

December, 2017

Curriculum Vitae**Salah S. Al-Zaiti, PhD, RN, CRNP, ANP-BC, FAHA****Home Address:** xxx**Citizenship:** xxx**Home Telephone:** (412) xxx-xxxx**Business Address:** University of Pittsburgh
School of Nursing
3500 Victoria Street
336 Victoria Building
Pittsburgh, PA 15261**Email Address:** ssa33@pitt.edu**Business Phone:** (412) 624-4369**Business Fax:** (412) 383-7227EDUCATION AND TRAINING**GRADUATE**

2010 – 2013	Ph.D. (Cardiovascular Nursing)	School of Nursing SUNY, University at Buffalo, Buffalo NY
2008 – 2010	M.S.N (Adult Nurse Practitioner)	School of Nursing SUNY, University at Buffalo, Buffalo NY

UNDERGRADUATE

2002 – 2006	BSN (Nursing)	School of Nursing The Hashemite University, Jordan
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APPOINTMENTS AND POSITIONS**ACADEMIC****University of Pittsburgh, Pittsburgh PA**

2016 – Present	Assistant Professor (Secondary appointment)	School of Medicine Department of Emergency Medicine
2015 – Present	Graduate Faculty	The Graduate School of Health Sciences
2013 – Present	Assistant Professor – (Tenure Track)	School of Nursing Department of Acute and Tertiary Care

SUNY University at Buffalo, Buffalo NY

2011 – 2013	Teaching Assistant	Simulation Lab, School of Nursing SUNY, University of Buffalo
2008 – 2010	Research Assistant	Center for Research in Cardiovascular Medicine SUNY, University of Buffalo

NON-ACADEMIC

2010 – 2011	Nurse Practitioner	Diabetes and Endocrinology Center of WNY Kaleida Health, Buffalo, NY
2006 – 2008	Registered Nurse	Bone Marrow Transplantation King Hussein Cancer Center, Amman, Jordan

LICENSURE AND CERTIFICATION

2010 – 2017	RN #612022	New York
2010 – 2017	NP #F305328	New York
2010 – 2020	ANP-BC #2010002855	American Nurses Credentialing Center (ANCC)
2013 – 2016	RN #648240	Pennsylvania
2013 – 2016	CRNP #013039	Pennsylvania

MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

2015 – Present	American Nurses Association (ANA)
2011 – Present	American Heart Association (AHA)
2009 – Present	International Society of Computerized Electrocardiography (ISCE)
2009 – Present	Sigma Theta tau, The Honor Society of Nursing, Gamma Kappa Chapter

HONORS

2017	Fellow of the American Heart Association
2016	EMPIRE: Novel EKG Methods for NSTEMI Detection, US Patent # 62/146,775
2015	Marie Cowan Promising Young Investigator Award, Council on CVSN, AHA
2014	Martha N Hill New Investigator Award, Council on CVSN, AHA
2013	Ruth G Elders Award for Excellence in Nursing Research, SUNY at Buffalo
2013	Best Abstract Award, ISCE
2012	Graduate Student Excellence in Teaching Award, SUNY at Buffalo
2011	Jos Willems Young Investigator Finalist, ISCE
2011	Petsan G Novan Nursing Scholarship, SUNY at Buffalo
2010	Anne Sengbusch Award for Excellence in Leadership, SUNY at Buffalo
2009 – 2013	Woodburn Presidential Fellowship, SUNY at Buffalo
2009	Sigma Theta Tau, Gamma Kappa Chapter
2006	Distinguished Nurse Award, Jordanian Nursing Council, Jordan
2006	Chancellor's Award for Student Excellence, The Hashemite University, Jordan

FUNDED RESEARCH PROJECTS

PENDING

1R01HL137761-01A1 (Al-Zaiti)	7/1/18 – 6/30/20	1.20 calendar
NIH/NHLBI	\$1,479,370 (total)	Role: PI

Impact Score = 20 / Percentile Rank 3%

Electrocardiographic Detection of Non-ST Elevation Myocardial Events for Accelerated Classification of Chest Pain Encounters (ECG-SMART)

This proposed study aims to develop a classification system based on ECG data and on existing clinical scores that would allow the real-time identification of acute coronary events in the prehospital setting, as well as identifying 30-day major adverse cardiac events.

1R21NR018000-01 (Al-Zaiti)	7/1/18 – 6/30/20	1.20 calendar
NIH/NINR	\$416,998 (total)	Role: PI

Vessel-Specific ECG Leads (VSEL): A Novel Solution for the Simple and Accurate Detection of Acute Cardiac Ischemia during Nursing Care

This study proposes to evaluate the clinical utility of three novel ECG leads—that are optimized for detecting ischemia caused by the occlusion of each of the three main coronary arteries—for detecting acute cardiac ischemia in patients with chest pain.

ACTIVE

University of Pittsburgh (Al-Zaiti)	7/1/16 – 6/30/18	1.20 calendar
Central Research Development Fund	\$16,000	Role: PI

Non-ST Elevation Myocardial Ischemia: The Role of Cell Survival Genes

This study examines the molecular genetic basis of how cells are preconditioned to survive death during the evolution of acute myocardial infarction. We specifically plan to evaluate the gene expression of DRAM2 as an underlying mechanism to modulate the development of non-ST elevation myocardial injury.

COMPLETED

1UL1TROO1857-01 (Reis)	2/1/17 – 9/30/17	1.20 calendar
NIH/NCATS	\$25,000 (sub-award #0050952)	Role: PI

Modeling Repolarization Lability on ECG Signals to Detect Acute Myocardial Injury Pathways in Patients with Chest Pain

This study developed tools to evaluate the beat-to-beat repolarization lability from the standard 12-lead ECG and tested the clinical value of alternans and non-alternans T wave components in detecting myocardial ischemia during acute chest pain.

Univ. of Pitt. Medical Center (Al-Zaiti)	7/1/15 – 6/30/16	1.20 calendar
Competitive Medical Research Fund	\$24,000	Role: PI

ECG Methods for the Prehospital Identification of NSTEMI: Feasibility Study

This pilot study aimed to evaluate the feasibility of using novel metrics of ECG repolarization to detect NSTEMI during prehospital care.

ENA Foundation (Al-Zaiti)	1/1/15 – 12/31/15	0.60 calendar
Technology Research Award	\$6,000	Role: PI

Redefining ECG Interpretation in Emergency Departments

This study aimed to compare the prevalence, trend, and patterns of ischemic ECG changes observed in prehospital versus in-hospital ECGs in patients with chest pain.

University of Pittsburgh (Al-Zaiti)	7/1/14 – 6/30/16	1.20 calendar
Central Research Development Fund	\$15,000	Role: PI

Redefining the Pretest Probability of Ischemia Prior to Nuclear Stress Testing

This study aimed to test the diagnostic accuracy and predictive value of novel ECG metrics and their dynamic changes during stress testing as markers of ischemia prior to SPECT scans (single-photon emission tomography) in patients with chest pain.

University of Pittsburgh (Al-Zaiti)	7/1/14 – 6/30/15	1.20 calendar
Central for Medical Innovation	\$12,000	Role: PI

Stratifying Prehospital ECGs for Treatment Decisions at Emergency Departments (SPEED)

This pilot study established the feasibility of developing new signal processing methods for the acquisition, transmission, and analysis of prehospital ECGs in 15-ambulance EMS system in the regional Pittsburgh PA area.

Memorial Univ. of Newfoundland (PI: Khraim) 7/1/14 – 6/30/16 *in-kind contribution*
Heart Failure Research Award --- Role: OSC

Cardiac Hemodynamics measures of Persons with Heart Failure Using Impedance Cardiography

This study recorded simultaneous ECG and hemodynamic measures using a new technology called “impedance cardiography”. We analyzed ECG parameters of interest and evaluating their real-time correlates of cardiac function. The results are published at *Biological research for nursing*; 2017, doi:1099800417737835.

R21-NR011202 (PI: Pelter, UCSF) 7/1/14 – 6/30/15 *in-kind contribution*
NIH/NINR --- Role: OSC

COMPARE Study: Electrocardiographic Evaluation of Ischemia Comparing Invasive to Conservative Approaches

We used the already-existing data from this study to evaluate new parameters of ischemia that would improve diagnostics and clinical outcomes of patients with heart attacks. The results of this secondary analysis were published at *J of Am Heart Association*; 2015, Vol. 4(7). pii: e002057.

EMW-FP-02245 (PI: Hostler) 7/1/13 – 6/30/14 *in-kind contribution*
Federal Emergency Management Agency --- Role: OSC

Impact of Work-Rest on Performance and Recovery among Professional Firefighters

This study developed a perceptual hyperthermia index to evaluate heat strain during real-time simulated fire experiment during which Holter ECG recordings were obtained (n = 47). I performed the on-site supervision of ECG acquisition, and later the offline analysis of ECG signal. The results are published at *J of Occupational and Environmental Medicine*; 2015, Vol. 57(9):938-42

SUNY University at Buffalo (Al-Zaiti) 7/1/12 – 6/30/13 *6.0 calendar*
Sigma Theta Tau Dissertation Award \$1,500 Role: PI

Meta-Analysis of Heterogeneity of Electrical Repolarization (MAHER)

This dissertation synthesized more than 100 outcome studies in the field of ECG in the past 15 years. A serial of 24 parallel meta-analyses (n = 349,756) were conducted to validate the clinical utility of 8 novel ECG parameters to predict sudden death, cardiac death, and all-cause death in various populations. The results are published at *Heart & Lung*; 2014, Vol. 43(6):516-26.

R01-HL076252 (PI: Fallavollita & Canty) 7/1/11 – 6/30/13 *3.0 calendar*
NIH/NHLBI --- Role: Research Staff

Prediction of Arrhythmic Events using Positron Emission Tomography (PAREPET)

This 5-year follow-up study examined the relationship between hibernating myocardium and the genesis of arrhythmic death (n = 204). A large number of clinical and ECG parameters were analyzed and used to create a risk prediction model. I took the lead on annotating and analyzing digital ECG data. I was a lead-author on two data-based publications from this study.

R01-DK 075877 (PI: Dandona) 1/1/11 – 6/30/11 *3.0 calendar*
NIH/NIDDK --- Role: Clinical Research Nurse

Suppression of Toll-Like Receptors using Insulin in Type 2 Diabetic Patients

This experimental trial evaluated the effect of insulin infusion on oxidative stress in diabetic and

obese individuals (n = 30). I was a clinical research nurse responsible for screening, enrollment, and conduction of the experiment, which included fat and muscle biopsies and carotid Doppler ultrasound evaluation.

R21-NR011077 (PI: Carey)
NIH/NINR

9/1/08 – 8/31/10

6.0 calendar
Role: Project Director

Surveying & Assessing Firefighters Fitness and Electrocardiogram (SAFFE)

This observational study included on-duty evaluation of cardiac function and the prevalence of cardiac risk among professional firefighters (n = 118). ECG monitoring and treadmill exercise stress testing were used to quantify cardiac risk. As a project director, I coordinated the implementation of the study. I was a lead-author on two data-based publications from this study.

PUBLICATIONS

Data-Based Papers

- 2017
1. **Al-Zaiti SS**, Sejdic E, Nemeč J, Callaway C, Soman P, Lux R. Spatial Indices of Repolarization Correlate with Non-ST Elevation Myocardial Ischemia in Patients with Chest Pain. *Medical & Biological Engineering & Computing*, 1-12, doi.org/10.1007/s11517-017-1659-1.
 2. **Al-Zaiti SS**, Alrawashdeh, M., Martin-Gill, C., Callaway, C., Mortara, D., & Nemeč, J. Evaluation of Beat-to-Beat Ventricular Repolarization Lability from Standard 12-Lead ECG during Acute Myocardial Ischemia. *Journal of Electrocardiology*, 50(6):717-724
 3. **Al-Zaiti SS**, Saba, S., Pike, R., Williams, J., & Khraim, F. Arterial Stiffness is Associated with QTc Interval Prolongation in Patients with Heart Failure. *Biological Research for Nursing*, doi:1099800417737835.
 4. Alhamaydeh M, Khraim, F, Saba S, & **Al-Zaiti SS**. The Deleterious Effects of Atrial Fibrillation in Heart Failure. *Journal for Nurse Practitioners*, In Revision.
- 2016
5. **Al-Zaiti, S. S.**, & Magdic, K. S. Paroxysmal Supraventricular Tachycardia: Pathophysiology, Diagnosis, and Management. *Critical Care Nursing Clinics of North America*, 28(3), 309-316.
- 2015
6. **Al-Zaiti SS**, Martin-Gill C, Sejdic E, Al-Rawashdeh M, and Callaway CW. Rationale, Development, and Implementation of Electrocardiographic Methods for the Prehospital Identification of Non-ST Elevation Myocardial Infarction (EMPIRE). *Journal of Electrocardiology*, Vol. 48(6):921-6.
 7. **Al-Zaiti SS**, Callaway CW, Kozik TM, Carey MG, & Pelter MM. Clinical Utility of Ventricular Repolarization Dispersion for Real-Time Detection of Non-ST Elevation Myocardial Infarction in Emergency Departments. *Journal of American Heart Association*, Vol. 4(7). pii: e002057.
 8. **Al-Zaiti SS**, Rittenberger JC, Reis SE, & Hostler D. Electrocardiographic responses during fire suppression and recovery among experienced firefighters. *Journal of Occupational and Environmental Medicine*, Vol. 57(9):938-42.

- 2014 9. **Al-Zaiti SS**, Carey MG, Canty Jr. JM, & Fallavollita JA. The Prognostic Value of Discordant T waves in Lead aVR: A Simple Risk Marker of Sudden Cardiac Arrest in Ischemic Cardiomyopathy. *Journal of Electrocardiology*, Vol. 48(5):887-92.
- 2014 10. Liao L, **Al-Zaiti SS**, and Carey MG. Depression and heart rate variability in firefighters. *SAGE Open Medicine*; Vol. 2: pii: e2050312114545530.
11. **Al-Zaiti SS**, Fallavollita JA, Wu YW, Tomita MR, & Carey MG. Electrocardiogram-Based Predictors of Clinical Outcomes: A Meta-Analysis of the Prognostic Value of Ventricular Repolarization. *Heart & Lung: The Journal of Acute and Critical Care*. Vol. 43(6):516-26.
12. **Al-Zaiti SS** & Carey MG. The Prevalence of Clinical and Electrocardiographic Risk Factors of Cardiovascular Death among On-Duty Professional Firefighters. *Journal of Cardiovascular Nursing*, Vol. 44(1):59-62.
13. **Al-Zaiti SS**, Carey MG, Fallavollita JA, & Canty JM. Electrocardiographic Predictors of Sudden and Non-Sudden Cardiac Death in Ischemic Cardiomyopathy. *Heart & Lung: The Journal of Acute and Critical Care*. Vol. 43(6):527-33.
- 2013 14. **Al-Zaiti SS**, Shusterman V, & Carey MG. Novel Technical Solutions for Wireless ECG Transmission and Analysis in the Age of the Internet Cloud. *Journal of Electrocardiology*. Vol. 46(6):540-45.
- 2012 15. Carey MG, **Al-Zaiti SS**, Canty Jr. JM, & Fallavollita JA. High-Risk Electrocardiographic Parameters are Ubiquitous in Patients with Ischemic Cardiomyopathy. *Annals of Noninvasive Electrocardiology*. Vol. 17(3):241-251.
- 2011 16. **Al-Zaiti SS**, Runco KN, & Carey MG. Increased T-Wave Complexity Can Indicate Subclinical Myocardial Ischemia in Asymptomatic Adults. *Journal of Electrocardiology*. Vol. 44(6):684-8.
17. Carey MG, **Al-Zaiti SS**, Dean GE, Sessanna L, & Finnell DS. Sleep Problems, Depression, Substance Use, Social Bonding, and Quality of Life in Professional Firefighters. *Journal of Occupational & Environmental Medicine*. Vol. 53(8):928-933.
18. Carey MG, **Al-Zaiti SS**, Liao LM, Martin HN & Butler RA. A Low-Glycemic Nutritional Fitness Program to Reverse Metabolic Syndrome in Professional Firefighters. *Journal of Cardiovascular Nursing*. Vol. 26(4):298-304.
- 2010 19. Carey MG, Luisi AJ, Baldwa S, **Al-Zaiti SS**, Veneziano MJ, deKemp RA, Canty JM, & Fallavollita JA. The Selvester QRS Score is More Accurate than Q Waves and Fragmented QRS Complexes Using the Mason-Likar configuration in Estimating Infarct Volume in Patients with Ischemic Cardiomyopathy. *Journal of Electrocardiology*. Vol. 43(4):318-325.

Invited Editorials & Reviews

- 2016 20. **Al-Zaiti SS**, & Magdic KS. Paroxysmal Supraventricular Ventricular Tachycardia: Pathophysiology, Diagnosis, & Management. *Critical Care Nursing Clinics*, 28(3), 309-316.
- 2015 21. **Al-Zaiti SS**. Inflammation-Induced Atrial Fibrillation: Pathophysiological Perspectives and Clinical Implications. *Heart & Lung*. Vol. 44(1):59-62.

- 2011 **22. Al-Zaiti SS, Khasawneh MK, & Carey MG.** Syncope: An Uncommon Presentation of Ischemic Cardiomyopathy. *Journal for Nurse Practitioners*. Vol. 7(5):385-391.
ECG Challenge Editorials
- 2017 **23. Kozik TM, Al-Zaiti SS, Carey MG, & Pelter MM.** Predictive Pattern for Acute Myocardial Infarction. *American Journal of Critical Care*. Vol. 26(3):257-8.
- 24. Pelter MM, Kozik TM, Al-Zaiti SS, & Carey MG.** Similar ECG Features in 2 Different Diagnoses. *American Journal of Critical Care*. Vol. 26(2):169-70.
- 25. Al-Zaiti SS, Pelter MM, Kozik TM, & Carey MG.** A Rare Disease With Cardiac Involvement. *American J of Critical Care*. Vol. 26(1):89-90.
- 2016 **26. Carey MG, Kozik TM, Pelter MM, Al-Zaiti SS.** Ventricular Ectopy in Hospitalized Elderly Adults. *American Journal of Critical Care*. Vol. 25(6):565-6
- 27. Kozik TM, Carey MG, Al-Zaiti SS & Pelter MM.** Repolarization Alterations in a Genetic Disorder. *American Journal of Critical Care*. Vol. 25(5):465-6.
- 28. Pelter MM, Kozik TM, Al-Zaiti SS, & Carey MG.** Differential Diagnoses for Suspected ACS. *American Journal of Critical Care*. Vol. 25(4):377-8.
- 29. Al-Zaiti SS, Pelter MM, Kozik TM, & Carey MG.** Syncope With Profound Bradycardia. *American J of Critical Care*. Vol. 25(3):281-282.
- 30. Kozik TM, Charos GS, Al-Zaiti SS, Carey MG, & Pelter MM.** Symptomatic Bradycardia in a Healthy Older Adult. *American Journal of Critical Care*. Vol. 25(2):185-186.
- 31. Carey MG, Al-Zaiti SS, Kozik TM, Schell-Chaple H & Pelter MM.** QRS Amplitude Variation During Monitoring. *American Journal of Critical Care*. Vol. 25(1):97-8
- 2015 **32. Pelter MM, Kozik TM, Al-Zaiti SS, & Carey MG.** Bedside ECG Alarm Management. *American Journal of Critical Care*. Vol. 24(6):545-6.
- 33. Al-Zaiti SS, Crago EA, Hravnak M, Kozik TM, Pelter MM, & Carey MG.** ECG Changes During neurologic Injury. *American J of Critical Care*. Vol. 24(5):453-4.
- 34. Kozik TM, Carey MG, Al-Zaiti SS, & Pelter MM.** Drug Induced ECG Abnormalities. *American Journal of Critical Care*. Vol. 24(4):365-6.
- 35. Carey MG, Al-Zaiti SS, Kozik TM, & Pelter MM.** Post-Myocardial Infarction Arrhythmias. *American Journal of Critical Care*. Vol. 24(3):369-270.
- 36. Al-Zaiti SS, Kozik TM, Pelter MM, & Carey MG.** Prehospital 12-Lead ECGs and Delivery of Care. *American Journal of Critical Care*. Vol. 24(2):181-182.

- 2014
37. Kozik TM, Pelter MM. **Al-Zaiti SS**, & Carey MG. Heart-Rate Induced Conduction Defects. *American Journal of Critical Care*. Vol. 24(1):93-94.
38. Pelter MM, Kozik TM, **Al-Zaiti SS**, & Carey MG. Acute Coronary Syndrome ST-Segment Monitoring. *American Journal of Critical Care*. Vol. 23(6):503-4.
39. Carey MG, **Al-Zaiti SS**, Kozik TM, & Pelter MM. Asymptomatic Irregular Cardiac Rhythm. *American Journal of Critical Care*. Vol. 23(5):429-430.
40. **Al-Zaiti SS**, Hostler D, Kozik TM, Pelter MM & Carey MG. Repolarization Abnormalities in Young Athletes. *American J of Critical Care*. Vol. 23(4):345-346.
41. Kozik TM, Gurinder GS, Pelter MM. **Al-Zaiti SS**, & Carey MG. Chest pain After Acute Illness. *American Journal of Critical Care*. Vol. 23(3):267-8.
42. Carey MG, **Al-Zaiti SS**, Kozik TM, & Pelter MM. Holiday Heart Syndrome. *American Journal of Critical Care*. Vol. 23(2): 171-2.
43. Kozik TM, Pelter MM. **Al-Zaiti SS**, & Carey MG. T Wave Amplitude Changes. *American Journal of Critical Care*. Vol. 23(1): 85-86.
- 2013
44. **Al-Zaiti SS**, Carey MG, Kozik TM, & Pelter MM. Neonatal Cardiac Monitoring. *American Journal of Critical Care*; 2013, Vol. 22(6): 533-4.
45. Pelter MM, Kozik TM, **Al-Zaiti SS**, & Carey MG. Arrhythmias of Non-Cardiac Origin. *American Journal of Critical Care*; 2013, Vol. 22(5): 445-6.
46. **Al-Zaiti SS**, Carey MG, Kozik TM, & Pelter MM. Syncope and Cardiac Rhythms. *American Journal of Critical Care*; 2013, Vol. 22(4): 361-2.
47. Carey MG, Fan T, Pillow T, **Al-Zaiti SS**, Kozik TM, & Pelter MM. Emergency Evaluation of 12-Lead ECGs. *American Journal of Critical Care*. Vol. 22(3): 267-8.
48. Pelter MM, Kozik TM, **Al-Zaiti SS**, & Carey MG. Implantable Electrical Devices. *American Journal of Critical Care*; 2013, Vol. 22(2): 163-4.
49. Carey MG, **Al-Zaiti SS**, Kozik TM, & Pelter MM. ECG Interpretation Confounders. *American Journal of Critical Care*; 2013, Vol. 22(1): 537-8.
- 2012
50. Kozik TM, Pelter MM. **Al-Zaiti SS**, & Carey MG. Sudden Shortness of Breath and Anxiety. *American Journal of Critical Care*; 2012, Vol. 21(6): 453-4.
51. **Al-Zaiti SS**, Carey MG, Kozik TM, & Pelter MM. Indices of Sudden Cardiac Death. *American Journal of Critical Care*; 2012, Vol. 21(5): 365-6.
52. Pelter MM, Kozik TM, **Al-Zaiti SS**, & Carey MG. Impaired Impulse Formation. *American Journal of Critical Care*; 2012, Vol. 21(4): 293-4.

53. Carey MG, **Al-Zaiti SS**, Kozik TM, & Pelter MM. ECG Screening of Special Populations. *American Journal of Critical Care*; 2012, Vol. 21(3): 209-10.
54. Pelter MM, Kozik TM, **Al-Zaiti SS**, & Carey MG. Congenital Anomaly. *American Journal of Critical Care*; 2012, Vol. 21(2):131-2.
55. **Al-Zaiti SS**. Pelter MM, & Carey MG. A New Puzzler guide. *American Journal of Critical Care*; 2012, Vol. 21(1):68-70.
- 2011 56. Pelter MM, **Al-Zaiti SS**, & Carey MG. Coronary Artery Dominance. *American Journal of Critical Care*; 2011, Vol. 20(5):401-2.
57. Carey MG, **Al-Zaiti SS**. & Pelter MM. Computerized Algorithms. *American Journal of Critical Care*; 2011, Vol. 20(4):339-340.
58. **Al-Zaiti SS**. Pelter MM, & Carey MG. Exercise Stress Treadmill Testing. *American Journal of Critical Care*; 2011, Vol. 20(3):259-60.
59. Pelter MM, Carey MG, & **Al-Zaiti SS**. Bedside Monitoring for Transient Myocardial Ischemia. *American Journal of Critical Care*; 2011, Vol. 20(2):171-2.
- 2010 60. Carey MG, Pelter MM, & **Al-Zaiti SS**. Dynamic Conduction Defects. *American Journal of Critical Care*; 2010, Vol. 19(3):301-2.
61. Carey MG, **Al-Zaiti SS**, & Pelter MM. Asystole. *American Journal of Critical Care*; 2010, Vol. 19(1):84-5.

Published Abstracts & Proceedings

- 2015 62. Khraim F, Pike R, Williams J, & **Al-Zaiti SS**. "Abstract 15631: The Hemodynamic Determinants and Physiologic Correlates of QTc Interval Using Impedance Cardiography in Heart Failure." *Circulation* 132(Suppl 2): A15631
- 2014 63. **Al-Zaiti SS**, Sethi A, Carey MG, Canty JM, and Fallavollita JA. Temporal complexity of depolarization indicates myocardial sympathetic denervation and predicts sudden cardiac arrest in patients with ischemic cardiomyopathy and poor left ventricular ejection fraction. *Journal of Electrocardiology* 47(6): 910.
64. **Al-Zaiti SS**, Carey MG, Canty MJ, and Fallavollita JA. "Abstract 14269: The Role of Heart Rate Variability in Predicting Sudden and Non-Sudden Cardiac Death in Ischemic Heart Disease." *Circulation* 130(Suppl 2): A14269.
- 2013 65. **Al-Zaiti SS**, Fallavollita JA, Canty JM, and Carey MG. Predicting mortality using heterogeneity of ventricular repolarization: A meta-analysis. *Journal of Electrocardiology* 46(6): 616.
66. **Al-Zaiti SS**, Carey MG, Canty MJ, and Fallavollita JA. "Abstract 17920: The Prognostic Value of Positive T waves in Lead aVR: A Simple Risk Marker of Sudden and Non-Sudden Cardiac Death in Patients With Ischemic Cardiomyopathy and Poor Left Ventricular Ejection Fraction." *Circulation* 128(22): A17920.

67. Carey MG, Fallavollita JA, Canty MJ, and **Al-Zaiti SS**. "ECG Predictors of Mortality among Implantable cardioverter-Defibrillator Candidates For the Primary Prevention of Sudden Cardiac Death." *Journal of the American College of Cardiology* 61(10, Supplement): E616.
- 2010 68. Carey MG, **AL-Zaiti SS**, & Butler RA. Characteristics of the standard 12-lead Holter ECG in professional firefighters. 2010. *Computing in Cardiology*, Belfast, UK.
69. **Al-Zaiti SS**, Fallavollita JA, & Carey MG. Is the QRS-T angle a more sensitive marker of myocardial ischemia than ST-segment deviation? *Journal of Electrocardiology*; 2010, Vol. 43(6):640.
- 2009 70. Carey MG, & **Al-Zaiti SS**. Computer versus manual calculations of the spatial QRST angle. *Journal of Electrocardiology*; 2009, Vol. 42(6):608-9.

Presentations

*International (** indicates podium presentations)*

- 2017 1. ** Evaluation of Beat-to-Beat Ventricular Repolarization Lability from Standard 12-Lead ECG During Acute Myocardial Ischemia
International Society for Computerized ECG, St Simon Island, GA [Podium]
2. ** Spatial Indices of Repolarization Correlate with Non-ST Elevation Myocardial Ischemia in Patients with Chest Pain
International Society for Computerized ECG, St Simon Island, GA [Poster]
- 2016 3. Myocardial Ischemia and QRS-T Angle on the 12-Lead ECG.
International Society for Computerized ECG, Tucson, AZ [Poster]
- 2015 4. **The Clinical Significance of Fragmented QRS and Widened QRS-T Angle in Systolic Dysfunction: Novel Insights Using Impedance Cardiography.
Canadian Congress of Cardiology, Ontario, Canada [Podium]
5. **The Clinical Utility of Ventricular Repolarization Dispersion for Real-Time Detection of NSTEMI in Emergency Departments.
International Society for Computerized ECG, San Jose, CA [Podium]
- 2014 6. Increased Temporal Complexity of Depolarization Indicates Myocardial Sympathetic Denervation and Predicts Sudden Cardiac Arrest in Patients with Ischemic Cardiomyopathy and Poor Left Ventricular Ejection Fraction.
International Society for Computerized ECG, Atlantic Beach, FL [Poster]
- 2013 7. **Novel Technical Solutions for ECG Transmission: Clinical Perspectives.
International Society for Computerized ECG, San Jose, CA [Podium]
- 2012 8. Electrocardiographic Dispersion and Mortality: Meta-Analysis.
International Society for Computerized ECG, Birmingham, AL [Poster]
- 2011 9. **Novel T-wave Loop Morphology Descriptors can Predict Vulnerability to subclinical Myocardial Ischemia.
International Society for Computerized ECG, San Jose, CA [Podium]

- 2010 10. Is the QRS-T Angle a Sensitive Marker of Myocardial Ischemia?
International Society for Computerized ECG, Albuquerque, NM [Poster]
11. Stratifying Prehospital ECGs of ACS to Expedite Treatment Decisions at
Emergency Departments [Proposal Mentoring Workshop]
ISCE Scientific Summer School, Istanbul, Turkey
- 2009 12. Automated Versus Manual Calculations of Spatial QRST angle.
International Society for Computerized ECG, Panama City, FL [Poster]

National (** indicates podium presentations)

- 2016 1. Electrocardiographic Characteristics of Patients Evaluated at the Emergency
Department for a Chief Complaint of Chest Pain.
American Heart Association Scientific Sessions, New Orleans, LA [Poster]
2. **Repolarization Dispersion on the Prehospital 12-Lead ECG Predicts Ischemic
Myocardial Injury in Chest Pain Patients.
Eastern Nursing Research Society (ENRS), Pittsburgh PA [Podium]
3. **Widened QRS-T Angle on the Presenting 12-Lead ECG Suggests Non-ST
Elevation Myocardial Infarction in Patients with Chest Pain.
National Council on Undergraduate Research (NCUR), Asheville NC [Podium]
- 2015 4. **The Hemodynamic Determinants and Physiologic Correlates of QTc Interval
Using Impedance Cardiography in Heart Failure.
American Heart Association Scientific Sessions, Orlando, FL [Podium]
- 2014 5. **The Role of Heart Rate Variability in Predicting Sudden and Non-Sudden
Cardiac Death in Ischemic Cardiomyopathy.
American Heart Association Scientific Sessions, Chicago, IL [Podium]
6. **The Impact of Exertional Heat Stress on Cardiovascular Responses in Fire
Suppression and Recovery.
Council for the Advancement of Nursing Science, Washington DC [Podium]
- 2013 7. **The Prognostic Value of Positive T waves in Lead aVR: A Simple Risk Marker
of Sudden and Non-Sudden Cardiac Death in Patients with Ischemic
Cardiomyopathy and Poor Left Ventricular Ejection Fraction.
American Heart Association Scientific Sessions, Dallas, TX [Podium]
8. ECG Predictors of Mortality among Implantable Cardioverter-Defibrillator
Candidates For the Primary Prevention of Sudden Cardiac Death [Poster]
American College of Cardiology (ACC) Scientific Meeting, San Jose, CA
- 2010 9. **Metabolic Syndrome: Quantified and Reduced in Firefighters
Council for the Advancement of Nursing Science, Washington DC [Podium]
- 2010 10. Sleep Quality and Sleep Patterns of On-Duty Professional Firefighters.
Associated Professional Sleep Societies, San Antonio TX [Poster]

Regional (** indicates podium presentations)

- 2017 1. **EMPIRE: A smart detection system for rapid diagnosis of heart attacks
Pittsburgh Health Data Alliance 1st Annual Meeting, Pittsburgh PA [Podium]
- 2016 2. **Repolarization Dispersion on the Prehospital 12-Lead ECG Predicts Ischemic

- Myocardial Injury in Chest Pain Patients
American Heart Association Fellows Research Day, Pittsburgh PA [Podium]
- 2015 3. **Redefining Pretest Probability of Myocardial Ischemia Using Computerized Electrocardiography: Pilot Results
Nuclear Cardiology Research Seminars, University of Pittsburgh [Podium]
- 2014 4. **EMPIRE: Electrocardiographic Methods for the Prehospital Identification of Non-ST Elevation CoRonary Events
Emergency Research Seminar Series, University of Pittsburgh [Podium]
- 2013 5. **Classic ECG Risk Factors and Sudden Cardiac Death in PAREPET
Clinical & Translational Science Institute, University at Buffalo [Podium]
- 2012 6. **Electrocardiographic Dispersion Indicates Poor Myocardial Viability
Sigma Xi Day of Research Excellence, University at Buffalo [Podium]
- 2012 7. **Perspectives on Teamwork in Multidisciplinary Translational Research
Core Curriculum Seminars, Roswell Park Cancer Institute, NY [Podium]
- 2011 8. **Surveying & Assessing Firefighters Fitness & ECG (SAFFE): Public Health Perspectives
Brown Bag Seminars, School of Public Health, University at Buffalo [Podium]
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Research Mentoring

Postdoc Projects

Student Donald T Smith, PhD, RN, AG-ACNP-BC, FNP-C, FF/EMT-P
 Program Postdoc Fellow, University of Pittsburgh School of Nursing
 Grant NIH-NINR (T32NR008857)
 Years 2014–2016
 Project Title “Analyzing Safety, Effectiveness, and Outcomes of a 5-Level Triage System in the Prehospital Care Environment”

Role: co-mentor

PhD Dissertations

Student Mohammad Al-Rawashdeh, RN, MSN
 Program Ph.D. Scholar, University of Pittsburgh School of Nursing
 Grant Research Award, International Society of Heart & Lung Transplant (ISHLT)
 Years 2015–2017
 Dissertation “Clinicians’ Acceptance of Interactive Health Technologies to Support Patients’ Self-Management”

Role: committee member

DNP Capstones

Student Danielle R Schwimer, RN
 Program DNP Student, ACNP Program, University of Pittsburgh School of Nursing
 Grant NA
 Years 2016–2017
 DNP Project “A Protocol for QT monitoring in ICU patients”

Role: committee member

BSN Honor Thesis

Student Diana Rivero
 Program BSN Honors Program
 Grant CRDF Award, University of Pittsburgh
 Years 2016–2017
 BSN Thesis “Electrocardiographic abnormalities and their effect on Clinical Decision Making in patients presenting to the emergency department with chest pain”

Role: Thesis Chair

Undergraduate Research Mentorship Program (URMP)

Students Parker Landis (2017–2018)
 Victoria Tori (2017–2018)
 Diana L Rivero (2014–2017)
 Amber DeSantis (2016–2017)
 Kelsey Walden (2015–2016)
 Katherine G McCoy (2014–2015)
 Connor R McClellan (2014–2015)
 Lindsey R. Buchanan (2014–2015)
 Melinda M Douglas (2013–2015)
 Program BSN Program, University of Pittsburgh School of Nursing
 Project Title Multiple projects (SPEED, EMPIRE, and MID-EPIC)

Role: Research Mentor

Graduate Student Researchers (GSR)

Students Mohammad Al-Rawashdeh, RN, MSN (2014–2017)
 Heba Khalil, RN, MSN (2015–2016)
 Khalil Yousef, RN, MSN, PhD (2015–2016)
 Nicholas Scangas (2014–2015)
 Justin Bala-Hampton, RN, MPH (2013–2014)
 Program Graduate School (Nursing & Engineering), University of Pittsburgh
 Project Title Multiple projects (SPEED, EMPIRE, and MID-EPIC)

Role: Research Supervisor

Other Research Experiences

Abstract Reviewer

2016–Present American Heart Association (AHA) Scientific Sessions
 2014–Present Council on the Advancement of Nursing Science (CANS)
 2010–Present Sigma Theta Tau International (STTI)

Manuscript Reviewer

2016–Present Circulation: Cardiovascular Quality and Outcomes
 2016–Present Public Library of Science (PLoS One)
 2015–Present Critical Care
 2014–Present European Journal of Pacing, Arrhythmia, and Cardiac Electrophysiology (Europace)
 2013–Present Heart & Lung: Journal of Acute and Critical Care
 2013–Present Journal of Cardiovascular Nursing
 2011–Present American Journal of Critical Care
 2010–Present Journal of Electrocardiology

Grant Reviewer

2017 CTSI Biomedical Modeling Award, University of Pittsburgh
2016 Medical Research Council, (Ref # MR/P013279/1) United Kingdom

TEACHING

University of Pittsburgh (2013–2017)

Classroom Teaching

<i>Course Number & Title</i>	<i>No. of credits</i>	<i>Level</i>	<i>No. of Students</i>	<i># of Times Taught</i>
NUR 0088: Introduction to Basic Statistics for Evidence Based Practice	3	UG	~100	1
NUR 2004 / HRS 2004 / EPIDEM 2004: Advanced Pathophysiology Across the Life Span	4	Graduate	85	1

Web-Based Teaching

<i>Course Number & Title</i>	<i>No. of credits</i>	<i>Level</i>	<i>No. of Students</i>	<i># of Times Taught</i>
NUR 2078: Clinical Diagnostics	3	Graduate	5–8	3

Clinical Teaching

<i>Course Number & Title</i>	<i>Hrs/wk</i>	<i>Level</i>	<i>No. of Students</i>	<i># of Times Taught</i>
NUR 1134: Transition into Professional Nursing Practice	8	UG	5–10	2
NUR 1121: Advanced Clinical Problem Solving	8	UG	7–8	2

Laboratory Teaching

<i>Course Number & Title</i>	<i>Hrs/wk</i>	<i>Level</i>	<i>No. of Students</i>	<i># of Times Taught</i>
NUR 2031: Diagnostic Physical Exam Across the Lifespan	6	Graduate	6–8	6
NUR 0081: Foundations of Nursing Practice I	3	UG	8–12	1

Guest Lecturer

<i>Course Number & Title</i>	<i>Times Taught</i>	<i>Level</i>	<i>Topic</i>
BIOENG 2151: Medical Product Development	2	M.S.	Clinical Mentor: Cardiology
BIOENG 2150: Medical Product Ideation	2	M.S.	Clinical Mentor: Cardiology
NUR 3030: Professional Development	2	PhD	Keys of Success for Junior Faculty
NUR 0082: Nursing Care of Adults with Acute and Chronic Problem	4	BSN	Cultural Sensitivity: Nursing Education & Healthcare in Jordan

Continuing Education

<i>Topic</i>	<i># of Times Taught</i>	<i>No. of attendees</i>	<i>Level</i>	<i>Contact Hours</i>
A Guide for Basic 12-Lead EKG Interpretation	3	~10	RN(s), NP(s)	10
Coronary Artery Diseases: An Up-to-Date Review	2	~10	RN(s), NP(s)	3

SUNY, University at Buffalo (2010–2013)

Teaching Assistant

		No. of Students	Level	Format
2011–2012	NUR 478: Concepts of Complex Care	~100/term	BSN	Simulation
2011–2012	NUR 373: Basic Nursing Therapeutics	~100/term	BSN	Lab
2010–2011	NUR 309: Health Assessment Skills	~100/term	BSN	Lab

Guest Lecturer

		No. of Students	Level	Topic
2013	NUR 527: Research Evidence for Health Care II	~10	PhD	Introduction to Meta-Analysis
2012	NUR 527: Research Evidence for Health Care II	~10	PhD	Introduction to Survival Analysis
2012	OTE 522: Research Design & Methodology	~5	PhD	Secondary Dataset Analysis

Continuing Education

		No. of Students	Level	Contact Hours
2009–2010	Injection Workshop	~20	MDs	2

SERVICE

University of Pittsburgh

➤ Office of Community Partnership:

2015 Health Fair Coordinator, Hosted at the Universal Academy of Pittsburgh in Swissvale PA, and co-sponsored by UPMC Health Plan and Walgreens

➤ School of Nursing Committees:

2016–2017 PhD Rep., Admission, Progression, & Graduation Committee

2015–2017 Chair, Evaluation & Steering Committee (ESC)

2015–2017 ESC Rep., Planning & Budget Committee

2015–2017 ESC Rep., School-Wide Curriculum Committee

2014–2015 Member, Evaluation & Steering Committee

2013–2015 Member, Formal Hearing, Academic Integrity Committee

➤ Other School of Nursing Activities:

2015–Present Program Coordinator, Monthly ATC Research Meeting

2014–2015 PhD Handbook: A Guide for ATC Students for Moving Through the PhD Program Milestones & Preparing the Dissertation

Professional Organizations

➤ American Heart Association (AHA)

2016–2018 Elected Member, Early Career Committee

2016–Present Abstract Reviewer

➤ Eastern Nursing Research Society (ENRS)

2016–Present Abstract Reviewer

➤ Canadian Cardiovascular Congress (CCC)

2015 Discussion Moderator, Session: Nursing Education (Toronto, Canada)

➤ Council for the Advancement of Nursing Science (CANS):

2014–Present Abstract Reviewer

2014 Discussion Moderator, Session: Technology II (Washington DC)

➤ International Society of Computerized Electrocardiology (ISCE):

2013 Judge, Young Investigator Competition (San Jose CA)

2015–Present Elected Poster Chair

➤ American Journal of Critical Care (AJCC):

2010–Present Expert Column Writer, ECG Puzzler

➤ Sigma Theta Tau International (STTI) & Biennial Convention:

2010–2016 Abstract Reviewer

SUNY, University at Buffalo

➤ Graduate Student Association (GSA):

2011–2012 Treasurer, Middle Eastern Student Club (MESC)

2010–2011 Senator, Middle Eastern Student Club (MESC)