

**To determine the anti-viral efficacy of 3VM-1000  
suspension in K18-hACE2 transgenic mice model  
of SARS-CoV-2 infection**

**Study Sponsor:**  
**Dominic C Abbott**  
**Executive Vice President & CEO**  
**3V Medical Research Group, Inc.**

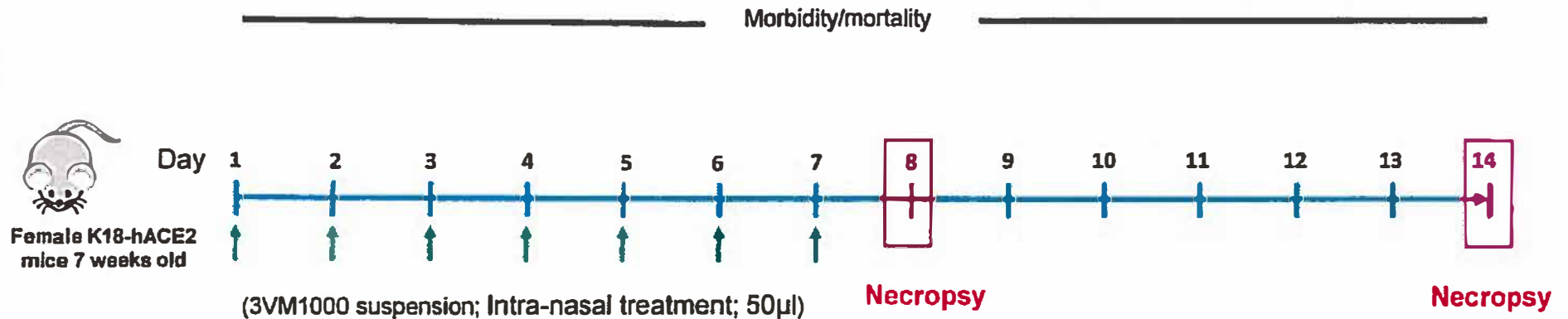
**Test Facility:**  
**Texas Biomedical Research Institute**  
**8715 W. Military Drive**  
**San Antonio, Tx 78227**



# Study Aims

- **To determine toxicity of 3VM-1000 suspension in the K18-hACE2 transgenic mouse model**
- **To assess anti-viral efficacy of 3VM-1000 suspension against SARS-CoV-2 infection in the K18-hACE2 transgenic mouse model**

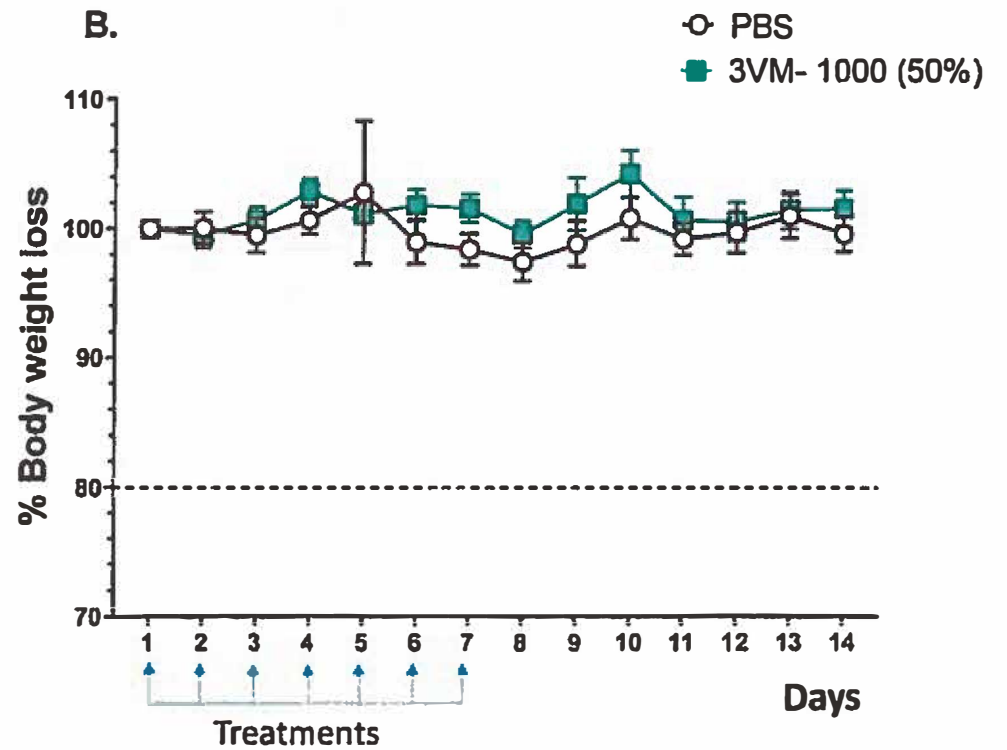
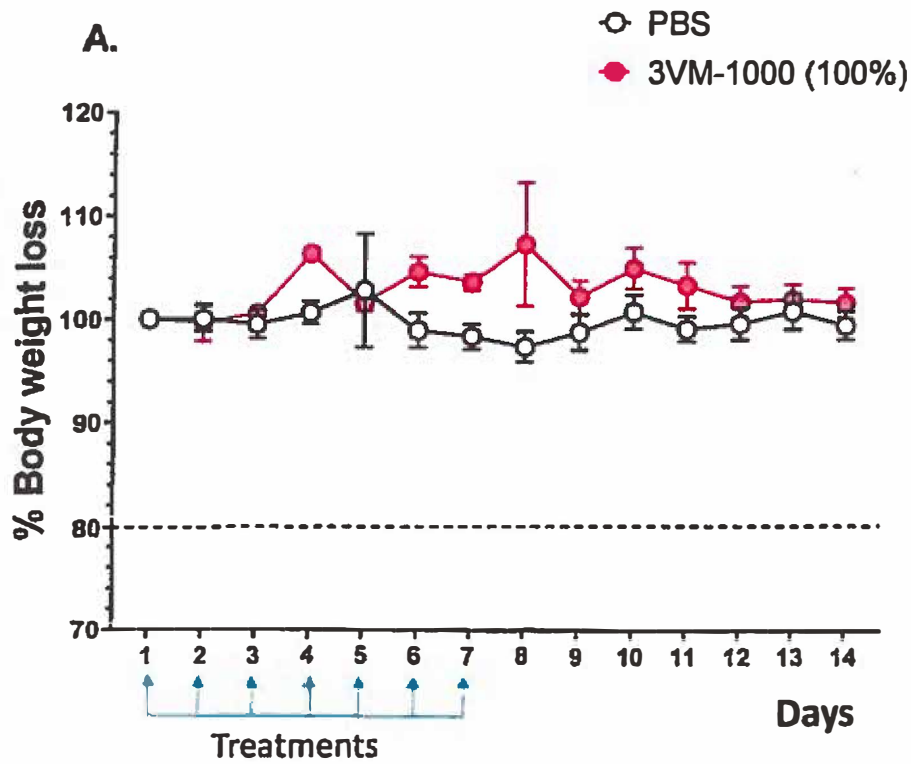
# Aim 1: To determine *in-vivo* toxicity of 3VM-1000 suspension in the K18-hACE2 transgenic mouse model



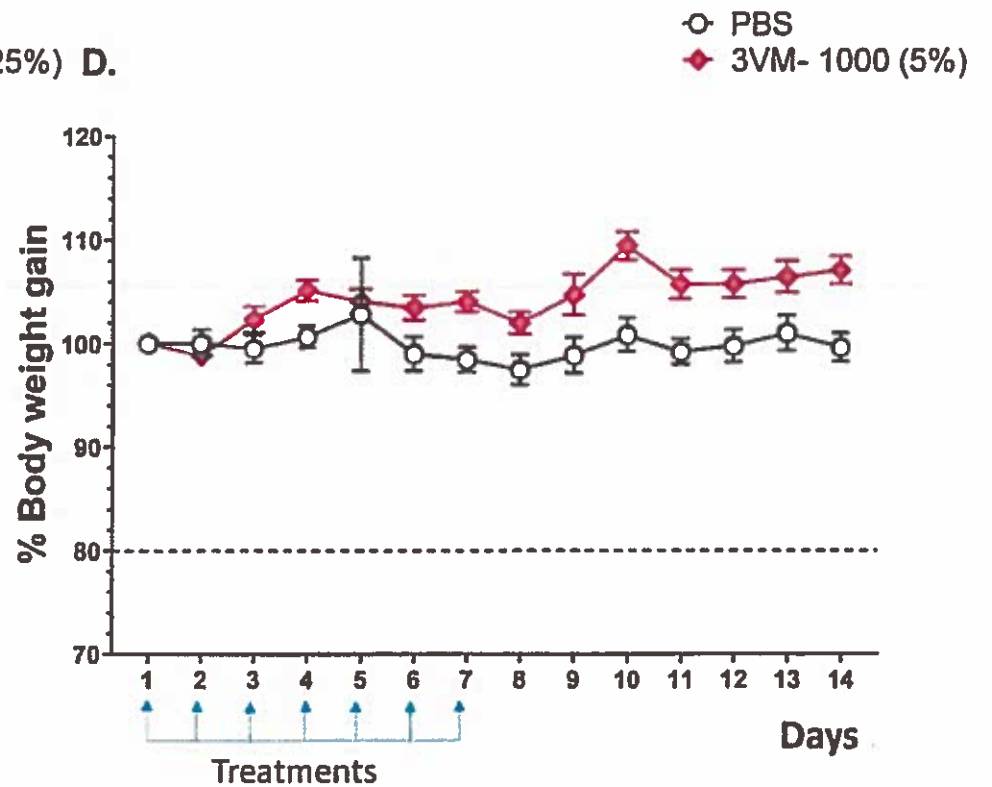
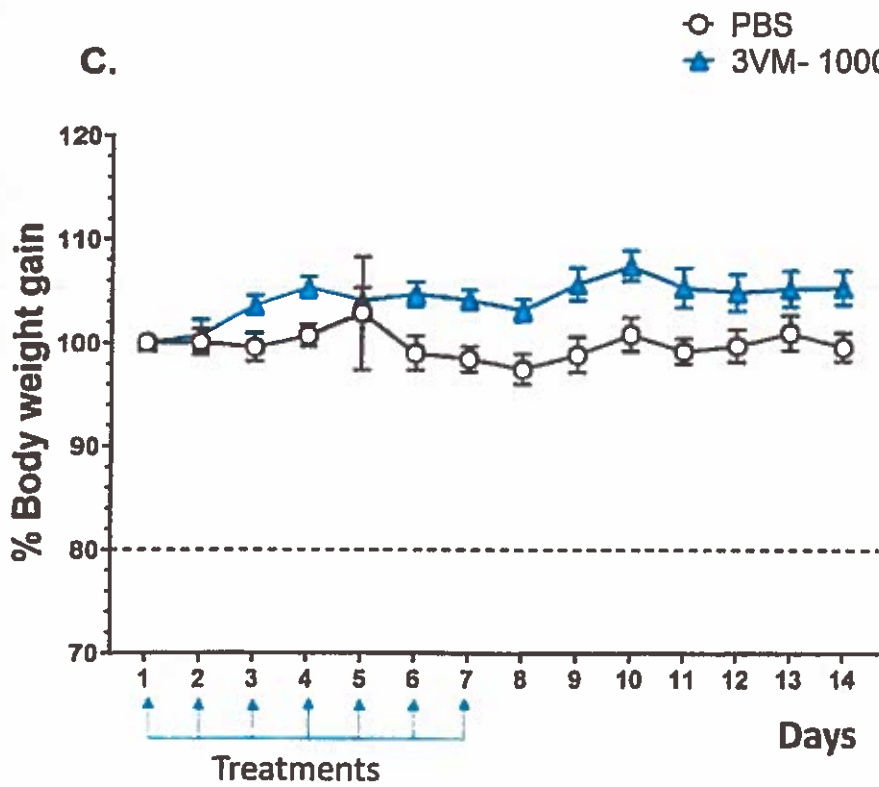
- Group 1: Mock- PBS (n=10)
- Group 2: 3VM-1000 (100%) (n=10)
- Group 3: 3VM-1000 (50%) (n=10)
- Group 4: 3VM-1000 (25%) (n=10)
- Group 5: 3VM-1000 (5%) (n=10)

- Lungs and liver were collected in 10% formalin for histopathology analysis
- Lung lysates were collected and stored at -80°C

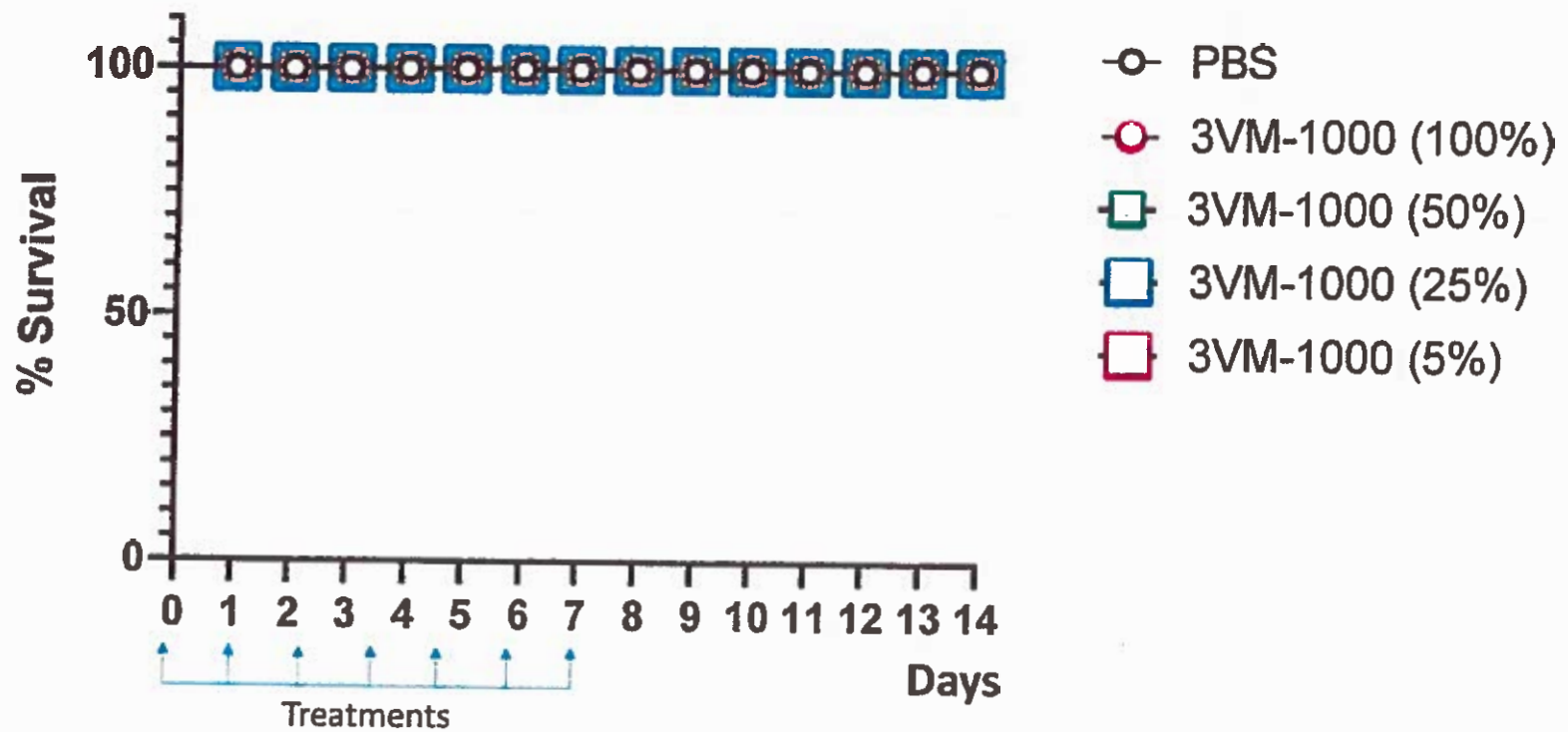
# Morbidity (Weight loss)



# Morbidity (Weight loss)



## Mortality (Survival)

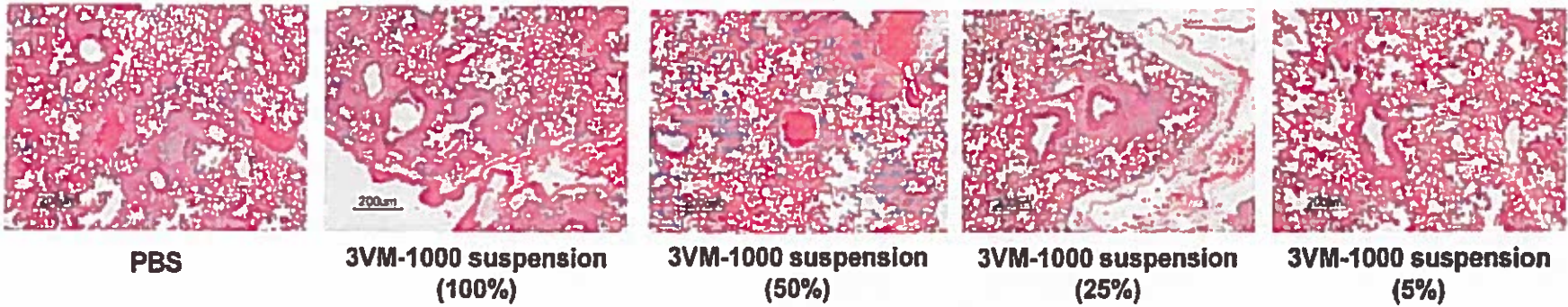


## **Histopathology Analysis: Lung and Liver (at 1 & 7 days post-treatment)**

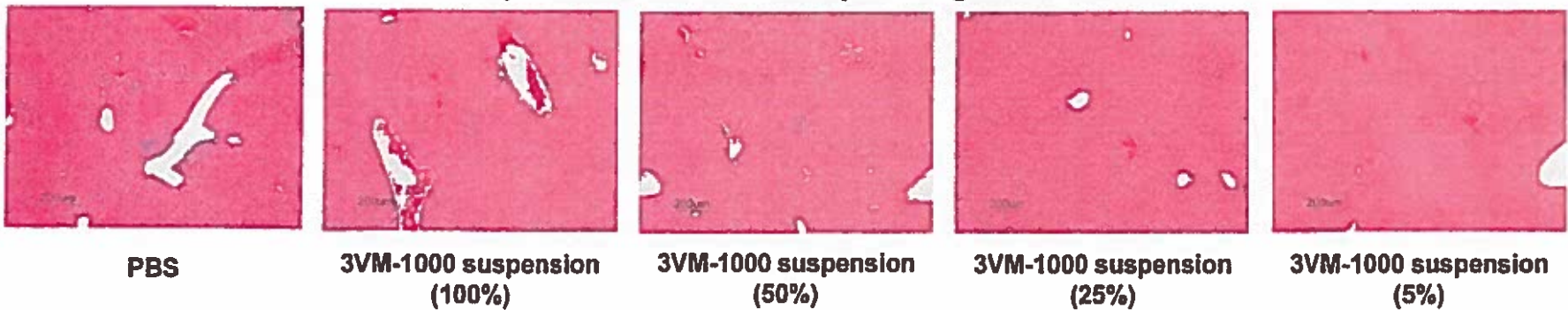
- Focal aggregate of foamy macrophages in the lungs
- Minimal to mild inflammation
- Many histiocytic lesions were found in the lungs
- Normal morphology in liver tissue

# Day 1 post treatment (after 7 days of treatment)

## Representative microscopic images of lungs



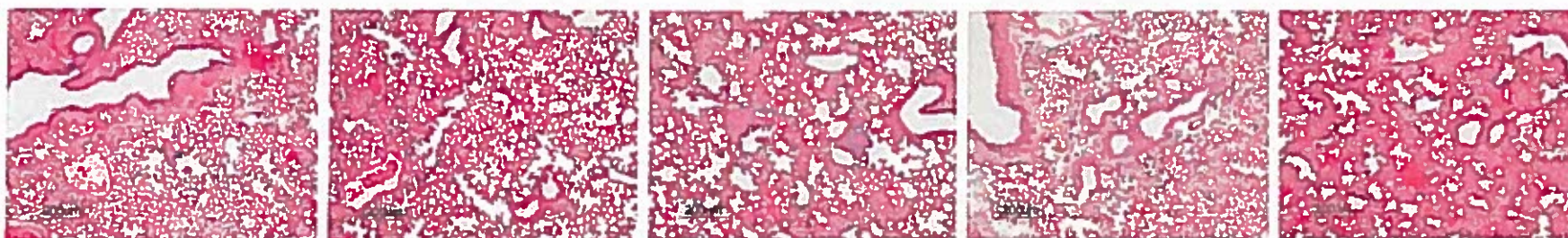
## Representative microscopic images of liver





## Day 7 post treatment (after 7 days of treatment)

### Representative microscopic images of lungs



**PBS**

**3VM-1000 suspension  
(100%)**

**3VM-1000 suspension  
(50%)**

**3VM-1000 suspension  
(25%)**

**3VM-1000 suspension  
(5%)**

### Representative microscopic images of liver



**PBS**

**3VM-1000 suspension  
(100%)**

**3VM-1000 suspension  
(50%)**

**3VM-1000 suspension  
(25%)**

**3VM-1000 suspension  
(5%)**

## Aim 1 Summary

- No signs of morbidity and mortality (100% survival) were observed for any of the 3VM-1000 doses administered into K18-hACE2 transgenic mice
- H&E analysis confirmed these results showing no signs of apparent cytotoxicity in the lungs and liver of 3VM-1000 treated K18-hACE2 transgenic mice at any of the doses evaluated
- Results derived from this study indicate that 7 days of intranasal treatment with the highest concentration of 3VM-1000 suspension (100%) causes no cytotoxicity in mouse lungs and liver, and thus we propose to use the 100% 3VM-1000 suspension dose to assess its efficiency against SARS-CoV-2 infection in the K18-hACE2 transgenic mouse model