

Supporting Information

A multiwell-plate *Caenorhabditis elegans* assay for assessing the therapeutic potential of Bacteriophages against Clinical Pathogens

Prasanth Manohar^{1,2}, Belinda Loh¹, Namasivayam Elangovan³, Archana Loganathan⁴, Ramesh Nachimuthu*⁴, Sebastian Leptihn*^{1,5,6}

¹*Zhejiang University-University of Edinburgh (ZJE) Institute, Zhejiang University, School of Medicine, Haining, Zhejiang, PR China*

²*The Second Affiliated Hospital Zhejiang University (SAHZU), School of Medicine, Hangzhou, Zhejiang, PR China*

³*Department of Biotechnology, School of Bioscience, Periyar University, Salem, Tamil Nadu, India*

⁴*Antibiotic Resistance and Phage Therapy Lab, Department of Biomedical Science, School of Biosciences and Technology, Vellore, Tamil Nadu, India*

⁵*Department of Infectious Diseases, Sir Run Run Shaw Hospital, Zhejiang University, School of Medicine, Hangzhou, PR China*

⁶*University of Edinburgh Medical School, Biomedical Sciences, College of Medicine & Veterinary Medicine, The University of Edinburgh, 1 George Square, Edinburgh, EH8 9JZ, United Kingdom*

***Corresponding authors:**

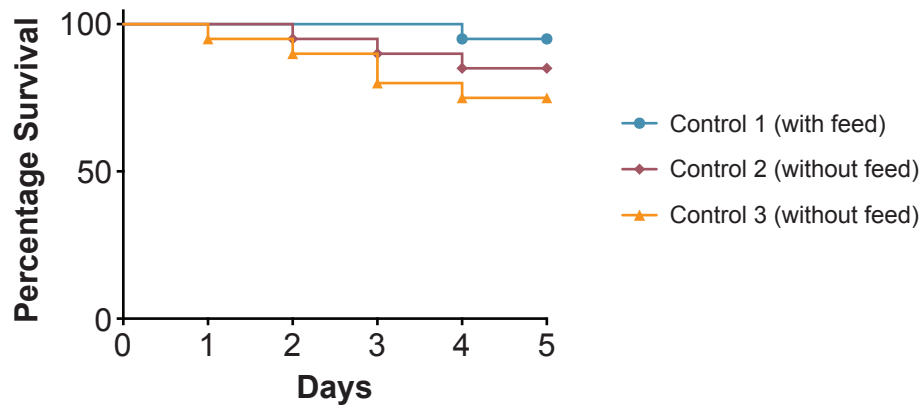
1. Prof. Dr Ramesh Nachimuthu

Assistant Professor,
School of Biosciences and Technology,
Vellore, Tamil Nadu, India
E-mail: drpnramesh@gmail.com

2. Prof. Dr Sebastian Leptihn

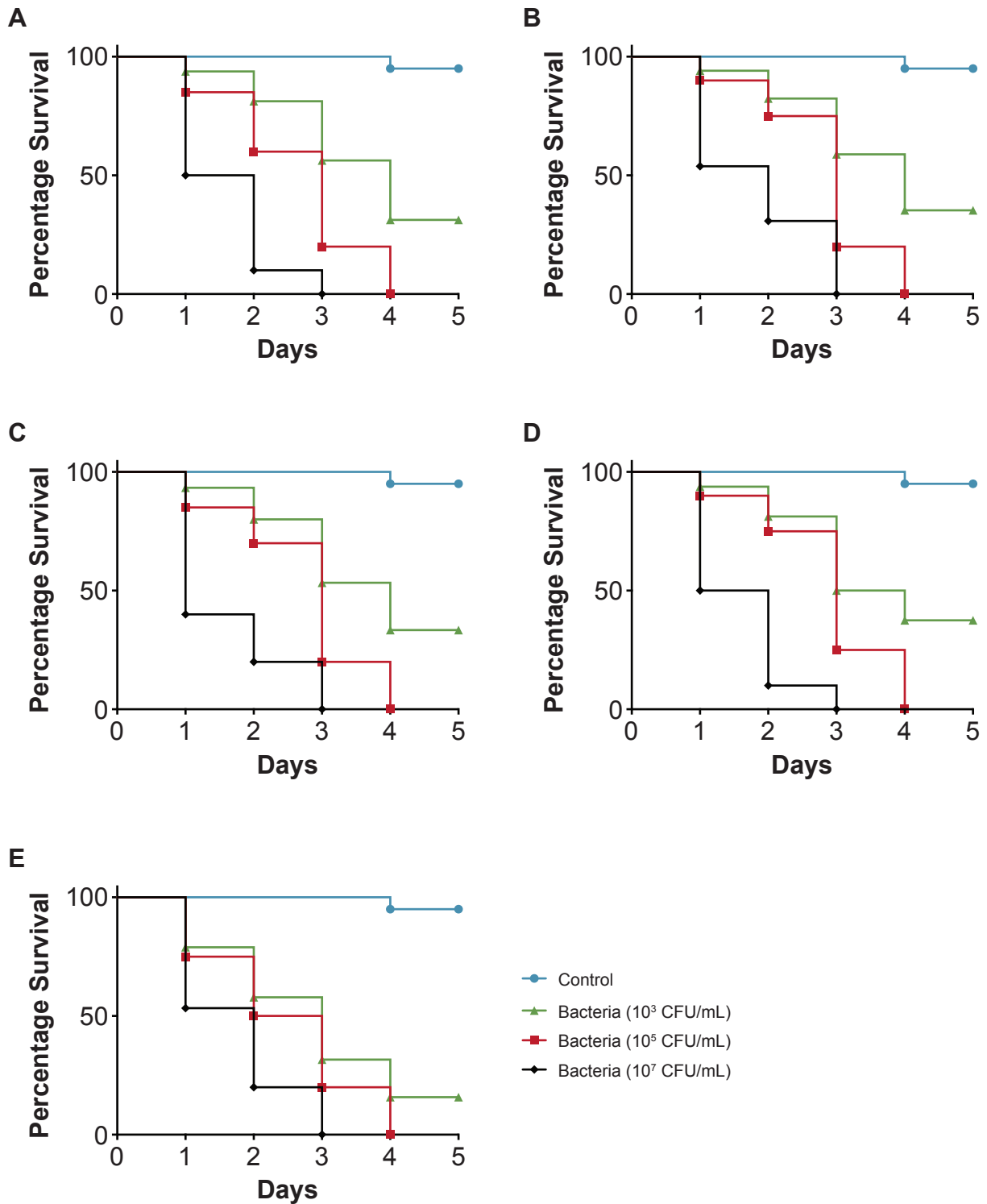
Associate Professor,
Zhejiang University-University of Edinburgh (ZJE) Institute,
Zhejiang University, School of Medicine,
Haining, Zhejiang, PR China
E-mail: Leptihn@intl.zju.edu.cn

Supplementary Figure 1



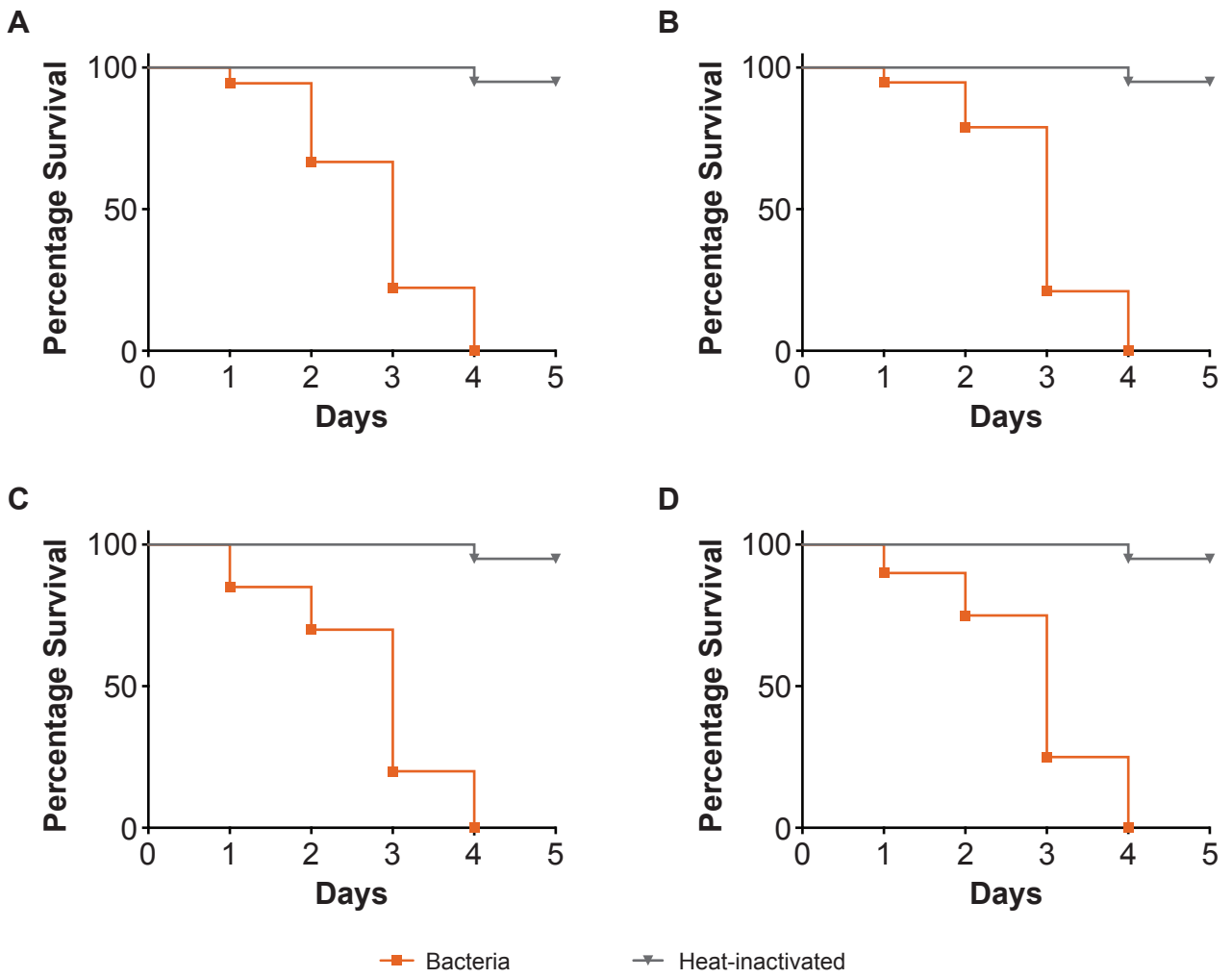
Supplementary Figure 1: Survival curves of *C. elegans*. Nematodes were kept in varying growth conditions; Control 1: nematodes were fed with *E. coli* OP50, Control 2 (liquid media) & Control 3 (solid-media): nematodes were not fed. Survival curves were plotted using Kaplan-Meier method and log-rank test was used to analyze the difference in survival rates in GraphPad Prism 7.0.

Supplementary Figure 2



Supplementary Figure 2: Survival curves of nematodes (*C. elegans*) when infected with pathogenic bacteria at different concentrations, 10^3 , 10^5 and 10^7 CFU/mL. (A) *C. elegans* infected with *Escherichia coli* 131; (B) *C. elegans* infected with *Escherichia coli* 311; (C) *C. elegans* infected with *Klebsiella pneumoniae* 235; (D) *C. elegans* infected with *Enterobacter cloacae* 140. The survival curves were plotted using Kaplan-Meier method in GraphPad Prism 7.0.

Supplementary Figure 3



Supplementary Figure 3: Survival curves of nematodes (*C. elegans*) when infected with live bacteria and heat-killed bacteria. (A) *C. elegans* infected with *Escherichia coli* 131; (B) *C. elegans* infected with *Escherichia coli* 311; (C) *C. elegans* infected with *Klebsiella pneumoniae* 235; (D) *C. elegans* infected with *Enterobacter cloacae* 140. The survival curves were plotted using Kaplan-Meier method in GraphPad Prism 7.0.