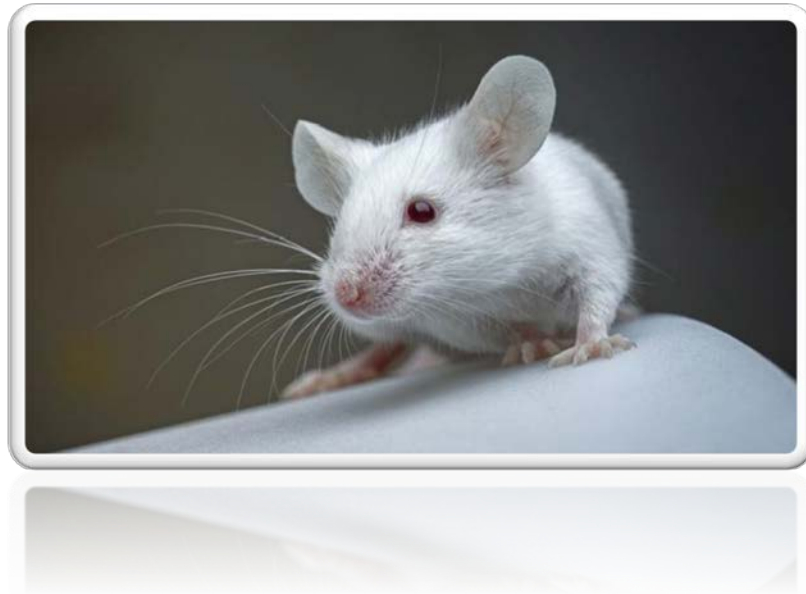


## IMMUNOPHARMACOLOGY AND MUSCULAR DYSTROPHY



Duchenne muscular dystrophy (DMD) results from destabilization of the patient's skeletal muscle resulting from a loss of structural protein dystrophin. Much of the pathology of DMD is associated with chronic inflammation with extracellular matrix remodeling leading to an increase in tissue fibrosis. Thus, serine proteases necessary for the remodeling and the histopathology of the disease represent potential therapeutic targets. Viruses have developed several strategies for modulating the host's innate immunity, including expression of serine protease inhibitors. The strong selection pressure associated with host---virus interactions raises the possibility that these proteins may be highly effective at inhibiting the innate immune response sterile injuries such as DMD. The efficacy of the viral serine protease inhibitors to reduce DMD---associated inflammation and fibrosis will be tested in a mouse model for DMD, *mdx*. Students will be expected to participate in the design and execution of the trial as well as data analysis.

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