

Bacteriophages in the control of pathogenic vibrios

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Vibrios are common inhabitants of marine and estuarine environments. Some of them can be pathogenic to humans and/or marine animals using a broad repertory of virulence factors. Lately, several reports have indicated that the incidence of *Vibrio* infections in humans is rising and also in animals constitute a continuing threat for aquaculture. Moreover, the continuous use of antibiotics has been accompanied by an emergence of antibiotic resistance in *Vibrio* species, implying a necessity for efficient treatments. One promising alternative that emerges is the use of lytic bacteriophages; however, there are some drawbacks that should be overcome to make phage therapy a widely accepted method. In this work, we discuss about the major pathogenic *Vibrio* species and the progress, benefits and disadvantages that have been detected during the experimental use of bacteriophages to their control. © 2017

Antibiotic

Cholera

Gram-negative bacteria

Phage therapy

Vibrio

Vibrio anguillarum

Vibrio cholerae

Vibrio harveyi

Vibrio parahaemolyticus

Virulence

Animals

Antibiotics

Bacteria

Cholera

Gram-negative bacteria

Phage therapy

Vibrio

Vibrio anguillarum

Vibrio cholerae

Vibrio harveyi

Vibrio parahaemolyticus

Virulence

Bacteriophages

ampicillin

azithromycin

carbenicillin

cefalotin

chloramphenicol

ciprofloxacin

cotrimazine

erythromycin

hemolysin

kanamycin

penicillin G

polymyxin B

quinoline derived antiinfective agent

streptomycin

sulfamethoxazole

tetracycline

antibiotic resistance

bacterial strain

bacterial virulence

bacteriophage

bacterium isolate

cell motility

CRISPR Cas system

cytotoxicity

diarrhea

human

Listeria monocytogenes

nonhuman

Photobacterium damsela

protein expression

Review

Vibrio

Vibrio aestuarianus

Vibrio alginolyticus

Vibrio anguillarum

Vibrio campbellii

Vibrio cholerae

Vibrio cincinnatiensis

Vibrio fluvialis

Vibrio furnisii

Vibrio harveyi

Vibrio metschnikovii

Vibrio mimicus

Vibrio ordalii

Vibrio owensii

Vibrio parahaemolyticus

Vibrio splendidus

Vibrio vulnificus