

Table S1. Categories of *Vibrio* Genes Related to Colonization in the AoL of Sharks

Virulence or colonization factors	Core genes of <i>Vibrio</i>	Accessory genes of <i>Vibrio</i>
Adherence	<i>msh/A,E,G,H,I,J,K,L,M,N</i>	<i>msh/B,C,D,F</i>
Adherence	<i>pil/B,C,D</i>	<i>pilA</i>
Adherence		<i>putative gene LPS O-antigen (P. aeruginosa)(Pseudomonas)</i>
Adherence		<i>nueB</i>
Adherence		<i>tadA</i>
Antiphagocytosis	<i>cps/A,C,F,G,H,</i>	<i>cps/B,D,E,J</i>
Antiphagocytosis	<i>cpsI</i>	<i>rml/A,C</i>
Antiphagocytosis		<i>wbf/T,U,V,Y</i>
Antiphagocytosis		<i>wbjD/wecB</i>
Antiphagocytosis		<i>wec/A,C</i>
Antiphagocytosis		<i>wza</i>
Antiphagocytosis		<i>wzb</i>
Antiphagocytosis		<i>wzc</i>
Chemotaxis and motility	<i>che,B,R,V,W</i>	<i>cheA</i>
Chemotaxis and motility	<i>che/Y,Z</i>	<i>flaD</i>
Chemotaxis and motility	<i>filM</i>	
Chemotaxis and motility	<i>fla/A,B,E,G,I</i>	
Chemotaxis and motility	<i>flg/A-N</i>	
Chemotaxis and motility	<i>flh/A,B,F,G</i>	
Chemotaxis and motility	<i>fli/A,D,E,F,G,H,I,J,K,L,N,</i>	
Chemotaxis and motility	<i>O,P,Q,R,S</i>	
Chemotaxis and motility	<i>flr,A,B,C</i>	
Chemotaxis and motility	<i>mot/A,B,X,Y</i>	
Toxin	<i>tlh</i>	<i>aerA/act</i>
Toxin		<i>cysC1</i>
Toxin		<i>lgtF</i>
Toxin		<i>opsX/rfaC</i>
Biofilm formation		<i>adeG</i>
Cell surface components		<i>sugC</i>
Acid resistance		<i>Ure/B,G</i>

Continuation Table S1

Serum resistance and immune evasion		Capsule(<i>Acinetobacter</i>)
Serum resistance and immune evasion		LOS(<i>Campylobacter</i>)
Serum resistance and immune evasion		<i>rmlD</i>
Serum resistance and immune evasion		<i>wbtI</i>
Fimbrial adherence determinants		<i>stbA</i>
Iron uptake	<i>hutA</i>	<i>irgA</i>
Iron uptake	<i>vct/A,C,D,G,P</i>	<i>hutR</i>
Iron uptake		<i>vibE</i>
Iron uptake		<i>sit/A,B,C,D</i>
Quorum sensing	<i>luxS</i>	
Quorum sensing	<i>cqsA</i>	
Secretion system	<i>C,E,F,G,H,I,J,K,L,M,N</i>	Undetermined
Secretion system	<i>gspD</i>	<i>sycN</i>
Secretion system		<i>tyeA</i>
Secretion system		<i>vcr/D,G,H,R,V</i>
Secretion system		<i>vir/F,G</i>
Secretion system		<i>vop/B,D,N,Q,R,S</i>
Secretion system		<i>vsc/A-D,F-O,Q-U,X,Y</i>
Secretion system		<i>vxsc</i>
Secretion system		<i>hcp-2</i>
Secretion system		<i>vas/A-K</i>
Secretion system		<i>aail</i>
Secretion system		T4SS effectors(<i>Coxiella</i>)
Secretion system		SCI-I T6SS(<i>Escherichia</i>)
Enzyme		<i>eno</i>
Others		O-antigen(<i>Yersinia</i>)