

**S. aureus infection**-Adult mice (6wks, both sexes) will be anesthetized with ketamine (100 mg/kg) and xylazine (5 mg/kg) prior to infection. Once anesthetized, mice will be intranasally inoculated with  $4 \times 10^7$  cfu *S. aureus* in 50  $\mu$ L of PBS. At this dose mice do not exhibit physical signs of illness. Mice will be euthanized by intraperitoneal injection of pentobarbital (200mg/kg). Pentobarbital overdose was chosen for the swiftness of action and minimal stress on the animal and to prevent gas effects on immune cell populations. All other procedures are conducted after euthanasia.