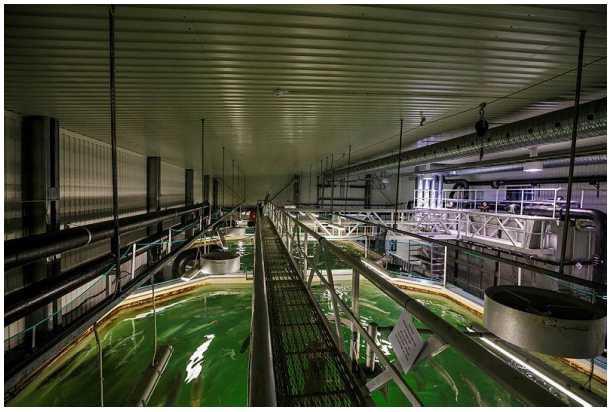
Bachelor or Master thesis BIOVIT 2021/22

Topic/Title (Norwegian)

Topic/Title (English)

Molecular and cellular responses to sub-lethal level of hydrogen sulphide of Atlantic salmon post-smolts reared in RAS

Picture



Summary (Describe the topic/thesis, type of thesis work: field work, laboratory work, literature study)

There has been a dramatic increase in the adoption of land-based RAS in Norwegian Atlantic salmon aquaculture, which has historically been dependent on flow-through, or partial water reuse systems. Mortality associated with H_2S has recently become an issue. However, we have limited understanding of the health and welfare consequences of sub-lethal concentrations in salmon.

In this suggested thesis, the student will document the health and welfare impacts at the molecular and cellular levels of H_2S in salmon.

Some of the activities include:

- Tissue samplings in Sunndalsøra.
- Histological evaluation, including IHC.
- *In vitro* systems
- Transcriptomics and proteomics.

Subject area (keywords)

gene expression, ecotoxicology, fish health, molecular biology, aquaculture

Language thesis (Norwegian and/or English)

English

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Bachelor or Master thesis

Credits

Project/company

Nofima

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