

CURRICULUM VITAE

Elizabeth Waters

Regenerative Bioscience Center
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Education

The University of Georgia

Ph. D. - Neuroscience
Advisor: Dr. Franklin West
GPA: 3.76/4.0

Expected Graduation: 2022

Syracuse University

Bachelor's in Forensic Science
Bachelor's in Chemistry

2011-2015

Related Experience

The University of Georgia

Laboratory Technician – Easley Laboratory

2021-Present

- Working with non-human and human pluripotent stem cells.
- Extensive work in deriving induced pluripotent stem cells, culturing pluripotent stem cells, and differentiating pluripotent stem cells into spermatogenic lineages.
- Biochemical, genetic, and epigenetic assays to validate pluripotency and proper differentiation.
- Responsible for basic organization of the laboratory supplies and equipment and ensuring equipment is maintained and in working order.
- Responsible for animal record keeping, records for staff safety compliance and development of animal use protocols.
- Responsible for training new graduate and undergraduate students.

The University of Georgia

Research Technician I - West Laboratory

2017-2020

- Responsible for prep for surgical procedures and assisting in surgery. Prepared animals for surgery and performed pre- and post-operative care, provided medications, and performed needed animal care. Participated in animal motor function testing, behavior testing, MRI, DNA, RNA and protein analysis utilizing various techniques. Assisted in basic data organization, analysis and interpretation.
- Helped coordinate and organize experiments including scheduling of procedures, personnel, transport, stocking and ordering supplies.
- Responsible for basic organization of the laboratory supplies and equipment and ensuring equipment is maintained and in working order.
- Responsible for animal record keeping, records for staff safety compliance and development of animal use protocols.
- Responsible for training new graduate and undergraduate students.

Syracuse University

Undergraduate Researcher

2011-2015

- Explored structure-function relationships in newly synthesized PPI-bridged copper (II) complexes, with the help of density functional theory (DFT) calculations and past reports on observed magnetic couplings. The aim of this work was to ultimately reach better understand and potentially predict the PPI-mediated exchange interactions, even in complex coordination settings.
 - Responsible for planning and executing reactions to create various monomeric and dimeric crystalline structures to explore pyrophosphate as a ligand both from the fundamentals of the structures that can be produced and the functional properties (magnetic, biological, catalytic) that go hand in hand.
 - Responsible for cleaning and analyzing resulting crystalline structures using NMR, diffractometry, and IR.
- Expressed and purified saposin B (sapB) to determine if it can bind atovaquone (ATO) in vitro. The specific aim of this research was to determine how atovaquone can kill *P. falciparum* and not damage the human electron transport chain.
 - Responsible for planning and executing expression and purification of sap B using IMAC, performing binding assays with atovaquone and sapB using CD and ITC, and characterizing sapB and sapB with bound atovaquone using MALDI-TOF MS

Clarkson University

Undergraduate Researcher

2010 – 2012

- Explored the use of gold nanoparticles as a drug-delivery system for cisplatin derivatives and in photothermal therapy (CD-AuNPs) as a potential targeted cancer therapeutic that will also overcome drug resistance

Research Focus

Stroke is among the leading causes of death and disability in the United States. Currently, there is only one FDA-approved drug for the treatment of ischemic stroke, tissue plasminogen activator (tPA), and only ~4% of ischemic stroke patients are able to receive it and about 50% of those patients remain disabled after 3 months. The need for a novel therapy is extremely high, leading to an increased interest in stem cell therapies such as induced pluripotent stem cell-derived neural stem cells (iNSCs). iNSCs have shown promising results when transplanted into damaged brain tissue of rodent models. However, recent studies have shown that they have low survivability in the cytotoxic ischemic stroke environment. The administration of an anti-inflammatory and antioxidant treatment after stroke may mitigate the formation of damaging inflammatory agents and reactive oxygen species (ROS) and result in a less cytotoxic environment leading to improved survivability and efficacy of iNSCs.

Teaching Experience

The University of Georgia

Mentor

2017-Present

- Mentored 22 undergraduate researchers resulting in 16 abstracts

Syracuse University

Peer Led Team Learning

2014-2015

- Biology research participant: Peer leaders work with the instructor to discuss various learning techniques and engage in problem-solving sets completed in workshop sessions. Peer leaders are responsible for holding a 1-hr problem solving session each week and to keep record of attendance for group sessions, made up of students currently taking general biology

Laboratory Skills

- In vitro: Immunocytochemistry, Flow Cytometry, Fluorescence-activated cell sorting (FACS), In Vitro Fluorescent Imaging, Cell Culture (human, chicken, dog, pig), Media Preparation, Aseptic Cell Culture Technique, Protein Isolation/Purification/Quantification, RT-qPCR
- In vivo: Laboratory Animal Handling (including blood draws, placing catheters, etc), Research Animal Anesthesia, Anesthesia Induction and Monitoring, Research Animal Surgery utilizing Sterile Technique, Craniotomy, Stereotaxic Cell Injections, Suturing, Tissue Handling/Processing, MRI Monitoring, MRI Protocol Development, Emergency, Pre, and Post-Operative Care Administration, Magnetic Resonance Imaging, Animal Behavior Testing (Novel Object Recognition Testing, Open Field Testing, GAITFour Gait Collection, Plasma and Serum Processing, Blood Smears and WBC Analysis, Tissue Cryosectioning, Immunohistochemistry, Ex Vivo Fluorescent Imaging

Equipment

- HDx 3T MRI System, Autoclave, Centrifuge, Continuous-Flow Anesthetic Machine, Cortical Controlled Impactor, Cryostat, Flex Station Plate Reader, DSU Confocal Microscope, Flow Cytometer: Beckman Coulter CyAn and CytoFLEX, Laminar Flow Hoods, Liquid Nitrogen Dewar, Microinjector, Micropipettes, Phase Contrast Microscope, Stereotaxic Frame, IVIS Lumina II, Bio-Rad Bio-Plex Multiplex System from Luminex, Micropipettes

Computational Skills

- Programming Languages: MatLab, Python (basic)
- MRI Analysis Programs: AFNI, FreeSurfer, FSL, OsiriX, 3D Slicer, SPM
- Other Programs: Statistical Analysis System (SAS), GraphPad Prism, Fiji, ImageJ, ImagePro, CyberDuck, Java languages (basic), Microsoft Office, Gait4Dog, Ethovision

Publications

- Samantha E. Spellicy†, **Kelly M. Scheulin**†, Emily W. Baker, Brian J. Jurgielewicz, Holly A. Kinder, Elizabeth S. Waters, Janet A. Grimes, Steven L. Stice, Franklin D. West. “*Semi-automated cell and tissue analyses reveal regionally specific morphological alterations of immune and neural cells in a porcine middle cerebral artery occlusion model of stroke.*” *Frontiers in Cellular Neuroscience Cellular Neuropathology*. 2020.
- **Kelly M. Scheulin**†, Brian J. Jurgielewicz†, Samantha E. Spellicy, Elizabeth S. Waters, Emily W. Baker, Holly A. Kinder, Gregory A. Simchick, Sydney E. Sneed, Janet A. Grimes, Qun Zhao, Steven L. Stice, Franklin D. West. “*Exploring the predictive value of lesion topology on motor function outcomes in a porcine ischemic stroke model.*” *Scientific Reports*. 2021.
- **Elizabeth S. Waters**†, Erin E. Kaiser†, Madison M. Fagan, Kelly M. Scheulin, Xi Fang, Julie Jeon, Holly A. Kinder, Anil Kumar, Xueyuan Yang, Simon R. Platt, Kylee Jo Duberstein, Hea Jin Park, Jin Xie, Franklin D. West. *Intracisternal Administration of Tanshinone IIA-Loaded Nanoparticles in a Porcine Model of Ischemic Stroke*. *IBRO Reports*, 2020.
- Sydney E. Sneed, Kelly M. Scheulin, Erin E. Kaiser, Madison M. Fagan, Brian J. Jurgielewicz, **Elizabeth S. Waters**, Samantha E. Spellicy, Kylee J. Duberstein, Simon R. Platt, Emily W. Baker, Steven L. Stice, Holly A. Kinder, Franklin D. West. *Magnetic Resonance Imaging and Gait Analysis Indicate Similar Outcomes Between Yucatan and Landrace Porcine Ischemic Stroke Models*. *Frontiers of Neurology: Stroke*. 2020.
- Julie Jeon, Jeferson Lourenco, Erin E. Kaiser, **Elizabeth S. Waters**, Kelly M. Scheulin, Xi Fang, Holly A. Kinder, Simon R. Platt, Michael. J. Rothrock, Todd R. Callaway, Franklin D. West, Hea Jin Park. *Dynamic changes in the gut microbiome at the acute stage of ischemic stroke in a pig model*. *Frontiers in Neuroscience*, 2019.
- Erin E. Kaiser†, **Elizabeth S. Waters**†, Madison M. Fagan, Kelly M. Scheulin, Julie Jeon, Xi Fang, Holly A. Kinder, Simon R. Platt, Kylee Jo J Duberstein, Hea Jin Park, Franklin D. West. *Acute*

evaluation of porcine middle cerebral artery occlusion through tissue-level damage, immune responses, neurobehavioral and functional deficits. Brain Research, 2020.

- Adhikari, R., Chen, C., **Waters, E.**, West, F., Kim, W., *Isolation and Differentiation of Mesenchymal Stem Cells from Broiler Chicken Compact Bones.* Front Physiol, 2018.
- Huta, B.P., A.M. Roberts, **E.S. Waters**, V.Y. Yu, R.P. Doyle, M.R. Mehlenbacher, and F. Bou-Abdallah. *The Antimalarial Drug Atovaquone Binds to Saposin B with Comparable Affinity to Conenzyme Q10.* MedChemComm, 2014.

† these authors contributed equally to this work

First Author Abstracts

- **Elizabeth S. Waters**, Erin E. Kaiser, Xueyuan Yang, Madison M. Fagan, Kelly M. Scheulin, Julie H. Jeon, Soo K. Shin, Holly A. Kinder, Anil Kumar, Simon R. Platt, Kylee J. Duberstein, Hea J. Park, Jin Xie, Franklin D. West *Intracisternal administration of tanshinone IIA-loaded nanoparticles leads to reduced tissue injury and functional deficits in a porcine model of ischemic stroke.* Regen Med. March 2020. Charleston, SC.
- **Elizabeth S. Waters**, Erin E. Kaiser, Xueyuan Yang, Madison M. Fagan, Kelly M. Scheulin, Julie H. Jeon, Soo K. Shin, Holly A. Kinder, Anil Kumar, Simon R. Platt, Kylee J. Duberstein, Hea J. Park, Jin Xie, Franklin D. West *Intracisternal administration of tanshinone IIA-loaded nanoparticles leads to reduced tissue injury and functional deficits in a porcine model of ischemic stroke.* Dev Bio Symposium. 2019. Athens, GA.
- **Elizabeth Waters**, Erin E. Kaiser, Holly A. Kinder, Madelaine N. Wendzik, Simon R. Platt, Silun Wang, David C. Hess, Hui Mao, and Franklin D. West. *Porcine Model of Vascular Cognitive Impairment Demonstrates Changes in Cerebral Blood Flow, White Matter Integrity, and Cognitive Function.* Regenerative bioscience Center Fellows Symposium. April 2018. Athens, GA.
- **Elizabeth S. Waters**, Kimberly D. Haight, Madelaine N. Wendzik, Monika Saini, Kelly M. Scheulin, Franklin D. West. *Acute Induced Neural Stem Cell Transplantation May Reduce Blood Brain Barrier Permeability in a Porcine Traumatic Brain Injury Model.* Southern Translational Education and Research Conference. 2017 September. Augusta, GA.

Co-Author Abstracts

1. Kelly M. Scheulin, Brian J. Jurgielewicz, Monika Saini, Samantha E. Spellicy, **Elizabeth S. Waters**, Emily W. Baker, Holly A. Kinder, Gregory A. Simchick, Sydney E. Sneed, Qun Zhao, Steven L. Stice, Franklin D. West. *A precision medicine approach to intracerebral stem cell transplantation utilizing lesion topology in a porcine model of ischemic stroke.* International Stroke Conference. 2021 March. Virtual.
2. Kelly M. Scheulin, Brian J. Jurgielewicz, Samantha E. Spellicy, **Elizabeth S. Waters**, Emily W. Baker, Holly A. Kinder, Gregory A. Simchick, Sydney E. Sneed, Qun Zhao, Steven L. Stice, Franklin D. West. *Inclusion of ischemic stroke lesion topology in a translational porcine model leads to better prediction of functional outcomes.* Ga Bio Innovation Summit. 2020 November. Virtual.
3. Kelly M. Scheulin, Brian J. Jurgielewicz, Monika Saini, Samantha E. Spellicy, **Elizabeth S. Waters**, Emily W. Baker, Holly A. Kinder, Gregory A. Simchick, Sydney E. Sneed, Qun Zhao, Steven L. Stice, Franklin D. West. *Magnetic Resonance Imaging and Gait Analysis Indicate Similar Outcomes Between Yucatan and Landrace Porcine Ischemic Stroke Models.* ISC. August 2020.
4. Madison Fagan, Erin Kaiser, **Elizabeth Waters**, Kelly Scheulin, Simon Platt, Julie Jeon, Xi Fang, Holly Kinder, Soo Shin, Kylee Duberstein, Hea Jin Park, Franklin West. *Characterization of acute tissue and functional changes in a porcine model of ischemic stroke.* Neurotrauma. 2020. Canceled due to COVID19.
5. Erin E. Kaiser, **Elizabeth S. Waters**, Brian J. Jurgielewicz, Xueyuan Yang, Madison M. Fagan, Kelly M. Scheulin, Samantha E. Spellicy, Julie H. Jeon, Soo K. Shin, Sydney E. Sneed, Holly A. Kinder, Simon R. Platt, Hea Jin Park, Kylee J. Duberstein, Steve L. Stice, Jin Xie, and Franklin D. West.

- Assessment of nanoparticle and neural stem cell extracellular vesicle therapies in a preclinical porcine neural injury model.* 2020 Military Health System Research Symposium. 2020 August. Kissimmee, FL.
6. Julie H. Jeon, Jeferson Lourencob, Erin E. Kaiser, **Elizabeth S. Waters**, Kelly M. Scheulin, Madison M. Fagan, Xi Fang, Holly A. Kinder, Simon R. Platt, Kylee Jo J Duberstein, Todd Callaway, Franklin D. West, and Hea Jin Park. *Dynamic changes of gut microbiome and immune response during the acute stage of stroke in a pig model.* Nutrition 2019 Conference. 2019 June: Baltimore, MD.
 7. Madison M. Fagan, Erin E. Kaiser, **Elizabeth S. Waters**, Xueyuan Yang, Anil Kumar, Kelly Scheulin, Julie H Jeon, Xi Fang, Holly A. Kinder, Simon R. Platt, Hea Jin Park, Jin Xie, Kylee Jo J. Duberstein, Franklin D. West. *Assessment of spatiotemporal changes in response to tanshinone-IIA nanoparticle administration in a pig stroke model.* Regenerative Engineering and Medicine Symposium. May 2018. Atlanta, GA.
 8. Mackenzie L. Snyder, Kelly M. Scheulin, Madison M. Fagan, Erin E. Kaiser, **Elizabeth S. Waters**, Xueyuan Yang, Anil Kumar, Julie H Jeon, Xi Fang, Holly A. Kinder, Simon R. Platt, Hea Jin Park, Jin Xie, Kylee J. Duberstein, and Franklin D. West. *Tanshinone-IIA Loaded Nanoparticle Treatment Demonstrates Increased Diffusivity, White Matter Integrity and Improved Motor Function in a Pig Model of Ischemic Stroke.* Regenerative Bioscience Center Fellows Symposium. 2019 April. Athens, GA.
 9. Caroline A. Temple, Kelly M. Scheulin, Sam S. Spellicy, **Elizabeth S. Waters**, Holly A. Kinder, Steven L. Stice, and Franklin D. West. *White Blood Cell Counts Post-Stroke in Yucatan Minipigs: Male vs Female.* CURO Symposium. 2019 April. Athens, GA.
 10. Mariafernanda Alcalde, Kelly M. Scheulin, Madison M. Fagan, Erin E. Kaiser, **Elizabeth S. Waters**, Xueyuan Yang, Anil Kumar, Julie H Jeon, Xi Fang, Holly A. Kinder, Simon R. Platt, Hea Jin Park, Jin Xie, Kylee J. Duberstein, Franklin D. West. *Analysis of Magnetic Resonance Imaging and Spatiotemporal Gait Parameters in Response to Tanshinone-IIA Loaded Nanoparticle Treatment in a Pig Model of Ischemic Stroke.* CURO Symposium. 2019 April. Athens, GA.
 11. Sowmya Radhakrishnan, Kelly M. Scheulin, Madison M. Fagan, Erin E. Kaiser, **Elizabeth S. Waters**, Xueyuan Yang, Anil Kumar, Julie H Jeon, Xi Fang, Holly A. Kinder, Simon R. Platt, Hea Jin Park, Jin Xie, Kylee J. Duberstein, and Franklin D. West. *Analysis of Magnetic Resonance Imaging and Spatiotemporal Gait Parameters in Response to Tanshinone-IIA Loaded Nanoparticle Treatment in a Pig Model of Ischemic Stroke.* CAES Undergraduate Research Symposium. 2019 April. Athens, GA
**Student won 1st place in poster presentation
 12. Anna Zukowski, Madison M. Fagan, Erin E. Kaiser, **Elizabeth S. Waters**, Holly A. Kinder, and Franklin D. West. *Ischemic stroke leads to tissue damage and subsequent impairments in gait, behavior, and functional recovery in a biomedical porcine model.* Regenerative Bioscience Center Fellows Symposium. 2019 April: Athens, GA.
 13. Mackenzie Synder, Kelly M. Scheulin, Madison M. Fagan, Erin E. Kaiser, **Elizabeth S. Waters**, Xueyuan Yang, Anil Kumar, Julie H. Jeon, Xi Fang, Holly A. Kinder, Simon R. Platt, Hea Jin Park, Jin Xie, Kylee Jo Duberstein, and Franklin D. West. *Analysis of Magnetic Resonance Imaging and Spatiotemporal Gait Parameters in Response to Tanshinone-IIA Loaded Nanoparticle Treatment in a Pig Model of Ischemic Stroke demonstrates increased diffusivity and white matter integrity at 24hrPS and improved motor function at 2dPS.* Regenerative Bioscience Center Fellows Symposium. 2019 April: Athens, GA.
 14. Tyler Burnette, Erin E. Kaiser, **Elizabeth S. Waters**, Holly A. Kinder, and Franklin D. West. *Tanshinone-IIa-Loaded Nanoparticles Reduce Midline Shift and Lesion Volume and Improve Cerebral Diffusivity in a Pig Ischemic Stroke Model.* College of Agricultural and Environmental Sciences Undergraduate Research Symposium. 2019 April: Athens, GA.
 15. Sowmya Radhakrishnan, Kelly M. Scheulin, Madison M. Fagan, Erin E. Kaiser, **Elizabeth S. Waters**, Xueyuan Yang, Anil Kumar, Julie H. Jeon, Xi Fang, Holly A. Kinder, Simon R. Platt, Hea Jin Park, Jin Xie, Kylee Jo Duberstein, and Franklin D. West. *Analysis of Magnetic Resonance Imaging and Spatiotemporal Gait Parameters in Response to Tanshinone-IIa Loaded Nanoparticle Treatment in a Pig Model of Ischemic Stroke.* College of Agricultural and Environmental Sciences Undergraduate Research Symposium. 2019 April: Athens, GA.

16. Wahenoor Anand, Erin E. Kaiser, **Elizabeth S. Waters**, Holly A. Kinder, Simon R. Platt, and Franklin D. West. *Tanshinone-IIa Nanoparticle Administration in a Porcine Model of Ischemic Stroke Demonstrates Reduced Hemispheric Swelling, Lesion Volume, and White Matter Damage*. Center for Undergraduate Research Opportunities Symposium. 2019 March: Athens, GA.
17. Gina A. Kim, Jennifer Mumaw, Kelly M. Scheulin, Brian J. Jurgielewicz, **Elizabeth S. Waters**, Lisa H. Williamson, Tamas Nagy, Franklin D. West, Stephen B. Harvey. *Lameness in a Yucatan Minipig*. American Association for Laboratory Animal Science (AALAS). 2018 November. Baltimore, MD.
18. Gina A. Kim, Jennifer Mumaw, Kelly M. Scheulin, **Elizabeth S. Waters**, Elizabeth W. Howerth, Franklin D. West, Stephen B. Harvey. *Complications in a Stroke Model in Yucatan Minipigs*. American Association for Laboratory Animal Science (AALAS). 2018 November. Baltimore, MD.
19. Caroline Temple, Kelly M. Scheulin, **Elizabeth S. Waters**, Franklin D. West. *Human Neural Stem Cell Derived Extracellular Vesicles as a Therapeutic Treatment for Stroke*. CURO Summer Fellowship Symposium. 2018 August. Athens, GA.
20. Zachary T. Jones, Erin E. Kaiser, **Elizabeth S. Waters**, Kelly M. Scheulin, Madelaine N. Wendzik, Holly A. Kinder, Simon R. Platt, and Franklin D. West. *Magnetic Resonance Imaging T2 Weighted Sequences Demonstrate Acute Changes in Cerebral Hemisphere, Ventricle, and Lesion Volumes in a Pig Model of Ischemic Stroke*. Regenerative Bioscience Center Fellows Symposium. 2018 April. Athens, GA.
21. Neil K. Doshi, Erin E. Kaiser, **Elizabeth S. Waters**, Kelly M. Scheulin, Madelaine N. Wendzik, Holly A. Kinder, Simon R. Platt, and Franklin D. West. *Magnetic Resonance Imaging Assessment in a Porcine Model of Ischemic Stroke Demonstrates Reduced Diffusivity and White Matter Damage*. Regenerative Bioscience Center Fellows Symposium. 2018 April. Athens, GA.
22. Zachary T. Jones, Erin E. Kaiser, **Elizabeth S. Waters**, Kelly M. Scheulin, Madelaine N. Wendzik, Holly A. Kinder, Simon R. Platt, and Franklin D. West. *Magnetic Resonance Imaging T2 Weighted Sequences Demonstrate Acute Changes in Cerebral Hemisphere, Ventricle, and Lesion Volumes in a Pig Model of Ischemic Stroke*. Center for Undergraduate Research Opportunities Symposium. 2018 April. Athens, GA.
23. Neil K. Doshi, Erin E. Kaiser, **Elizabeth S. Waters**, Kelly M. Scheulin, Madelaine N. Wendzik, Holly A. Kinder, Simon R. Platt, and Franklin D. West. *Magnetic Resonance Imaging Assessment in a Porcine Model of Ischemic Stroke Demonstrates Reduced Diffusivity and White Matter Damage*. Center for Undergraduate Research Opportunities Symposium. 2018 April. Athens, GA.
24. Zachary T. Jones, **Elizabeth S. Waters**, Madelaine N. Wendzik, Kimberly D. Haight, Kelly M. Scheulin, Monika Saini, Franklin D. West. *Acute Induced Neural Stem Cell Transplantation May Reduce Blood Brain Barrier Permeability in a Porcine Traumatic Brain Injury Model*. Georgia Undergraduate Research Conference. 2017 October. Milledgeville, GA.
25. Kimberly D. Haight, Madelaine N. Wendzik, **Elizabeth S. Waters**, Monika Saini, Kelly M. Scheulin, Franklin D. West. *Effect of Acute iNSC Transplantation on BBB Leakage in a Novel Porcine Controlled Cortical Impact TBI Model*. Merial- NIH National Veterinary Scholars Symposium. 2017 July. Bethesda, MD.
26. Kelly M. Scheulin, Anil Kumar, Madlaine N. Wendzik, Holly A. Kinder, Xueyuan Yang, Erin E. Kaiser, Emily W. Baker, **Elizabeth S. Waters**, Jen Xie and Franklin D. West. *Nanoparticles Transport of FDA-Approved Drugs Across the Blood Brain Barrier in a Porcine Stroke Model*. Regenerative Bioscience Center Fellows Symposium. 2017 April: Athens, GA.
27. Kelly M. Scheulin, Anil Kumar, Madelaine N. Wendzik, Holly A. Kinder, Xueyuan Yang, Erin E. Kaiser, Emily W. Baker, **Elizabeth S. Waters**, Jen Xie and Franklin D. West. *Nanoparticles Transport of FDA-Approved Drugs Across the Blood Brain Barrier in a Porcine Stroke Model*. Center for Undergraduate Research Opportunities Symposium. 2017 April: Athens, GA.

Contributions in Outreach

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- The Georgia City-County Management Association's conference Oct 2018
Speaker
 - Contrast Consortium, Rotterdam University Medical School, Netherlands Oct 2018

Speaker and tour guide

- The University of Georgia 2018 Federal Staff Retreat Aug 2018
Speaker to 36 State, Federal, and White House staffers

Symposiums and Conferences

- Brain Stroke Conference Virtual Dec 2020
- NeuroTrauma Society Symposium Atlanta, GA June 2020
- Regenerative Medicine Workshop Virtual May 2020
- Regenerative Medicine Workshop Charleston, SC March 2020
- DevBio Fall Symposium Athens, GA Oct 2018
- University of Georgia Regenerative Bioscience Center Annual Symposium Athens, GA Mar 2018
- Southern Translational Education and Research Conference Augusta, GA Sept 2017
- University of Georgia Regenerative Bioscience Center Annual Symposium Athens, GA April 2017

Course Attendance

- Alzheimer's Association International Conference® (AAIC) July 2020
Virtual
- Sports Neuropsychology Society 8th Annual Sports Concussion Symposium July 2020
Children's National Health System, Virtual
- SCARE Course Webinar: Frontiers in Stem Cells and Regeneration July 2020
MBL Virtual Programs, University of Chicago
- Neural Systems and Behavior July 2020
MBL Virtual Programs, University of Chicago
- Linking Neuroinflammation and Neurodegeneration June 2020
The Scientist - Virtual
- Stowers Research Conferences: Early Career Symposia, Virtual June 2020
- Challenges in Pediatric Clinical Neuroscience Webinar May 2020
NINDS Division of Translational Research
- Planning a Successful MSC Therapy for Rapid COVID Response May 2020
Rooster Bio, Virtual
- FreeSurfer, MRI Analysis Training Sept 2017
Harvard University, Martinos Center for Biomedical Imaging, Boston, MA
- Python Basics Aug 2017
Athens, GA
- Linux Training for Linux-inexperienced Cluster New Users Aug 2017
Athens, GA
- Sapelo2 Cluster New User Training Aug 2017
Athens, GA

Professional Affiliations/Leadership Roles

- Alzheimer's Association 2020 - Present
- Society of Developmental Biology 2020 – Present
- American Association for the Advancement of Science 2018 – Present
- Regenerative Bioscience Center 2017 – Present
- Delta Phi Epsilon International Sorority, Lead Advisor 2015 – 2020
- Delta Phi Epsilon International Sorority, President 2014 – 2015
- Syracuse University Club Softball, President 2014 – 2015

Awards

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- 1st Place Symposium on Undergraduate Research Experience (SURE) Conference 2012 oral presentation: Chemotherapeutic-Functionalized Gold Nanoparticles for Combined Drug Delivery and Photothermal Approach to Cancer Therapy. Clarkson University, Potsdam, NY.

References

Available upon request