

**Bacteriological and histopathological analysis of *Penaeus vannamei*  
experimentally infected with *Vibrio parahaemolyticus*-AHPND strains**

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Table S1. Mean bacterial density (CFU ml<sup>-1</sup> ± SD) from the water column and the bottom of the aquarium) during challenge with *Vp* M0904 and *Vp* M0607 strains.

Treat.	Time post infection (h)					
	0	4	8	12	24	48
<b>Water column (CFU ml<sup>-1</sup>)</b>						
<b>Control</b>	1.1 x 10 <sup>3</sup> ± 0.02	3.9 x 10 <sup>3</sup> ± 0.04	6.4 x 10 <sup>3</sup> ± 0.22	9.6 x 10 <sup>3</sup> ± 0.02	4.4 x 10 <sup>4</sup> ± 0.02	1.0 x 10 <sup>5</sup> ± 0.01
<b>M0904</b>	4.5 x 10 <sup>4</sup> ± 0.01	1.3 x 10 <sup>5</sup> ± 0.01	9.1 x 10 <sup>5</sup> ± 0.23	5.9 x 10 <sup>6</sup> ± 0.11	1.2 x 10 <sup>5</sup> ± 0.07	3.2 x 10 <sup>4</sup> ± 0.07
<b>M0607</b>	5.6 x 10 <sup>4</sup> ± 0.10	2.1 x 10 <sup>5</sup> ± 0.03	7.1 x 10 <sup>5</sup> ± 0.03	7.2 x 10 <sup>5</sup> ± 0.08	4.4 x 10 <sup>5</sup> ± 0.13	2.3 x 10 <sup>5</sup> ± 0.46
<b>Bottom (CFU ml<sup>-1</sup>)</b>						
<b>Control</b>	1.4 x 10 <sup>4</sup> ± 0.07	7.1 x 10 <sup>3</sup> ± 0.03	1.1 x 10 <sup>4</sup> ± 0.08	1.4 x 10 <sup>4</sup> ± 0.13	2.5 x 10 <sup>5</sup> ± 0.10	1.1 x 10 <sup>5</sup> ± 0.07
<b>M0904</b>	7.2 x 10 <sup>4</sup> ± 0.06	1.9 x 10 <sup>5</sup> ± 0.10	1.6 x 10 <sup>6</sup> ± 0.11	1.7 x 10 <sup>7</sup> ± 0.20	5.1 x 10 <sup>6</sup> ± 0.16	6.3 x 10 <sup>6</sup> ± 0.01
<b>M0607</b>	7.6 x 10 <sup>4</sup> ± 0.14	2.6 x 10 <sup>5</sup> ± 0.15	6.9 x 10 <sup>5</sup> ± 0.20	1.1 x 10 <sup>6</sup> ± 0.06	3.9 x 10 <sup>5</sup> ± 0.01	6.5 x 10 <sup>5</sup> ± 0.05

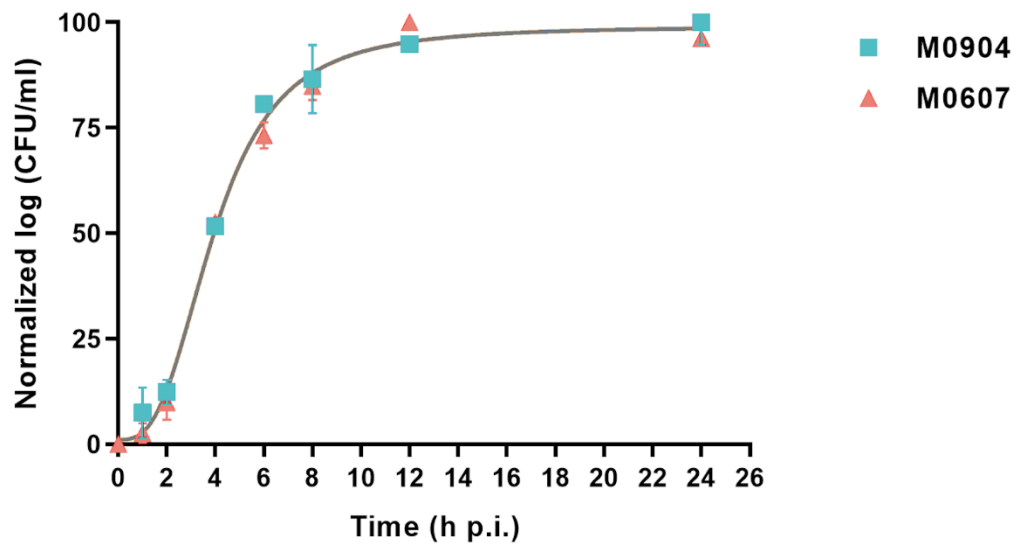


Figure S1. *in vitro* bacterial kinetic of *Vibrio parahaemolyticus* M0904 and M0607-AHPND strains incubated in TSB supplemented with 2.0 % NaCl (gray line non-linear fit model).

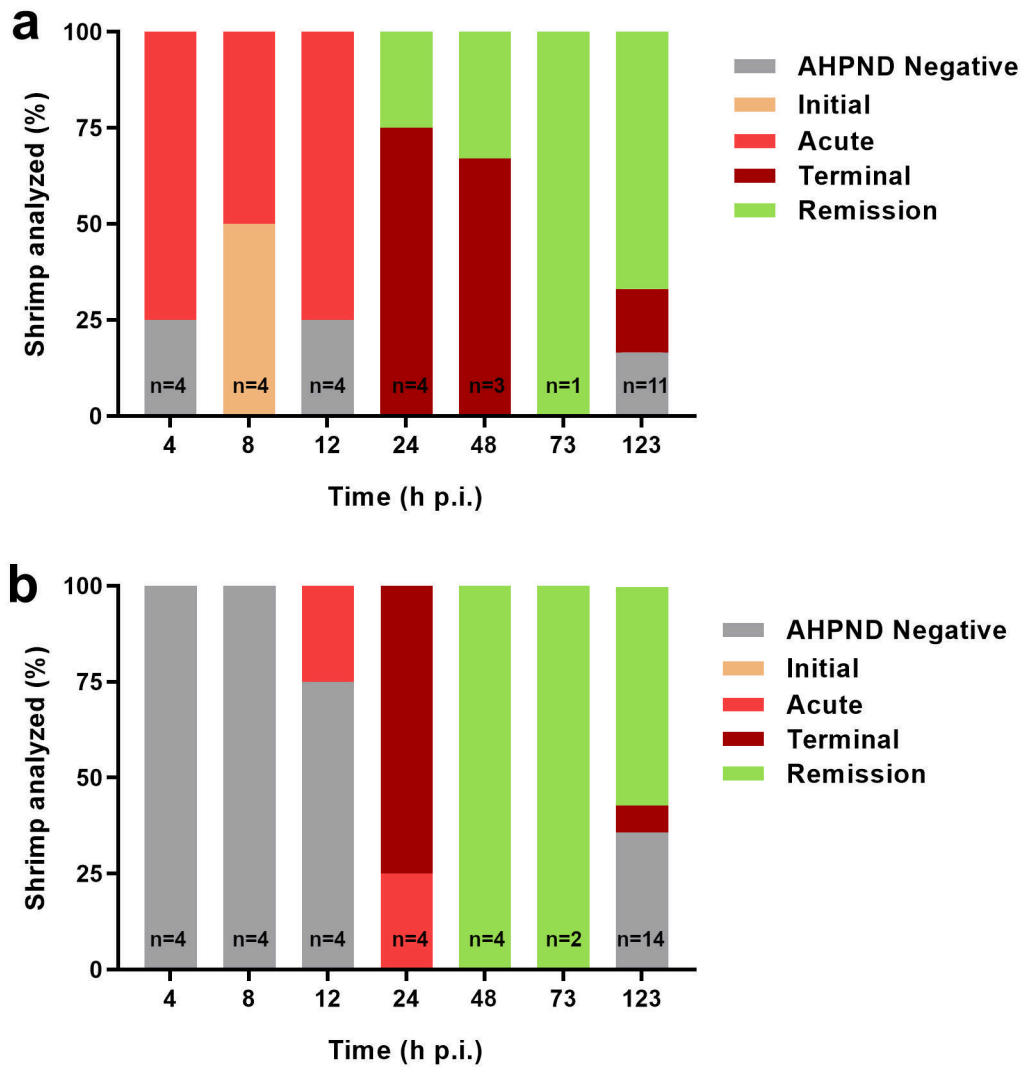


Figure S2. **a** Progression of AHPND stages in shrimp (*P. vannamei*) inoculated with *Vp* M0904 and, **b** inoculated with *Vp* M0607 strains at  $10^5$  CFU ml<sup>-1</sup>. n = number of analyzed shrimp by time.

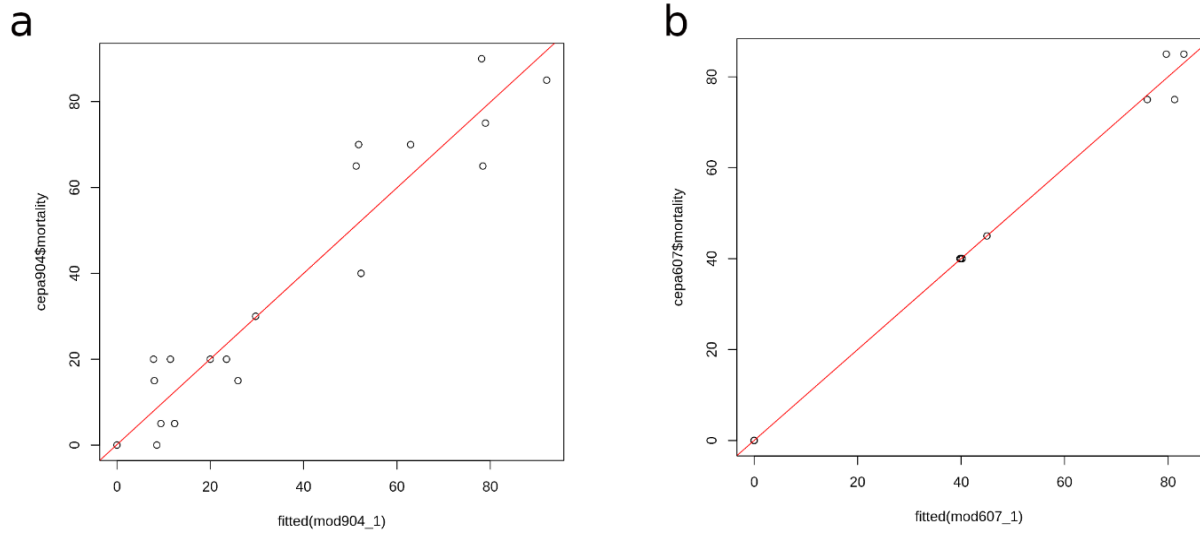


Figure S3. Model evaluation observed vs. predicted. **a** *Vp* M0904, **b** *Vp* M0607.

Table S2. Analysis of deviance in each strain *Vp* M0904 and *Vp* M0607.**Strain *Vp* M0607**

	<b>Df</b>	<b>Deviance</b>	<b>Resid.Df</b>	<b>Resid. Dev</b>	<b>Pr(&gt;Chi)</b>
NULL			19	904.91	
Time	1	693.75	18	247.16	< 2.2e-16
Bacteria	1	45.30	17	201.86	1.69e-11
Stage	3	200.36	14	1.50	< 2.2e-16
Grade	1	0.59	13	0.91	0.442

**Strain *Vp* M0904**

NULL			19	562.56	
Time	1	367.05	18	195.50	< 2.2e-16
Bacteria	1	2.93	17	192.57	0.086702
Stage	5	106.29	12	86.28	< 2.2e-16
Grade	1	8.20	11	78.08	0.004192