

Virology and Vaccine Program

- NIH/NIAID, CDC funded mucosal HSV-2 and RSV vaccine research grants (>\$10M).
- NIAID has awarded a seven-year contract to develop animal models of infectious diseases to a research consortium including: Biomere, University of Massachusetts Medical School, US Army Medical Research Institute of Infectious Diseases and Jackson Laboratories.
- Various animal models for multiple virus infections (Mice, cotton rats, guinea pigs, rabbits, NHPs).

LCMV Overview

- LCMV is a Biosafety level II agent.
- Virus stock preparation, formulation and administration are all performed in BSL-II cabinets.
- Grouped animals are kept in closed, negatively pressured cages on a ventilation rack or micro-isolator within a bio-containment facility dedicated for microbiology studies.
- Employees directly working with the LCMV virus related studies are required to be equipped with proper PPE and follow stringent SOPs.

LCMV Models

Mouse LCMV infection model has been used to evaluate therapeutic treatments against chronic human viral infections and cancers.

- Viral clearance or persistent infection
- T cell response or exhaustion

Acute infection (Armstrong strain)

- Robust anti-viral T cell response
- Mediated by CD8+ virus-specific T cells
- Cleared within 2 weeks post infection

Chronic infection (clone 13)

- Associated with functional impairment, exhaustion of virus-specific CD8+ T cells
- Lasting several months

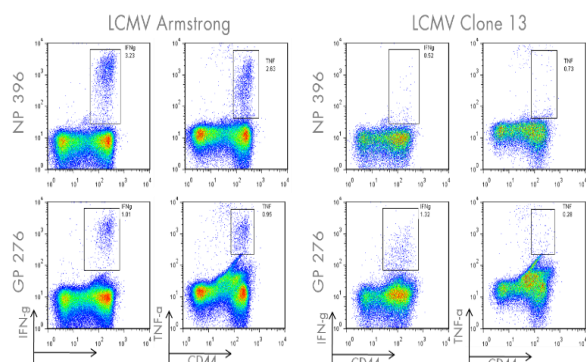


Fig.1 CD8+ T Cell Responses 29 Days Post LCMV Infection

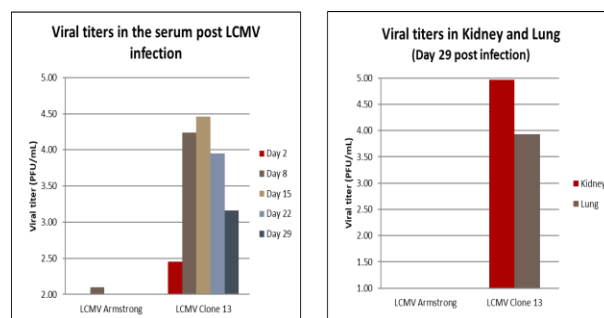


Fig.2 Virus Titers in Mouse Tissues post LCMV Infection

Summary

- Chronic LCMV infection and acute LCMV infection in mice lead to different T cell responses and virus loads. These two LCMV mouse infection models are ideally suited for testing T cell modulation drugs against different types of tumors.
- Scientific team with decades of combined experience, tailored study design for your project needs. Competitive pricing. Flexible and rapid study start to your timelines.