

10. The method according to claim 9 wherein said microorganismic pathogen is an Edwardsiella.

11. The method according to claim 9 wherein said microorganismic pathogen is *Ichthyophthirius multifiliis*.

12. The method according to claim 4 wherein said orthovanadate salt is administered in conjunction with a medicament selected from the group consisting of an antibiotic, a protein phosphatase inhibitor, a fungicide, an antiviral compound, and an anti-inflammatory agent.

13. The method according to claim 2 wherein said teleost fish is a catfish, said microorganismic pathogen is *Edwardsiella ictaluri*, said orthovanadate salt is sodium orthovanadate, and said therapeutically effective concentration is between approximately 10 μM and approximately 25 μM.

14. The method according to claim 3 wherein said teleost fish is a catfish, said microorganismic pathogen is *Edwardsiella ictaluri*, said orthovanadate salt is sodium orthovanadate, and said prophylactically effective concentration is between approximately 5 μM and approximately 50 μM.

15. A method of developing resistance against an infection or disease caused by a microorganismic pathogen comprising the step of exposing a teleost fish infected with said microorganismic pathogen to a therapeutically effective concentration of an orthovanadate salt such that said fish does not develop said infection or disease upon a subsequent exposure to said microorganismic pathogen.

16. A pharmaceutical composition soluble and externally administrable into an aquatic environment, for the therapeu-

tic or prophylactic treatment of a teleost fish against infection caused by a microorganismic pathogen to which said fish is susceptible comprising an orthovanadate salt, and a medicament selected from the group consisting of an antibiotic, a protein phosphatase inhibitor, a fungicide, an antiviral compound and an anti-inflammatory agent and a pharmaceutical carrier acceptable to said fish.

17. The pharmaceutical composition according to claim 16 further comprising a medicament selected from the group consisting of an antibiotic, a protein phosphatase inhibitor, a fungicide, and antiviral compound and an anti-inflammatory agent.

18. A kit comprising a pharmaceutical composition and a means for dispensing said pharmaceutical composition for the therapeutic or prophylactic treatment of a teleost fish housed in a contained aquatic environment against infection caused by a microorganismic pathogen, comprising an orthovanadate salt, and a medicament selected from the group consisting of an antibiotic, a protein phosphatase inhibitor, a fungicide, an antiviral compound and an anti-inflammatory agent and a pharmaceutical carrier, acceptable to said fish, in a dispensable form such that a measurable or premeasured amount can be delivered to said contained aquatic environment to give a therapeutically effective concentration or a prophylactically effective concentration of said orthovanadate salt.

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