

VACCINE DEVELOPMENT

HSV-1 AND HSV-2 INFECTION MODELS

- Intravaginal inoculation of HSV-2 virus to monitor morbidity (clinical score & body weight loss), mortality and viral load during primary and recurrent phases in both female mice and guinea pigs**
- HSV-2 infection model in male guinea pig
- Intranasal infection with attenuated and virulent HSV-1 strains
- Ocular infection of HSV1 in mice and rabbits
- Evaluate systemic and mucosal immune responses and protection
- Investigate latency and recurrence using clinical scores and RT-qPCR

RESPIRATORY SYNCYTIAL VIRUS (RSV)

- RSV infection of cotton rats
- Infection of Balb/c mice results in low and moderate level of replication that peaks on Day 4
- Clinical symptoms: weight loss, changes in lung function and clinical signs
- Pulmonary eosinophilia

RECOGNIZED EXPERTISE IN INFECTIOUS DISEASE

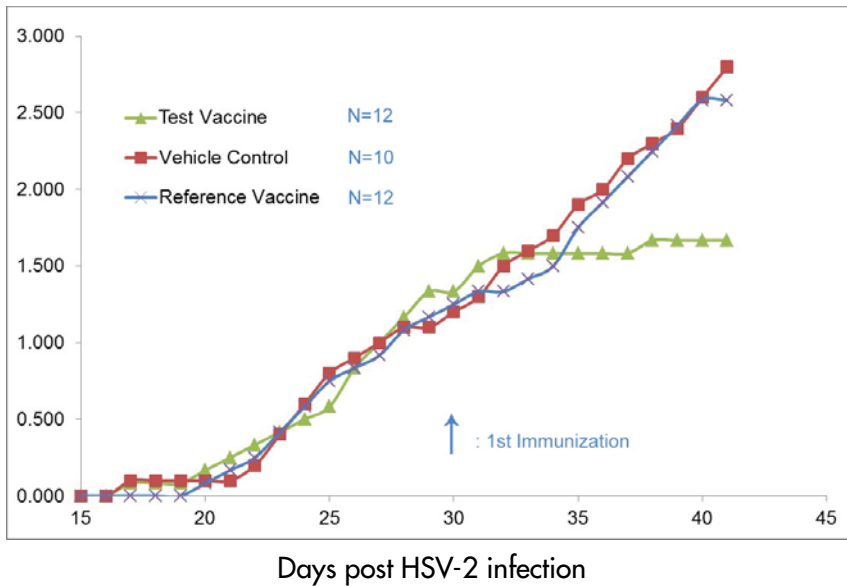
- NIH/NIAID, CDC funded mucosal HSV-2 and RSV vaccine research grants (~\$10M)
- Seven-year contract from NIAD to develop animal models of infectious diseases to a research consortium including:
 1. Biomere
 2. UMASS Medical School
 3. US Army Medical Research Institute of Infectious Diseases
 4. Jackson Laboratories



OTHER INFECTION MODELS AVAILABLE

- Influenza H1N1 virus infection (edema & fibrosis studies)
- Customize virus infection models for clients
- Lymphocytic choriomeningitis virus (LCMV) and cytomegalovirus (CMV)
- Humanized mouse models for infectious diseases

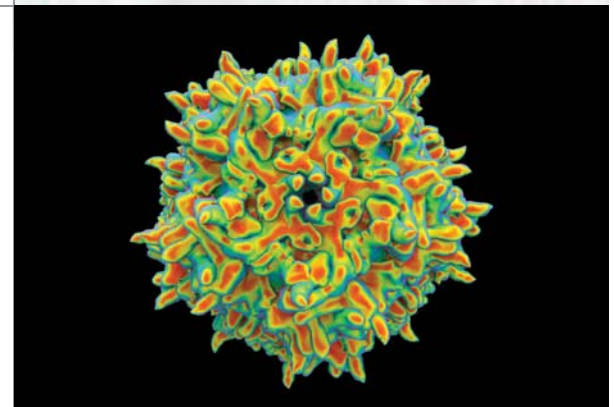
**Cumulative Recurrences of Clinical Scores in Guinea Pigs



PUBLICATIONS

A mucosal vaccination approach for herpes simplex virus type 2.
Tirabassi, R.S., Ace, C., Levchenko, T.S., Torchilin, V.P., Selin, L.K., Nie, S., Guberski D.L., Yang, K. *Vaccine* 29 (2011) 1090–1098.

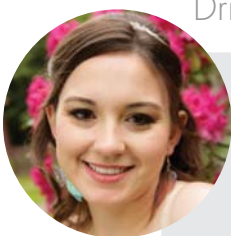
Mucosal vaccines against respiratory syncytial virus
Kejian Yang and Steven M Varga; *Current Opinion in Virology* 2014, 6:78–84.



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IT'S PERSONAL.

Driven to expedite your journey.



“ Herpes Simplex Virus (HSV) infections cause latency and recurrence which can lead to painful sores, virus shedding and transmission throughout a person’s life. Biomere has worked for over a decade on developing a mucosal HSV vaccine. This work and the research on a mucosal RSV vaccine has helped us build a strong service program on vaccine evaluation and infectious disease infection models. With extensive experience in several different viral model systems, we can find and set up the right virus model for your needs. ”

- Elizabeth O., Scientist