2015) *Epigenomics in sepsis recovery and recurrence*. American Thoracic Society – Unrestricted Grant. \$40,000. Role: PI (LOI accepted and invited for a full proposal – not funded)
- Umberger, R.** (2015) *Requested high sensitivity cytokine kits to replace kits from an earlier expired bundle purchase*. EMD Millipore. \$3,760. Role: PI (funded)
- Umberger, R. & Thomas, S.** (2014). *The experience of recovery following critical illness in Appalachia, a phenomenological exploration*. The Physicians' Medical Education and Research Foundation (PMERF). \$2,906. Role: PI (funded)
- Umberger, R.** (2014) Student loan repayment for service as a nursing faculty member in an area of need. HRSA: Nurse Corps Faculty Fellowship. (not funded)
- Umberger, R. & Wicks, M.** (2013). *A multiple methods approach to understanding long-term outcomes in critical care survivors and their informal caregivers*. American Association of Critical Care Nurses Impact Grant. \$50,000. Role: Co-I (not funded)
- Umberger, R.** (2012). *Influence of Systemic Inflammation in Patients with Sepsis*. National Institutes of Health: LRP Grant. Assigned to the National Institute of General Medical Science. Role: PI (not funded)
- Umberger, R.** (2011). Travel award to ACCP 2011 for presentation of dissertation AIM 1. Research, Inc. \$1,500. Role: PI (funded)
- Umberger, R.** (2010). *Dissertation funding for genetic testing: Inflammatory Proteins, Genetic Variation, and Environmental Influences on Nosocomial Infection Development in Sepsis Patient*. International Society of Nurses in Genetics. \$1,500. Role: PI-doctoral student (funded)
- Umberger, R.** (2009). *Inflammatory Proteins, Genetic Variation, and Environmental Influences on Nosocomial Infection Development in Sepsis Patients*. Council for the Advancement of Nursing Science/Southern Nursing Research Society Nursing Science Advancement (NSA) Dissertation Grant Award. \$3,000. Role: PI (not funded)
- Umberger, R.** (2008). *Exaggerated Inflammatory Response and Nosocomial Infections in Sepsis Patients*. VA Pre-Doctoral Fellowship. Role: PI (not funded)
- Umberger, R.** (2008). *Exaggerated Inflammatory Response and Nosocomial Infections in Sepsis Patients*. National Institutes of Health, Ruth L. Kirschstein National Research Service Award. Role: PI (not funded)
- Muthiah, M. & Freire, A. (2003-2006). Undisclosed Industry Sponsored Clinical Research. Device and antibiotic comparison clinical trials. Partial salary support. Role: Research coordinator and project administrator (funded)
- Standiford, T. (PI) & Meduri, G.U. (2003-2004) *Specialized Centers of Clinically Oriented Research (SCCOR) in Translational Research in Acute Lung Injury*. NIH-SCORR Grant HL074024, Funded 9/1/2003 – 6/30/2004, Role: Site Project Manager (funded)
- Meduri, G.U. (1998-2001). *Memphis Lung Research Program*. Baptist Memorial Health Care Foundation. Role: Research Nurse Coordinator/Program Administrator (funded)
- Meduri, G.U. (1997-2000). *Center for Acute Respiratory Distress Syndrome Research*. The Assisi Foundation of Memphis. Role: Research Nurse Coordinator/Program Administrator (funded)
- Meduri, G.U. (1996-1998). Prospective double-blind randomized study on the effects of hydrocortisone infusion in patients with severe sepsis. Baptist Memorial Health Care Foundation. Role: Research Nurse Coordinator (funded)
- Headley, A.S. (1995-1997). Prospective double-blind randomized study on the effects of corticosteroid therapy in the late phase of ARDS. Baptist Memorial Health Care Foundation. Role: Research Nurse Coordinator (funded)

Other

- Umberger, R.** (2012-present) Continued Dissertation Analysis: Inflammatory proteins, genetic variation, and environmental influences on nosocomial infection development in patients with sepsis. New Faculty Startup funds. Role: PI
- Umberger, R.** (2012) Infections in the ICU: Retrospective chart review among all adult patients admitted to the Medical Critical Care Unit during January 2008 and 2012. Undergraduate Summer Intern \$2,000. Role: PI
- Umberger, R.** (Spring 2011). Development of an infection control manual for the University of Tennessee Health Science Center's University Nursing Practice prior to accreditation renewal. UTHSC CON Graduate Research Assistant for Dr. Dianne Todd Pace, FNP. Tuition waiver support. Role: GRA
- Umberger, R.** (Spring 2011). Comparing roles and numbers of nurse practitioners and physicians' assistants underserved areas and areas of practice in TN. UTHSC CON Graduate Research Assistant for Dr. Gina Betts. Tuition waiver support. Role: GRA
- Umberger, R.** (Fall 2010). Developed a publication from a presentation. UTHSC CON Research Teaching Assistant for Dr. Ann Cashion. Tuition waiver support. Role: GRA
- Umberger, R.** (Spring 2010). Assisted with online doctoral nursing theory course. UTHSC CON Graduate Teaching Assistant for Dr. Carolyn Graff. Tuition waiver support. Role: GTA
- Umberger, R.** (Fall 2009). Assisted with lectures in Acute Care course to entry to practice MSN clinical nurse leader students. Provided lectures in sepsis, shock, and bioterrorism. UTHSC CON Graduate Teaching Assistant for Dr. Carrie Harvey. Tuition waiver support. Role: GTA
- Umberger, R.** (Spring 2009). Literature review of trach care and complications. UTHSC CON Graduate Research Assistant for Dr. Carol Thompson. Tuition waiver support. Role: GRA
- Umberger, R.** (Fall 2008). Literature review of skin and soft tissue infections. UTHSC CON Graduate Research Assistant for Dr. Carol Thompson. Tuition waiver support. Role: GRA
- Umberger, R.** (2007). Created an annotated bibliography in simulation. UTHSC CON Graduate Research Assistant for Dr. Carol Thompson. Tuition waiver support. Role: GRA
- Chung, K.T, **Umberger, R.** (~1990) Preliminary work to examine *Streptococcus mutans* in dental carries from teeth extracted at the UTHSC dental school. The University of Memphis, Microbiology Department. No funding. Role: Student volunteer research

BOOKS AND BOOK CHAPTERS**Book Chapters**

- Umberger, R.**, Callen, B., & Brown, M. L. (2018) Manifestations of sepsis in older adults. In T. Fulop, C. Franceschi, K. Hirokawa & G. Pawelec (Eds.), *Handbook of Immunosenescence: Basic Understanding and Clinical Applications* (2nd ed.): Springer International Publishing. https://doi.org/10.1007/978-3-319-64597-1_135-1
- Mefford, L., **Umberger, R.** (2019) Structure and function of the kidney. In Norris, T. L. (Ed.) *Porth's Pathophysiology: Concepts of Altered Health States*. (10th ed.) (Edited Chapter) ISBN#9781496377555

- Umberger, R.,** Mefford, L. (2019) Disorders of Renal Function. In Norris, T. L. (Ed.) Porth's Pathophysiology: Concepts of Altered Health States. (10th ed.) (Edited Chapter)
ISBN#9781496377555
- Umberger, R.** Yende, S. (2019) Mechanisms of Infectious Diseases. In Norris, T. L. (Ed.) Porth's Pathophysiology: Concepts of Altered Health States. (10th ed.) (Edited Chapter)
ISBN#9781496377555

Other Published Materials

- Umberger, R.** (2011). *Inflammatory proteins, genetic variation, and environmental influences on health care associated infection development in sepsis*. Doctoral Dissertation. The University of Tennessee Health Science Center.
- Umberger, R.** (2004). *Obesity-related comorbidities' influence on cardiovascular risk factors, fitness, and physical activity in an ongoing exercise intervention trial*. Master's Thesis. The University of Tennessee Health Science Center.

PEER-REVIEWED JOURNAL ARTICLES

Submission Pending

Meduri, G.U., Bridges, L., Martin, T.J., Umberger, R., Soih, A., Anzueto, A., Davis-Karim, A., Shih, M., (WIP) Prolonged Methylprednisolone Treatment for severe Community-acquired Pneumonia – the ESCAPe trial: Study protocol for a randomized controlled trial. (*Has been ready for submission pending coordinating center review and approval.*)

Refereed Publications

1. Oppizzi, L., & Umberger, R. (2018). State of the science: The effect of physical activity on post traumatic stress disorder symptom severity. *Issues in Mental Health Nursing*. 39 (2): 179-187. doi: 10.1080/01612840.2017.1391903
2. Woodward, B., & **Umberger, R.** (2018). Unit level changes in central line-associated bloodstream infection before and after implementation of the Affordable Care Act and mandatory reporting legislation. *Dimensions of Critical Care Nursing*. 37 (1): 35-43. doi: 10.1097/DCC.0000000000000274 (data-based)
3. Meduri, G.U., **Umberger, R.** (2018). Dysregulated Systemic Inflammation Favors Bacterial Growth and Development of Nosocomial Infections. Reply letter. *American Journal of Respiratory and Critical Care Medicine*. 197 (8): 1092. doi: 10.1164/rccm.201709-1867LE (Epub ahead of print in December 2017)
4. **Umberger, R.**, & Hatfield, L.A., & Speck, P.M. (2017). Understanding negative predictive value of diagnostic tests used in clinical practice. *Dimensions of Critical Care Nursing*. 36(1): 22-29. doi: 10.1097/DCC.0000000000000219
5. Woodward, B., & **Umberger, R.** (2016). Review of best practices for CLABSI prevention and the impact of recent legislation on CLABSI reporting. *SAGE Open*, 6(4). doi: 10.1177/2158244016677747 Accessible at: <http://sgo.sagepub.com/content/6/4/2158244016677747>

6. Hatfield, L.A., & **Umberger, R.** (2016). Parental knowledge and misconceptions of risks to healthy newborns in genotypic driven pediatric research. *Pediatrics and Neonatal Nursing*, 2(2): doi: <http://dx.doi.org/10.16966/2470-0983.111> (data-based)
7. **Umberger, R.**, Garsee, K., Davidson, B., Carringer, J.A., Kuhl, D., & Muthiah, M. (2016). The utility of the Candida score in patients with sepsis. *Dimensions of Critical Care Nursing*, 35(2):92-8. doi: 10.1097/DCC.000000000000163. (data-based)
8. **Umberger, R.**, Callen, B., & Brown, M.L. (2015). Severe sepsis in older adults. *Critical Care Nurse Quarterly*, 38(3):259-70. doi: 10.1097/CNQ.0000000000000078
9. **Umberger, R.**, Thompson, C. L., Cashion, A. K., Kuhl, D., Wan, J., Yates, C. R., . . . Meduri, G. U. (2015). Exaggerated plasma interleukin 6, interleukin 10, and subsequent development of health care-associated infections in patients with sepsis. *Dimensions of Critical Care Nursing*, 34(2), 100-111. doi: 10.1097/DCC.0000000000000098 (data-based)
10. Hatfield, L. A., & **Umberger, R.** (2015). Does mitigating pain decrease the risk of infection? The interactions between nociception and immune function. *Journal of Neonatal Nursing*, 21(1), 11-17. doi: 10.1016/j.jnn.2014.10.002[Epub ahead of print]
11. **Umberger, R.**, Holston, E.C., Hutson, S.P., & Pierce, M. (2013). Nursing genomics: Practice implications every nurse should know. *Nursing Clinics of North America*, 48(4):499-522. doi:10.1016/j.cnur.2013.08.006
12. Cashion, A.K., **Umberger, R.A.**, Goodwin, S.B., & Sutter, T.R. (2011). Collection and storage of human blood and adipose for genomic analysis of clinical samples. *Research in Nursing and Health*, 34(5), 408-418. doi: 10.1002/nur.20448 [Epub ahead of print] (data-based)
13. Nawab Q, Golden E, Confalonieri M, **Umberger R**, & Meduri G. (2011) Corticosteroid treatment in severe community-acquired pneumonia: duration of treatment affects control of systemic inflammation and clinical improvement. *Intensive Care Medicine*, 37(9), 1553-1554. doi: 10.1007/s00134-011-2274-5 [Epub ahead of print] (data-based)
14. Laime, A., Bracco, J., Barberio, P., Campagne C., Rolfo, V., **Umberger, R.**, & Meduri, G.U. (2010). H1N1 Influenza A virus-associated acute lung injury: Response to combination oseltamivir and prolonged corticosteroid treatment. *Intensive Care Medicine*, 36(1), 33-41. doi: 10.1007/s00134-009-1727-6. [Epub ahead of print] (data-based)
15. Li, S., Stuart, L., Zhang, Y., Meduri, G. U., **Umberger, R.**, & Yates, C. R. (2009). Inter-individual variability of plasma PAF-acetylhydrolase activity in ARDS patients and PAFAH genotype. *Journal of Clinical Pharmacy and Therapeutics*, 34(4): 447-455. doi: JCP1014 [pii] 10.1111/j.1365-2710.2008.01014.x (data-based)
16. Meduri, G. U., Golden, E., Freire, A. X., Taylor, E., Zaman, M., Carson, S. J., . . . **Umberger, R.** (2007). Methylprednisolone infusion in early severe ARDS: Results of a randomized controlled trial. *Chest*, 131(4), 954-963. doi: 131/4/954 [pii]10.1378/chest.06-2100 (data-based)

17. Sinclair S.E., John, B.E., Golden E.B., Carratu P., **Umberger R.A.**, & Meduri G.U. (2006). Interleukin-8 and soluble intercellular adhesion molecule-1 during acute respiratory distress syndrome and in response to prolonged methylprednisolone treatment. *Minerva Pneumologica*, 45(2): 93-103. (data-based)
18. Meduri G.U., **Umberger R.**, & Confalonieri, M. (2005). Hydrocortisone infusion for severe community-acquired pneumonia: The role of relative adrenal insufficiency. *American Journal of Respiratory and Critical Care Medicine*, 172(6):782-783. doi:10.1164/rccm.200406-808OC
19. Confalonieri, M., Urbino, R., Potena, A., Piattella, M., Parigi, P., Puccio, G., [**Umberger, R.**]. . . Meduri, G. U. (2005). Hydrocortisone infusion for severe community-acquired pneumonia: a preliminary randomized study. *American Journal of Respiratory and Critical Care Medicine*, 171(3), 242-248. doi: 200406-808OC [pii]10.1164/rccm.200406-808OC [Epub ahead of print] (data-based)
20. Carratu, P., Morelli, N., Freire, A. X., Pugazhenthii, M., Guerra, S., **Umberger, R.**, & Allegra, L. (2003). Effect of zafirlukast on methacholine and ultrasonically nebulized distilled water challenge in patients with mild asthma. *Respiration*, 70(3), 249-253. doi: 10.1159/00007200572005 [pii] (data-based)
21. Tolley, E.A., Meduri, G.U., Headley, A.S., Golden, E., Carson, S.J., & **Umberger, R.A.** (1998). Methylprednisolone for Unresolving ARDS—Reply. *Journal of the American Medical Association*, 280(24): 2074. doi:10-1001/pubs.JAMA-ISSN-0098-7484-280-24-jbk1223
22. Meduri, G.U., Headley, A.S., Golden, E., Carson, S.J., **Umberger, R.A.**, Kelso, T., & Tolley, E. A. (1998). Effect of prolonged methylprednisolone therapy in unresolving acute respiratory distress syndrome: A randomized controlled trial. *Journal of the American Medical Association*, 280(2), 159-165. doi: jce80019 [pii] (data-based)
23. Meduri, G.U., Headley, S., Kohler, G., Stentz, F., Tolley, E., **Umberger, R.**, & Leeper, K. (1995). Persistent elevation of inflammatory cytokines predicts a poor outcome in ARDS. Plasma IL-1 beta and IL-6 levels are consistent and efficient predictors of outcome over time. *Chest*, 107(4): 1062-1073. PMID: 7705118 (data-based)

PRESENTATIONS

International

1. Hatfield, L., Umberger, R. (Sep 2018) *Does Mitigating Pain Decrease the Risk of Neonatal Infection? The Interactions Between Nociception and Immune Function*. International Association for the Study of Pain World Congress. 17th World Congress on Pain, September 12-16, 2018 in Boston, MA. (accepted for presentation)
2. **Umberger, R.**, Todt, K., Talbott, E., Sparks, L, Thomas, S. (Feb 2018) Informal caregivers of sepsis survivors in Appalachia: individual interviews and pilot surveys. Presented at the Sepsis Research Snapshot Theater 14 on February 27, 2018 at the Society of Critical Care Medicine's 47th Annual Critical Care Congress in San Antonio, TX. Abstract published in *Critical Care Medicine*, January 2018, 46 (1): 706. Doi: 10.1097/01.ccm.0000529446.96498.30

3. **Umberger, R.**, Carringer, J., Kuhl, D., & Muthiah, M. (May 2015). Assessing utility of the candida score in ICU patients admitted with sepsis. *Discussion Session: Raising the bar on outcomes in critical illness at The American Thoracic Society 2015 International Conference*. Denver, Colorado (poster). Abstract published in the American Journal of Respiratory and Critical Care Medicine, May 2015, Volume 191, A6246.
4. **Umberger, R.**, Indrani, C., Simpson, M., Jensen, R., & Shamiyeh, J. (January 2014). Implementation of an automated electronic medical record tool to identify patients with sepsis. Poster presentation at *The 43rd Critical Care Congress, Society of Critical Care Medicine*. San Francisco, California (poster). Abstract published in *Critical Care Medicine*, 41(12):A269, December 2013.
5. **Umberger, R.**, Thompson, C., Cashion, A.K., Kuhl, D., Wan, J, Yates, C.R., Muthiah, M., & Meduri G.U. (January 2013). Predictors of healthcare associated infections in patients presenting to the ICU with sepsis. *The 42nd Critical Care Congress, Society of Critical Care Medicine*. San Juan, Puerto Rico (poster – Nosocomial Sepsis Professor Walk Rounds). Abstract published in *Critical Care Medicine* Vol 40, No 12, 488 (Suppl.).
6. **Umberger, R.**, Thompson, C., Cashion, A.K., Kuhl, D., Wan, J, Yates, C.R., Muthiah, M., & Meduri G.U. (October 2011). Exaggerated systemic inflammation and development of health care associated infections. *American College of Chest Physicians' Annual Meeting*. Honolulu, Hawaii (paper). Abstract published in *Chest* October 2011 140:4 Meeting Abstracts 990A; doi:10.1378/chest.1120037.
7. **Umberger, R.**, Thompson, C., Cashion, A.K., Kuhl, D., Wan, J, Yates, C.R., & Muthiah, M. (October 2011). Interleukin-6 and Interleukin-10 SNP variance and development of health care associated infections. *International Society of Nurses in Genetics*. Montréal, Canada (paper).
8. Quispe-Laime, A.M. (presenter), Bracco, J.D., Barberio, P.A., Campagne, C.G., Rolfo, V.E., **Umberger, R.**, & Meduri, G.U. (November 2009). H1N1 influenza A virus-associated acute respiratory distress syndrome: response to combination Oseltamivir and prolonged corticosteroid treatment. *American College of Chest Physicians' Annual Meeting*. San Diego, CA (paper). Abstract published in *Chest* 2009 136: 47S-h-48.
9. Meduri, G.U. (presenter), Golden, E., & **Umberger, R.** (October 2009). Prospective, Double-Blind, Randomized Clinical Trial on the Effects of Low-Dose Hydrocortisone Infusion in Patients with Severe Sepsis. *American College of Chest Physicians' Annual Meeting*. San Diego, CA (paper). Abstract published in *Chest* 2009 136: 45S-h.
10. El Gamal, A. (presenter), Aleech, Y., **Umberger, R.**, & Meduri, G.U. (October 2008). Sudden cardiac arrest is a leading cause of death in patients with ASCVD admitted to the ICU with acute systemic inflammation. *American College of Chest Physicians' Annual Meeting*. Philadelphia, PA (poster). Abstract published in *Chest* 2008; 134(suppl): e587.
11. **Umberger, R.**(presenter), Thompson, C., Muthiah, M., & Meduri, G.U. (October 2008). Patients admitted to ICU with sepsis are more likely to develop nosocomial infections. *American College of Chest Physicians' Annual Meeting*. Philadelphia, PA (poster). Abstract published in *Chest* 2008; 134(suppl): e479.

12. Nawab, A.(presenter), Golden, E., Confalonieri, M., **Umberger, R.**, & Meduri, G.U. (May 2007). Glucocorticoid Treatment in Severe Community-acquired Pneumonia. *ATS 2007 International Congress*. San Francisco, CA (poster). Abstract published in *Am J Respir Crit Care Med* 2007; 175: A594.
13. Russell, C. (co-presenter), Carter-Templeton, H.(co-presenter), **Umberger, R.**(co-presenter), Nwokeji, S.(co-presenter), Gilbert, S., & Likes, W. (April 2007). Maximizing classroom collaboration using Web 2.0 technology. *TCC Worldwide Online Conference, Blending Reality and Multimedia in Ubiquitous Learning*. Online presentation.
14. Meduri, G.U. (presenter), Golden, E., Freire, A.X., Taylor, E., Zaman, M., Carson, S., Gibson, M., & **Umberger R.** (January 2006). Early ARDS Methylprednisolone infusion in patients with early acute respiratory distress syndrome (ARDS) significantly improves lung function: results of a randomized controlled trial (RCT). *Society of Critical Care Medicine 35th World Congress*. (Award: Annual Scientific Award – Meduri) Abstract published *Critical Care Medicine* 2005, 33(12): A19.
15. Meduri, G.U. (presenter), Golden, E., Freire, A.X., Taylor, E., Zaman, M., Carson, S., Gibson, M., & **Umberger R.** (October 2005). Methylprednisolone infusion in patients with early acute respiratory distress syndrome (ARDS) significantly improves lung function: results of a randomized controlled trial (RCT). *American College of Chest Physician's Annual Meeting*. Orlando, Florida (poster). Abstract published in *Chest* 2005, 128(4): 129S.
16. **Umberger R.A.** (presenter), Headley, A., Waters, T., Tolley, E., Stentz, F., Golden, E., & Meduri G. (May 2002). Cost effectiveness of methylprednisolone treatment in unresolved ARDS. *Mini-symposium: What's new in critical care? New patient care techniques and management strategies, 98th International Conference, American Thoracic Society*. Atlanta, GA (paper). Abstract published in *American Journal of Respiratory and Critical Care Medicine*; April 2002; 165 (8) A22.
17. Meduri, G.U.(presenter), Headley, S., Carson, S., **Umberger, R.**, Kelso, T., & Tolley, E. (May 1997). Methylprednisolone treatment of late ARDS. *American Thoracic Society Annual meeting*. an Francisco, California (paper). Abstract published in *American Journal of Respiratory and Critical Care Medicine* 1997; 155: A391.
18. Reddy, R. (presenter), Meduri, G.U., Stanley, T., **Umberger, R.**, & Headley, S. (May 1997). Bilateral BAL to diagnose VAP in ARDS. *American Thoracic Society Annual Meeting*. San Francisco, California. Abstract published in *American Journal of Respiratory and Critical Care Medicine* 1997; 155: A393.
19. Headley, A.S. (presenter), Meduri, G.U., Tolley, E., Belenchia, J., **Umberger, R.**, & Crouse, D. (October 1997). Infections and the compensatory anti-inflammatory response during ARDS: Plasma and BAL levels of TGF-b, IL-1ra and sTNFR's. *American College of Chest Physician's Annual Meeting* (paper). Abstract published in *Chest* 1997; 112: 56S.
20. Kohler, G. (presenter), Meduri, G.U., Stentz, F., Headley, S., Tolley, E., Leeper, K.V., & **Umberger, R.** (October 1993). Inflammatory cytokines in the BAL of ARDS. *American College of Chest Physician's Annual Meeting*. Orlando, FL (paper). Abstract published in *Chest* 1993; 104: 151S. (Award: Young Investigator Award-Kohler).

21. Headley, S. (presenter), Meduri G.U., Stentz, F., Kohler, G., Tolley, E., Leeper, K.V., & **Umberger R.** (October 1993). Unfavorable outcome in patients with ARDS is related to persistent release of inflammatory cytokines. *American College of Chest Physician's Annual Meeting*. Orlando, FL (paper). Abstract published in *Chest* 1993; 104: 154S. (Awards: 1993 Dupont Critical Care Award and Young Investigator Award-Headley).

National

1. Umberger, R. (July 2008). Inflammatory proteins, genes, and environmental influences on nosocomial infection development in sepsis patients. *National Institutes of Health, Summer Genetics Institute*, Bethesda, MD (poster).
2. Meduri, G.U.(presenter), Headley, S., Carson, S., **Umberger, R.**, Kelso, T., & Tolley, E. Methylprednisolone treatment of unresolving ARDS. (June 1997) Shock Society. Williamsburg, Virginia. Abstract published in *Shock* 1997; 7: 664.

Regional

1. **Umberger, R.** & Thomas, S. (September 2016). Perceptions of the illness experience among sepsis survivors more than one year after their ICU stay. *Sigma Theta Tau Region 8 Conference, Nursing: The Next Generation – How will we contribute to a new health ecosystem?* Jackson, Mississippi (paper).
2. Woodward, B. (presenter), **Umberger, R.** (April 2016). Review of best practices for CLABSI prevention and the impact of recent legislation on CLABSI reporting. *2016 NCUR Conference, 30th Anniversary National Conference on Undergraduate Research*. Asheville, North Carolina (poster).
3. **Umberger, R.** (presenter). & Thomas, S. (February 2016). Sepsis survivors: Perceptions of their illness experience. *Southern Nursing Research Society Annual Meeting*. Williamsburg, Virginia (poster).
4. **Umberger, R.** (presenter), Thompson, C., Cashion, A.K., Kuhl, D., Wan, J, Yates, C.R., Muthiah, M., Bell, W.A., & Meduri, G.U. (February 2011). Challenges to subject recruitment and enrollment in the intensive care unit. *Southern Nursing Research Society Annual Meeting*. Jacksonville, Florida (poster).
5. **Umberger, R.** & Thompson, C. (February 2010). Inflammatory Proteins, Genetic Variation, and Environmental Influences on Nosocomial Infection Development in Sepsis patients. *Southern Nursing Research Society Annual Meeting*. Austin, Texas (poster).
6. **Umberger, R.**(presenter) & Thompson, C. (February 2008). Effects of Systemic Inflammation and Nosocomial Infections. *Southern Nursing Research Society Annual Meeting*. Birmingham, Alabama (poster).

State and Local

1. **Umberger, R.**, Todt, K., Talbott, E., Sparks, L, Thomas, S. (November 2017) Experience of informal caregivers of sepsis survivors in Appalachia. *Sigma Theta Tau-Gamma Chi Chapter and UT Knoxville College of Nursing Research Day*. Knoxville, TN.
2. **Umberger, R.** (October 2017) Survivors of sepsis and their informal caregivers. Invited presentation. Graduate School of Medicine's Fall Research Series. University of Tennessee Medical Center, Knoxville, TN.
3. **Umberger, R.** & Thomas, S. (November 2016) The lived experience after one year of surviving sepsis - a phenomenological exploration in Appalachia. *Sigma Theta Tau-Gamma Chi and UT College of Nursing Research Day*. Knoxville, TN (poster). (*1st place Research Poster award.*)
4. **Umberger, R.**, Carringer, J., Kuhl, D., Garsee, K. (graduate student), Davidson, B. (graduate student), & Muthiah, M. (April 2015). Usefulness of the Candida Score in ICU patients admitted with sepsis. *Sigma Theta Tau-Gamma Chi Research Day*. Knoxville, TN (poster). Graduate student received the 2nd place awards for posters involving graduate students.
5. **Umberger, R.**, Indrani, C., Simpson, M., Jensen, R., & Shamiyeh, J. (November 2014). Implementation of an automated electronic medical record tool to identify patients with sepsis. *The University of Tennessee Medical Center 2014 Nursing Research Day*. Knoxville, TN (poster).
6. Indrani, Y., Coleman, C., & **Umberger, R.** (May 2013). Exploring data capture from electronic medical records for research purposes. *University of Tennessee Medical Center, Nurses Week Poster Display*. Knoxville, TN (poster) Awarded 2nd Place.
7. Indrani, Y., Coleman, C., & **Umberger, R.** (April 2013). Exploring data capture from electronic medical records for research purposes. *2013 STTI Gamma Chi Interprofessional Healthcare Research Day*, Knoxville, TN (poster).
8. **Umberger, R.** (June 2012). Clinical collaborations for research. *Summer Research Camp, Clinical Collaborations Workshop. The University of Tennessee*. Knoxville, TN (oral presentation).
9. **Umberger, R.** & Thompson C. (April 2010). Inflammatory Proteins, Genetic Variation, and Environmental Influences on Nosocomial Infection Development in Sepsis patients. *The University of Tennessee Health Science Center, College of Nursing's Annual Alumni Day*. Memphis, TN (poster).
10. **Umberger, R.** & Thompson, C. (April 2010). Influence of inflammatory proteins, genetic variation, and environment on nosocomial infection development. *The University of Tennessee Health Science Center, Graduate Research Day*. Memphis, TN (poster).
11. Meduri GU, Golden E, Freire AX, Taylor E, Zaman M, Carson S, Gibson M, & **Umberger R** (presenter). (May 2009). Methylprednisolone infusion in early severe ARDS results of a randomized controlled trial. Prior published work presented. *VA Research Day*. Memphis, TN (poster).

12. **Umberger, R.** (May 2009). Inflammatory Proteins, Genes, and Environmental Influences on Nosocomial Infection Development in Sepsis Patients. Ongoing dissertation background and methods presented. *VA Research Day*. Memphis, TN (poster).
13. **Umberger, R.** & Thompson C. (April 2008). Effects of systemic inflammation and nosocomial infections. *University of Tennessee Health Science Center, College of Nursing's Annual Alumni Day*. Memphis, TN (poster).
14. **Umberger, R.A.** (co-presenter), Carson, S (co-presenter). (March 1998). Past to present review of steroid use for the treatment of ARDS. *Greater Memphis Area Chapter, American Association of Critical Care Nurses, Spring Seminar 1998*. Memphis, Tennessee (oral presentation, invited to supplement the keynote speaker).

CONSULTING ACTIVITIES

Dr. Umberger has no paid consulting activities. Her research related service activities are listed elsewhere.