

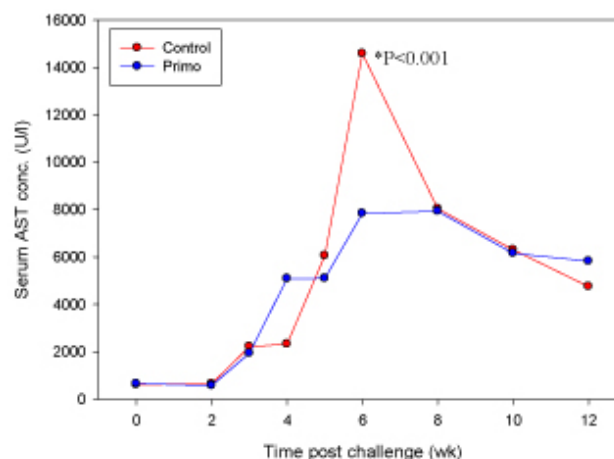
PD PRIMO - BioMar Strategy against PD

Recently BioMar identified enzymes present in salmon blood that can be used as biomarkers of the severity of skeletal muscle damage caused by PD. These enzymes leak into the blood system when tissues are damaged and are routinely analysed for in human and veterinary medicine to indicate specific organ / tissue malfunction.

Analysis of the biomarkers was included in a controlled challenge trial carried out at VESO Vikan to evaluate the new BioMar SmartFeed concept PD PRIMO. The trial was designed to follow the progression of the disease for 12 weeks after fish were infected with PD virus. An extensive sampling programme was established throughout the 12 weeks to compare differences in the initial infection, histopathology changes and the blood biomarkers in salmon fed PD PRIMO compared to fish fed control feed. The concentration profile of these enzymes coincided with the progression of skeletal muscle histopathology (risk period for mortality) confirming their use as biomarkers of the severity and timing of PD myopathy.

Fish fed PD Primo had significantly lower peak concentration of one of the biomarker enzymes called aspartate transaminase (AST) compared to fish fed the control diet, indicating less skeletal muscle damage in fish fed PD PRIMO. If the severity of skeletal muscle damage is reduced the muscle would be expected to be less likely to develop scar tissue or loss of pigmentation resulting in less downgrading at the processor. Fish fed PD PRIMO were also found to be less affected for the other health status parameters measured in the trial. It appears that the core mode of action was that fish fed PD PRIMO are able to generate antibodies and neutralise the PD virus more efficiently, therefore PR PRIMO would be expected to help both vaccinated and unvaccinated fish.

Time course profile of serum AST in Atlantic salmon infected with PD virus.



For further information:

Dr Ralph Bickerdike (BioMar R&D Project Manager), rbickerdike@biomar.co.uk
+44 (0) 1324 667 631 / +44 7795 564 390