

# PhD Position - Developmental Biology, Morphogenesis and Cardiovascular Research - University of Mississippi

Graduate Studies in Developmental Biology, Morphogenesis and Cardiovascular Research at the University of Mississippi

Our research seeks to investigate the fundamental question of how cardiac cells sense and respond to their environment. Focusing on tissue interactions we seek to understand the mechanisms underlying the regulation of morphogenic and identity transformations that occur during development and disease. We use the assembly of the heart tube in zebrafish as our model with which to elucidate these mechanisms. Some of the specific research questions we are interested in include: How do multiple tissues interact to regulate large movements and biomechanical force? How do dynamic changes in the extracellular matrix regulate cardiac morphogenesis? How is lumen formation intrinsically and extrinsically encoded? and How is the plasticity of cardiovascular identity regulated? To answer these questions, we take an interdisciplinary approach, combining the genetic and imaging strengths of zebrafish with both biomechanics and systems-level methodologies.

If you are interested in joining our lab as a PhD student, please contact us directly at [josh@olemiss.edu](mailto:josh@olemiss.edu).

-More information about the laboratory can also be found at [thebloomekatzlaboratory.org](http://thebloomekatzlaboratory.org).

-Additional positions are also available in our interdisciplinary graduate program in the department of Biology at the University of Mississippi. For more information about our graduate program including rotations please see [biology.olemiss.edu](http://biology.olemiss.edu)