

Research project IZS VE 07/10

Betanodavirus in marine and freshwater fish: phenotypical and genetic characteristics of wild type and natural reassortant isolates

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The aim of the present study is to gain data on the presence of betanodaviruses in European marine and freshwater fish populations and to investigate their phenotypical and genetic characteristics including the newly discovered reassortant strains (RGNNV/SJNNV and SJNNV/RGNNV). Distinct betanodavirus genotypes possess different optimal temperature ranges for replication *in vitro*, however no data are available about replication efficiency of reassortants neither the molecular traits associated to this in the original reported types and chimeric viruses. The present project aims at increase knowledge on the biological features of the RGNNV and SJNNV genotypes and of two derived natural reassortants, focusing in particular on virus replication efficiency *in vitro* at different temperatures and their pathogenicity in susceptible host species *in vivo*.