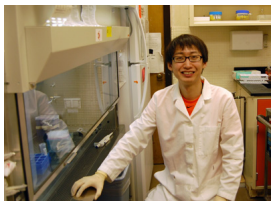
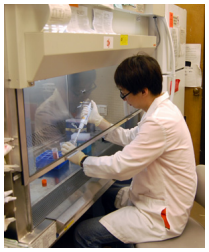
(June 18, 2009 Stillwater, OK) – The Oklahoma State University Center for Veterinary Health Sciences announced today that Yujie Guo, graduate research associate in its Lundberg-Kienlen Lung Biology and Toxicology Laboratory (LBTL), received a predoctoral fellowship from the American Heart Association. Guo's proposal is to investigate mechanisms of acute lung injury and respiratory distress syndrome. The funding is for two years and totals $50,000.



"I will work on the role of P2x7R-mediated purinergic signaling in alveolar epithelial cell death during an acute lung injury," explains Guo. "At the same time, I will study the protective effect of Wnt/beta-catenin signaling on an animal model of acute lung injury."

Acute lung injury (ALI) and its most severe manifestation, acute respiratory distress syndrome (ARDS), are among the most frequent reasons for intensive care unit admission. Mortality from ALI/ARDS has been estimated as high as 44 percent.



“Although great strides have been made to understand the pathogenesis of ALI/ARDS, the treatment approach to ARDS is still relying on ventilator and cardiovascular support because of the limited knowledge about the fundamental mechanisms that initiate and propagate the lung injury, “adds Guo. “Once our data support an important role of P2x7R and Wnt/beta-catenin signaling in the pathogenesis of ALI/ARDS, strategies to interfere with the activities of P2x7R or Wnt/beta-catenin pathway may, therefore, represent a potential therapeutic method to limit the damage of ALI/ARDS.”

Guo’s proposal is one of seven, out of 43 applications, that was funded. Approved on the first submission, his success indicates that the center’s Veterinary Biomedical Sciences graduate students are highly competitive on a national level. This is the fifth predoctoral fellowship received by the veterinary center’s LBTL from the American Heart Association. All of the five graduate students are mentored by Dr. Lin Liu, the director of the LBTL.

The Oklahoma State University Center for Veterinary Health Sciences is one of 28 veterinary colleges in the United States and is fully accredited by the Council on Education of the American Veterinary Medical Association. The center’s Boren Veterinary Medial Teaching Hospital is open to the public and provides routine and specialized care for small and large animals. It also offers 24 hour emergency care and is certified by the American Animal Hospital Association. For more information, visit www.cvhs.okstate.edu or call (405) 744-7000.