**Wound healing in the wing membrane of the Cuban big fruit-eating bat (*Artibeus jamaicensis*)**

**Tyler Pollock**, Department of Psychology, Neuroscience, and Behaviour, McMaster University, Hamilton, Ontario, Canada; **Christian Moreno**, **Lida Sanchez**, **Emanuel Mora**, Department of Animal and Human Biology, University of Havana, Havana, Cuba

The flight membranes of bats are susceptible to holes and tears from a number of sources, including impact with natural and man-made objects, fighting between conspecifics, and predation. Furthermore, biologists commonly punch the wing membrane as a method of marking animals in the field for future identification. Previous research has shown that small holes in the wing membrane do not affect flight, as bats can compensate for asymmetries resulting from injury. Moreover, bats are able to rapidly and completely heal holes and tears in their flight membranes. Some evidence suggests that the presence of numerous blood vessels near the injury site accelerates healing; however, little is known regarding the extent to which delivery of blood to the injury site influences recovery. We measured wound healing in the wing membrane of the Cuban big fruit-eating bat (*Artibeus jamaicensis*) following introduction of a circular, 4-mm-diameter punch. We compared wound healing rates in animals permitted to fly (active) with those restricted from flying (inactive). Given that tissue regeneration is a metabolically demanding process, we hypothesize that increased delivery of blood to the injury site resulting from flight activity will accelerate wound healing compared to sustained inactivity. These findings will not only be the first to characterize wound healing in *Artibeus jamaicensis*, they will also enhance our understanding of the influence of flight activity on the healing process of wing membranes following injury.