

CURRICULUM VITAE

Elizabeth Waters
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Education

The University of Georgia

Ph. D. - Neuroscience
Advisor: Dr. Charles Easley
GPA: 4.0/4.0

Expected Graduation: 2024

Research Focus

Using non-human primate pluripotent stem cells to test the concept that functional haploid spermatids can be derived *in vitro* from pluripotent stem cells to help determine whether patient-specific pluripotent stem cells can be utilized to treat male factor infertility.

Syracuse University

Bachelor's in Forensic Science
Bachelor's in Chemistry

2011-2015

Related Experience

The University of Georgia

Laboratory Technician – Easley Laboratory
Equipment and Supply Management:

2021-Present

- Overseeing the procurement and maintenance of laboratory equipment and supplies.
- Ensuring the availability of necessary resources for experiments and research.
- Developing and implementing inventory control systems for tracking supplies and reordering when necessary.
- Managing vendor relationships and negotiating contracts for equipment and supplies.

Animal Use Protocols:

- Ensure protocols are accurate and up to date.
- Assist in surgeries and/or procedures I am appropriately trained on and approved to perform.
- Basic animal record keeping and data analysis.

Collaboration and Communication:

- Collaborating with researchers, principal investigators, and other departments within the organization.
- Facilitating effective communication and coordination between lab members.
- Participating in lab meetings, discussing project progress, and providing updates.
- Liaising with external partners, vendors, and service providers.
- Communicating research findings, SOPs, and safety guidelines to lab members.

Educational Program Assistance:

- Collaboratively assists in the creation and successful execution of educational courses, playing an integral role in their organization and implementation.
- Works closely with the directors to establish and maintain the structure, content, and logistics of the courses, ensuring their smooth operation and effectiveness.
- Plays a key role in facilitating communication and collaboration among instructors, participants, and others involved in the educational courses.
- Assists in coordinating guest speakers, subject matter experts, and additional resources to enhance the educational experience and broaden the course offerings.
- Collaborates with the directors to promote and market educational courses, engaging prospective participants and ensuring a strong enrollment.

Safety and Compliance:

- Ensuring the lab complies with all relevant safety regulations and guidelines.

- Developing and implementing safety protocols, including training lab personnel on safety procedures.
- Overseeing regular safety inspections and risk assessments to identify and address potential hazards.
- Maintaining and updating safety documentation and Material Safety Data Sheets (MSDS).
- Coordinating with relevant regulatory agencies and obtaining necessary permits and licenses

The University of Georgia

Research Technician I - West Laboratory

2017-2021

- 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

Teaching Experience

The University of Georgia

Mentor

2017-2021

- 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

Publications

- Julie H. Jeon, Erin E. Kaiser, **Elizabeth S. Waters**, Xueyuan Yang, Jeferson M. Lourenco, Madison M. Fagan, Kelly M. Scheulin, Sydney E. Sneed, Soo K. Shin, Holly A. Kinder, Anil Kumar, Simon R. Platt, Jeongyoun Ahn, Kylee J. Duberstein, Michael J. Rothrock Jr., Todd R. Callaway, Jin Xie, Franklin D. West, Hae Jin Park. *Tanshinone IIA-loaded nanoparticles and neural stem cell combination therapy improves gut homeostasis and recovery in a pig ischemic stroke model*. Scientific Reports, 2023.
- Erin E. Kaiser†, **Elizabeth S. Waters**†, Xueyuan Yang†, Madison M. Fagan, Kelly M. Scheulin, Sydney E. Sneed, Savannah R. Cheek, 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. *Tanshinone IIA-loaded nanoparticles and induced pluripotent stem cell derived neural stem cell therapies enhance recovery in a translational pig ischemic stroke model*. Stem Cells Translational Medicine. 2022
- **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 leads to reduced tissue injury and functional deficits in a porcine model of ischemic stroke*. IBRO Reports, 2021.
- **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.
- 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.
- 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 Jr., Todd R. Callaway, Franklin D. West, Hae Jin Park. *Dynamic Changes in the Gut Microbiome at the Acute Stage of Ischemic Stroke in a Pig Model*. Frontiers in Neuroscience, 2020.
- Erin E. Kaiser†, **Elizabeth S. Waters**†, Madison M. Fagan, Kelly M. Scheulin, Simon R. Platt, Julie Jeon, Xi Fang, Holly A. Kinder, Soo K. Shin, Kylee J. Duberstein, Hea Jin Park, Franklin D. West. *Characterization of tissue and functional deficits in a clinically translational pig model of acute ischemic stroke*. Brain Research, 2020.
- 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.
- 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*. Brain Stroke. Nov 2020. (virtual)

- **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. May 2020. Charleston, SC. (virtual)
- **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. (canceled due to COVID-19)
- **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. Erin E. Kaiser†, **Elizabeth S. Waters**†, Xueyuan Yang†, Madison M. Fagan, Kelly M. Scheulin, Sydney E. Sneed, Savannah R. Cheek, Julie Heejin Jeon, Soo K. Shin, Holly A. Kinder, Anil Kumar, Simon R. Platt, Kylee J. Duberstein, Hea Jin Park, Jin Xie, Franklin D. West. *Tanshinone IIA-loaded nanoparticle and neural stem cell therapy enhances recovery in a pig ischemic stroke model*. Swine in Biomedical Research Conference. 2022 June.
2. Julie Heejin Jeon, Erin E. Kaiser, **Elizabeth S. Waters**, Xueyuan Yang, Jeferson Lourenco, Kelly M. Scheulin, Sydney E. Sneed, Soo K. Shin, Holly A. Kinder, Anil Kumar, Simon R. Platt, Jeongyoun Ahn, M. J. Rothrock Jr., Todd R. Callaway, Jin Xie, Franklin D. West, Hea JinPark, *Tanshinone IIA and Neural Stem Cell Combination Therapy Decreases Gut Inflammation and Maintains Gut Integrity in a Translational Pig Ischemic Stroke Model*, Nutrition 2022 live online. 2022.
3. Julie H. Jeon, Jeferson Lourenco, Erin E. Kaiser, **Elizabeth S. Waters**, Xueyuan Yang, Madison M. Fagan, Kelly M. Scheulin, Sydney E. Sneed, Soo K. Shin, Holly A. Kinder, Anil Kumar, Simon R. Platt, Kylee J. Duberstein, Jin Xie, Todd R. Callaway, Franklin D. West, and Hea Jin Park. *Fecal Short Chain Fatty Acids Correlates with Stroke Recovery in a Stroke Pig Model*. Poster presentation. Georgia Clinical & Translational Science Alliance (CTSA), Pine Mountain, GA, 2022.
4. Erin E. Kaiser†, **Elizabeth S. Waters**†, Xueyuan Yang†, Madison M. Fagan, Kelly M. Scheulin, Sydney E. Sneed, Julie H. Jeon, Soo K. Shin, Holly A. Kinder, Anil Kumar, Simon R. Platt, Kylee J. Duberstein, Hea Jin Park, Jin Xie, Franklin D. West III. *Tanshinone IIA-loaded Nanoparticles And Induced Pluripotent Stem Cell-derived Neural Stem Cell Therapies Enhance Recovery In A Translational Pig Ischemic Stroke Model*. International Stroke Conference. 2022 February: New Orleans, LA.
5. Erin E. Kaiser†, **Elizabeth S. Waters**†, Xueyuan Yang†, Madison M. Fagan, Kelly M. Scheulin, Sydney E. Sneed, Julie H. Jeon, Soo K. Shin, Holly A. Kinder, Anil Kumar, Simon R. Platt, Kylee J. Duberstein, Hea Jin Park, Jin Xie, Franklin D. West. *Tanshinone IIA-Loaded Nanoparticles Enhance Induced Pluripotent Stem Cell-Derived Neural Stem Cell Recovery Responses in a Pig Ischemic Stroke Model*. International Stroke Conference 2022. 2022 February. New Orleans, LA.
6. 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.

7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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
17. 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.
18. Mackenzie 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 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.

19. 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.
20. 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.
21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. 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*. Merit- NIH National Veterinary Scholars Symposium. 2017 July. Bethesda, MD.
31. 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*. Regenerative Bioscience Center Fellows Symposium. 2017 April: Athens, GA.
32. 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

- FrESH Course Atlanta, GA June 2023
Teaching Assistant/Program Coordinator
- SCARE Course Woodshole, MA Oct 2022
Teaching Assistant
- FrESH Course Atlanta, GA June 2022
Teaching Assistant/Program Coordinator
- SCARE Course Woodshole, MA Oct 2021
Teaching Assistant
- 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
- 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

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

- 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