Stanford

Kristy Zera

Postdoctoral Research Fellow, Neurology and Neurological Sciences

Bio

BIO

Kristy did her undergraduate work at Bates College in Lewiston, ME where she received a BA in Biology in 2012. She then moved to Athens, GA where she obtained a PhD in Pharmaceutical and Biomedical Sciences from the University of Georgia in 2017. Her research investigated the role of the transcription factor HIF-1a in thiamine (vitamin B1) deficiency-induced neurological damage. She joined the Buckwalter lab in late 2017 to continue researching mechanisms of neurodegeneration and neuroinflammation. She is interested in investigating the role of astrocytes in neuroinflammation following stroke. Ultimately, understanding how astrocytes mediate neuroinflammation in the context of disease and neurological injury may identify therapeutic targets to protect the brain following injury.

HONORS AND AWARDS

- Outstanding Teaching Assistant, University of Georgia Graduate School (2017)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, American Association of Pharmaceutical Scientists (2013 - present)
- Member, Sigma Xi (2012 - present)

PROFESSIONAL EDUCATION

- Bachelor of Arts, Bates College (2012)
- Doctor of Philosophy, University of Georgia (2017)

Research & Scholarship

LAB AFFILIATIONS

- Marion Buckwalter (11/1/2017)

Publications

PUBLICATIONS

- **Aged blood impairs hippocampal neural precursor activity and activates microglia via brain endothelial cell VCAM1** *NATURE MEDICINE*
  Yousef, H., Czupalla, C. J., Lee, D., Chen, M. B., Burke, A. N., Zera, K. A., Zandstra, J., Berber, E., Lehallier, B., Mathur, V., Nair, R. V., Bonanno, L. N., Yang, et al
  2019; 25 (6): 988-+
- **Aged blood impairs hippocampal neural precursor activity and activates microglia via brain endothelial cell VCAM1.** *Nature medicine*
  Yousef, H., Czupalla, C. J., Lee, D., Chen, M. B., Burke, A. N., Zera, K. A., Zandstra, J., Berber, E., Lehallier, B., Mathur, V., Nair, R. V., Bonanno, L. N., Yang, et al
  2019

- **Stabilization of the hypoxia-inducible transcription Factor-1 alpha (HIF-1 alpha) in thiamine deficiency is mediated by pyruvate accumulation** *TOXICOLOGY AND APPLIED PHARMACOLOGY*
  Zera, K., Zastre, J.
  2018; 355: 180–88
- **Thiamine deficiency activates hypoxia inducible factor-1 alpha to facilitate pro-apoptotic responses in mouse primary astrocytes** *PLOS ONE*
  Zera, K., Zastre, J.
  2017; 12 (10): e0186707
- **Role of HIF-1 alpha in the hypoxia inducible expression of the thiamine transporter, SLC19A3** *GENE*
  Zera, K., Sweet, R., Zastre, J.
  2016; 595 (2): 212–20