RESEARCH AND PROFESSIONAL INTERESTS

Experienced biomedical research scientist and science communicator with effective leadership and project management skills seeking to develop practical and translational approaches to clinical and basic research in neural function, hemodynamic monitoring, and military combat casualty medicine. I am a skilled educator of scientific research methods, publications, and grant processes in the medical and GME communities. Understanding of the technology transfer process, with multiple published patents.

EDUCATION

PhD	**University of Nebraska Medical Center** Cellular and Integrative Physiology Advisor: Dr. Irving H. Zucker, Department Chair ***The role of the renal nerves in normal physiology and during heart failure in conscious rabbits***
BS	**University of Nebraska Omaha** Biology Tri-Beta Biological Honors Society

ACADEMIC AND PROFESSIONAL POSITIONS

Chief, Physiology	Department of Clinical Investigation, 2022 - present Defense Health Agency Tripler Army Medical Center, Honolulu, HI Dr. Catherine Uyehara, Chief *Active Secret Security Clearance*
Program Director	CBY Resident Research Rotation University of Nebraska Medical Center Department of Anesthesiology, 2020 – present
Assistant Professor (tenure track)	Department of Anesthesiology, 2017 – 2022 1.0 FTE, 2022- present 0.1 FTE) University of Nebraska Medical Center Omaha, NE Dr. Steven Lisco, Chair
Director	Combat Casualty Care Medicine, 2017- 2022 University of Nebraska Medical Center Dr. Jennifer Larsen, Vice-Chancellor of Research (0.60 FTE 2017-2019, 0.30 FTE 2020, 0.15 FTE 2021)
Courtesy Assistant Professor	Cellular and Integrative Physiology, 2017 - present University of Nebraska Medical Center
Courtesy Assistant Professor	Internal Medicine, Division of Cardiology, 2020 – present University of Nebraska Medical Center

Courtesy Assistant Professor	College of Allied Health Professions, 2021 – present University of Nebraska Medical Center
Instructor	Department of Physiology, 2016-2018 University of Nebraska Medical Center

PROFESSIONAL TRAINING

ORISE Fellow to the Senior Scientist	**US Army Institute of Surgical Research** Office of the Senior Scientist, 2016 – 2017 Commander: Colonel Shawn C. Nessen, USAISR, MRMC Dr. Victor A. Convertino, Senior Scientist for USAISR, MRMC
Research Fellow	**University of Nebraska Medical Center** Department of Cellular and Integrative Physiology, 2015-2016 Dr. Irving H. Zucker, Department Chair, Physiology

ADDITIONAL EDUCATION

Dates	Program	University/Entity
2022	**Medical Simulation Instructor Course**	Tripler Army Medical Center
06/21 – 01/22	**Fundamentals of Clinical Research**, Certificate Program	Harvard Medical School
05/20 - 02/21	Foundation for Advanced Education in the Sciences, **Principles of Preclinical Translational Science,** MEDI 501, course	NIH, National Center for Advancing Translational Sciences (NCATS) Center
7/2018 -7/2019	**Data Visualization with Tableau,** non-credit Specialization Certificate (5 courses total)	UC Davis, via Coursera platform
06/2018	**Tableau Desktop 101,** Training Certificate	Tableau Software
09/19 – 09/20	**iLead Leadership Program,** year-long leadership development course	University of Nebraska Medical Center, Faculty Development

PATENTS

1. **Devices and methods for detecting and measuring sympathetic vasomotion.** Zucker IH, Schiller AM, Pellegrino PR, inventors; University of Nebraska., assignee. United States patent

US16/087,988. 2021 January 5 (active). European patent EP3432787A4 2019 January 30 (fully issued). Worldwide patent WO2017165500A1 2017 September 28 (fully issued). US10881303B2 - Devices and methods for detecting and measuring sympathetic vasomotion - Google Patents

2. **Time-varying quantification of capacitive and resistive arterial blood flow.** Zucker IH, Wang HJ, Chatzizisis I, Schiller AM, Pellegrino PR, inventors; University of Nebraska., assignee. United States patent US16/971,988. 2020 Dec 24 (fully issued). US20220218301A1 - Time-varying quantification of capacitive and resistive arterial blood flow - Google Patents

3. **Devices and Methods for the Event-Synchronized Quantification of Sympathetic Vasomotion.** Pellegrino, PR, Schiller AM, inventors; University of Nebraska., assignee. Docket 21032. 2020 October 26. *Patent pending*.

PUBLICATIONS

PEER-REVIEWED MANUSCRIPTS

Publications on PubMed

1. Devalaraja-Narashimha K, **Diener AM**, Padanilam BJ. Cyclophilin D gene ablation protects mice from ischemic renal injury. ***Am J Physiol Renal Physiol.*** 297:F749-59, 2009. PMID: 19553348

2. Devalaraja-Narashimha K, **Diener AM**, Padanilam BJ. Cyclophilin D deficiency prevents diet-induced obesity in mice. ***FEBS Lett.*** 585:677-82, 2011. PMID: 21276794

3. Haack KK, Gao L, **Schiller AM**, Curry PL, Pellegrino PR, Zucker IH. Central Rho kinase inhibition restores baroreflex sensitivity and angiotensin II type 1 receptor protein imbalance in conscious rabbits with chronic heart failure. ***Hypertension.*** 61:723-9, 2013. PMID: 23283363

4. **Schiller AM**, Haack KV, Curry PL, Zucker IH. Unilateral renal denervation restores autonomic balance in conscious rabbits with heart failure. ***Am J Physiol Regul Integr Comp Physiol.*** 305:R886-92, 2013. PMID: 24005248

5. Pellegrino PR, **Schiller AM**, Zucker IH. Validation of the pulse rate variability as a surrogate for heart rate variability in chronically instrumented rabbits. ***Am J Physiol Heart Circ Physiol.*** 307:H97-H109, 2014. PMID: 24791786

6. Mousa TM, **Schiller AM**, Zucker IH. Disruption of cardiovascular circadian rhythms in mice post myocardial infarction: relationship with central angiotensin II receptor expression. ***Physiol Rep.*** 2014 Nov; 2(11): e12210.
PMID: 25413327

7. Pellegrino PR, **Schiller AM**. Letter to the Editor: Does low-frequency power of heart rate variability correlate with cardiac sympathetic tone in normal sheep? ***Am J Physiol Heart Circ Physiol.*** 308(2):H146-147, 2015.
PMID: 25552629

8. Marcus NJ, Pugge C, Mediratta J, **Schiller AM**, Del Rio R, Zucker IH, Schultz HD. Exercise training normalized chemoreflex-mediated reduction of renal blood flow in heart failure. ***Am J Physiol Heart Circ Physiol.*** 2015 Jul 15;309(2):H259-66.
PMID: 26001414

9. **Schiller AM**, Pellegrino PR, Zucker IH. Role of the Renal Nerves in Heart Failure: Efferent and Afferent Mechanisms. ***Frontiers in Physiology***. 2015 Aug 7;6:224.
doi.org/10.3389/fphys.2015.00224. eCollection 2015.
PMID: 26300788

10. **Schiller AM**, Pellegrino PR, Zucker IH. Renal denervation increases renal blood flow variability in conscious rabbits. ***Am J Physiol Regul Integr Comp Physiol***. 2016 Jan 15;310(2):R156-66.
PMID: 26538235

11. Pugge C, Mediratta J, Marcus NJ, Schultz HD, **Schiller AM**, Zucker IH. Exercise training normalizes renal blood flow responses to acute hypoxic stress in experimental heart failure: beneficial effects due to changes in the α1-adrenergic receptor. ***J Appl Physiol***. 2016 Feb 1; 120(3):334-43.
PMID: 26607245

12. **Schiller AM**, Pellegrino PR, Zucker IH. Eppur Si Muove: The dynamic nature of physiological control of renal blood flow by the renal sympathetic nerves. ***Autonomic Neuroscience.*** 2016 Aug 3. DOI: 10.1016/j.autneu.2016.08.003.
PMID: 27514571

13. Pellegrino PR, **Schiller AM**, Haack KK, Zucker IH. Central angiotensin-II Increases blood pressure and sympathetic outflow via Rho kinase activation in conscious rabbits. ***Hypertension.*** 2016 Nov;68(5):1271-1280.
PMID: 27672026

14. **Schiller AM**, Howard JT, Convertino VA. The physiology of blood loss and shock: New insights from a human laboratory model of hemorrhage. ***Experimental Biology and Medicine***. Exp Biol Med (Maywood). 2017 Apr;242(8):874-883. DOI: 10.1177/1535370217694099.
PMID:28346013

15. Cornell LE, Greene W, Haich RO [….] **Schiller AM,** Convertino VA**.** Proceedings of the 4th Annual United States Army Institute of Surgical Research Summer Undergraduate Research Internship Program 2016. ***Journal of Translational Medicine***. 2017 Feb 22. 15(Suppl 2):192017 DOI: 10.1186/s12967-017-1117-8

16. Convertino VA, **Schiller AM**. Measuring the Compensatory Reserve to Identify Shock. ***Journal of Trauma and Acute Care***. 2017 Feb 15. *2017 Mar 22.* PMID: 28333834

17. Becker BK, *__Schiller AM__, Zucker IH, Eager EA, Bronner LP, Godfrey M. A day of immersive physiology experiments increases knowledge and excitement towards physiology and scientific careers in Native American students. ***Adv Physiol Educ.*** 2017 Mar 1;41(1):137-144. PMID: 28188201(*indicates shared first authorship)

18. Howard JT, Janak JC, Bukhman V, Robertson C, Frolov I, Nawn CD, **Schiller AM**, Convertino VA. The Neurovascular Complexity Index as a Potential Indicator of Traumatic Brain Injury: A Case Series Study. ***Journal of Trauma and Acute Care***. 2017 Jan 30. *J Trauma Acute Care Surg. 2017 Apr 5. DOI: 10.1097/TA.0000000000001477.* PMID: 28383469

18. **Schiller AM**, Howard JT, Lye KR, Magby CG, Convertino VA. Comparisons of Traditional Metabolic Markers and Compensatory Reserve as Early Predictors of Tolerance to Central Hypovolemia in Humans. ***Shock.*** 2017 Jul;50(1):71-77. PMID: 29049136

19. Suresh MR, Chung KK, **Schiller AM**, Holley AB, Howard JT, Convertino VA. Unmasking the Hypovolemic Shock Continuum: The Compensatory Reserve. ***J Intensive Care Med.*** 2018 Aug 1:885066618790537. PMID:30068251

20. **Schiller AM**, Hong J, Xia Z, Wang HJ. Increased Brain-derived Neurotrophic Factor in Lumbar Dorsal Root Ganglia Contributes to the Enhanced Exercise Pressor Reflex in Heart Failure Increased Brain-derived Neurotrophic Factor in Lumbar Dorsal Root Ganglia. ***Int J Mol Sci.*** 2019 Mar 24;20(6):1480. doi: 10.3390/ijms20061480. PMID: 30909643

21. Clarke MA, Sharma NM, **Schiller AM**. An Outreach Program Hands on Learning Generates Questions about STEM Career Expectations. ***Adv Physiol Educ***. 2019 Jun 1;43(2):175-179. doi: 10.1152/advan.00013.2019. PMID: 30998107

22. Evans C, Schlitzkus L, **Schiller AM**, Kamenskiy A, MacTaggart J. Comparison of Simulation Models for Training a Diverse Audience to Perform Resuscitate Endovascular Balloon Occlusion of the Aorta. ***Journal of Endovascular Resuscitation and Trauma Management.*** *(accepted ahead of print).*

23. Rodrigues PA, Markin NW, Nygen S, Ho D, Lisco SJ, **Schiller AM**. 3D Printing of Face Shields to Meet the Immediate Need for PPE in an Anesthesiology Department during the COVID-19 Pandemic. ***Am J Infect Control.*** 2020 Aug 4:S0196-6553(20)30762-8.

PMID: 32763350

24. Schlotman TE, Suresh MR, Koons NJ, Howard JT, **Schiller AM**, Cardin S, Convertino VA. Predictors of hemodynamic decompensation in progressive hypovolemia: Compensatory reserve versus heart rate variability. ***J Trauma Acute Care Surg.*** 2020 Aug;89(2S Suppl 2):S161-S168. PMID: 32044875

25. Pellegrino PR, Zucker IH, Chatzizisis Y, Wang HJ, **Schiller AM.** Quantification of Renal Sympathetic Vasomotion as a Novel Endpoint for Renal Denervation. ***Hypertension.*** 2020 Oct;76(4):1247-1255. Epub 2020 Aug 24. PMID: 32829663

26. Markin NW, Goergen N, Rodrigues PR, **Schiller AM.** Creation of an Anatomically Correct, Low-Cost, Intraosseous Line Placement Task Trainer. ***JoVE,*** Published: August 17, 2022 doi: 10.3791/62434 PMID: 36063006

27. Crawford AJ, Cassandra Hays CL, Schlichte S, Greer S, Mallard H, Singh S, Clarke MA, **Schiller AM.** Retrospective analysis of a STEM outreach event reveals positive influences on student attitudes towards STEM careers, but not scientific methodology ***Adv Physiol Educ.*** Sep 1;45(3):427-436. doi: 10.1152/advan.00118.2020. PMID: 34124952

28. Xia Z, Vellichirammal NN, Han L, Gao L, Boesen EI, **Schiller AM**, Pellegrino PR, Lisco SJ, Guda C, Zucker IH, Wang HJ. Cardiac Spinal Afferent Denervation Attenuates Renal Dysfunction in Rats with Cardiorenal Syndrome Type 2. ***JACC Basic Transl Sci.*** 2022 Jun 22;7(6):582-596. doi: 10.1016/j.jacbts.2022.02.008.eCollection 2022 Jun. PMID: 35818505

29. Xia Z, Han L, Pellegrino PR, **Schiller AM,** Harrold LD, Lobato RL, Lisco SJ, Zucker IH, Wang HJ. Safety and efficacy of renal denervation in patients with heart failure with reduced ejection fraction (HFrEF): A systematic review and meta-analysis. 022 Jan 31;8(1):e08847. doi: 10.1016/j.heliyon.2022.e08847. eCollection 2022 Jan. PMID: 35141435

SCIENTIFIC ABSTRACTS AND PRESENTATIONS

1. Rao V, Kwun J, Singaravelu K, **Diener AM**, Knechtle SJ, Padanilam BJ. PARP-1 Mediates Inflammation in Mouse Renal Transplants. **10th Annual American Transplant Congress Conference Meeting Poster Presentation**, San Diego, CA. (2010).

2. Cornelius RJ, **Diener AM**, Grimm PR, Holtzclaw JD, and Sansom SC. Role Of IC-ß Cell BK and H+-Atpase in Aldosterone-Enhanced K+ Secretion Of K+ Adapted Mice. **12th Annual Nebraska Physiological Society Meeting Poster Presentation.** Omaha, NE. (2010).

3. **Schiller AM**, Wang HJ, Zucker IH. Changes in Renal Blood Flow During Infusion of Phenylephrine and Norepinephrine in Rats With Chronic Heart Failure. **13th Annual Nebraska Physiological Society Meeting Poster Presentation.** Omaha, NE. (2011).

4. **Schiller AM**, Wang HJ, Zucker IH. Differential Adrenergic Signaling in The Regulation of Renal Blood Flow In Rats With Heart Failure. **FASEB J.** 2012, 26:1101.7.
   ***Poster Presentation –** Experimental Biology Conference **(**San Diego, CA).

5. **Schiller AM**, Wang HJ, Zucker IH. Differential Adrenergic Signaling in the Kidney During Chronic Heart Failure. **Midwest Student Biomedical Research Forum and Competition**, Creighton University, Omaha, NE. (2012).
   ****Oral Presentation*** – Physiology Section

6. **Schiller AM**, Haack KV, Curry PL, Zucker IH. Unilateral Renal Denervation Enhances Baroreflex Function in Conscious Rabbits. **American Physiological Society: Autonomic Regulation of Cardiovascular Function in Health and Disease Meeting Poster Presentation**. Omaha, NE. (2012)

7. **Schiller AM**, Haack KV, Curry PL, Zucker IH. Unilateral Renal Denervation Enhances Baroreflex Function in Conscious Rabbits with Chronic Heart Failure. **14th Annual Nebraska Physiological Society Meeting Poster Presentation**. Omaha, NE. (2012).

8. **Schiller AM**, Curry PL, Zucker IH. Unilateral Renal Denervation Enhances Baroreflex Function In Conscious Rabbits. High Blood Pressure Research Council, **Hypertension.** 2012, A608-A608.
   ****Poster Presentation*** – American Heart Association High Blood Pressure Conference (Washington, D.C.).

9. **Schiller AM**, Haack KV, Pellegrino PR, Zucker IH. Removal of the Renal Nerve Normalizes Sympathetic Tone in Conscious Rabbits with Chronic Heart Failure. **Midwest Student Biomedical Research Forum and Competition**, Creighton University, Omaha, NE (2013).
   ****Oral Presentation*** – Physiology Section Presentation Winner.

10. **Schiller AM,** Haack KV Haack, Pellegrino PR, Curry PL, Zucker IH. Unilateral Denervation Improves Autonomic Balance in Conscious Rabbits With Chronic Heart Failure. **FASEB J.** 2013, 27:927.16.
    ****Poster Presentation*** – Experimental Biology Conference (Boston, MA).
    ****Oral Presentation*** – Neural Control Autonomic Regulation Trainee Feature Topic Session.

11. Pellegrino PR, Haack KV, **Schiller AM**, Zucker IH. Central Rho Kinase Inhibition Restores Baroreflex Sensitivity and Cardiac Sympathovagal Balance in Rabbits with Chronic Heart Failure. **FASEB J.** 2013, 71:lb843.

12. Pellegrino PR, Haack KV, **Schiller AM**, Zucker IH. Central Rho Kinase Inhibition Attenuates the Pressor Effect of Angiotensin-II in Conscious Rabbits. **15th Annual Nebraska Physiological Society Meeting Poster Presentation.** Omaha, NE. (2013).

13. **Schiller AM**, Haack KV, Curry PL, Zucker IH. Renal Denervation Decreases A1 and B1 Adrenergic Receptor in The Renal Cortex of Rabbits with Chronic Heart Failure. **15th Annual Nebraska Physiological Society Meeting Poster Presentation.** Omaha, NE. (2013).

14. **Schiller AM**, Haack KV, Curry PL, Zucker IH (2013). Renal Denervation Decreases A1 Adrenergic Receptor Protein in The Renal Cortex of Rabbits with Chronic Heart Failure. **Federation of American Societies of Experimental Biology Summer Conference Series: Renal Hemodynamics Poster Presentation**, Saxton's River, VT. (2013).

15. **Schiller AM**, Haack KV, Curry PL, Zucker IH. Renal Denervation Decreases A1 Adrenergic Receptor Protein in The Renal Cortex of Rabbits with Chronic Heart Failure. **International Union of Physiological Sciences Poster Presentation**, Birmingham UK. (2013).

16. **Schiller AM**, Haack KV, Curry PL, Zucker IH. Renal Denervation Decreases A1 and B1 Adrenergic Receptor Protein in The Renal Cortex of Rabbits with Chronic Heart Failure. **International Society of Hypertension New Investigators' Symposium on Hypertension and Cardiovascular Disease Poster Presentation.** New Orleans, LA. (2013).

17. Haack KV, **Schiller AM**, Engebretsen B, Schultz HD. Utilizing the Nebraska Physiological Society outreach resource kit to enhance "PhUn Week" activities. **American Physiological Society Physiology Understanding (PhUn) Week Poster Session**, Experimental Biology Conference, Boston, MA. (2013).

18. **Schiller AM**, Haack KV, Zucker IH. Adaptation of physiology activities for pre-K-12 students. **American Physiological Society Physiology Understanding (PhUn) Week Poster Session**, Experimental Biology Conference, Boston, MA. (2013).

19. **Schiller AM**, Haack KV, Zucker IH. Unilateral Renal Denervation Decreases Adrenergic and Angiotensin II Type I Receptors in The PVN Of Rabbits With Chronic Heart Failure. **FASEB J.** 2014, 28:875.15.
    Poster Presentation – Experimental Biology Conference (San Diego, CA).
    Oral Presentation – Neural Control Autonomic Regulation Section Trainee Awards, Graduate Student Awardee.

20. Pellegrino PR, Haack KK, **Schiller AM**, Zucker IH. Rho Kinase Inhibition Attenuates the Autonomic Dysfunction Caused by Central Angiotensin-II Infusion In Conscious Rabbits. **Gordon Research Seminar & Conference on Angiotensin Poster Presentation**, Barga, LU, Italy. (2014).

21. Pellegrino PR, **Schiller AM**, Haack KK, Zucker IH. Rho Kinase Inhibition Prevents the Pressor and Sympathoexcitatory Effects Of Central Angiotensin-II Infusion In Conscious Rabbits. **Circulation.** 2014, 130:A15998-A15998.

22. **Schiller AM**, Pellegrino PR, Zucker IH. Renal Denervation Increases Renal Blood Flow Variability in Conscious Rabbits. **Nebraska Neuroscience Symposium Poster Presentation.** Omaha, NE. (2014).

23. Pellegrino PR, **Schiller AM**, Haack KK, Zucker IH. Rho Kinase Inhibition Prevents The Autonomic Dysfunction Caused By Central Angiotensin II. **Nebraska Neuroscience Symposium Poster Presentation**. Omaha, NE. (2014).

24. Becker BK, **Schiller AM**, Haack KV, Zucker IH. Using an interactive demonstration of the mammalian diving reflex to teach cardiovascular physiology to elementary students. **American Physiological Society Physiology Understanding (PhUn) Week Poster Session**, Experimental Biology Conference, San Diego, CA. (2014).

25. **Schiller AM**, Becker BK, Haack KV, Zucker IH. Interactive activities designed to teach respiratory physiology to elementary school students. **American Physiological Society Physiology Understanding (PhUn) Week Poster Session**, Experimental Biology Conference, San Diego, CA. (2014).

26. **Schiller AM**, Pellegrino PR, Zucker IH. Renal Denervation Increases Renal Blood Flow Variability in Conscious Rabbits. **FASEB J.** 2015, 29:658.6.
***Poster Presentation –** Experimental Biology Conference **(**Boston, MA).

27. **Schiller AM**, Becker BK, Zucker IH. Perceptions of students from Nebraska and South Dakota Native American reservations on scientific related careers before and after participation in physiology based outreach activities. **American Physiological Society Physiology Understanding (PhUn) Week Poster Session**, Experimental Biology Conference, Boston, MA. (2015).

28. Becker BK, **Schiller AM**, Zucker IH. Assessing knowledge of and excitement toward physiology of Native American students following participation in a day of interactive physiology-based activities. **American Physiological Society Physiology Understanding (PhUn) Week Poster Session**, Experimental Biology Conference, Boston, MA. (2015).

29. Pellegrino PR, **Schiller AM**, Zucker IH. The Renal Sympathetic Nerves Exert a Time-Varying Influence on The Arterial Pressure-Renal Blood Flow Relationship in Healthy, Conscious Rabbits. **16th Annual Nebraska Physiological Society Meeting Poster Presentation**, Vermillion, SD. (2015).

30. **Schiller AM**, Pellegrino PR, Zucker IH. Acute Renal Denervation Increases the Time-Variance of The Renal Pressure-Flow Relationship in Anesthetized Rats. **16th Annual Nebraska Physiological Society Meeting Poster Presentation**, Vermillion, SD. (2015).

31. Marcus NJ, Pugge C, Mediratta J, **Schiller AM**, Del Rio, R, Zucker IH, Schultz HD. Exercise Training Attenuates Chemoreflex-Mediated Reduction of Renal Blood Flow in Heart Failure. **16th Annual Nebraska Physiological Society Meeting Poster Presentation**, Vermillion, SD. (2015).

32. **Schiller AM**, Pellegrino PR, Zucker IH. The Renal Nerves Decrease Renal Blood Flow Variability by Buffering Arterial Pressure Oscillation in Conscious Rabbits. **International Academy of Cardiovascular Sciences (North American Section) Poster Presentation**, Omaha, NE. (2015).

33. Pellegrino PR, **Schiller AM**, Zucker IH. Central Angiotensin-II Raises Blood Pressure and Sympathetic Outflow Via the Rhoa/Rho Kinase Pathway In Conscious Rabbits. **International Academy of Cardiovascular Sciences (North American Section) Poster Presentation**, Omaha, NE. (2015).

34. Marcus NJ, Pugge C, Mediratta J, **Schiller AM**, Del Rio R, Zucker IH, Schultz HD. Exercise Training Attenuates Chemoreflex-Mediated Reductions of Renal Blood Flow in Heart Failure. **International Academy of Cardiovascular Sciences (North American Section) Poster Presentation**, Omaha, NE. (2015).

35. Pellegrino PR, **Schiller AM**, Haack KK, Zucker IH. Central Angiotensin-II Increases Renal Sympathetic Nerve Activity Via Rho Kinase Activation in Conscious Rabbits. **FASEB J.** 2016, 36:lb727. ***Poster Presentation* –** Experimental Biology Conference **(**San Diego, CA).

36. **Schiller AM**, Becker BK, Bronner L, Soper K, Zucker IH, Godfrey M. Recruitment and Training of a Volunteer team with Varying Levels of Outreach Experience. **American Physiological Society Physiology Understanding (PhUn) Week Poster Session**, Experimental Biology Conference, San Diego, CA. (2016).

37. Becker BK, **Schiller AM**, Bronner L, Soper K, Zucker IH, Godfrey M (2016). Planning of a One Day, Special Community Event Designed to Communicate Physiology to Native American Indian Middle and High School Students**. American Physiological Society Physiology Understanding (PhUn) Week Poster Session**, Experimental Biology Conference, San Diego, CA. (2016).

38. **Schiller AM**, Becker BK, Zucker IH, Godfrey M. Interactions with Volunteers at a Day of Hands-On Physiology Demonstrations Increases Interest in Scientific Careers in a Native American Indian Population of Middle and High School Students. **FASEB J.** 2016, 30: lb756.
***Poster Presentation* –** Experimental Biology Conference (San Diego, CA).

39. Becker BK, **Schiller AM**, Zucker IH, Godfrey M. A Day of Hands-On Physiology Demonstrations Increases Understanding of and Excitement Towards Physiology in a Native American Indian Population of Middle and High School Students. **FASEB J**. 2016, 30: lb757.

40. Lye KE, **Schiller AM**, Convertino VA. Effectiveness Of R-To-R Interval Variability Analysis In Distinguishing Mechanisms Of Autonomic Control Of Heart Rate During Exercise And Hemorrhage. **United States Army Institute of Surgical Research Summer Undergraduate Research Internship Program Poster Session**, JBSA Fort Sam Houston, San Antonio, TX. (2016).

41. Lye KE, **Schiller AM**, Convertino VA. A New Way to Measure Physical Exertion: The Compensatory Reserve. **Kinesiology Capstone Project Presentations and Poster Session**. Texas Lutheran University, Seguin, TX. (2016).

42. Convertino VA, Howard JT, **Schiller AM**. Specifity of Compensatory Reserve vs SMO_2, Lactate and $ETCO_2$ as Early Predictors of Tolerance to Progressive Reductions in Central Blood Volume. ***FASEB J.*** Chicago, Il. (2017).
Poster Presentation – Experimental Biology Conference **(**Chicago, IL).

43. Howard JT, Janak JC, Bukhman V, Robertson C, Frolov I, Nawn CD, Schiller AM, Convertino VA. Neurovascular Complexity Index: A Potential Quantitative Measure for Assessment of Traumatic Brain Injury. ***FASEB J.*** Chicago, Il. (2017).
Poster Presentation – Experimental Biology Conference **(**Boston, MA).

44. **Schiller AM**, Sosnov JA, Anderson DM, Suresh MR, Workman E, Wood L, Convertino VA, Howard JT. Big Data in Clinical Research: Big Problems, Bigger Potential. **Poster Presentation at Military Health System Research Symposium.** Fort Lauderdale, FL. (2017).

45. **Schiller AM**, Howard JT, Magby CG, Lye KE, Convertino VA. Compensatory Reserve is a Superior Predictor of Hemodynamic Decompensation in hemorrhage Compared to Traditional Vial Signs and Metabolic Measurements. **Poster Presentation at Military Health System Research Symposium**. Fort Lauderdale, FL. (2017).

46. Howard JT, **Schiller AM**, Magby CG, Lye KE, Convertino VA. Comparison of Measures of Compensatory Reserve and Heart Rate Variability and Complexity as Early Predictors of Hemodynamic Decompensation in Simulated Hemorrhage. **Poster Presentation at Military Health System Research Symposium. Fort Lauderdale, FL.** (2017).

47. Craig MC, Chung KK, Convertino VA, Howard JT, **Schiller AM**, Eastridge BJ. Compensatory Reserve is an Early Predictor of Shock, Positive Lactate Findings, Blood Transfusion, Need for Life-Saving Interventions and Mortality. **Poster Presentation at Military Health System Research Symposium. Fort Lauderdale, FL.** (2017).

48. Pellegrino PR, **Schiller AM**, Wang HJ, Chatzizisis Y, Zucker IH. Functional Renal Denervation Decreases Renal Vascular Control Quantified by Pressure-Flow Monitoring in Swine.
49. ***JACC*** 71 (11S), A1179-A1179. 2018. ****Poster Presentation –*** American College of Cardiology Meeting (Orlando, FL).

50. Xia Z, Han L, **Schiller AM,** Pellegrino PR, Lisco SJ, Zucker IH, Wang HJ. Cardio-Renal Syndrome Type 2: The Role of the Cardiac Spinal Afferent Reflex. ***FASEB J*** 33 (S1), 564.3-564.3. 2019. ****Poster Presentation –*** Experimental Biology Conference **(**San Diego, CA).

51. Schlotman TE, Howard JT, Suresh M, Koons NJ, **Schiller AM**, Convertino VA. Measures of Compensatory Reserve are More Sensitive and Specific than Heart Rate Variability as Early Predictors of Hemodynamic Decompensation. **The FASEB Journal 33 (S1),** 838.9-838.9 2019. ****Poster Presentation –*** Experimental Biology Conference **(**San Diego, CA).

52. Clarke MA, Sharma NM, **Schiller AM.** Physiology Themed Outreach Event with Multiple Career Level Scientists Generates Student Inquiries about Scientific Content and STEM Careers. **FASEB J** 33 (S1), 766.16-766.16. 2019. ****Poster Presentation –*** Experimental Biology Conference **(**San Diego, CA).

53. Armijo PR, Bonthu S, **Schiller AM**, Zhu Q, Tanner T.
Use of Machine Learning for Surgical Outcomes Research: what are the clinical implications? **Journal of Clinical and Translational Science** 4 (s1), 52-52. 2020.

54. Armijo PR, **Schiller AM**, Markin NW, Uyehara C, Ho D. Assessment of Procedural Skills Acquisition of Intraosseous Line Placement in the Military and Academic Environments: What is the Relevance of Different Endpoints? **Military Health System Research Symposium Poster Presentation. Fort Lauderdale, FL.** (2020).

55. **Schiller AM,** Armijo PR, Clarke MA, Markin NW, Uyehara C, Ho D. Perceived training needs and readiness for medical procedures used during deployment vary between levels of military leadership and training experience. **Military Health System Research Symposium Poster Presentation. Fort Lauderdale, FL.** (2020).

56. Markin NW, Armijo PR, Uyehara C, Ho D, **Schiller AM**. Adaptation of a low-cost, high-fidelity 3D printed task trainer for military use. **Military Health System Research Symposium. Fort Lauderdale, FL.** (2020). ***selected for oral podium presentation**

57. Pellegrino PR, Zucker IH, Chatzizisis Y, Wang HJ, **Schiller AM.** Renal Sympathetic Denervation Does Not Consistently Affect Renal Input Impedance. **The FASEB Journal** 35 (S1). 2021. ****Poster Presentation –*** Experimental Biology Conference **(**virtual).

58. Clarke MA, Schiller AM. Using Physiology to Enhance Understanding of The Scientific Method. **FASEB J** 34 (S1), 1-1. 2020. ****Poster Presentation –*** Experimental Biology Conference **(**virtual).

59. **Schiller AM,** Pellegrino PR, Zucker IH. Hemorrhage Increases Renal Sympathetic Vasomotion in Conscious Rabbits. **Anesthesia and Analgesia** Vol. 134, pp.1144-1145 (2022). International Anesthesia Research Society, Annual Meeting, Honolulu, HI**. *selected for oral presentation**.

60. Pellegrino PR, Zucker IH, Chatzizisis Y, Wang HJ, **Schiller AM.** Catheter-Based Radiofrequency Renal Denervation Eliminates Renal Sympathetic Vasomotion. ***JACC*** 79 (9_Supplement), 626-626 (2022) ***oral podium presentation, American College of Cardiology Meeting, Washington, DC.**

61. Pellegrino PR, Fuller R, **Schiller AM.** Digital Block Demonstrates the Importance of Sympathetic Control of the Digital Circulation: a Case Report. **Second Annual Department of Anesthesiology Celebration of Research Poster Presentation,** Omaha, NE. (2022).

62. Wood, L. Pellegrino PR, Fuller R, **Schiller AM.** Laser Speckle Imaging as a Non-Invasive Tool for the Treatment of Sympathetically Mediated Pain: A Case Study. **American Associate of Pain Medicine Meeting Poster Presentation,** Houston, TX. (2023).

63. Rodrigues PR, Lowndes BR, **Schiller AM.** Blended Research Curriculum for Adult Learners: A Pilot Study. **Heartland Interprofessional Research Conference**, Omaha, NE (2023).
***Selected for featured oral presentation**

64. Pellegrino PR, Fuller R, **Schiller AM.** Multimodal Monitoring of Sympathetic Nervous System Outflow in a Patient Undergoing Lumbar Sympathetic Blockade: A Case Study. 22nd Annual Pain Medicine Meeting, New Orleans, LA. (2023). *Accepted, scheduled for presentation.*

BOOK CHAPTERS

Schiller AM. Recording renal blood flow in an anesthetized rat. *Experimental Biology Techniques: Insights into Overcoming Challenges* (2013). People's Medical Publishing House (China).

PRINT RESOURCES

Becker BK**, Schiller AM.** "PhUn Day" Booklet. A collection of 9 interactive exercises, background information and a certificate of completion to correspond with event activities used for "PhUn Day 2015" in South Sioux City, NE. This resource was provided to approximately 350 children/50 educators to be used at the day-long event. The PDF version can be found here: http://www.unmc.edu/physiology/nps/outreach/PhUnDay.pdf, and is free to use and distribute.

OTHER PUBLISHED MATERIALS

2019 Online canvas course, the University of Nebraska Medical Center. Co-director and co-creator of HPTT 623: Leadership in Health Professions Education. A graduate level 3 credit hour course.

SCIENTIFIC EDUCATION-BASED PRESENTATIONS

Lead Co-organizer and Presenter, Department of Clinical Investigation Research Education Series. Four four-hour didactic and hands-on workshops intended for trainees or others interested in research at Tripler Army Medical Center Hospital, Honolulu, HI.

"What are the Different Types of Research?" and "Where Does My Research Fit?" (February 2023)

"How to Write an Abstract" (March 2023)

"How to Compose and Present a Scientific Poster" (April 2023)

Presenter, Internal Medicine Resident Education Seminar, Tripler and VA Medical Residents, Tripler Army Medical Center, Honolulu, HI.

"How to Prepare for and Write a Scientific Abstract" (July 2023).

FORMAL PRESENTATIONS AS DIRECTOR OF COMBAT CASUALTY CARE, UNIVERSITY OF NEBRASKA MEDICAL CENTER, OMAHA, NE

2021 **Presenter,** Congressional Staffers visit, "Medical Simulation at UNMC"

2019 **Presenter**, visit from the Army Surgeon General, Dorothy Hogg and staff "Advances in REBOA Catheter Placement Technology"

2018 **Presenter**, Fort Detrick, Maryland, Director Combat Casualty Care, Col Michael Davis and staff, United States Army "Educational Methods for Teaching REBOA"

2018 **Presenter,** Rear Admiral Darin Via, Deputy Chief for Readiness and Health Bureau of Medicine and Surgery, US Navy "Advances in REBOA Catheter Technology"

2018 **Presenter**, Congressional Staffers visit, "Advances in REBOA Catheter and Placement Technology"

2018 **Presenter**, Cassidy, and Associates, Federal Lobbying Firm. "Devices for non-assisted Intubation, Hemorrhage Control and Medical Procedure Training"

INVITED PROFESSIONAL PRESENTATIONS

Session Speaker, A Salute to Military Research, Tripler Army Medical Center, Honolulu, HI (2023) "Sympathetic Vasomotion: Past, Present and Future Directions"

Session speaker, Research Education Workshop, Tripler Army Medical Center, Honolulu, HI (2023). **"**GME Resident scientific research education and curriculum"

Session speaker, Celebration of Research, Department of Anesthesiology, University of Nebraska Medical Center, Omaha, NE (2021). "Hemorrhage Increases Sympathetic Vasomotion in Conscious Rabbits."

Keynote session speaker and workshop leader, Child Health Research Institute Research Forum, Children's Hospital, Omaha, NE (2021). "Data Visualization Best Practices" Two-hour workshop.

Faculty Development Education Session, University of Nebraska Medical Center**,** Omaha, NE (2020). "Work Smart: Negotiation Strategies" Two-hour workshop.

Faculty Development, University of Nebraska Medical Center, Omaha, NE (2020). "Story Telling with Data" Two-hour workshop.

Invited Demonstration, Tripler Army Medical Center, Department of Clinical Investigation, Honolulu, HI (2020).
"Assessments of Skills Readiness using Simulation"

Invited Presentation, Tripler Army Medical Center, Department of Clinical Investigation, Honolulu, HI (2020).
"A Data-Driven Alternative Approach to Live Tissue Training for Military Medics: Use of a High-Fidelity Anatomic Scan-based Task Trainer"

Keynote Speaker, Methodist Health System Research Symposium, San Antonio, Texas (2019).
"Research Collaborations between Academic and Health Care Environments".

Keynote Speaker, Indiana Physiological Society Annual Meeting, Greencastle Indiana (2016).
"*Research Advocacy: Difficult Topics – Animals in Research*"

Invited Seminar Speaker, University of Mississippi Medical Center, Jackson Mississippi (2016).
"*The Role of Renal Nerves in Normal Physiological and Heart Failure States in the Conscious Rabbit*"

PhUn (Physiology Understanding) Day, Marina Inn Convention Center, South Sioux City, NE (2015).
"Volunteer and Teacher Resources Available to have PhUn"

Nebraska Association of Teachers of Science Annual Meeting, Fremont, NE (2014).
"Resources and Vernier Equipment Available for Teacher Use"

Student Senate at-Large Meeting, University of Nebraska Medical Center, Omaha, NE (September 2013).
"*What is Sequestration, and how can it affect our university?"*

Nebraska Physiological Society Meeting, Wayne State University, Wayne, NE (October 2012).
"*Current Science Policy and Advocacy Issues*"

Nebraska Physiological Society Meeting, Wayne State University, Wayne, NE (October 2012).
"*Questions About Current Science Policy Issues*" Table discussion leader

UNIVERSITY OF NEBRASKA MEDICAL CENTER SEMINARS:

Department of Cellular and Integrative Physiology, 1-hour Seminar (April 2015).
"*The Role of Renal Nerves in Normal Physiological and Heart Failure States in the Conscious Rabbit*"

Department of Cellular and Integrative Physiology, 15-minute Talk (December 2014).
"Unilateral Renal Denervation Decreases Adrenergic and Angiotensin II type I Receptors and mRNA in the PVN of Rabbits with Chronic Heart Failure"

Department of Cellular and Integrative Physiology, 15-minute Talk (February 2013).

"*Unilateral Renal Denervation Decreases Adrenergic and Angiotensin II type I Receptors in the PVN of Rabbits with Chronic Heart Failure"*

Department of Cellular and Integrative Physiology, 15-minute Talk (December 2012).
"*Unilateral Renal Denervation Restores Autonomic Imbalance in Conscious Rabbits with Chronic Heart Failure*"

Department of Cellular and Integrative Physiology, 1-hour Seminar (December 2012).
"Renal Denervation in the Treatment of Chronic Heart Failure"

Department of Cellular and Integrative Physiology, 1-hour Seminar (June 2012).
"*The Renal Nerves in Heart Failure*"

Department of Cellular and Integrative Physiology, 15-minute Talk (August 2011).
"*A Technique to Evaluate the Role of the Renal Nerves in Chronic Heart Failure*"

FUNDING

Ongoing/Current Funded GRANT/CONTRACT SUPPORT

Dates	Agency / Study	Total Dollars	Investigators
08/01/2017-Current	Startup Funds – Vice Chancellor of Research Office	$300,000.00	**Schiller**
5/19/2021-5/19/23	Collaborative Research and Development Agreement (CRADA) Clinical and Translational Research Program Office, US Army Medical Command and University of Nebraska Board of Regents	$351,000.00 in-kind support	Collaborating Party for NU System/Site **PI: Schiller**
3/2021	University of Nebraska Medical Center College of Medicine Educational Research Grant Intraosseous Line Placement Skills Transfer in Health Care Students	$2,300	PI: Rodrigues Armijo **Schiller (Co-I)**
3/2021	UNO WiSTEM Pro^2 Peer Collaboration Mini Grant The Center for Faculty Excellence, NASA Nebraska Space Grant	$500	**Desyatova and Schiller** (Peer collaborators)
09/2020 – 03/2022	DOD/USAMRMC/NSRI/TAMC FA4600-18-D-9001/ FA4600-20-F-0146	$142,08	**Schiller (PI)**

	Assessment and Training of Procedural Skills for Combat Casualty Care		
12/2019 - 03/22	Medtronic, Inc. ERP-2018-116-16 A Method for the Identification and Quantification of Sympathetic Vasomotion	$217,684	**Schiller (PI)**
9/2019 – 9/2020	United States Army Medical Research and Material Command, TATRC AAMTI EIF Increasing Procedural Simulation Repetitions while Reducing Cost and Live Animal use for Training Military Medics: Use of a Reclaimable Scan-based Task Trainer	$170,00 (highest scoring proposal in class)	PI: Dao, Ho **Schiller (Co-I)**
4/2020	University of Nebraska Medical Center, Department of Academic Affairs Intraosseous Line Placement, e-module	$1500.00	**PI: Schiller**
06/2019 – 06/2020	NIH-Great Plains-Translational Research Voucher Polypharmacy in Geriatric Practice versus Traditional Primary Care	$4,500	Byers (PI) **Schiller (Co-I)**
09/2018 - 09/2020	LRP VGDM5768 NIH Division of Loan Repayment Quantification of Sympathetic Vasomotion	$19,873	**Schiller (PI)**
07/2019	American Physiological Society Chapter Activity Grant Funds to support STEM outreach efforts for K-12 students in NE	$1,998	**Schiller (PI)**
1/2019 - 1/2020	NIH Great Plains-Clinical Translational Research Pilot Grant Development of Real-Time Clinical Data Visualization Tools through User-Centered Software Design	$17,365	**Schiller (PI)**
04/2018 – 9/2024	CDMRPL-18-0-DM180240	$2,032,601	Howard (PI)

	DOD - U.S. Army Medical Research and Material Command, Congressionally Directed Medical Research and Development Program, Precision Trauma Care Research Award A Novel Approach for Identifying Individual Responses to Tissue Oxygenation Challenges and Guided Intervention Using the Compensatory Reserve Measurement	(award declined due to recruitment to UNMC)	**Schiller (Co-I)**
08/2016 - 07/2017	Nebraska Research Initiative UNeMEd Proof of Concept Funding The Effects of Renal Denervation on Sympathetic Vasomotion in Anesthetized Swine	$215,34	Zucker (PI) **Schiller (Co-I, site PI)**
07/2014	American Physiological Society Chapter Activity Grant Funds to support STEM outreach efforts for K-12 students in NE	$1,998	**Schiller (PI)**
01/2013 - 01/2015	13PRE14700045 American Heart Association – National Center Sympathetic Control of Renal Blood Flow in Heart Failure	$46,235	**Schiller (PI)**

OTHER FUNDING

Dates	Agency / Study	Total Dollars	Investigators
1/2013-12/2014	University of Nebraska Medical Center Graduate Studies Recognition of External Funding Award	$8,880	**Schiller**
1/2011 - 2013	Cellular and Integrative Physiology Graduate Student Research Assistantship	$48,000	**Schiller**

SPECIALIZED TRAINING

Good Clinical Practice (GCP) Training: Certificate of Completion
U.S. Army Medical Material Development Activity

San Antonio, Texas, 2016

Making the CASE for Science: Policy and Advocacy Workshop
American Association for the Advancement of Science
Washington D.C., 2015.

Publication Ethics Training and Workshop
American Physiological Society
Orlando, FL, 2014.

Scientific Outreach and Advocacy Workshop
American Society of Biochemistry and Molecular Biology
University of Missouri, Columbia, MS, 2013.

Writing and Reviewing for Scientific Journals Workshop
American Physiological Society
Orlando, FL, 2013.

Integrated Organ and Systems Pharmacology (cardiovascular emphasis)
National Institutes of Health (NIH)
Omaha, NE, 2012.

Practicing Excellent Teaching Strategies "PETS", certificate of completion
Metropolitan Community College
Omaha, NE, 2012.

LOCAL SERVICE and LEADERSHIP

2021 - 2022	**Finance Officer**, American Association of University Women, Omaha, Branch
2019 - 2021	**President,** American Association of University Women, Omaha Branch
2018 - 2022	**Member,** American Association of University Women, Omaha Branch

INSTITUTIONAL SERVICE AND LEADERSHIP

TRIPLER ARMY MEDICAL CENTER (TAMC)
Honolulu, HI

2022-present	**Chair,** Scientific Review Committee
2022-present	**Member,** Scientific Review Committee
2022-present	**Co-Founder,** Simulation and Training Research Group (STAR)
2022-present	**Director and Organizer**, Research Education Workshop Series (reoccurs monthly for TAMC medical trainees)
2022	**Head organizer,** 25th Annual Bass Research Symposium and Competition for medical trainees.

UNITED STATES ARMY INSTITUTE OF SURGICAL RESEARCH (USAISR):
San Antonio, Texas

2016	**Booth volunteer**, Texas Science Fiesta
2016-2017	**Postdoc Career Communicator**, USAISR Postdoc Assn

UNIVERSITY OF NEBRASKA MEDICAL CENTER (UNMC):

2021-2022	**Chair**, Alice E. Cummings Award Committee

2021-2022	**Co-Chair,** IExcel Educational Research Committee
2021-2022	**Co-Chair**, Human Performance Research Group
2020-2020	**Member,** Physiology Department Recruitment Committee
2021-2023	**Member,** Graduate Student Grievance Committee
2020-2022	**Co-Chair,** Human Performance Research Group
2020-2022	**Committee member**, IACUC
2020- current	**Director,** Anesthesiology CBY Research Rotations
2020- current	**Director,** Anesthesiology CBY Research Education
2017 – 2018	**Chair,** Strategic Planning Committee, Dept of Anesthesiology, Research and Scientific Activity Strategic
2015	***Executive Organizer***, Inaugural Campus Leadership Summit Featuring Dr. Nancy Snyderman, NBC News Chief Medical Correspondent
2014-2015	***Vice President*** (15-month term) Student Senate Campus-wide Government
2014	***Initiating Creator***, Accredited Transferable Skills Certificate Program
2014-2015	***Student Committee Chair***, iExcel Guiding Coalition
2013-2015	***Student Representative***, eLearning Steering Committee
2014-2015	***Student Representative***, UNMC Student Health Committee
2014	***Committee Organizer***, LCME Accreditation Team
2014-2015	***Student Representative***, Dashboard Development Committee
2013	***Interviewer***, UNMC High School Alliance
2013	***Treasurer***, UNMC Student Senate
2012-2013	***Student Representative***, Graduate Studies Grievance Council
2010-2013	***Member,*** Graduate Student Association

PROFESSIONAL SERVICE

2023	***Abstract Reviewer,*** Celebration of Research, Department of Anesthesiology, Nebraska Medical Center
2023	***Abstract Reviewer***, James Bass Resident Research Competition, Tripler Army Medical Center, Honolulu, HI
2021	***Judge***, James Bass Resident Research Competition, Tripler Army Medical Center, Honolulu, HI
2019, 2021	***Judge,*** Greater Nebraska Science and Engineering Fair, Nebraska City, NE.
2016	***Poster Session Judge***, MHSRS Annual Meeting, Physiological Monitoring Section
2016	***Abstract Reviewer***, MHSRS Annual Meeting, Physiological Monitoring Section
2016-17	***Session Presenter***, Vodecker Biosciences Teacher Academy
2016	***Workshop Organizer***, Expanding your Horizons Women's Conference
2015-17	***Abstract Reviewer,*** NCAR Annual Awards, American Physiological Society
2014	***Tour Guide***, Experimental Biology Meeting Student/Teacher Workshop
2013-2015	***Judge,*** Bruce Undergraduate Awards, American Physiological Society
2013-Present	***Committee Member***, Science Policy Committee, American Physiological Society
2013	***Volunteer,*** Midwest Student Biomedical Research Forum
2007, 2013	***Judge,*** Metropolitan Science and Engineering Science Fair
2007	***Mentor,*** Expanding your Horizons Women's Conference

NATIONAL COMMITTEE SERVICE

2013-2016 **Elected Member, *Science Policy Committee,*** *elected member (3 year-term)*
American Physiological Society, Bethesda, MD.
Term included active education and discussion on current scientific policy-related issues including NIH funding climate, animal research and reproducibility in science. Participated in communication training and bi-yearly trips to Capitol Hill in Washington D.C. to meet with various state senators and representatives to discuss pertinent scientific issues.

2018-2020 **Policy Committee**, American Association of University Women, Policy Team

2018-2021 **Elected Member,** *Women in Physiology Committee, elected member (3 year-term)*
American Physiological Society, Bethesda, MD.

2020-2023 **Chair**, *Transition Committee*, Cardiovascular Section, American Physiological Society, Bethesda, MD.

SCIENTIFIC SESSIONS AND SYMPOSIA

2015 ***NCAR Trainee Special Topics and Award Winners***
Neural Control and Autonomic Regulation Section, American Physiological Society
Session Co-Chair
Experimental Biology Annual Meeting, San Diego, CA

2017 **Featured Symposium: Why Scientific Rigor Matters and Ways to Improve it**
Science Policy Committee, American Physiological Society
Session Co-Chair and Organizer
Experimental Biology Annual Meeting, Chicago, Il

2017 **Featured Topic: Neural and Hormonal Modulation of Fluid Balance and Ion Homeostasis in Health and Disease**
Water and Electrolyte Homeostasis Section, American Physiological Society
Session Co-Chair and Organizer
Experimental Biology Annual Meeting, Chicago, Il

2020 **Featured Symposium: APS Live: Mentoring Symposium: Imposters, Promoters, Leaders - The Scientific Struggles Session**
Women in Physiology Committee
Session Co-Chair and Organizer
Experimental Biology Annual Meeting (canceled) presented online. ~235 attendees.

2023 **Hot Topics in Cardiovascular Research**

Cardiovascular Section, American Physiological Society
Session Co-Chair
Experimental Biology Annual Meeting, Long Beach, CA

EDITORIAL REVIEW

Editorial board member	***Frontiers in Physiology***
Ad hoc reviewer	***Oxidative Medicine and Cellular Longevity***
Ad hoc reviewer	***Experimental Biology and Medicine***
Ad hoc reviewer	***American Journal of Physiology, Heart and Circulation***
Ad hoc reviewer	***Auckland Medical Research Foundation***
RFAs for e-modules	***University of Nebraska Medical Center E-learning Steering Committee***
Challenges for Federally Funded Research	***Federation of American Society of Experimental Biology***

AWARDS AND RECOGNITION

2015 ***Praesto Award***
University of Nebraska Medical Center, College of Graduate Studies
A nomination and merit-based award that is presented yearly to the most exceptional graduating student.

2015 ***Alice E. Cummins Memorial and Service Award***
University Nebraska Medical Center, Physiology Department
A nomination-based award that is presented to an outstanding student on a yearly basis.

2015 ***Dale J. Benos Early Career Professional Service Award***
American Physiological Society
The Dale J. Benos Early Career Professional Service Award honors an early career stage (graduate student, post-doctoral fellow, Assistant Professor or equivalent position) member of the American Physiological Society for outstanding commitment to service and outreach.

2015 ***Young Investigator Award***
Society of Experimental Biology and Medicine
Award based on scientific credentials and merit.

2014 ***Data Sciences International Outstanding Graduate Student Award***
Neural Control and Autonomic Regulation Section, American Physiological Society
Abstract and research accomplishments-based award. The winner gives and oral presentation at the annual American Physiological Society meeting.

2013 ***Graduate Student of Distinction***
University of Nebraska Medical Center, College of Graduate Studies
An honor presented to graduate students that have received national or international recognition in the form of a prestigious fellowship or award.

2013 ***Certificate of Presentation – Final Competition Round***
International Union of Physiological Sciences
Presented to students that advanced to the final round of poster competition at the International Union of Physiological Sciences meeting in Birmingham, UK.

2013 ***Travel Award, International Union of Physiological Sciences***
American Physiological Society
Merit based award to provide travel support to the International Union of Physiological Sciences meeting in Birmingham, UK.

2013 ***Caroline Tum Suden Award***
American Physiological Society
Abstract and scientific merit based award for attendees of the American Physiological Society annual meeting.

2013 ***First Place Oral Presentation (Physiology)***
Midwest Student Biomedical Research Forum
Merit based award given to the highest scoring oral research presentation.

2004 ***Graduation with Honors***
University of Nebraska – Omaha; Tri-Beta Biological Honor Society

2003 ***Gold and Silver Medal Winner, National Collegiate Tae Kwon Do Championships***
Seattle, WA

2001 ***7th Place Regional Finalist***
United States Equestrian Foundation and United States Dressage Foundation Championship
St. Louis, MO

1998 ***Rookie Sheep Exhibitor of the Year, SHEEP! Magazine***
Nebraska State Fair

SCIENTIFIC COMMUNITY OUTREACH

Co-organizer or participant in the following Physiology themed outreach events:

Lead co-organizer for the following events

Anderson Middle School, Omaha, NE (2017)
Organized, prepared and trained volunteers for physiology themed activities for all 7th grade (~250) science students. Outreach was performed in 3 classrooms simultaneous for 5 class periods.

Castle Hills Science Night, Castle Hills Elementary, San Antonio, TX (2017)
Organized and prepared physiology and medical monitoring themed activities for elementary children and their parents. The event was supported by the United States Army Institute of Surgical Research.

PhUn Day, Nebraska Tribal Council, South Sioux City, NE (2015)
Organized and prepared 9 interactive stations, a printed resource and 22 volunteers from several Universities to provide a day of outreach activities for approximately 340 students from NE/SD Native American Reservations. *Support was provided by an NIH SEPA grant and the American Physiological Society.*

Nebraska Association of Teacher of Science Annual Meeting (2014,2015)

Provided demonstrations and information regarding the incorporation of physiology-themed interactive activities into the currently established curriculum

Geneva Public Library (2014)
Local children and their parents from this rural town were invited to participate in several interactive activities and also ask medical/graduate students questions about their career paths

NE State Science Meet (2014,2015)
Winners from the State Science Meet were invited to engage in several interactive activities and interact with graduate students to learn more about potential scientific career paths

NE Sci Fest (2013, 2014)
Children and parents were invited to participate in respiratory physiology-themed activities at a booth sponsored by the Nebraska/American Physiological Societies.

Rohwer Elementary (2014)
All students (approximately 400) participated in several hands-on activities staffed by graduate, medical, nursing and pharmacy students

Participant/co-organizer in the following events

Anderson Elementary (2012, 2013)
Hands on activities provided to 3 classrooms simultaneously for 5 class periods

Benson High School (2012, 2013)
Hands on activities provided to 1 science classroom for 5 different groups of students

Brownell-Talbot (K-12) (2013)
Hands on activities provided for several classrooms and age groups simultaneously as part of the school's "Fantastic Elastic Brain Week" event.

UNMC High School Alliance (2012, 2013, 2014)
Hands on activities provided as an integrated portion of the programs curriculum

STUDENT MENTOR

2023	MAJ Rachel Ibrahimovic	3rd Place Bass Symposium winner, TAMC Bass Research Symposium
2020-22	Jacob Meariman	Louisiana State University MD/PhD Scholar, External Graduate Committee Member
2021	Will Roeder	UNMC Medical Student. M-STAR Fellowship
2021	Morgan Swope	UNMC Medical Student. M-STAR Fellowship
2021	Drew Kortus	UNMC Medical Student. M-STAR Fellowship
2020	Paul Doran	UNMC EMET Scholar and Medical Student
2019	Lahari Ramini	High School summer student (Millard South)
2016	Kristen Lye	Texas Lutheran undergraduate (USAISR)
2015	Andi Zheng	High School summer student (Millard North)
2014	Aysha Hussain	UNMC High School Alliance student
2014	Sean Powell	UNMC High School Alliance student
2014-15	Dylan Ashby	UNMC High School Alliance student

2014	Rocky Esteraich	Summer Medical Research student (UNMC)
2013	Heidi Klem	UNMC High School Alliance student
2013	Sujana Maddipati	UNMC High School Alliance student
2013	Collin Barton	UNMC High School Alliance student
2012	Athyra Jathra	UNMC High School Alliance student
2012	Travis Craig	UNMC High School Alliance student
2012	Jai Mediratta	High School summer student (Millard South)

PROFESSIONAL MEMBERSHIP

2014-2016	Nebraska Association of Teachers of Science
2013-Present	Society for Experimental Biology and Medicine
2013-Present	International Society of Hypertension
2012-2015	American Association for the Advancement of Science
2011-2015	American Heart Association
2010-Present	Nebraska Physiological Society
2010-Present	American Physiological Society

TEACHING EXPERIENCE (Formal Curriculum)

Director, Lecturer
Resident Research Education for all first-year Department of Anesthesiology Residents. (2020-current). University of Nebraska Medical Center, Department of Anesthesiology. 40 hours of didactic and hands-on education content is delivered over the course of the first-year residency period.

Co-creator, Co-Director, and Lecturer
Health Professional Teaching and Technology Program, Allied Health, University of Nebraska Medical Center. Omaha, NE. HPTT 623. Leadership in Health Professions Education course. A graduate level 3 credit course taught over a full semester, targeted to students with terminal degrees in their field (2019-2022).

Guest Lecturer
Radiation Science Technology Education program, University of Nebraska Medical Center, Omaha, NE (2012-2015)
RSTE 352/353 Human Physiology (Fall 2012-13, Spring 2014-15, Spring 2018)
Prepared and taught two lectures for the neurophysiology, and 4 lectures for the renal physiology units of the course

Lecturer
High School Alliance Program, University of Nebraska Medical Center, Omaha, NE (2012-15)
Undergraduate Biomedical Sciences Course (Fall 2012-14)
Duties included designing and teaching lecture and laboratory course curriculum to high school students

Tutor
University of Nebraska Medical Center, Omaha, NE (2012-15)
CIP 606 Intermediate Physiology; CIP 806 Graduate Physiology
Duties include tutoring several students on an as-needed basis

Recitation Leader
University of Nebraska Medical Center, Omaha, NE (2012-15)
CIP 807 Graduate Physiology; Cardiovascular and body fluids sections (Fall 2012, Fall 2013)
Responsible for developing and instructing content for course recitation sessions, creating and grading quizzes

Adjunct Faculty
Math and Natural Sciences Department, Metropolitan Community College, Omaha, NE (2005-2011)
SCIE 9010 Undergraduate Science survey course and lab (Multiple non-sequential quarters)
Responsible for developing and instruction of course content for an accelerated curriculum with lecture and laboratory components

Adjunct Faculty
Health Information Management Systems, Metropolitan Community College, Omaha, NE (2012)
HIMS 1310 Fundamentals of Anatomy and Physiology (Spring 2012)
Responsible for developing and instructing course content and evaluating student performance

Teaching Assistant
Biology Department, University of Nebraska Omaha (2005)
Undergraduate Anatomy and Physiology lab (Spring 2005, Fall 2005)
Duties included preparing laboratory activities and evaluating student performance.

Teaching Assistant
Biology Department, University of Nebraska Omaha (2005)
Undergraduate Microbiology Lab (Fall 2005)
Duties included preparing for weekly experiments, creating quizzes and evaluating student Performance

Teaching Assistant
Biology Department, University of Nebraska Omaha (2004)
Undergraduate Zoology Lab (Fall 2004)
Duties included preparing for weekly lab activities, creating quizzes and evaluating student performance

Teaching Assistant
Biology Department, University of Nebraska Omaha (2004)
Undergraduate/Graduate Animal Physiology (Fall 2004)
Duties included preparing for weekly lab experiments, evaluating student performance on laboratory reports, holding regular office hours

LABORATORY SKILLS

BASIC MOLECULAR
Free floating tissue sectioning and staining, co-immunoprecipitation, qRT-PCR, plasmid DNA isolation, SDS-PAGE and Western Blot

IN VIVO
Rabbit: Chronic instrumentation including radiotelemetry implantation, renal sympathetic nerve recording, renal flow probe and various catheter placements. Extensive experience in conscious experiments involving acute placement of arterial and venous catheters, exercise training. Chronic and conscious measurement of glomerular filtration rate using FITC-sinistrin
Rat: Chronic instrumentation with radiotelemetry, myocardial infarction, acute renal sympathetic nerve recording, renal flow probe placement, exercise training
Mouse: Tail vein injections, retro-orbital blood collection, breeding colony management, genotyping, oral gavage
Human Subjects: non-invasive physiological measurements, exercise capacity, simulated hemorrhage tolerance using lower body negative pressure.

IN VITRO
Mammalian and bacterial cell culture, renal primary cell culture, *E. coli* plasmid transfection

RESEARCH EXPERIENCE

Postdoctoral Research Associate *(Under the direction of Dr. I. Zucker)*
Department of Cellular and Integrative Physiology
University of Nebraska Medical Center
Omaha, NE (May 2015- January 2016)

Graduate Research Assistant (*Under the direction of Dr. I. Zucker)*
Department of Cellular and Integrative Physiology
University of Nebraska Medical Center
Omaha, NE (2010-2015)

Research Technologist II *(Under the direction of Dr. S. Joshi)*
Department of Genetics, Cell Biology and Anatomy
University of Nebraska Medical Center
Omaha, NE (2009-2010)

Research Technologist I *(Under the direction of Dr. B. Padanilam)*
Department of Cellular and Integrative Physiology
University of Nebraska Medical Center
Omaha, NE (2007-2009)

Research Assistant *(Under the direction of Dr. A. Benson)*
Department of Food Science and Technology
University of Nebraska-Lincoln
Lincoln, NE (2006-2007)

Graduate Teaching Assistant *(Under the direction of Dr. W. Tapprich)*
Department of Biology, University of Nebraska-Omaha
Omaha, NE (2004-2006)

Undergraduate Research Assistant *(Under the direction of Dr. J. French)*
Department of Psychobiology, University of Nebraska-Omaha
Omaha, NE (2002-2004)