

## SUPPLEMENTARY INFORMATION

### **Experimental Zika Virus Inoculation in a New World Monkey Model Reproduces**

#### **Key Features of the Human Infection**

Charles Y. Chiu<sup>123\*</sup>, Claudia Sanchez San Martin<sup>12</sup>, Jerome Bouquet<sup>12</sup>, Tony Li<sup>12</sup>,  
Shigeo Yagi<sup>4</sup>, Manasi Tamhankar<sup>5</sup>, Vida L. Hodara<sup>5</sup>, Laura M. Parodi<sup>5</sup>, Sneha  
Somasekar<sup>12</sup>, Guixia Yu<sup>12</sup>, Luis D. Giavedoni<sup>5</sup>, Suzette Tardif<sup>5</sup>, and Jean Patterson<sup>5</sup>

<sup>1</sup>Department of Laboratory Medicine, University of California, San Francisco, CA  
94107, USA.

<sup>2</sup>UCSF-Abbott Viral Diagnostics and Discovery Center, San Francisco, CA 91407,  
USA.

<sup>3</sup>Department of Medicine, Division of Infectious Diseases, University of California, San  
Francisco, CA 94107

<sup>4</sup>California Department of Public Health, Richmond, CA

<sup>5</sup>Texas Biomedical Research Institute, San Antonio, TX

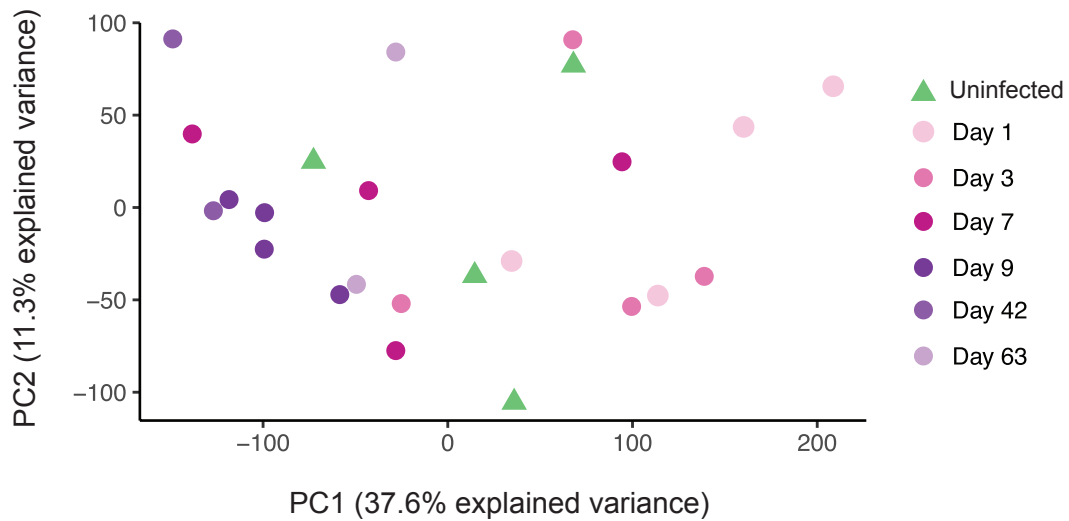
\*Corresponding author: 185 Berry Street, Box #0134, UCSF China Basin, San  
Francisco, CA 94107, [charles.chiu@ucsf.edu](mailto:charles.chiu@ucsf.edu)

**Supplementary Table 1. Scoring system used for assessing clinical symptoms in marmosets experimentally infected with ZIKV.**

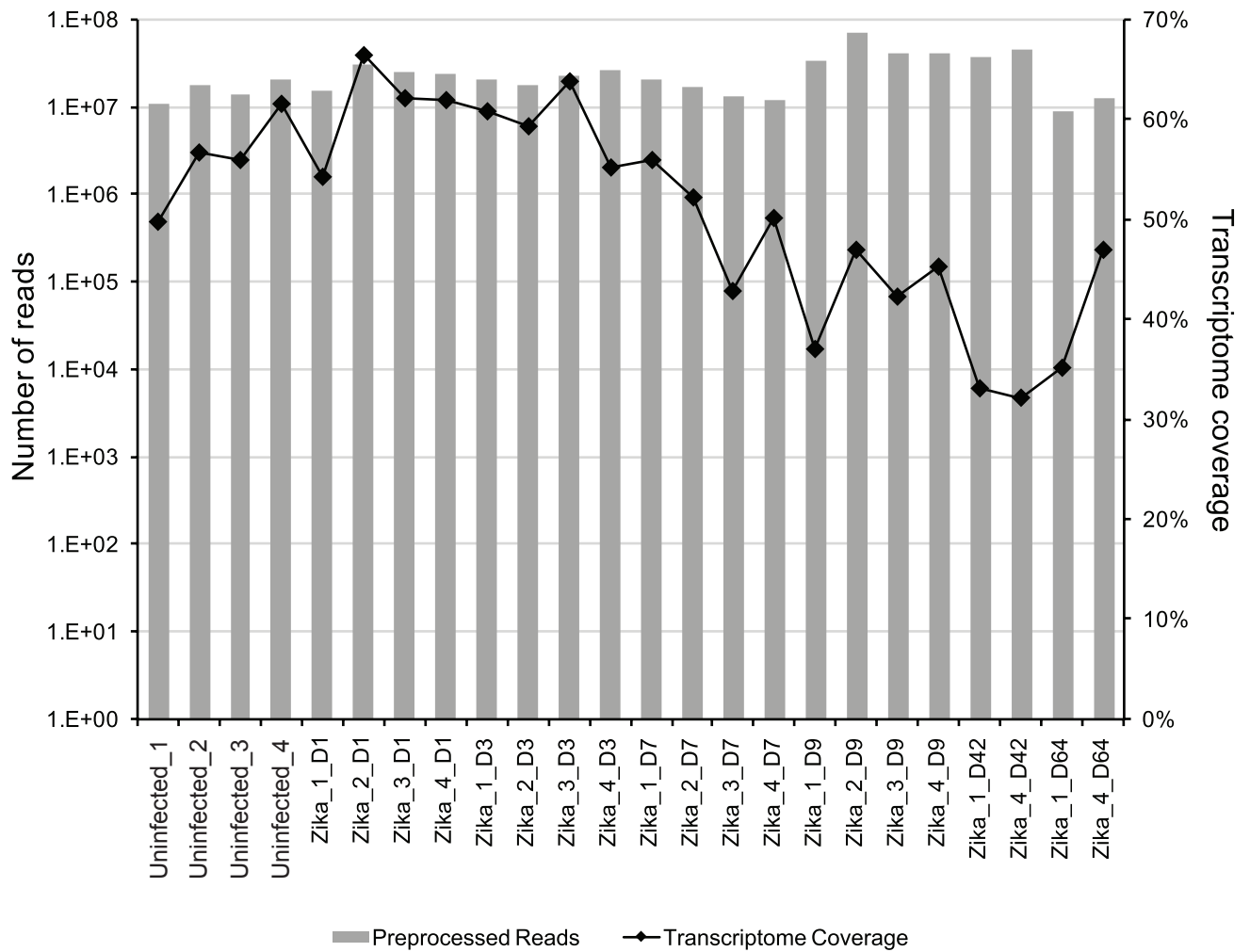
Category	Scoring Criteria
Weight loss	0: no change from baseline 2: 5–10%↓ 3: 11–15%↓
Temperature / fever	0: no change from baseline 1: >2°F 2: >3°F 4: >5°F
Responsiveness	0: active 2: mild unresponsiveness, becomes active when approached 3: moderate unresponsiveness, lethargic (requires prodding), weakness 5: severe unresponsiveness, moribund
Recumbency	0: active 1: occasional prostration 2: persistent prostration but rises when approached 5: prostrate
Activity:	0 = normal, active and alert 3 = abnormal, reduced activity
Dyspnea	0: normal breathing 3: labored 5: agonal
Petechiae or rash	0: none present 3: petechiae or rash present
Bleeding at venipuncture site	0: none 3: present
Bleeding other than venipuncture site	0: none 3: present
Nasal discharge	0: not present 3: visible discharge (copious)
Eyes	0: normal 1: discharge 3: partially closed 4: closed
Cubes eaten	0: ate 5-4 1: ate 4-3 2: ate 3-2 3: ate 2-1 4: ate 0-1 5: none
Stool	0: normal 2: diarrhea 4: reduced volume 5: no stool present
Fluid intake	0: drinking 2: reduced intake 3: not drinking
Dehydration (skin tent)*	0: test not done 1: 3 secs 3: 4 secs and up
TOTAL**	

\* Skin tent test is performed during sedation time points.

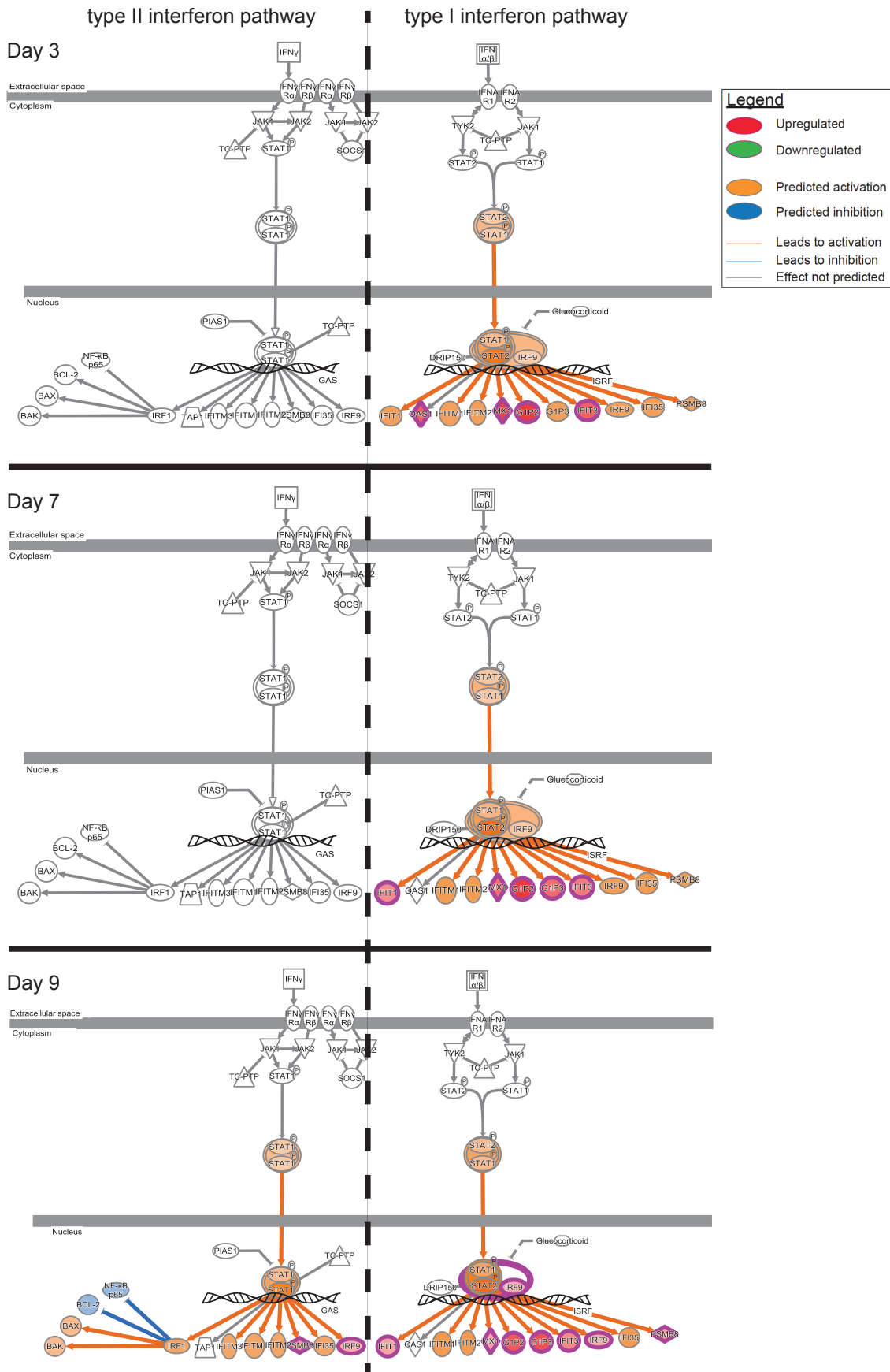
\*\* Total clinical score is determined by adding up all clinical scores by category. If total score is >20, animal is considered “terminally ill” and should be euthanized.



**Supplementary Figure 1. Principal component analysis (PCA) of the gene expression profiles of ZIKV-infected marmosets and controls.** A two-dimensional PCA plot comparing ZIKV-infected marmosets (circles, color-coded by day post-inoculation) and uninfected controls (green triangles) is shown. Gene expression profiles were obtained by whole blood transcriptome analysis. No apparent clustering suggestive of technical bias is observed.



**Supplementary Figure 2. Transcriptome coverage of whole blood samples from ZIKV-infected marmosets and controls.** The bar graph shows the number of “preprocessed” reads, or reads remaining after removing low-quality (Phred score < 30) and short (length <100 bp) sequences. The line graph shows the transcriptome coverage as the percentage of gene isoforms with nonzero counts.



**Supplementary Figure 3. Type I and II interferon pathways activated during acute ZIKV infection.** Shown are transcripts associated with the type I and type II interferon pathways at days 3, 7, and 9 post-infection (red = transcript up-regulation; green = transcript down-regulation; orange = predicted activation, with darker shades of orange reflecting increased levels of activation; blue = predicted inhibition).