Studying CD8+ T cells in health and disease

Research emphasis:
Dr. Hess’s laboratory focuses on CD8+ T cells. In dogs, we’re working on developing adoptive T-cell therapy for eradicating chemoresistant cancer cells in lymphoma, histiocytic sarcoma and hemangiosarcoma. In cats, our long-term goal is to understand why CD8+ T-cell defenses fail when confronted with the mutant coronavirus that causes feline infectious peritonitis.

Application:
- Antigen discovery in canine lymphoma & sarcomas
- T-cell epitope identification in canine viral infections
- T-cell receptor (TCR) minimal residual disease tracking in canine lymphoma
- Feline Leukocyte Antigen (FLA) allele discovery

Collaboration potential:
- DLA/FLA Class I sequencing
- TCR sequencing in dogs & cats

Selected publications:

