

Showcasing microfluidic research on insect wing circulation from Professor Sangjin Ryu's laboratory, Department of Mechanical and Materials Engineering, University of Nebraska-Lincoln, Nebraska, U.S.A.

Insect wing circulation: transient perfusion through a microfluidic dragonfly forewing model

Although the hemolymph flow through the vein network of insect wings is crucial for their functionality, how perfusion occurs throughout the vein network remains poorly understood. To investigate transient perfusion in wing venation, we developed a microfluidic wing vein model of the common green darner dragonfly, *Anax junius*. Our microfluidic wing vein model enables systematic investigation into the circulatory system and transport phenomena of the insect wing. We appreciate Loren Padelford for the *A. junius* picture and Sophia Lee for her assistance.

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