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microRNA regulation in rainbow trout infected with a fish pathogenic rhabdovirus

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Rainbow trout is a major worldwide aquaculture species and viral disease has a high cost to fish farmers every year why effective treatment and a deeper understanding of immune components involved in the coexistence between fish and virus is of big concern to our field. We present here a study of microRNA regulation in rainbow trout during infection with the fish pathogenic rhabdovirus viral haemorrhagic septicaemia virus (VHSV). Infected fish as well as infected and immune stimulated cell cultures have been tested for microRNA regulation by microarray using a ‘all species’ approach followed by qPCR. Two regulated rainbow trout microRNAs have been cloned, sequenced and upstream promoter areas characterized and tested for functionality upon immune stimulation.

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