



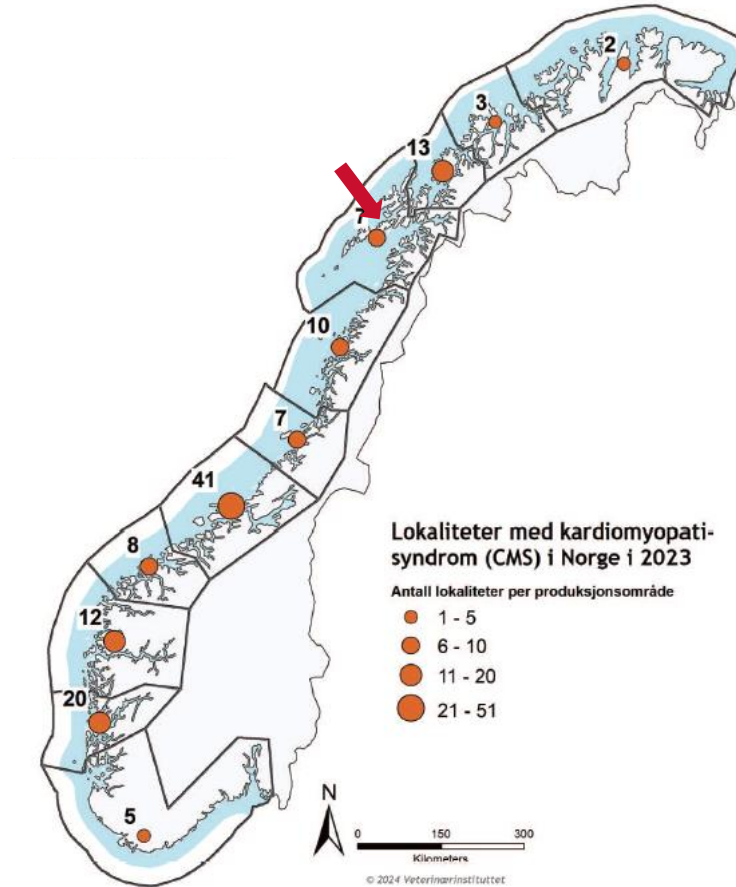
An atypical course of CMS in farmed A. salmon fed a clinical nutrition diet

Julia Mullins on behalf of Johan Rennemo et al.

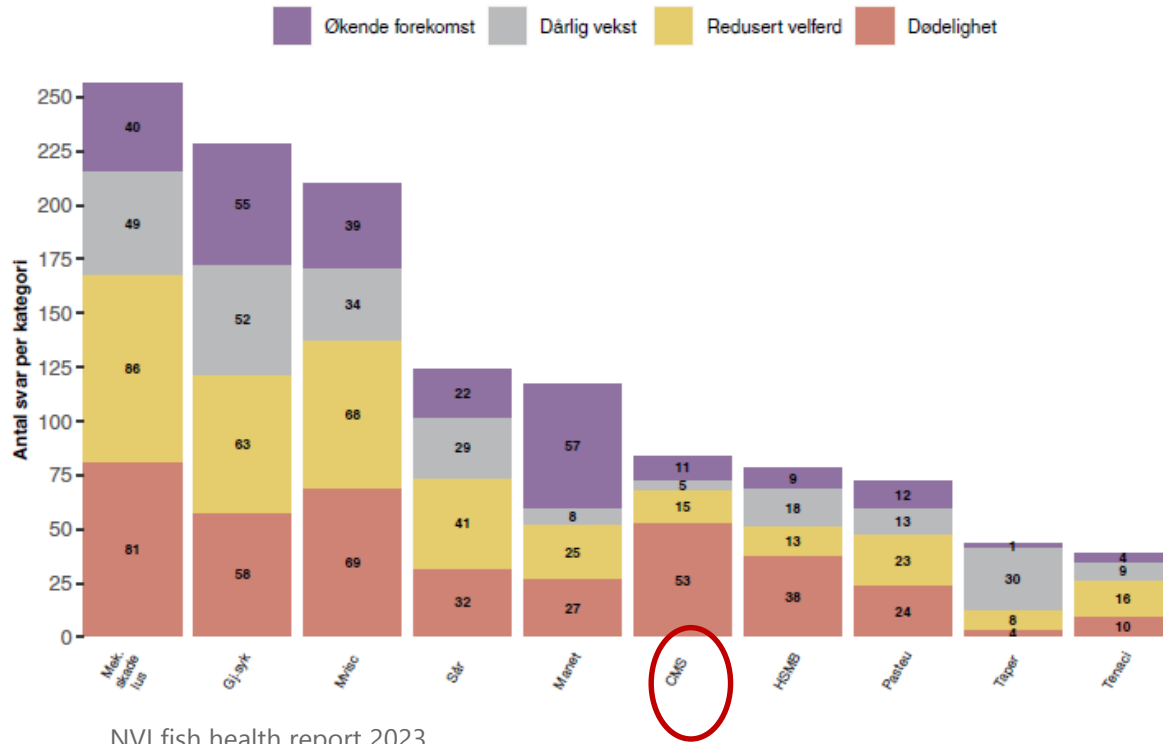
24 April 2024

Outline

- Background
- Timeline
- Results
- Summary

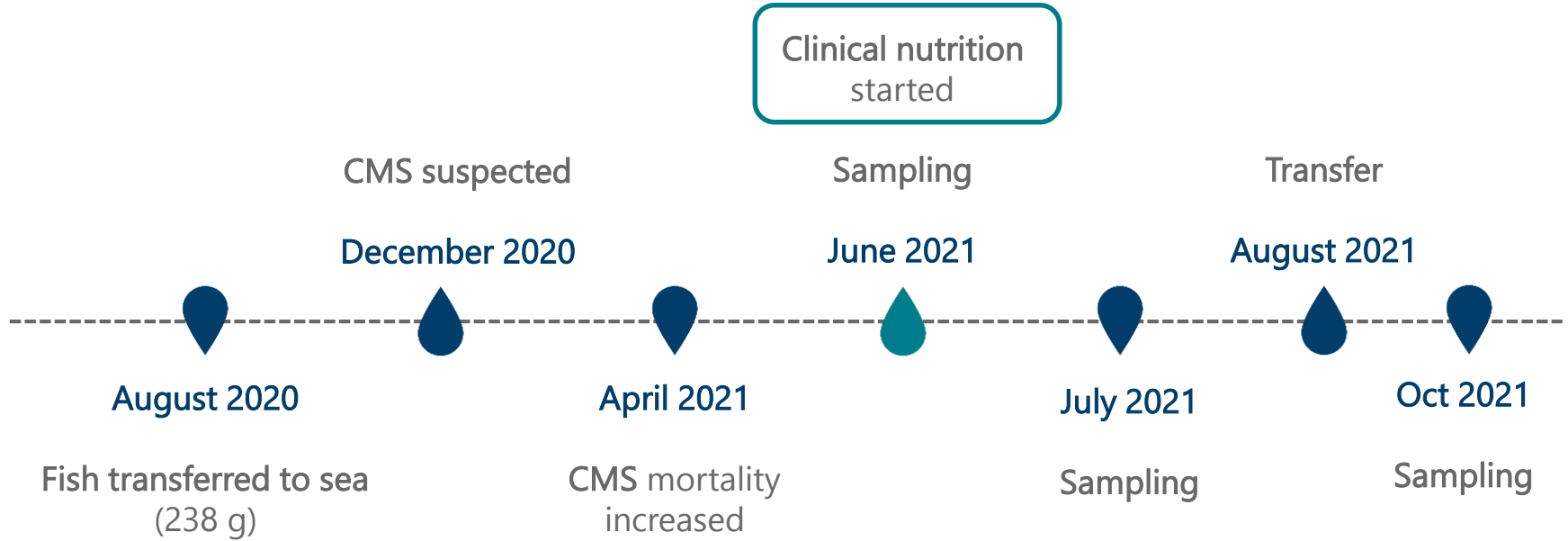


Background



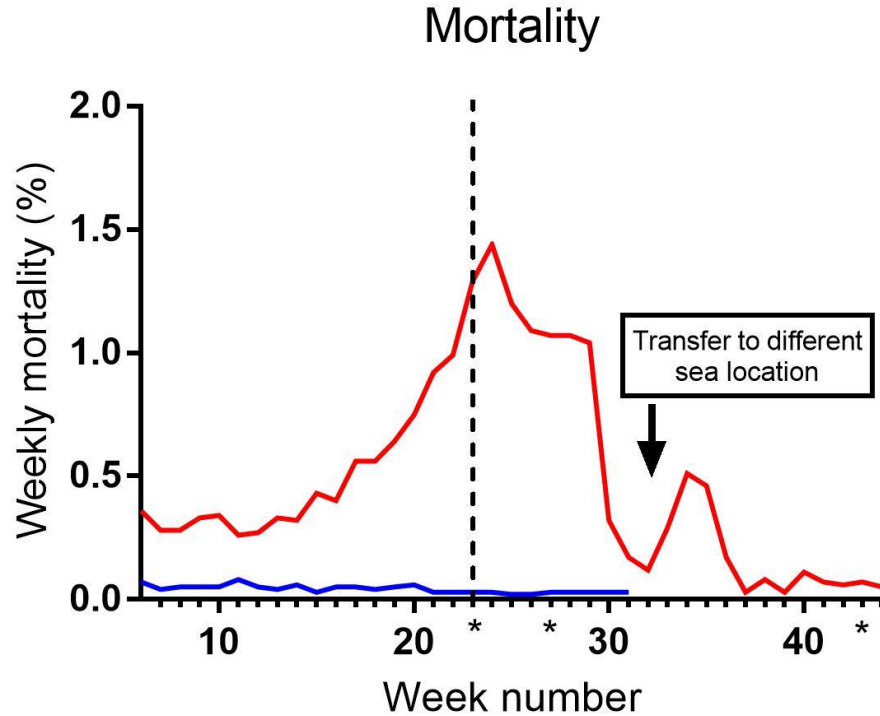
NVI fish health report 2023

Timeline



Water temperature 8-10 C

Timeline

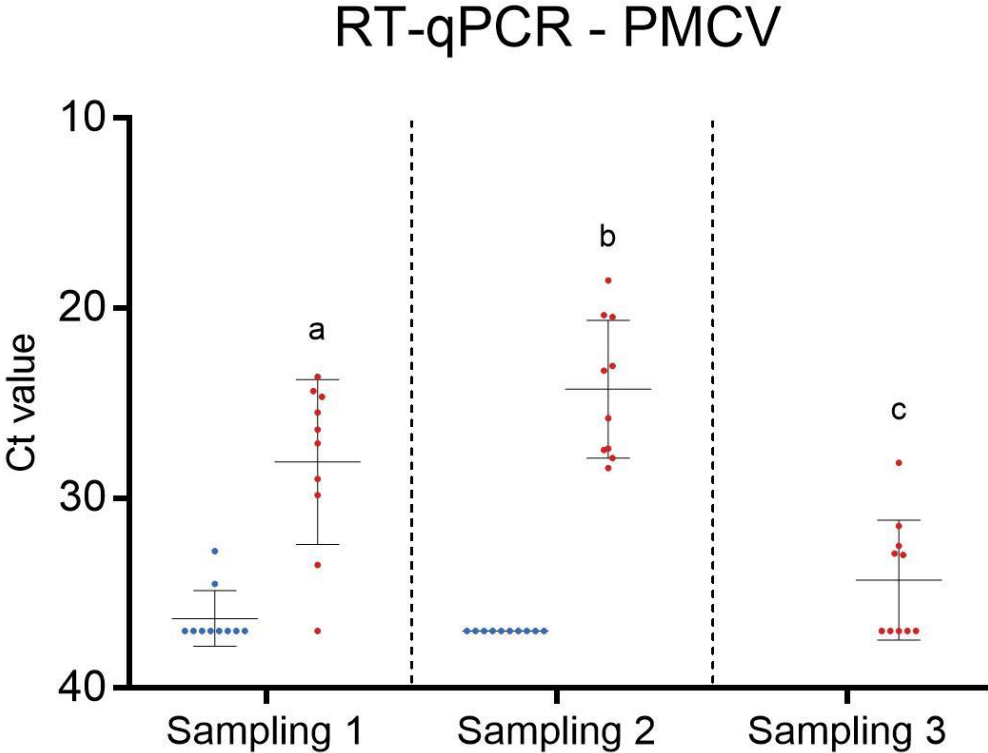


-- Aqura started

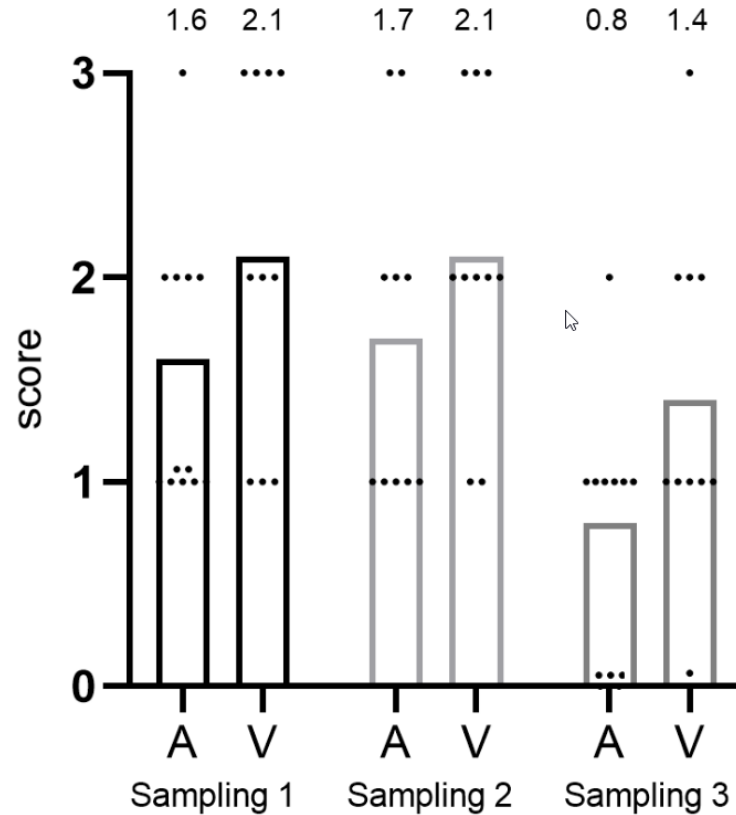
* Samplings

- Histo
- ISH
- RT_qPCR
- Fatty acid composition

Results



Histopathological score

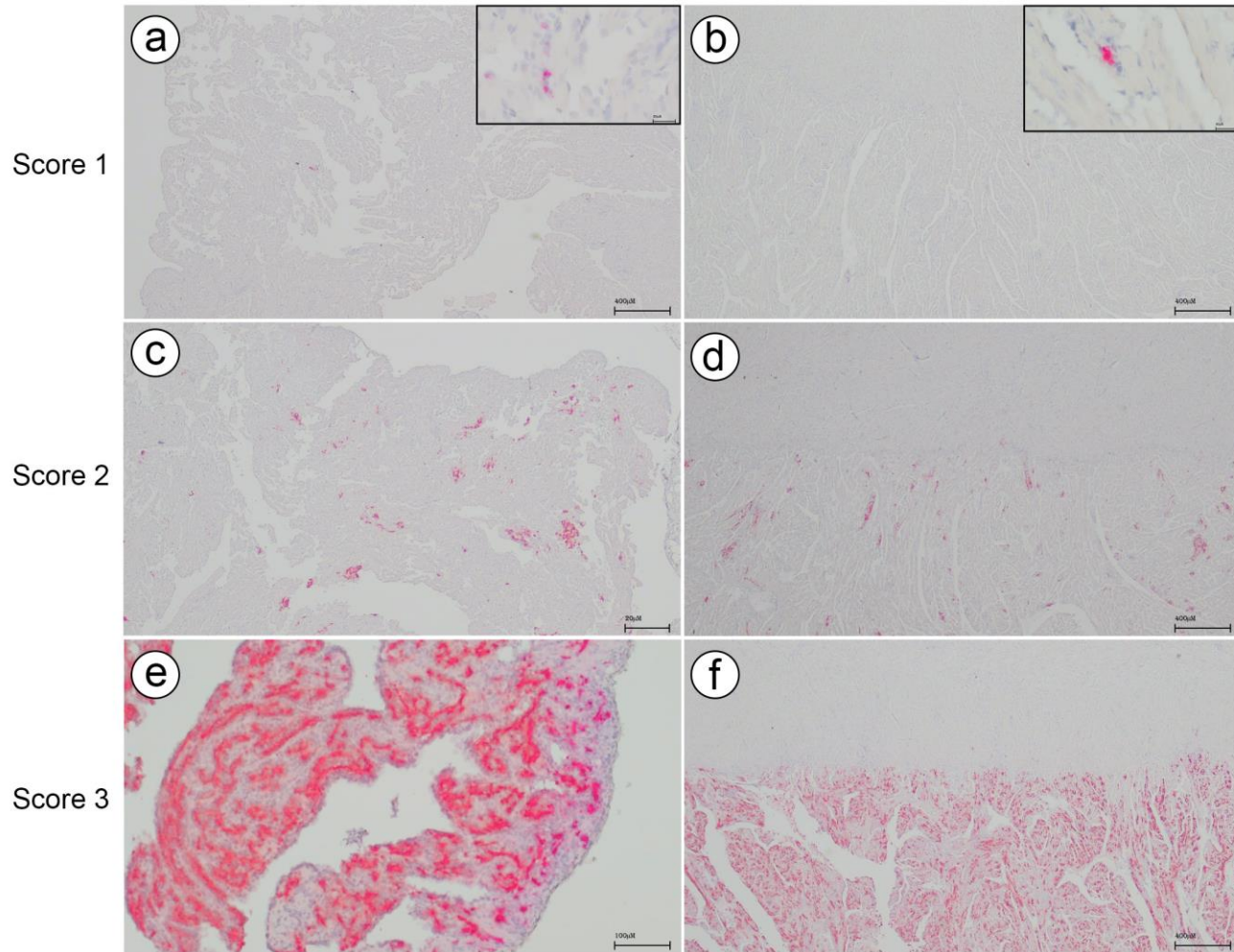


Timmerhaus et al. *BMC Genomics* 2011, **12**:459
<http://www.biomedcentral.com/1471-2164/12/459>

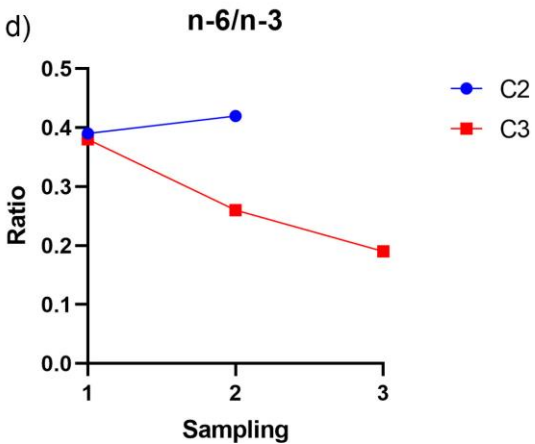
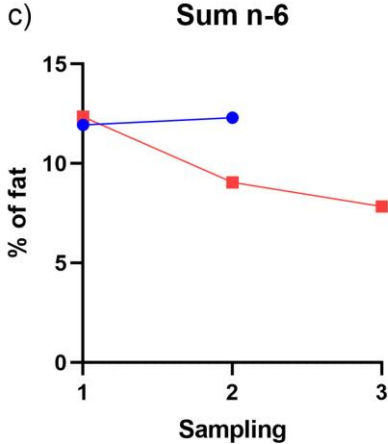
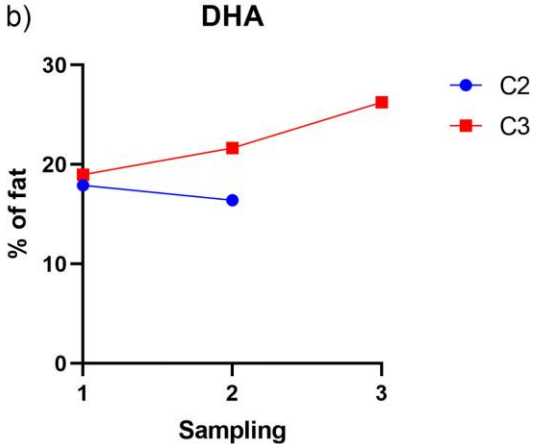
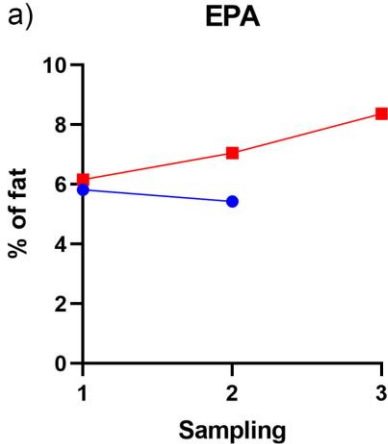
ISH

Atrium

Ventricle



Cardiac fatty acid profile



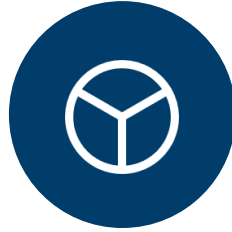
Summary



Clinical nutrition
alleviated the
impact of CMS



Decline in
mortality



Reduction in
heart histo
scores



Reduction in
inflammation in
the heart





Decrease
in the viral load of
PMCV



Article

An Atypical Course of Cardiomyopathy Syndrome (CMS) in Farmed Atlantic Salmon (*Salmo salar*) Fed a Clinical Nutrition Diet

Johan Rennemo ¹, Kjetil Berge ¹, Muhammad Naveed Yousaf ², Tommy Berger Eriksen ², Eirik Welde ³, Camilla Robertsen ³, Bjarne Johansen ³, Charles McGurk ², Espen Rimstad ⁴ , Erling Olaf Koppang ⁵ and Håvard Bjørgen ^{5,*} 

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