

CURRICULUM VITAE

NAME: Elizabeth Barnby
RANK: Clinical Professor
DATE OF APPOINTMENT: March 11, 2022
PROFESSIONAL LICENSURE: RN 1985 CRNP 2009
EMAIL: barnbye@uah.edu
TELEPHONE: 256-824-4231 (office)
256-684-0601 (Cell)

EDUCATION:

Year	Degree	Institution	Major
2016	PM-FNP	The University of Alabama in Huntsville	Nursing
2012	D.N.P.	The University of Alabama in Huntsville	Nursing
2010	PM-Nsg Ed	The University of Alabama in Huntsville	Nursing
2008	M.S.N.	The University of Alabama in Huntsville	Nursing
2007	B.S.N.	The University of Alabama in Huntsville	Nursing
1981	A.D.N.	Middle Tennessee State University	Nursing

CERTIFICATIONS:

Year	Title of Certification
2021	Mental Health First Aid-Adult (MHFA)
2017	Family Nurse Practitioner Board Certified (FNP-BC) (AANPCB) FO117004 Expires 1-2-2027
2010	Certificate in Nursing Education
2009	Adult-Gerontology Acute Care Nurse Practitioner Board Certified (AGACNP-BC) (ANCC) 2009001224 Expires 2-18-2029
2009	Certified Registered Nurse Practitioner (CRNP) 1-049092 Expires 12-31-2024
1985	Registered Nurse (RN) 1-049092 Expires 12-31-2024

PROFESSIONAL ACADEMIC EXPERIENCE:

<i>Years</i>	<i>Title/ Rank</i>	<i>Institution</i>	<i>Role/Functional Area</i>
2022- Ongoing	Clinical Professor	University of Alabama in Huntsville	Teaching, Service & Research
2016-2022	Associate Professor	University of Alabama in Huntsville	Teaching, Service & Research
2013-2015	Interim Undergraduate Program Coordinator	University of Alabama in Huntsville	Administrative
2013-2016	Clinical Assistant Professor	University of Alabama in Huntsville	Teaching, Service, & Research
2009-2013	Clinical Instructor	University of Alabama in Huntsville	Teaching, Service & Research

PROFESSIONAL EXPERIENCE:

<i>Years</i>	<i>Title</i>	<i>Institution</i>	<i>Role/Functional Area</i>
2016-present	Nurse Practitioner CRNP	The Doctors Office, LLC Hazel Green, Alabama	Primary Care Provider
2010-2012	Nurse Practitioner CRNP	Gunn Family Medicine Meridianville, AL 35759	Primary Care Provider
2006 – 2007	Clinical Nurse Educator	Pediatric Emergency Dept. Women’s & Children’s Hospital Huntsville, Alabama	Clinical Nurse Educator
2005 – 2006	Staff Nurse ED	Emergency Department Crestwood Medical Center Huntsville, Alabama	Staff Nurse ED
2005 – 2005	Clinical Nurse Educator	Cardiovascular Service Line Huntsville, Hospital Huntsville, Alabama	Clinical Nurse Educator

2002 – 2004	Clinical Nurse Educator	Cardiovascular Service Line Piedmont Medical Center Atlanta, Georgia	Clinical Nurse Educator
2002 – 2002	Nursing Supervisor ED	Emergency Department Children’s Healthcare of Atlanta Atlanta, Georgia	Nursing Supervisor
2000 – 2001	School Nurse Supervisor	Miller County Elem. Miller County Schools Colquitt, Georgia	School Nurse Supervisor
1998 – 2000	Staff Nurse ED	Emergency Department Bainbridge Memorial Hospital Bainbridge, Georgia	Staff Nurse
1996 – 1998	High Tech Pediatric Home Health Nurse	Visiting Nurses Association of Southwest Georgia Bainbridge, Georgia	Home Health Nurse
1995 – 1996	Nurse Manager PACU	Post Anesthesia Care Unit Jennie Stuart Memorial Hospital Hopkinsville, Kentucky	Nurse Manager PACU
1995 – 1995	Staff Nurse ED	Emergency Department Clarksville Memorial Hospital Clarksville, Tennessee	Staff Nurse ED
1992 – 1995	School Nurse	Ansbach Elementary School Department of Defense Schools Europe (DoDDS) Ansbach, Germany	School Nurse
1992 – 1992	GS-12 Clinical Nurse	Katterbach Dispensary Katterbach Army Airfield Katterbach, Germany	GS-12 Clinical Nurse
1991 - 1991	GS-12 Clinical Nurse	Intensive Care Unit McDonald Army Hospital Fort Eustis, Virginia	GS-12 Clinical Nurse
1990 – 1991	Administrative Nsg Supervisor	Hospital Wide All Depts. Human Hospital Enterprise, AL	Administrative Nursing Supervisor
1986 – 1990	Staff Nurse ED	Emergency Department Fairbanks Memorial Hospital Fairbanks, Alaska	Staff Nurse ED

9/1986 – 8/1990	EMS Educator	Clinical Coordinator Interior Region EMS Council Fairbanks, Alaska	Interior Region EMS Coordinator for Alaska
1985 – 1986	Staff Nurse ED	Emergency Department Humana Hospital Enterprise, Alabama	Staff Nurse ED
1984 – 1985	Staff Coordinator	ICU & PACU Smyrna Hospital Smyrna, Tennessee	Nurse Manager for PACU & ICU
1983 – 1984	Staff Nurse ED	Emergency Department Middle Tennessee Medical Center Murfreesboro, Tennessee	Staff Nurse ED
1982 – 1983	Staff Nurse CCU	Coronary Care Unit Baptist Hospital Nashville, Tennessee	Staff Nurse CCU

SCHOLARSHIP:

Contracts and Grants Funded:

Internal:

<i>Year</i>	<i>Citation</i>
2019	Research and Creative Experiences for Undergraduates (RCEU), University of Alabama in Huntsville; Provide <i>Hereditary Tyrosinemia Type 1 (HTI) Caregiver Education Based on Nursing Research and Evidence Based Best Practice to Improve Patient Outcomes</i> ; Student: Sarah Bonnell; Amount received: \$3,500.00.
2017	Barnby, E. B. (Co-Principal), MacGregor, G. (Principal), Vogler, B. W. (Co-Principal), <i>Using Mass Spectrometry (MS) and Nuclear Magnetic Spectroscopy (NMR) to Identify Neurological Modifying Metabolites in the Plasma, Urine and Brain of a Mouse Model of Tyrosinemia Type 1</i> , Sponsored by CCFR 1st year, University of Alabama in Huntsville, \$5,000.00. (September 1, 2016 - September 1, 2017).
2016	Barnby, E. B. (Co-Principal), MacGregor, G. (Principal), Vogler, B. W. (Co-Principal), <i>Using Mass Spectrometry (MS) and Nuclear Magnetic Spectroscopy (NMR) to Identify Neurological Modifying Metabolites in the Plasma, Urine and Brain of a Mouse Model of Tyrosinemia Type 1</i> , Sponsored by CCFR 1st year,

University of Alabama in Huntsville, **\$5,000.00**. (September 1, 2015 - September 1, 2016).

- 2015 Mendenhall, E. M. (Principal), Barnby, E. B. (Supporting), *Science & Nursing Genome Engineering Research Team*, Sponsored by Cross-College Faculty Research (CCFR) Program, University of Alabama in Huntsville, **\$5,000.00**. (October 1, 2014 - October 1, 2015).
- 2015 Barnby, E. B. (Principal), MacGregor, G. (Co-Principal), Hoy, H. M. (Co-Principal), *Using Mice to Discover the Mechanism of Cognitive Decline Observed in the Treatment of In-born Errors of Amino Acid Metabolism*, Sponsored by CCFR 2nd year, University of Alabama in Huntsville, **\$5,000.00**. (August 1, 2014 - August 1, 2015).
- 2014 Barnby, E. B. (Principal), MacGregor, G. (Co-Principal), Hoy, H. M. (Co-Principal), *Prevention of neurological decline utilizing pharmacological treatment of Tyrosinemia Type 1 (TT1) in a mouse model*, Sponsored by CCFR 1st year, University of Alabama in Huntsville, **\$5,000.00**. (August 1, 2013 - August 1, 2014).
- 2014 Barnby, E. B. (Co-Principal), Newman, K. L. (Principal), MacGregor, G. (Co-Principal), *Use of web-based scales to prevent adolescent obesity.*, Sponsored by CCFR 1st year, University of Alabama in Huntsville, **\$5,000.00**. (August 1, 2013 - August 1, 2014).
- 2013 Barnby, E., *Inhibition studies of homogentisate 1, 2-dioxygenase (HDG) in a murine model of hereditary tyrosinemia type 1 (TT1)*, Sponsored by Office of Technology Commercialization, University of Alabama in Huntsville, **\$2,500.00**. (April 1, 2012 - April 1, 2013).
- 2013 Co-PI's: Gordon MacGregor (Faculty), Elizabeth Barnby (Faculty), Denise Surina-Baumgartner (Adjunct Faculty), Wolfgang Langhans (Adjunct Faculty) *Effects of green coffee bean extract on body weight and metabolism* (December 2013)

External:

<i>Year</i>	<i>Citation</i>
2021	Tyrosinemia Society, Incorporated; Unrestricted Grant Funding. Dr. Elizabeth Barnby & Dr. Mark Reynolds; Joshua's Cure Amount Received: \$10,000
2020	Tyrosinemia Society, Incorporated; Unrestricted Grant Funding. Dr. Elizabeth Barnby & Dr. Mark Reynolds; Cycle Pharmaceuticals; Amount Received: \$650.00 Honorarium
2019	Tyrosinemia Society, Incorporated; Unrestricted Grant Funding. Dr. Elizabeth Barnby & Dr. Mark Reynolds; SOBI Pharmaceuticals; Amount Received: \$10,000.00

2019 Tyrosinemia Society, Incorporated; Implementation of a 501(c)(3) Non-Profit Organization, Unrestricted Grant Funding, Dr. Elizabeth Barnby & Dr. Mark Reynolds; Cycle Pharmaceuticals; Amount received: **\$32,500.00**

Contracts and Grants Not Funded:

External:

<i>Year</i>	<i>Citation</i>
2022	Baudry, J (CoPI), Barnby, E (CoPI) (Acronym ROSIE Rare Amino Acids Disorders) Development and preclinical evaluation of innovative, multidisciplinary approaches to target the accumulation of specific amino acids for the treatment of inherited rare diseases with unmet need, <i>European Union: Horizon Action Grant</i> (February 1 2022-May 23, 2022), Eur 0,00
2021	Barnby, E (PI), Baudry, J (Co-PI) Alabama Together Against Tyrosinemia: Fighting a Devastating Rare Pediatric Disease, <i>McMahon Pleid Award</i> (July 15, 2021)
2020	Collaborator in IARPA Grant Proposal with Dr. Gabe Xu <i>An Optical Spectroscopic System to Detect SARS-CoV-2 and Other Viruses in Breath and Air</i> . June 2020 (Not funded)
2019	<i>Tyrosinemia Care for Patients/Caregivers</i> in conjunction with Dr. Jerome Baudry and Dr. Beth Barnby, Chan-Zuckerberg Foundation. Amount: \$450,000.
2015	Barnby, E. B. (Co-Principal), MacGregor, G. (Principal), Mendenhall, E. M. (Supporting), <i>Using Mice to Discover the Mechanism of Cognitive Decline Observed in the Treatment of In-born Errors of Amino Acid Metabolism</i> , Sponsored by March of Dimes, Other, \$367,000.00. (January 19, 2015). Not funded
2013	Barnby, E. B. (Co-Principal), MacGregor, G. (Co-Principal), <i>Inhibition studies of homogentisate 1, 2-dioxygenase (HDG) in a murine model of hereditary tyrosinemia type 1 (TT1)</i> ," Sponsored by March of Dimes, Other. (July 4, 2013). Not funded

Publications:

Refereed Journal Articles:

<i>Year</i>	<i>Citation</i>
2022	Barnby, E. B., Reynolds, M. E., & Gordon, J. (2022). Reaching Herd Immunity During the SARS-CoV-2 Pandemic: What School Nurses Need to Know. National Association for School Nurse (NASN), 37, 13–18. [Attachment] https://journals-sagepub-com.ezproxy3.lhl.uab.edu/doi/full/10.1177/1942602X211044996

- 2021 Barnby, E. B., Reynolds, M. E., & Gordon, J. (2021). Vaccine Strategy During the SARS-CoV-2 Pandemic: What School Nurses Need to Know. *NASN School Nurse*. [Attachment]
- 2021 Gordon, J., Reynolds, M. & Barnby, E. (2021). An Informative Discussion for School Nurses on COVID-19 mRNA Vaccine. *National Association for School Nurse (NASN)*. doi:10.1177/1942602X21999606
- 2020 Evaluation of a Modified Version of the Norton Scale for Use as a Pressure Injury Risk Assessment Instrument in Critical Care: A Quality Improvement Project. *Journal of wound, ostomy, and continence nursing: official publication of The Wound, Ostomy and Continence Nurses Society*, 47(3), 224–229. <https://doiorg.ezproxy3.lhl.uab.edu/10.1097/WON.0000000000000642>
- 2019 Reynolds, M., & Barnby, E. (2019). Creating a Non-Profit Organization in Response to a Clinical Need. *Clinical Nurse Specialist: The Journal for Advanced Nursing Practice*. DOI: 10.1097/NUR.0000000000000466
- 2019 Reynolds, M., Barnby, E., & O'Neal, P.V. (2019). Genomic science - from 2001 to present day- What school nurses need to know. *National Association of School Nurses (NASN)*. DOI: 10.1177/1942602X18810790
- 2018 Barnby, E. & Reynolds, M. (2018). Pertussis Resurgence: School Nurses as a Safety Net for Children. *National Association School Nurses (NASN)*. DOI: 10.1177/1942602X18767955
- 2018 Foster, M., & Barnby, E. (2018). Academic-Community Partnership Educating Children About Weather-Related Disaster Preparedness. *National Association of School Nurses (NASN)*, 33(3), 160-162. doi:10.1177/1942602x17753066
- 2017 Moore, M. E., Koenig, A. E., Hillgartner, M. A., Otap, C. C., Barnby, E., & MacGregor, G. G. (2017). Abnormal social behavior in mice with Tyrosinemia type I is associated with an increase of myelin in the cerebral cortex. *Metabolic Brain Diseases*, 32(6), 1829-1841. doi: 10.1007/s11011-017-0071-8
- 2017 Barnby, E. B., Alexander, S. Collaborative Research: An Advanced Practice Nurse's Experience in Genome Research and Treatment. *Clinical Nurse Specialist: The Journal for Advanced Nursing Practice*. <http://journals.lww.com/cns-journal/pages/default.aspx>
- 2017 O'Keefe, L. C., Frith, K. H., Barnby, E. (in print). Nurse Faculty as International Collaborators. *Nursing and Health Sciences*. [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1442-2018](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1442-2018)
- 2016 Hillgartner MA, Coker SB, Koenig AE, Moore ME, Barnby E, MacGregor GG. Tyrosinemia type I and not treatment with NTBC causes slower learning and

altered behavior in mice. *Journal of inherited metabolic disease*. 2016;39(5):673-682.

- 2014 Barnby, E. (2014). Tyrosinemia Type 1: An Overview of Nursing Care. *Pediatric Nursing*, 40(2), 61-68. <http://www.pediatricnursing.net/>

Media:

Year Citation

- 2017 Barnby, E (2017) The importance of handwashing. WHNT TV Steve Johnson reporter. (January 20, 2017).
- 2016 Barnby, E (2016) Amazing maze studies on tyrosinemia type 1 at UAH. WAAY TV Bobby Shuttleworth (January 21, 2016)
- 2016 Barnby, E (2016) Research on Tyrosinemia Type 1. Internet: UAH webpage. (January 11, 2016).
- 2014 Barnby, E (2014) UAH nursing professor takes personal interest in TT1 research. Magazine: Perspectives Summer 2014 edition. (June 1, 2014).

Supervision of Student Research/Projects:

Year Citation

- 2021
- 2020 Ongoing Scholarly Project Committee Chair, *Healthy Me: An Interactive Healthy Lifestyle Program to Increase Self-Efficacy in Elementary Grade Students and Their Guardians*” Nursing (Fall 2017-) Advised: Hannah Lowe
- 2020 Ongoing Scholarly Project Committee Chair, *The Effects of Nutritional Education with Insulins in Reducing Hemoglobin A1C in Diabetic Patients*” Nursing (Fall 2019-2020) Advised: Modupe Akhigbe
- 2019 Completed Biology Student Project, *Behavioral Changes in Mice with Hereditary Tyrosinemia Type I (HTI) Suggests Multifactorial Pathophysiologic Changes* Interdepartmental Collaboration between Nursing & Biology (Spring-Summer 2019) Advised: Shayenne Arehart undergraduate student
- 2019 Completed RCEU Summer Project, *The Importance of Early Intervention and Education for Caregivers of Children with Hereditary Tyrosinemia* Nursing (Summer 2019) Advised: Sarah Bonnell RCEU undergraduate student BSN
- 2019 Completed Scholarly Project Committee Member, *Adaptation of Clinical Guidelines: Strategic Effort for Improving Childhood Obesity Screening in a*

- Pediatric Clinic Nursing* (Summer 2018-Fall 2019) Advised: Ivy Fenin, DNP Chair: Casey Norris
- 2018 Completed Scholarly Project Committee Chair, *Optimization and Evaluation of a Pressure Injury Risk Assessment Tool for use in the Critical Care Setting* Nursing (Spring 2017-Spring 2018) Advised: Rhonda Sullivan DNP
- 2017 Completed Scholarly Project Committee Member, *Designing and Evaluating a Parental Training Program for Parents with School Aged Children Diagnosed with Attention Deficit Hyperactive Disorder* Nursing (Spring 2015-Spring 2017) Advised: Kariuki Anne Chair: Marlena Primeau
- 2017 Completed Scholarly Project Committee Member, *Primary Care Algorithm for Obese Adolescents with Signs of Polycystic Ovarian Syndrome*, Nursing (Spring 2016-Spring 2017) Advised: Margaret Anderson Chair: Haley Hoy
- 2017 Completed Scholarly Project Committee Member, *Effectiveness of Rapid Response Teams* Nursing (Spring 2016-Spring 2017) Advised: Kimberly W. Hill, DNP Chair: Haley Hoy
- 2016 Completed Scholarly Project Committee Chair, *Improving Adolescents Perceived Self-Efficacy through Disaster Preparedness Education*, Nursing. (June 1, 2015 - September 13, 2016). Advised: Melissa Foster
- 2014 Completed Scholarly Project Committee Member, *Rapid Response Team: What is the Impact of Implementing an Adult Rapid Response Protocol in the Acute Care Setting on Cardiopulmonary Arrests in the Non-intensive Care Patients?*, Nursing (Fall 2013-Spring 2014) Advised: Lennox Marr Chair: Kristen Herrin

Presentations:

Invited:

International

- 2023 Barnby, E. (2023, July). Invited speaker: *Structure based chemical biology approach to Tyrosinemia disorder* Bratislava, Slovakia 13th Annual AKU International Scientific Conference
- 2023 Barnby, E (2023, June) Invited speaker for the National Association of Pediatric Nurse Practitioners (NAPNAP) (A National NP organization) and Spoke on “*Mitigating Tyrosinaemia: Findings with hereditary Tyrosinaemia Type 1, 2, & 3 can Provide Hope for Alkaptonuria (AKU)*”

- 2022 Barnby, E. B. (2022, May). *Mitigating Tyrosinemia*. In 12th Annual AKU international scientific conference. Alkaptonuria Society. Brussels, Belgium
- 2021 Barnby, E. B. (2021, January 22) *Patient Challenges with Hereditary Tyrosinemia Type 1 (HT1): A Journey of hope* As Expert Consultant and invited speaker for PatientsLikeMe, Inc.
- 2021 Barnby, EB & Mark Reynolds (2021, July) Presented at SERGG (2021 July) Virtually and the abstracts or conference proceedings were published. Covid 19 led to a virtual conference. The title of the presentation was “*Increasing Incidence of Neurologic Crisis in Adults with hereditary Tyrosinemia Type 1*”
- 2021 Barnby, EB & Mark Reynolds (2021, July) Presented at SERGG (2021 July) Virtually and the abstracts or conference proceedings were published. Covid 19 led to a virtual conference. The title of the presentation was “*Tyrosinemia Society, Non-profit organization, Created to Advocate Around the Globe*”
- 2020 Barnby, E. B. (2020, January). *Patient Challenges with Hereditary Tyrosinemia Type 1 (HT1): A Journey of hope*. In Let’s Talk HT1 International Meeting. Swedish Orphan BioVitrum International (SOBI). **Amsterdam, Netherlands**
- 2020 Barnby, E. B. (2020, October). *Current Global Learnings of Tyrosinaemia Type 1*. [Invited Oral Presentation] National/International Conference Metabolic Dietary Disorders Association (MDDA). **Melbourne, Australia**: Australian Metabolic Dietary Disorders Association
- 2015 Barnby, E. (Author & Presenter), MacGregor, G. (Author), ISONG **World Congress: Epigenetics Across the Lifespan, Tyrosine Metabolism in A Murine Model of Tyrosinemia Type 1 And The Resulting Epigenetic Neurocognitive Changes.**, International Society of Nurses in Genetics (ISONG) 2015, Pittsburgh, PA. (November 5, 2015).
- 2015 Barnby, E. (Author & Presenter), Dayal, N. (Author), Tyrosinemia 2015, Development & Evaluation of a Continuing Education Unit (CEU) on Tyrosinemia Type 1 (TT1) for Advanced Practice RNs (APRNs), GAETQ Groupe d'Aide aux Enfants Tyrosinémiques du Québec, Saguenay, **Quebec, Canada**. (September 24, 2015).
- 2015 Barnby, C. (Author & Presenter), Koenig, A. (Author), Barnby, E. (Author), MacGregor, G. (Author), Tyrosinemia 2015, Mice with Tyrosinemia Type I Show Altered Behavior and Social Interactions with Other Mice (Won 1st Place Prize Scientific Cat), GAETQ Groupe d'Aide aux Enfants Tyrosinémiques du Québec, Saguenay, **Quebec, Canada**. (September 24, 2015).

National

- 2020 Barnby, E. B. (2020, February). *From mother to scientist: A Journey of hope*. [Keynote Oral Invited] In Rare Disease Day Keynote Speaker for North America Office for SOBI. Swedish Orphan BioVitrum International. Boston, MA
- 2017 Barnby, E (Author & Presenter) “*Home management of Tyrosinemia type 1 (TT1)*” Invited speaker for Tyrosinemia Type I: Making Connections Count Meeting on Thursday, May 25th –Friday, May 26th

State

- 2020 Barnby, E. B. (2020, February). Physician/Scientist and Parent Panel: Patient *Challenges with Hereditary Tyrosinemia Type 1 (HT1): A Journey of Hope*. [Invited Oral Panel Presentation] In 2020 Alabama Rare Disease Patient/Caregiver Symposium: Using Technology and Collaboration to Navigate the Rare Disease
- 2015 MacGregor, G., Watkins, T. (Author), Coker, S. (Author), Barnby, E. B. (Author), Mendenhall, E. M. (Author), 92nd annual meeting of the Alabama Academy of Science, INC., *Altered Wheel Running and Exploratory Activity in a Mouse Model of Tyrosinemia Type I*, The Alabama Academy of Science, Livingston, AL. (March 12, 2015).
- 2011 Barnby, E. B., DNP Intensive, Diagnosis of Uncomplicated Lower Urinary Infection in Adult Women: A literature Review, University of Alabama, Tuscaloosa, Alabama. (April 13, 2011).
- 2011 Barnby, E. B., DNP Intensive, Newborn Screening for Tyrosinemia Type 1: A Systematic Review, University of Alabama, Tuscaloosa, Alabama. (April 13, 2011).
- 2009 Barnby, E. B., The Alabama State Nurses Association Annual Convention, *ECG Interpretation: Sherlock Holmes of Nursing*, ASNA, Florence, Alabama. (October 2, 2009).
- 2008 Barnby, E. B., Alabama State Nurses Association, *Cardiovascular Surgery and Transplant*, ASNA, Huntsville, AL. (August 1, 2008).

Local

- 2016 Barnby, E. B., Nurse Practitioner Class, *Exploring Genomics 2016*, UAH CON Graduate Program, Nursing Building. (June 15, 2016).
- 2015 Barnby, E. B., NUR 402 Population Based Healthcare, *Transplant Healthcare*, UAH CON, Nursing Building (July 9, 2015).
- 2015 Barnby, E. B., Nurse Practitioner Class, *Genetic/Genomic Revolution*, UAH CON, Nursing Building (May 27, 2015).

- 2015 Barnby, E. B. (Author & Presenter), UAH FNP course NUR 611-01, *Pediatric Cardiac Primary Care*, College of Nursing UAH NUR 611 course. (January 27, 2015).
- 2014 Barnby, E. B., NUR 622, Genes & Genetic Diseases, UAH CON, Nursing Building. (July 9, 2014).
- 2014 Barnby, E. B., NUR 610, 12 Lead ECG, College of Nursing, College of Nursing UAH NUR 610. (February 19, 2014).
- 2013 Barnby, E. B., Camp Succeed ECG Interpretation: Sherlock Holmes or CSI of Nursing, UAH CON, Nursing Building. (June 24, 2013).
- 2013 Barnby, E. B., The Spirit of Inquiry Research Conference, *Alkaptonuria to Cure Tyrosinemia?* Sigma Theta Tau International, UAH. (March 13, 2013).
- 2013 Barnby, E. B., NUR 610, *12 Lead ECG*, UAH CON, Nursing Building (March 6, 2013).
- 2012 Barnby, E. B., NANPA North Alabama Nurse Practitioner Annual Clinical Symposium, *Pharmacological management in trauma treatment*, North Alabama Nurse Practitioner, Huntsville, AL. (September 28, 2012).
- 2012 Barnby, E. B., WOW Week of Welcome, *Diagnosis of Uncomplicated Lower Urinary Infection in Adult Women*, UAH, Von Braun Research Center. (August 20, 2012).
- 2012 Barnby, E. B., WOW Week of Welcome, *Newborn Screening for Tyrosinemia Type 1*, UAH, Von Braun Research Center. (August 20, 2012).
- 2012 Barnby, E. B., NUR 402 Population Based Healthcare, *Pediatric Transplant as a Treatment for Chronic Pediatric Genetic Disorders*, UAH CON, UAH CON. (July 6, 2012).
- 2012 Barnby, E. B., ACNP Class UAH CON Graduate Program, *Role of Genetics for the Nurse Practitioner*, Nursing Building. (June 20, 2012).
- 2012 Barnby, E. B., *Hope: Organ and Tissue Donation Donor & Recipient Panel, Pediatric Transplant: The Gift of Life*, Alabama Organ Center (AOC), Corporate University, Huntsville Hospital. (April 27, 2012).
- 2012 Barnby, E. B., NUR 404, *Pediatric Cardiac Jeopardy*, UAH CON, Nursing Building. (January 19, 2012).
- 2011 Barnby, E. B., NUR 404, *Cardiovascular Disorders in Children, Pediatric Cardiac Jeopardy*, UAH CON, Nursing Building. (November 7, 2011).

- 2011 Barnby, E. B., NUR 610 Nurse Practitioner Course, *12 Lead ECG*, UAH CON Graduate Program, Nursing Building. (September 29, 2011).
- 2011 Barnby, E. B., NUR 610 Nurse Practitioner Course, *DVT, HTN, Aneurysm, Valvular Heart Disease, ACS, PVD*, UAH CON Graduate Program, Nursing Building. (September 28, 2011).
- 2011 Barnby, E. B., NUR 401 *Lecture Series, Acute Coronary Syndrome, Cardiac Arrest/Code Management, Cardiac Arrhythmia Interpretation, Advanced Technology for the Cardiac Patient, Who wants to be an RN? Cardiac Crime Scene Investigation: A Case study*, UAH CON, Nursing Building. (August 8, 2011).
- 2011 Barnby, E. B., NUR 402 Population Based Healthcare, *Pediatric Transplant as a Treatment for Chronic Pediatric Genetic Disorders*, UAH CON, Nursing Building. (July 7, 2011).
- 2011 Barnby, E. B., NUR 611, *An example of evidence-based practice: Diagnosis of Uncomplicated Lower Urinary Infection in Adult Women*, UAH CON Graduate Program, Nursing Building. (June 15, 2011).
- 2011 Barnby, E. B., NUR 622, *Treatment of Acute Uncomplicated Lower Urinary Tract Infection in Adult Women: A Presentation of the Evidence*, An Informal conversation about the benefits of DNP education, UAH CON Graduate Program, Nursing Building. (June 15, 2011).
- 2011 Barnby, E. B., NUR 407, Spring Break *Cardiac Hesi Review*, UAH CON, Nursing Building. (March 1, 2011).
- 2011 Barnby, E. B., NUR 401 *Lecture Series, Acute Coronary Syndrome, Cardiac Arrest/Code Management, Cardiac Arrhythmia Interpretation, Advanced Technology for the Cardiac Patient, Who wants to be an RN? Cardiac Crime Scene Investigation: A Case study*, UAH CON, Nursing Building. (January 8, 2011).
- 2011 Barnby, E. B., NUR 401 *Lecture Series, Nursing Management of Patients with Inflammatory & Structural Heart Disorders & Aortic Aneurysms, Nursing Management of Heart Failure & Advanced Vascular Technology, Nursing Management of Patients with Dysrhythmias, Nursing Management of Coronary Artery Disease & Acute Coronary Syndrome, Nursing Assessment: The Cardiovascular System, and Advanced Cardiac Life Support*, UAH CON, Nursing Building. (January 1, 2011).
- 2010 Barnby, E. B., UAH CON Research Day, *Newborn Screening for Tyrosinemia Type 1: A Systematic Review*, UAH CON, Nursing Building, Huntsville. (November 1, 2010).
- 2010 Barnby, E. B., Camp Succeed, *Care of the Preceptor: What to expect in Precepting*, UAH CON, Nursing Building. (August 1, 2010).

- 2010 Barnby, E. B., NUR 401 *Lecture Series, Nursing Management of Patients with Inflammatory & Structural Heart Disorders & Aortic Aneurysms, Nursing Management of Heart Failure & Advanced Vascular Technology, Nursing Management of Patients with Dysrhythmias, Nursing Management of Coronary Artery Disease & Acute Coronary Syndrome, Nursing Assessment: The Cardiovascular System, and Advanced Cardiac Life Support*, UAH CON, Nursing Building. (August 1, 2010).
- 2010 Barnby, E. B., NUR 407, *Peds HESI Review*, UAH CON, Nursing Building. (August 1, 2010).
- 2010 Barnby, E. B., CE Saturday, *Trauma Drugs of ATLS*, UAH CON Graduate Program, Nursing Building. (July 1, 2010).
- 2010 Barnby, E. B., NUR 402 Population Based Healthcare, *Pediatric Transplant as a Treatment for Chronic Pediatric Genetic Disorders*, UAH CON, Nursing Building. (July 1, 2010).
- 2009 Barnby, E. B., NUR 401 *Lecture Series, Nursing Management of Patients with Inflammatory & Structural Heart Disorders & Aortic Aneurysms, Nursing Management of Heart Failure & Advanced Vascular Technology, Nursing Management of Patients with Dysrhythmias, Nursing Management of Coronary Artery Disease & Acute Coronary Syndrome, Nursing Assessment: The Cardiovascular System, and Advanced Cardiac Life Support*, UAH CON, Nursing Building. (September 1, 2009).
- 2009 Barnby, E. B., NUR 401 Clinical Groups Skills Day, *Hemodynamic Monitoring Techniques & Central Lines*, UAH CON, Nursing Building. (August 9, 2009).
- 2008 Barnby, E. B., NUR Health Assessment Class, *Cardiovascular Assessment: Keys to your success!* UAH CON, Nursing Building. (October 17, 2008).
- 2008 Barnby, E. B., NUR Health Assessment Class, *Cardiovascular Assessment: Keys to your success!* UAH CON, Nursing Building. (October 14, 2008).
- 2008 Barnby, E. B., NUR 404, *Care of the Chronically Ill or Terminal Child*, UAH CON, Nursing Building. (October 1, 2008).
- 2008 Barnby, E. B., NUR 404, *Pediatric Emergencies!* UAH CON, Nursing Building. (October 1, 2008).
- 2008 Barnby, E. B., NUR 407, *Cardiovascular Review and Arrhythmia Interpretation*, UAH CON, Nursing Building. (October 1, 2008). 2006
- 2006 Barnby, E. B., *Pediatric Emergency Department Lunch & Learn, Come Have a Bite! Emergency Snake Bite Treatment in the Emergency Department*, Huntsville Hospital, Huntsville, AL. (January 1, 2006).

- 2005 Barnby, E. B., New Employee Orientation, *Artificially Paced Rhythms*, Piedmont Medical Center, Atlanta, Georgia. (January 1, 2005).
- 2002 Barnby, E. B., Computer Based Learning: *Netlearning Piedmont Medical Center, Cardiovascular Practice Guidelines*, Piedmont, Atlanta, Georgia. (January 1, 2002).
- 2002 Barnby, E. B., Critical Care Nurses, *Hypotension, Shock, & Pulmonary Edema*, Piedmont Medical Center, Atlanta, Georgia. (January 1, 2002).
- 2002 Barnby, E. B., Critical Care Nurses & Monitor Techs, *Narrow & Tachy: An examination of narrow complex tachycardia*, Piedmont Medical Center, Atlanta, Georgia. (January 1, 2002).
- 2002 Barnby, E. B., Critical Care Nurses & Monitor Techs, *Wide & Tachy: An examination of wide complex tachycardia*, Piedmont Medical Center, Atlanta, Georgia. (January 1, 2002).
- 2002 2002 Barnby, E. B., New Graduate *Cardiovascular Intern Course, Post Cardiac Cath: Minimizing Risk*, Piedmont Medical Center, Atlanta, Georgia. (January 1, 2002).
- 2002 Barnby, E. B., New Graduate Cardiovascular Intern Course, *Welcome to Nursing: getting a great start as a new graduate at the Fuqua Heart Center*, Piedmont Medical Center, Atlanta, Georgia. (January 1, 2002)

Abstract/Poster Presentations (Refereed):

- 2021 Barnby, E & Reynolds, M (2021) Southeastern Regional Genetics Group (SERGG/SERN) 2021 Annual Meeting Poster Presentations “*INCREASING INCIDENCE OF NEUROLOGIC CRISIS IN ADULTS WITH HEREDITARY TYROSINEMIA TYPE 1 (HT1)*”
- 2021 Reynolds, M & Barnby, E (2021) Southeastern Regional Genetics Group (SERGG/SERN) 2021 Annual Meeting Poster Presentations “*TYROSINEMIA SOCIETY, NON-PROFIT ORGANIZATION, CREATED TO ADVOCATE AROUND THE GLOBE*”
- 2019 Sullivan, R., & Barnby, E. B. (2019, June). *New Critical Care-Specific Pressure Injury Risk Assessment Tool Demonstrates Excellent Validity and Reliability in a Simulated Patient Environment*. WOCNext: WOCN Society Annual Conference. Nashville, Tennessee: WOCN Society Annual Conference. Abstract Accepted and Poster Presentation.
- 2019 Bonnell, S. Barnby, E. & Reynolds, M. (2019). *The Importance of Early Intervention and Education for Caregivers of Children with Hereditary Tyrosinemia*. Research or Creative Undergraduate Experience (RCEU) Program. Huntsville, Alabama. Abstract Accepted and Poster Presentation.

- 2019 Arehart, S., Barnby, E., Reynolds M., Bonnell, S., Koenig, A., MacGregor, G. (2019). *Behavioral Changes in Mice with Hereditary Tyrosinemia Type 1 (HT1) Suggest Multifactorial Pathophysiologic Changes*. Southeastern Regional Genetics Group Annual Conference, Asheville, North Carolina. Abstract Accepted and Poster Presentation.
- 2019 Bonnell, S. Arehart, S., Wagner, A., Barnby, E., Reynolds, M. (2019). *The Importance of Early Intervention and Education for Caregivers of Children with Hereditary Tyrosinemia*. Southeastern Regional Genetics Group (SERGG) Annual Conference, Asheville, North Carolina. Abstract Accepted and Poster Presentation.
- 2019 Reynolds, M., Barnby, E., & Lioce, L. (2019). *Implementation of Pressured Time Augmented Reality to Enhance Clinical Practice Outcomes in Senior Level Baccalaureate Nursing Students*. University of Alabama System Scholar's Institute, Huntsville, Alabama. Abstract Accepted and Poster Presentation.
- 2018 Reynolds, M., Barnby, E., & Lioce, L. (2018). *Implementation of Augmented Reality to Enhance Practice Outcomes in Senior Level Baccalaureate Nursing Students*. National Institutes of Health, National Institute of Nursing Research Precision Health: Smart Technologies, Smart Health Symposium. Bethesda, Maryland. Abstract Accepted and Poster Presentation.
- 2019 Barnby, E. B., MacGregor, G. G., Vogler, B. W., Wolfsberger, J., & Olsen, E. (2019, October). *A Metabolomics Approach using NMR to Identify Neurological Modifying Metabolites in the Urine and Brain of a Mouse Model of Hereditary Tyrosinemia Type I (HT1)*. National Institutes of Health, National Institute of Nursing Research Precision Health: Smart Technologies, Smart Health. Bethesda, Maryland: National Institutes of Health (NIH). Abstract Accepted and Poster Presentation
- 2017 Hollingsworth, A (Author & Presenter), Barnby, E. (Author & Presenter), (2017) Southeast Regional Genetics Group (SERGG), *A systematic approach to the diagnosis of pediatric patients who present with metabolic crisis in the emergency department* SERGG/SERC, Asheville, North Carolina Abstract Accepted and Poster Presentation
- 2016 Barnby, C. (Author & Presenter), Barnby, E. (Author & Presenter), Southeast Regional Genetics Group (SERGG), *Alterations in the Environment Improve Outcomes for Children with Tyrosinemia Type I*, SERGG/SERC, Sawgrass Marriott Ponte Vedra Florida. (July 13, 2016). Abstract Accepted and Poster Presentation
- 2016 Patterson, L. (Author & Presenter), Elizabeth, B. (Author & Presenter), Casey, N. (Author), Kelly, E. (Other), Neil, L. (Other), Adam, H., Southeast Regional Genetics Group (SERGG), *The Development of a Pediatric Genetic Nursing Clinical Experience for Senior Nursing Students in an Undergraduate*

Baccalaureate Program, SERGG/SERC, Sawgrass Marriott Ponte Vedra Florida. (July 13, 2016). Abstract Accepted and Poster Presentation

- 2015 Watkins, T. (Author & Presenter), Mendenhall, E. (Author), Barnby, E. (Author), SERGG Southeast Regional Genetics Group, In Vivo Utilization of CRISPR/CAS9 Genome Engineering to Transform FAH^{-/-} Hepatocytes to FAH^{+/+} to Study Neural Phenotypes in a Murine Model., Southeast Regional Newborn Screening & Genetics Collaboration, Ashville, North Carolina. (July 16, 2015). Abstract Accepted and Poster Presentation
- 2014 MacGregor, G. (Author), Coker, S. (Author & Presenter), Barnby, E. B. (Author), 2014 Annual Meeting for SERC/SERGG, *Nitisinone (NTBC, ORFADIN) Increases Dopamine and Serotonin Release and Modifies Mouse Behavior*, Southeastern Regional Genetics Group, Ponte Vedra Beach, FL. (July 18, 2014). Abstract Accepted and Poster Presentation
- 2014 Barnby, E. B. (Chair), Navarro, J. (Presenter), Zahran, R. (Presenter), Hillgartner, M. (Presenter), MacGregor, G. (Co-Chair), Hoy, H. M. (Co-Chair), Adams, E. D. (Co-Chair), Coker, S. (Other), *Navigating the Future of Nursing, How the emerging specialty of genomic nursing is changing patient outcomes through a multinational research collaboration to identify the cause of cognitive decline in patients with Tyrosinemia Type 1 and improve care through pharmacogenetic research techniques*, Sigma Theta Tau International, Tennessee Technological University Whitson-Hester School of Nursing Cookeville Tennessee. (April 7, 2014).
- 2013 Barnby, E. B., National Conference for Nurse Practitioners, *Newborn Screening for Tyrosinemia Type 1: A Literature Review*, NCNP Wolters Kluwer Health Medical Research, Gaylord Opryland Resort & Convention Center in Nashville, Tennessee. (May 1, 2013). Abstract Accepted and Poster Presentation
- 2012 Barnby, E. B. (Presenter), McClellan, L. C. (Chair), Hoy, H. M. (Co-Chair), Sharer, D. (Co-Chair), *Translating Research into Clinical Practice: Development of a CEU for APRNs on Tyrosinemia Type 1*, Sigma Theta Tau International, Jackson, Tennessee. (October 27, 2012). Abstract Accepted and Poster Presentation
- 2012 Barnby, E. B., Joint DNP Intensive, *Development & Evaluation of a Continuing Education Unit (CEU) on Tyrosinemia Type 1 (TT1) for Advanced Practice RNs (APRNs)* Recipient of Outstanding Poster Award, UAB CON & Sigma Theta Tau, Birmingham, AL. (March 28, 2012). Abstract Accepted and Poster Presentation
- 2011 Barnby, E. B., SERGG Southeast Regional Genetics Group, *Newborn Screening for Tyrosinemia Type 1: A Literature Review*, SERGG/SERC, Ashville, North Carolina. (July 21, 2011). Abstract Accepted and Poster Presentation

TEACHING:

NUR 407L92086 02, CLINICAL EXPERIENCE, 9 (Fall 2023)
NUR 73991922 04, DNP PROJECT, 2 (Fall 2023)
NUR 30491971 01, APP PATHOPHYSIOLOGY LIFESPAN, 28 (Fall 2023)
NUR 40792083 02, PROF PRACTICE IN NURSING II, 20 (Fall 2023)
NUR 610L92143 08, CLINICAL EXPERIENCE, 7 (Fall 2023)
NUR 407L92085 01, CLINICAL EXPERIENCE, 8 (Fall 2023)
NUR 407L92087 03, CLINICAL EXPERIENCE, 9 (Fall 2023)
NUR 407L11798 02, CLINICAL EXPERIENCE, 6 (Spring 2023)
NUR 73910437 03, DNP PROJECT, 1 (Spring 2023)
NUR 407L11799 03, CLINICAL EXPERIENCE, 5 (Spring 2023)
NUA 32511951 01, PATHO/PHARM I, 10 (Spring 2023)
NUR 40711889 02, PROF PRACTICE IN NURSING II, 22 (Spring 2023)
NUR 407L11797 01, CLINICAL EXPERIENCE, 5 (Spring 2023)
NUR 407L91886 01, CLINICAL EXPERIENCE, 7 (Fall 2022)
NUR 40791708 02, PROF PRACTICE IN NURSING II, 18 (Fall 2022)
NUR 30491659 03, APP PATHOPHYSIOLOGY LIFESPAN, 18 (Fall 2022)
NUR 30491658 02, APP PATHOPHYSIOLOGY LIFESPAN, 21 (Fall 2022)
NUR 30491657 01, APP PATHOPHYSIOLOGY LIFESPAN, 21 (Fall 2022)
FYEN 101N91753 01, CHARGER SUCCESS - NURSING, 41 (Fall 2022)
NUR 73991950 04, DNP PROJECT, 1 (Fall 2022)
NUR 407L91888 03, CLINICAL EXPERIENCE, 8 (Fall 2022)
NUR 407L91887 02, CLINICAL EXPERIENCE, 7 (Fall 2022)
NUR 73960421 04, DNP PROJECT, 1 (Summer 2022)
NUR 33960279 81, INFO MGMT IN HEALTHCARE, 19 (Summer 2022)
NUR 42360292 85, EVID BASED PRACTICE PROFESS NU, 3 (Summer 2022)
NUR 40710735 02, PROF PRACTICE IN NURSING II, 10 (Spring 2022)
NUR 407L10886 01, CLINICAL EXPERIENCE, 6 (Spring 2022)
NUR 407L10888 03, CLINICAL EXPERIENCE, 6 (Spring 2022)
NUR 73910991 04, DNP PROJECT, 2 (Spring 2022)
NUR 30410663 01, APP PATHOPHYSIOLOGY LIFESPAN, 20 (Spring 2022)
NUR 407L10887 02, CLINICAL EXPERIENCE, 6 (Spring 2022)
NUR 407L91209 03, CLINICAL EXPERIENCE, 8 (Fall 2021)
NUR 73991436 04, DNP PROJECT, 3 (Fall 2021)
NUR 30491003 03, APP PATHOPHYSIOLOGY LIFESPAN, 29 (Fall 2021)
NUR 407L91207 01, CLINICAL EXPERIENCE, 9 (Fall 2021)
NUR 407L91208 02, CLINICAL EXPERIENCE, 8 (Fall 2021)
NUR 30491002 02, APP PATHOPHYSIOLOGY LIFESPAN, 31 (Fall 2021)
NUR 30491001 01, APP PATHOPHYSIOLOGY LIFESPAN, 29 (Fall 2021)

NUR 40791205 02, PROF PRACTICE IN NURSING II, 24 (Fall 2021)
 NUR 73960064 04, DNP PROJECT, 3 (Summer 2021)
 NUR 407L12151 03, CLINICAL EXPERIENCE, 10 (Spring 2021)
 NUR 407L12150 02, CLINICAL EXPERIENCE, 10 (Spring 2021)
 NUR 407L12149 01, CLINICAL EXPERIENCE, 10 (Spring 2021)
 NUR 40712146 02, PROF PRACTICE IN NURSING II, 15 (Spring 2021)
 NUR 30413160 03, APP PATHOPHYSIOLOGY LIFESPAN, 14 (Spring 2021)
 NUR 303L11782 05, CLINICAL, 8 (Spring 2021)
 NUR 42212169 83, COMMUNITY HEALTH FOR PROF NURS, 24 (Spring 2021)
 NUR 73911215 04, DNP PROJECT, 3 (Spring 2021)
 FYEN 101N92466 03, CHARGER SUCCESS - NURSING, 21 (Fall 2020)
 NUR 40792267 02, PROF PRACTICE IN NURSING II, 23 (Fall 2020)
 NUR 407L92201 03, CLINICAL EXPERIENCE, 10 (Fall 2020)
 FYEN 101N92464 01, CHARGER SUCCESS - NURSING, 20 (Fall 2020)
 NUR 30192198 02, CONCEPTS IN NURSING, 57 (Fall 2020)
 NUR 73990800 04, DNP PROJECT, 3 (Fall 2020)
 NUR 407L92206 01, CLINICAL EXPERIENCE, 10 (Fall 2020)
 NUR 407L92204 02, CLINICAL EXPERIENCE, 10 (Fall 2020)
 NUR 73960181 04, DNP PROJECT, 3 (Summer 2020)
 NUR 40511835 02, COMMUNITY HEALTH NURS, 37 (Spring 2020)
 NUR 405L11842 07, CLINICAL EXPERIENCE, 8 (Spring 2020)
 NUR 405L11843 08, CLINICAL EXPERIENCE, 6 (Spring 2020)
 NUR 405L13456 10, CLINICAL EXPERIENCE, 6 (Spring 2020)
 NUR 405L11836 01, CLINICAL EXPERIENCE, 8 (Spring 2020)
 NUR 405L11841 06, CLINICAL EXPERIENCE, 8 (Spring 2020)
 NUR 42211870 82, COMMUNITY HEALTH FOR PRCTNG RN, 18 (Spring 2020)
 NUR 73911415 06, DNP PROJECT, 3 (Spring 2020)
 NUR 60212482 84, SCHOLARLY INQ ADV NUR PRAC, 25 (Spring 2020)
 FYEN 101N92273 02, CHARGER SUCCESS - NURSING, 14 (Fall 2019)
 NUR 407L91740 01, CLINICAL EXPERIENCE, 9 (Fall 2019)
 NUR 60691459 81, ADV PATHOPHYSIOLOGY, 30 (Fall 2019)
 NUR 407L91741 02, CLINICAL EXPERIENCE, 11 (Fall 2019)
 NUR 60691460 82, ADV PATHOPHYSIOLOGY, 29 (Fall 2019)
 NUR 73991772 06, DNP PROJECT, 2 (Fall 2019)
 NUR 60691461 83, ADV PATHOPHYSIOLOGY, 24 (Fall 2019)
 NUR 40791573 03, PROF PRACTICE IN NURSING II, 29 (Fall 2019)
 NUR 407L91742 03, CLINICAL EXPERIENCE, 10 (Fall 2019)
 NUR 40791571 01, PROF PRACTICE IN NURSING II, 33 (Fall 2019)
 NUR 73960181 06, DNP PROJECT, 2 (Summer 2019)

NUR 42160773 84, AC CARE NURS RNBSN, 16 (Summer 2019)
 NUR 39061200 07, The Art of ECG Interpretation, 22 (Summer 2019)
 NUR 33961167 85, INFO MGMT IN HEALTHCARE, 15 (Summer 2019)
 NUR 33960768 83, INFO MGMT IN HEALTHCARE, 18 (Summer 2019)
 NUR 407L11848 01, CLINICAL EXPERIENCE, 10 (Spring 2019)
 NUR 40711845 01, PROF PRACTICE IN NURSING II, 21 (Spring 2019)
 NUR 407L11849 02, CLINICAL EXPERIENCE, 9 (Spring 2019)
 NUR 407L11850 03, CLINICAL EXPERIENCE, 9 (Spring 2019)
 NUR 40811856 02, PROF PRAC IN NURS III SEMINAR, 13 (Spring 2019)
 NUR 73911415 06, DNP PROJECT, 2 (Spring 2019)
 NUR 40791572 02, PROF PRACTICE IN NURSING II, 23 (Fall 2018)
 NUR 30791546 02, INQRY TO EVIDNC BASED NURS PRC, 23 (Fall 2018)
 NUR 40891577 02, PROF PRAC IN NURS III SEMINAR, 20 (Fall 2018)
 NUR 40791571 01, PROF PRACTICE IN NURSING II, 31 (Fall 2018)
 NUR 40791573 03, PROF PRACTICE IN NURSING II, 31 (Fall 2018)
 NUR 33960768 83, INFO MGMT IN HEALTHCARE, 21 (Summer 2018)
 NUR 73960181 06, DNP PROJECT, 1 (Summer 2018)
 NUR 42160773 84, AC CARE NURS RNBSN, 21 (Summer 2018)
 NUR 40712119 01, PROF PRACTICE IN NURSING II, 18 (Spring 2018)
 NUR 73912049 06, DNP PROJECT, 1 (Spring 2018)
 NUR 40812123 02, PROF PRAC IN NURS III SEMINAR, 17 (Spring 2018)
 NUR 40791633 03, PROF PRACTICE IN NURSING II, 30 (Fall 2017)
 NUR 40891637 04, PROF PRAC IN NURS III SEMINAR, 13 (Fall 2017)
 NUR 40791631 01, PROF PRACTICE IN NURSING II, 32 (Fall 2017)
 NUR 40791632 02, PROF PRACTICE IN NURSING II, 30 (Fall 2017)
 NUR 41912140 81, SCHOLRY INQUIRY IN NURSING PRA, 2 (Spring 2017)
 NUR 73991831 06, SCHOLARLY PRACTICE PROJECT, 1 (Fall 2016)
 NUR 40791648 02, PROF PRACTICE IN NURSING II, 41 (Fall 2016)
 NUR 30991630 01, CLINICAL INFORMATICS, 33 (Fall 2016)
 FYEN 101N91610 03, CHARGER SUCCESS - NURSING, 12 (Fall 2016)
 NUR 73960585 06, SCHOLARLY PRACTICE PROJECT, 1 (Summer 2016)
 NUR 73910780 06, SCHOLARLY PRACTICE PROJECT, 1 (Spring 2016)
 NUR 40711346 02, PROF PRACTICE IN NURSING II, 42 (Spring 2016)
 NUR 30911345 01, CLINICAL INFORMATICS, 39 (Spring 2016)
 NUR 30911350 02, CLINICAL INFORMATICS, 32 (Spring 2016)
 NUR 30991733 01, CLINICAL INFORMATICS, 40 (Fall 2015)
 NUR 73991883 06, SCHOLARLY PRACTICE PROJECT, 1 (Fall 2015)
 NUR 40791775 02, PROF PRACTICE IN NURSING II, 27 (Fall 2015)
 NUR 20110315 01, MULTIDIM ASPECTS HL CAREER OPT, 36 (Spring 2015)

NUR 40410420 02, 2ND 7-FAM-CNTR NUR CARE CHLDRN, 46 (Spring 2015)
 NUR 40410419 01, 1ST 7-FAM-CNTR NUR CARE CHLDRN, 39 (Spring 2015)
 NUR 40491969 02, 2ND 7WKS FAM CNTR/CARE OF CHIL, 47 (Fall 2014)
 NUR 40491968 01, 1ST 7WKS FAM CNTR/CARE OF CHIL, 54 (Fall 2014)
 NUR 30461132 01, APP PATHOPHYSIOLOGY LIFESPAN, 11 (Summer 2014)
 NUR 40410249 02, 2ND 7-FAM-CNTR NUR CARE CHLDRN, 33 (Spring 2014)
 NUR 40410248 01, 1ST 7-FAM-CNTR NUR CARE CHLDRN, 34 (Spring 2014)
 NUR 40491458 02, 2ND 7WKS FAM CNTR/CARE OF CHIL, 49 (Fall 2013)
 NUR 40491457 01, 1ST 7WKS FAM CNTR/CARE OF CHIL, 49 (Fall 2013)
 NUR 40660226 01, LEADERSHIP & MGMT IN NURSING, 46 (Summer 2013)
 NUR 40411362 02, 2ND 7 FAM-CNTER NUR CARE CHILD, 45 (Spring 2013)
 NUR 40411361 01, 1ST 7 FAM-CNTER NUR CARE CHILD, 41 (Spring 2013)
 NUR 40491858 02, 2ND 7WKS FAM CNTR/CARE OF CHIL, 56 (Fall 2012)
 NUR 40491857 01, 1ST 7WKS FAM CNTR/CARE OF CHIL, 54 (Fall 2012)
 NUR 40660069 01, LEADERSHIP & MGMT IN NURSING, 31 (Summer 2012)
 NUR 40660068 02, LEADERSHIP & MGMT IN NURSING, 39 (Summer 2012)
 NUR 40660646 02, LEADERSHIP & MGMT IN NURSING, 51 (Summer 2011)

SERVICE:

University:

Year	Activity
2023- Ongoing	Interim Faculty Senate Ombudsman
2022-2023	Chair of Faculty & Student Development Committee
2018- Ongoing	Senator for faculty Senate
2021- Ongoing	Appointment, Promotion, and Tenure Committee for CON
2021-2022	Center of Excellence Writing Team Task Force
2018-2020	Undergraduate Curriculum Committee, Fall 2018-2020
2017-2018	Special Institutional Assignment, Student Conduct Faculty Board Maxient PAO

2017-2018	Appointment, Promotion, and Tenure Committee
2016- Ongoing	Research Collaborative
2015-2016	Space Life Committee
2015-2017	Faculty Search Committee
2014-2015	SACSCOC Committee
2013-2015	Undergraduate Sub-Curriculum Committee Chair
2013-2015	Curriculum Transformation Committee
2013-2015	Reappointment Committee
2013-2018	DNP Admissions Committee
2013-2015	Undergraduate Curriculum Committee
2013-2017	Faculty Traffic Appeals
2016-2017	Student Conduct Board
2013-2016	Committee Member, Faculty Traffic Appeals.
2014-2015	Committee Member, SACSCOC Committee.

Other
Institutional
Service

2013-2015	400 Level Calendar/Scheduler
2013-2014	Elsevier/Evolve Liaison
2013-2015	Interim Undergraduate Program Coordinator CON

Community
Service

2015-2021	RPAC/Infant Death Review Advisory Board, Fall 2015-Ongoing
2017-2022	Hazel Green High School, Medical Academy Advisory Board

2019- Ongoing	ARDAC Governors Rare Disease Advisory Council, Governor's advisory board, Rare Diseases. Alabama Rare Disease Advisory Board https://www.alabamarare.org/alabama-rare-disease-advisory-council
<u>Professional Service</u>	
2021-2023	Advisory Board for NovaVita Therapeutics, helping to get FDA approval for first gene therapy for Tyrosinemia Type 1. Dr. Lillegard, head of Precision Medicine at Mayo Clinic is leading the effort.
2021- Ongoing	National Organization of Nurse Practitioner Faculties (NONPF) Member
2019- Ongoing	Alabama Rare Advisory Board, appointed by Governor Kay Ivey to advocate for rare disease needs in the State of Alabama
2018- Ongoing	Yearly Volunteer- Arts & Crafts & Advocate for Families with Hereditary Tyrosinemia Type 1 Victory Junction https://victoryjunction.org/volunteer/ Moved to Camp in New York after Pandemic in 2019
2019- Ongoing	President, Treasurer, & Founder, Tyrosinemia Society, Inc. https://www.tyrosinemia.org
2017-2023	Advisory Board, Cycle Pharmaceutical,
2017-2022	Nurse Practitioner Alliance of Alabama (NPAA)
2017-2022	Advisory Board, Swedish Orphan BioVitrum International Hereditary Tyrosinemia Type 1.
2017-2020	Committee Member, Tyrosinemia Type 1 Guidelines Committee HRSA grant supported at Emory, Wrote guidelines Hereditary Tyrosinemia Type 1
2015-2021	Advisory Board, Region 1 RPAC/Fetal & Infant Death Review Board, ADPH and the State regarding policy changes to improve outcomes.
2013-2017	Volunteer, Camp Independence, Assist Camp Independence to recruit volunteers, Fall 2013-2017
2012-2017	Volunteer, Camp Bridges, Recruit volunteers to assist with transplant camp, Fall 2012- Fall 2017
2010-2019	North Alabama Nurse Practitioner Association (NANPA) Fall 2010- Fall 2019
2007-2016	Member, International Society of Nurses in Genetics ISONG

2007-2018 Member, Sigma Theta Tau

2007-2014 Alabama organ center (AOC) Alabama Organ Center, Advocate: Conference-Related

Other
Service

2019-
Ongoing President & Treasurer Tyrosinemia Society, Inc., National non-profit 501c3 with an International Reach, Spring 2019-Ongoing

2017-
Ongoing Practicing Nurse Practitioner (CRNP), The Doctor's Office, LLC, Spring 2017-Ongoing

CONSULTATIONS:

Year	Activity
2019-22	Cycle Pharma, advisory Board at GMDI, Orlando Florida
2018-22	Swedish Orphan BioVitrum International, yearly meeting, Phoenix, Arizona
2018-22	Cycle Pharmaceutical, Cambridge, London, England
2017	Swedish Orphan BioVitrum International Advisory Board June London, England

HONORS AND AWARDS:

Year	Name
2017	Regional Nurse Practitioner Award, Nurse Practitioner Association of North Alabama.
2014	Outstanding Faculty in the College of Nursing, UAH. (February 9, 2014).
2014	Faculty Award for Excellence, The University of Alabama in Huntsville. (May 4, 2014).
2012	Outstanding Poster Award for UA Joint DNP Intensive, Sigma Theta Tau International Honor Society of Nursing. (March 29, 2012).
1996	

Superior Civilian Service Award (Medal), Awarded by General Hunter, United States Army of behalf of the “Heroic measures to save the life of a toddler” on behalf of United States Department of Defense Europe (March 1, 1996)

CONTINUING EDUCATION:

Year	Activity
2022	Discovery of Plasma N-glycan biomarkers for PMM2-CDG severity, Orlando, Florida, SIMD (2022)
	Cardiolipin profile and mitochondrial bioenergetics alterations in trifunctional protein deficiency, Orlando, Florida, SIMD (2022)
	Aberrant post-translational modifications characterize the hepatic proteome of methylmalonic acidemia, Orlando, Florida, SIMD (2022)
	Hematopoietic stem cell therapy for cystinosis (Phase I/II clinical trial): Updated results, Orlando, Florida, SIMD (2022)
	Multomics studies in two novel Barth syndrome cell models reveal dysregulation in mitochondrial bioenergetics and quality control: new implications for cellular pathogenesis and therapeutics, Orlando, Florida, SIMD (2022)
	Mitochondrial-ATP6-associated disease presents with distinct pattern on newborn screening: should it be included as a secondary condition?, Orlando, Florida, SIMD (2022)
	Postmortem screening and the impact of newborn screening on mortality rates for MCAD deficiency, Orlando, Florida, SIMD (2022)
	The ACMG Evidence-Based Guideline Program: Our Roadmap from Evidence to recommendation and the impact on Patient Care, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)
	Cardiac complication in adults with propionic acidemia, Orlando, Florida, SIMD (2022)
	2022 Presidential Plenary Session and ACMG Foundation Awards Presentation-From Exceptional to Routine: Transformation of Genomic Medicine in the 21st Century, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Society of Inherited Metabolic Disorders (SIMD), 13.25, Orlando, Florida, SIMD (2022)

C4-OH carnitine: an important marker of ketosis in patients with and without inborn errors of metabolism, Orlando, Florida, SIMD (2022)

Neuroimaging findings in inborn errors of metabolism: atypical findings from five cases affected by small molecule disorders, Orlando, Florida, SIMD (2022)

Pseudo deficiencies in NBS for LSD, Orlando, Florida, SIMD (2022)

The long non-coding RNA (LNCRNA) transcript HULC is regulator of the phenylalanine hydroxylase and a new potential treatment option for PKU patients, Orlando, Florida, SIMD (2022)

Adult & Cancer Diagnostic Challenges , 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (2022)

mRNA for enzyme replacement in IEMs, Orlando, Florida, SIMD (2022)

In utero CRISPR therapeutic editing of metabolic genes, Orlando, Florida, SIMD (2022)

Counseling families about genomic therapies for organic acidemias, Orlando, Florida, SIMD (2022)

History of gene editing, technical and medicolegal aspects of CRISPR/Cas9, Orlando, Florida, SIMD (2022)

NBS and culturally competent dietary management from around the US and the World, Orlando, Florida, SIMD (2022)

Parenting Stress Raising Children with Sex Chromosome Aneuploidies: First Year of Life Results from the eXtraordinary Babies Study, .5, Nashville, Tennessee, American College of Medical Genetics & Genomics (2022)

Comprehensive Care for Ornithine Transcarbamylase Deficiency in A Family with Multiple Barriers to Care, Orlando, Florida, SIMD (2022)

Comprehensive Care for Ornithine Transcarbamylase Deficiency in a Family with Multiple Barriers to Care, Orlando, Florida, SIMD (2022)

IEMs as secondary findings: when does it matter?, Orlando, Florida, SIMD (2022)

Delayed skeletal development in a mouse model of global SLC7A7 deficiency, Orlando, Florida, SIMD (2022)

Malate dehydrogenase deficiency: expanding the phenotypic spectrum, Orlando, Florida, SIMD (2022 - 2022)

Predictors of survival in primary lactic acidosis, Orlando, Florida, SIMD (2022)

Characterization of variants of uncertain significance in very long-chain Acyl-CoA dehydrogenase identified through newborn screening, Orlando, Florida, SIMD (2022)

The current state of adult metabolic medicine in the United States: results of the first nationwide study, Orlando, Florida, SIMD (2022)

Molecular and behavioral chracterization of a novel mouse model of Snyder-Robinson syndrome: a path towards therapeutic development, Orlando, Florida, SIMD (2022)

Unknowns and Challenging metabolic cases, Orlando, Florida, SIMD (2022)

Diagnosis: Development of psychosine as a biomarker for Krabbe disease, Orlando, Florida, SIMD (2022)

Disease Progression: Noninvasive biomarkers of liver disease in urea cycle disorders, Orlando, Florida, SIMD (2022)

Screening: GDF15 as a screening marker for mitochondrial disease, Orlando, Florida, SIMD (2022)

How can we use the secondary findings to expand adult onset metabolic disorders, Orlando, Florida, SIMD (2022)

The OTC example: What functional outcomes should lead to dietary changes, Orlando, Florida, SIMD (2022)

Fabry disease: Newborn screening and treatment implication, Orlando, Florida, SIMD (2022)

How are gene disease pairs added to the secondary findings list?, Orlando, Florida, SIMD (2022)

Secondary findings: rationale and approach to evaluation of genomically ascertained disorders of intermediary metabolism, Orlando, Florida, SIMD (2022)

An Action Plan for Inclusion, Diversity, Equity, & Anti-Racism in Publishing: Putting IDEAs into Practice at Genetics in Medicine, 1.5, Nashville, Tennessee, American College of Medical Genetics (ACMG) (2022)

Reaching Milestones in Acid Sphingomyelinase Deficiency: Improving Outcomes with Early Diagnosis & Emerging Treatments, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (2022)

Hypophosphatasia (HPP) Genetics: Patient Cases, 1, Nashville, Tennessee, American College of Medical Genetics (2022)

Developing Recommendations for the Application of Direct-to-Consumer Genetic Testing in Clinical Care, 1.5, Nashville, Tennessee, American College of Medical Genetics (2022)

ClinGen Community Curation Interactive Workshop, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Pediatric Diagnostic Dilemmas (Rare Knowns and Unknowns), 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Health Disparities & Inherited Cancer Syndromes, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Exploring the Role of Medical Genetics and Genomics in Advancing Newborn Screening Research, .5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Prenatal Diagnostic Challenges, .5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Population Genomic Health: Expanding the Reach of Genomic medicine to Diverse Populations, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Quality of Care Metrics in Patients with Inborn Errors of Metabolism, .4, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Artificial Intelligence in Genomics: Potential and Peril, .5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Down Syndrome Regression Disorder: Phenotype and Diagnostic Evaluation, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

2022 Cardinal Signs, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Rethinking Schwannoma Predisposition Syndromes- Neurofibromatosis Type 2 and Schwannomatosis, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Secondary Data Analysis: Opportunities to Advance Genetic Disease Understanding and Newborn Screening Research, .4, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Rapid Whole genome Sequencing (rWGS) in the Cardiac NICU, .4, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

ASPIRO Gene Therapy Trial in X-linked Myotubular Myopathy (XLMTM): Update on Preliminary Efficacy and Safety Findings, .4, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

A Clinical Scoring System for Early Onset (Neonatal) Marfan Syndrome, .4, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Platform Presentations-Laboratory Genetics and Genomics, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Artificial Intelligence in Genomics: Potential & Peril, 1.5, Nashville, Alabama, American College of medical Genetics & Genomics (2022)

Exploring the Role of Medical Genetics and Genomics in Advancing Newborn Screening Research, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

R. Rodney Howell Symposium/Population Genomic Health: Expanding the Reach of Genomic Medicine to Diverse Populations, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Reimagining Pediatric Genetic Service Delivery- Telemedicine Models in the Post COVID-19 ERA, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Human Ring Chromosome Disorders: An International Collaborative Towards Better Diagnosis, Interpretation, and Clinical Management , 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Prenatal Diagnostic Challenges, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Platform Presentations-Prenatal Genetics, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Platform Presentations-Clinical Genetics and Therapeutics, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Platform Presentations- Biochemical/Metabolic Genetics, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

LC-FAODs: Advancing Disease Awareness, Genetic Screening, Diagnostic Evaluation, and Coordination of Care for Patients, 1, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

The Role of the HNRNP Gene Family in Neurodevelopmental Disorders, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Laboratory Diagnostic Challenges, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Hot Topics in Reproductive Genetics, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Addressing the Challenges of Variant Reinterpretation, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Improving Diagnosis and Enhancing the Standard of Care for Pompe Disease, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

A Multidisciplinary Conversation on the Stories of Women with Fabry Disease, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

American College of Medical Genetics and Genomics, 47, Nashville, Tennessee, ACMG, The 2022 Annual Clinical Genetics Meeting will present both research and clinical topics that promote the science and the practice of clinical genetics and genomics. Sessions will focus on the latest discoveries of the etiology and the pathogenesis of genetic disorders, the latest developments in genetic testing and screening, the laboratory's role in the diagnosis of genetic disorders, the treatment of genetic disorders in children and adults, the delivery of genetic services, and more. (2022)

Navigating Case Complexities of Metabolic Disorders, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

2022 Presidential Plenary Session-From Exceptional to Routine: Transformation of Genomic Medicine in the 21st Century, 1.5, Nashville, Tennessee, American College of Medical Genetics (ACMG) (2022)

Legal & Ethical Issues: Education, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (2022)

Implementation of 2019 ACMG Technical Standards for the Interpretation and Reporting of Constitutional CNVs: Experiences from an Academic Reference Laboratory, .5, Nashville, Tennessee, American College of Medical Genetics & Genomics (2022)

Discovery & Therapeutic Implications of pathogenic retro-elements in neurodegenerative diseases, .5, Nashville, Tennessee, American College of Medical Genetics and Genomics (2022)

When is "Non-syndromic" Really Metabolic: Metabolic Causes of Intellectual Disability, Autism, and Epilepsy, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Balancing Evidence and Expertise: Clinical Practice Resource Development for PALB2, CHEK2, ATM, and Beyond, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Featured Platform Presentations, 1, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Platform Presentation- Genetic Counseling, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Platform Presentations- Cancer Genetics and Therapeutics, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

What are the Important Issues in the Arena of Public Policy and Legislation for Medical Genetics?, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

TED-Style Talks, 1, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Platform Presentations- Public Health, Health Services, and Implementation, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Platform Presentations- Legal and Ethical Issues; Education, 1.5, Nashville, Tennessee, American College of Medical Genetics & Genomics (ACMG) (2022)

Physician Recommendations after Germline Sequencing in Pediatric Cancer Patients Texas KidsCanSeq Study, .5, Nashville, Tennessee, American College of Medical Genetics & Genomics (2022)

The Continuum of Hope: a session on N-of-1 treatments for inborn errors of metabolism, Orlando, Florida, SIMD (2022)

- Guiding a family through development of a custom ASO therapy, Orlando, Florida, SIMD (2022)
- The Continuum of Hope: Navigating the n-of-1 Ethical Landscape, Orlando, Florida, SIMD (2022)
- Pharmacology study of AAV vectors for genome editing in GSD 1A Infantile Mice, Orlando, Florida, SIMD (2022)
- Individualized antisense oligonucleotide therapies and the N-of-1 Collaborative: Opportunities and challenges, Orlando, Florida, SIMD (2022)
- An Overview of galactosemia, Orlando, Florida, SIMD (2022)
- Gene Transfer, Editing, Silencing and RNA Based Approaches: What, When, and How?, 1, Inglewood, Colorado, Postgraduate Institute of Medicine & ANCC, Both research and clinician continuing ed (2021)
- Mental Health First Aid, 4.8, Huntsville, Alabama, University of Alabama College of Nursing (2021)
- Human Intelligence is the Secret Ingredient: Improving Big Data & Artificial Intelligence in Covid-19 and Beyond, 2, Huntsville, Alabama, University of Alabama Distinguished Speaker Series, Best used for research (2021)
- SOUTHEAST REGIONAL GENETICS NETWORK (SERN) & Southeast Regional Genetics Group (SERGG) 38th Annual conference, 3, Atlanta, Georgia, SOUTHEAST REGIONAL GENETICS NETWORK (SERN) (2021)
- ADD & Sleep Medications:When and what to prescribe, 2.2, Andover, Massachusetts, Fitzgerald Health Education Associates, LLC (2021 - 2021)
- Dermatology in the Older Adult, 0.7, North Andover, Massachusetts, Fitzgerald Health Education Associates (2021)
- Test-Analysis of the WBC Count & Differential, 1.5, North Andover, Massachusetts, Fitzgerald Health Education Associates (2021 - 2021)
- Anemias: Assessment & Intervention, 1.8, North Andover, Massachusetts, Fitzgerald Health Education Associates (2021 - 2021)
- Abdominal & Pelvic Pain Evaluation-From Diagnosis to Diagnostic Imaging Part 1 & 2, 3.6, North Andover, Massachusetts, Fitzgerald Health Education Associates, LLC, Clinician NP Continuing Education (2021)
- Hepatic Function, 2.1, North Andover, Massachusetts, Fitzgerald Health Education Associates, LLC, Clinician training NP (2021)

	Differential Diagnosis of Abdominal Pain, 1.6, North Andover, Massachusetts, Fitzgerald Health Education Associates (2021)
	Update on Assessing & Treating UTIs & Asymptomatic Bacteriuria, 1.6, North Andover, Massachusetts, Fitzgerald health Education Associates (2021)
	Antimicrobial Update: A focus on STIs, 1.6, North Andover, Massachusetts, Fitzgerald Health Education Associates (2021)
	Anxiety & Panic Disorder: The latest treatment recommendations, 1.6, North Andover, Massachusetts, Fitzgerald Health Education Associates (2021)
	Contraception Update 5E, 1.9, North Andover, Massachusetts, Fitzgerald health Education Associates (2021)
	Drug Adverse Effects, 1.5, North Andover, Massachusetts, Fitzgerald Health Education Associates (2021)
	Depression: The Latest Treatment Recommendations, 1.9, North Andover, Massachusetts, Fitzgerald Health Education Associates (2021)
	High Pressure Headache, Englewood, Colorado, ACCME, ACPE, and ANCC, Spring 2020
2020	Neuromodulation Approaches to Migraine Treatment, Englewood, Colorado, ACCME, ACPE, and ANCC, Spring 2020
	7th Annual Rare Disease Genomics Symposium: Informatics Application in Rare Diseases, 5.25 Birmingham, Alabama, Children's of Alabama along with the Alabama Rare Disease Advisory Board, Spring 2020
	Prevention of Migraine, Englewood, Colorado, Postgraduate Institute of Medicine & ANCC , Spring 2020
	Migraine Pathophysiology: A Clinical Perspective, Englewood, Colorado, ACCME and ANCC, Spring 2020
	The Diagnosis of Primary Headache Disorders, Englewood,Colorado, ACCME, ACPE, and ANCC, Spring 2020
	Primary Headaches: Evaluating Burden and Impact, Englewood, Colorado ACCME, ACPE, and ANCC, Spring 2020
	Acute Treatment: Now and in the Future, Englewood, Colorado, ACCME, ACPE, and ANCC, Spring 2020

- Low Pressure Headache, Englewood, Colorado, ACCME, ACPE, and ANCC Spring 2020
- Data DIY Workshop, Philadelphia, Pennsylvania, Global Genes, Chan Zuckerberg Foundation, Fall 2019
- 2019 41st Annual Meeting: Society for Inherited Metabolic Disorders (SIMD) Seattle Washington 22.2 CME, CEUs Fall 2019
- Basic Cardiac Life Support (BCLS) for Healthcare Provider, Huntsville, Alabama, AHA, BCLS renewal class, Fall 2019
- 24th Annual Symposium North Alabama Nurse Practitioner Association (NANPA): Improving Health Care Through Education and Service, Huntsville, Alabama, Fall 2019
- Victory Junction Volunteer Training, Randleman, North Carolina, Victory Junction, Fall 2019
- 2019 National Organization for Rare Disorders (NORD) Summit: Rare Diseases & Orphan Products Breakthrough Summit, Washington DC, Fall 2019
- Southeast Regional Genetics Network (SERN) 36th Annual Meeting of the Southeastern Regional Genetics Group (SERGG) Asheville, North Carolina (HRSA), Department of Health and Human Services, Summer 2019
- National Organization for Rare Disorders (NORD) Living Rare, Living Stronger Patient & Family Forum, Houston, Texas, Summer 2019
- Southeast Regional Genetics Network (SERN) 36th Annual Meeting of the Southeastern Regional Genetics Group (SERGG), Asheville, North Carolina (HRSA), Summer 2019
- 2019 DNP Intensive 3.5 Huntsville, Alabama, UAH CON, Spring 2019
- Type 2 Diabetes Mellitus P2 1.1, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018
- 2018 Acute Bacterial Rhinosinusitis: A focus on the Latest Treatment Recommendation 2, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018 Fa
- Prescribing in Pregnancy: A Focus on Safety and Efficacy, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018
- Antibiotic Update: A Focus on Treatment Options in Community Acquired Pneumonia, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

Type 2 Diabetes Mellitus P1, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

An Evidence-Based Approach to Management Throughout the Lifespan, Andover, Massachusetts , Fall 2018

Laboratory Monitoring During Drug Therapy, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

Bacterial Pharyngitis, Conjunctivitis, Acute Otitis Media: A Focus on Treatment Recommendations, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

Hypertension Update, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

Pharmacologic Intervention During Lactation, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

Prescribing in the Elder, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

Cough, Cold, and Fever Symptoms: Pharmacologic therapies, Andover, Massachusetts Fitzgerald Health Education Associates, Fall 2018

Principles of Safe Prescribing, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

Dyslipidemia: An Update on Treatment Goals and Options, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

Prescribing for Children: Choosing the Safest Options for your Pediatric Patients, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

Contraceptive Update 5E, Andover, Massachusetts, Fitzgerald Health Education Associates, Fall 2018

2017 "DNP Intensive," UAH CON, Huntsville, Alabama. (March 31, 2017).

Conference Attendance, "Writing Intensive," UAH CON, Huntsville, Alabama. (March 23, 2017 - March 24, 2017).

Continuing Education Program, "Live Broadcast by Astrazeneca on Bevespi," Astrazeneca, Huntsville, Alabama. (March 15, 2017).

Workshop, "Forming and Managing Groups: Collaborative Learning Faculty Development," Collaborative Learning Resource Center, Huntsville, Alabama. (February 17, 2017).

- 2016
- Seminar, "E Clinical Works EMR training," The Doctors Office, LLC, Hazel Green, AL, United States. (April 26, 2016).
- NUR 613-02, "Family Nurse Practitioner IV," UAH CON, Huntsville, ALABAMA. (August 2016 - December 2016).
- Conference Attendance, "NANPA North Alabama Nurse Practitioner Association Annual Conference," NANPA, Huntsville, Alabama. (September 16, 2016 - September 17, 2016).
- NUR 612-02, "Family Nurse Practitioner III," UAH CON, Huntsville, ALABAMA. (June 2016 - August 2016).
- Conference Attendance, "Fitzgerald Review FNP Board review," Fitzgerald & Associates, Nashville, TN. (August 8, 2016 - August 10, 2016).
- Conference Attendance, "Southeast Regional Genetics Group," SERGG, Ponte Vedra Beach, Florida. (July 14, 2016 - July 16, 2016).
- NUR 611-02, "Family Nurse Practitioner II," UAH, Huntsville, AL, United States. (January 6, 2016 - May 6, 2016).
- Seminar, "Simchart training," UAH CON, Huntsville, Alabama. (May 5, 2016).
- Workshop, "ORS Export Compliance Training," Huntsville, Alabama. (May 5, 2016).
- Workshop, "I-Stan Training," UAH CON, Huntsville, Alabama. (May 4, 2016).
- Seminar, "Concept Based Curriculum," UAH CON, Huntsville, Alabama. (April 12, 2016).
- DNP Retreat. (April 1, 2016).
- 2015
- NUR 610-02, "Family Nurse Practitioner I," UAH, Huntsville, AL, United States. (August 7, 2015 - December 15, 2015)
- Seminar, "Gamification: Practical Strategies for Your Course," --University of Alabama Huntsville, Huntsville, AL, United States. (December 8, 2015).
- Continuing Education Program, "Integrated Technology in Nursing Education and Practice," HRSA, Washington, DC, Washington DC, United States. (August 7, 2015 - December 1, 2015).

Conference Attendance, "2015 ISONG World Congress - Epigenetics Across the Life Span," International Society of Nurses in Genetics, Pittsburgh, PA, United States. (November 6, 2015 - November 8, 2015).

Conference Attendance, "Emerging Challenges in Primary Care 2015," National Association for Continuing Education, Nashville, TN, United States. (October 24, 2015).

Conference Attendance, "Tyrosinemia 2015," Groupe d'Aide aux Enfants Tyrosinémiques du Québec, Saguenay, Quebec, Canada. (September 24, 2015 - September 26, 2015).

Seminar, "Dr. Linda Caputi, Concept Based Curriculum," UAH, Huntsville, AL, United States. (August 17, 2015).

Webinars, "Evolve Adaptive quizzes, concept based, pageburst, & simchart," UAH, Huntsville, AL, United States. (August 6, 2015 - August 7, 2015).

Conference Attendance, "SERGG," Southeast Regional Genetics Group, Ashville, North Carolina, United States. (July 16, 2015 - July 18, 2015).

2014 Conference Attendance, "Southeast Regional Genetics Group," HRSA, Ponte Vedra Beach, Florida, United States. (July 17, 2014 - July 19, 2014).