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Atlantic salmon adapted to seawater for 9 weeks develop a robust immune response to salmonid alphavirus upon bath challenge.

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Keywords

Salmo salar, salmonid alphavirus, inflammation, gene transcription, bath immersion, smoltification, seawater transfer, post-smolt; SAV.

Abstract

Pancreas disease (PD) caused by salmonid alphavirus (SAV) is the most serious viral disease in Norwegian aquaculture. Study of the immune response to SAV will aid preventative measures including vaccine development. The innate immune response was studied in Atlantic salmon infected by either bath immersion (BI) or by intra-muscular (*i.m.*) injection (IM) with SAV subtype 3, two and nine weeks after seawater transfer (Phases A and B respectively). Phase A results have been previously published (Moore et al. 2017) and Phase B results are presented here together with a comparison of results achieved in Phase A. There was a rapid accumulation of infected fish in the IM-B (IM Phase B) group and all fish

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