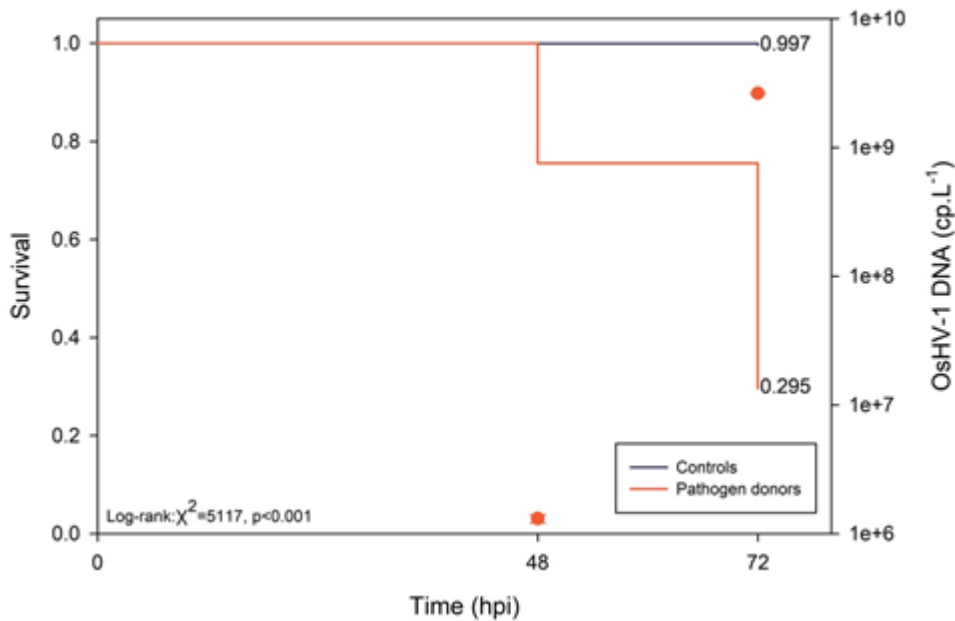


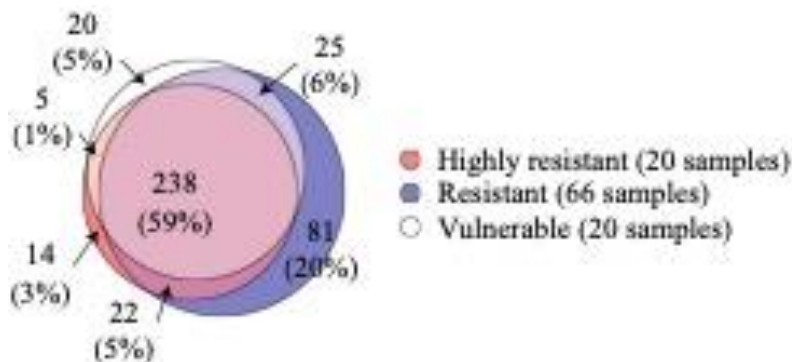
Supplementary material



Sup Figure 1. Survival (solid line) of oysters injected with either OsHV-1 suspension (pathogen donors) or sterile seawater (controls) as a function of time (hours post infection; hpi). og-rank: Chi-square: 5117, p-value <0.001. The dots indicate the quantification of OsHV-1 DNA in the water, expressed as copies per litre. Data were log (x+1) transformed.

Sup Table 4: Permutational analysis of variance of oyster microbial community composition, with Infection, Family, Collection date, and their interaction terms as factors. Significant p values are highlighted in bold.

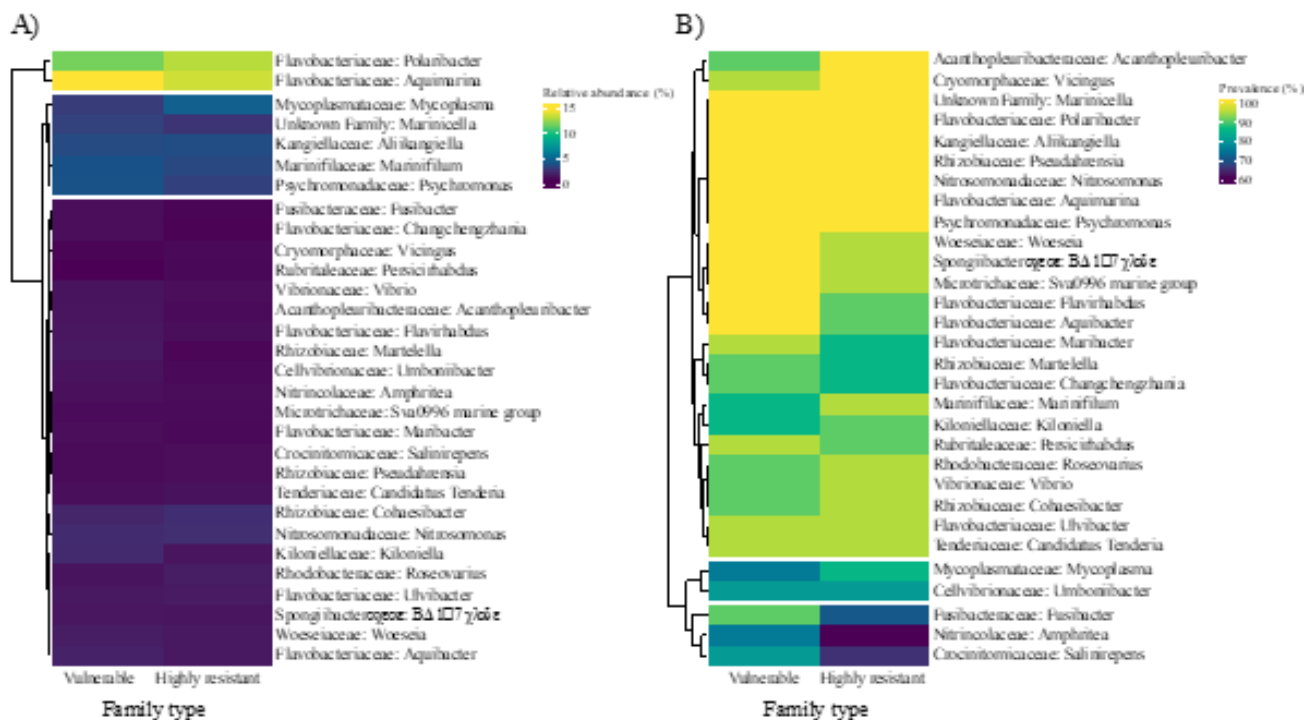
Term	R2	p value
Infection	0.097	0.001
Family	0.113	0.001
Collection date	0.036	0.001
Family * Infection	0.063	0.913
Collection date *Family	0.061	0.951
Residuals	0.629	



Sup Figure 2: Venn diagram of shared bacterial genera between oyster family types (Highly resistant, Resistant, Vulnerable).

Supplementary Table 5. Genera unique to each family type

Vulnerable families	Highly resistant families
Aerococcus	Arhodomonas
Alishewanella	Caminicella
Amaricoccus	Corallomonas
Arenibacter	MD3-55
Bosea	Nocardioides
Burkholderia-Caballeronia-Paraburkholderia	Paracoccus
Candidatus Amoebophilus	Pectobacterium
Clostridium sensu stricto 13	Pseudoceanicola
Delftia	Rhodococcus
Desulfosporosinus	Simidiua
Lactococcus	Sulfurimonas
Methylophaga	Sunxiuqinia
Nordella	Tistlia
Oceanisphaera	Waddlia
Pleurocapsa PCC-7319	
Psychrobacter	
Saccharospirillum	
Temperatibacter	
Terrabacter	
Treponema	



Sup Figure 3. Microbiome relative abundance (A) and prevalence (B) between vulnerable and highly resistant families at genus level. Only genera with a prevalence above 30 % and among the 30 most abundant are displayed.

Supplementary Table 6: Mean live weight (\pm SE), in grams, of ten families (F1 to F10) of recipient oysters from the control treatment, collected at the start (T0h) and the end of the experimental challenge (T336h).

Family	T0h	T 336h
F1	1.24 \pm 0.4	1.79 \pm 0.5
F2	1.03 \pm 0.3	1.2 \pm 0.2
F3	1.52 \pm 0.2	1.65 \pm 0.3
F4	1.06 \pm 0.3	1.36 \pm 0.5
F5	0.65 \pm 0.2	0.77 \pm 0.2
F6	1.11 \pm 0.3	1.69 \pm 0.9
F7	1.75 \pm 0.4	1.99 \pm 0.6
F8	1.34 \pm 0.4	1.6 \pm 0.9
F9	1.53 \pm 0.4	1.74 \pm 0.7
F10	1.41 \pm 0.3	1.60 \pm 0.6