

7th NordicRAS Workshop Program 8-9 October 2025, Aalborg, Denmark,

Day 1: Wednesday, 8 October 2025

08³⁰-10⁰⁰ Registration

Opening

Chair: Helgi Thor Thorarensen, UiT, Norway

Co-chair: Johanne Dalsgaard, DTU Denmark

10⁰⁰-10¹⁰ Welcome

Johanne Dalsgaard, DTU Aqua, Denmark

10¹⁰-10³⁰ Landbased aquaculture – What's going on?

Pål Mugaas Jensen, Oceanspace Media, Norway

10³⁰-10⁴⁵ Current status and future prospects of RAS in China

Zhitao Huang, NIVA, Norway

10⁴⁵-11⁰⁰ Scotland's RAS evolution: Lessons learned and the road ahead

Brendon Davis, BioMar, Scotland

11⁰⁰-11¹⁵ Grieg's Global RAS activities

Timo Roche, Grieg Seafood, Norway

Session I: RAS operation, part 1

11¹⁵-11³⁰ A way towards appetite-based feeding of Atlantic salmon in RAS

Jelena Kolarevic, UiT, Norway

11³⁰-11⁴⁵ Optimizing drum filter mesh size – Is smaller better?

Kim João de Jesus Gregersen, DTU Aqua, Denmark

11⁴⁵-12⁰⁰ Faeces on the rise: How “Floating Faeces” improve solid and nutrient removal for Atlantic salmon pre-smolt production in RAS

Mark Schumann, FFS & LAZBW, Germany

12⁰⁰-13³⁰ Lunch

Session II: Salmon RAS

Chair: Jelena Kolarevic, UiT, Norway

Co-chair: Torsten Wik, Chalmers, Sweden

13³⁰-13⁴⁵ Gaia Salmon – A land-based post-smolt facility located 40 miles out to sea

Paula Rojas-Tirado, Gaia Salmon, Norway

13⁴⁵-14⁰⁰ The Skagen Salmon Model for circular aquaculture, performance and lessons learned

Per Sonnesen, Skagen Salmon, Denmark

14⁰⁰-14¹⁵ Chilled to thrive: Temperature manipulation in RAS and its impact on salmonid performance post-transfer

Vegard Flo, Cargill Aqua Nutrition, Norway

Day 1: Wednesday, 8 October 2025 - *continued*

Session III: Water quality

- 14¹⁵-14³⁰** **Effect of adding calcium hydroxide as a coagulant in a protein skimmer on water quality and Atlantic salmon (*Salmo salar*) performance in freshwater RAS**
Kiran Subash, NMBU, Norway
- 14³⁰-14⁴⁵** **Optimizing water quality in recirculating aquaculture systems through organic matter monitoring and ozonation**
Aikaterini Spiliotopoulou, OxyGuard International A/S, Denmark
- 14⁴⁵-15⁰⁰** **Effects of alkalinity controlling chemicals on nitrification and sludge nutrient profiles in freshwater recirculating aquaculture systems**
Wanhe Qi, LUKE, Finland
- 15⁰⁰-15³⁰** **Coffee break**

Session IV: RAS operation, part 2

Chair: Vasco Filipe Cardoso Neves Mota, NMBU, Norway

Co-chair: Per Bovbjerg Pedersen, DTU Aqua, Denmark

- 15³⁰-15⁴⁵** **Open-Access innovation in RAS learning: New tools to increase competence in aquaculture**
Jordan Gould, NMBU, Norway
- 15⁴⁵-16⁰⁰** **RAS operation – Lessons learned and future developments**
Mario R. Palma G., FosterAqua LLC, USA

Session V: Non-salmon RAS

- 16⁰⁰-16¹⁵** **Kingfish in RAS - Lessons learned**
Mikkel Thomsen, Nordic Aquafarms Technology ApS, Denmark
- 16¹⁵-16³⁰** **Catfish – A new animal in Swedish barns**
Johan Ljungquist, Gårdsfisk, Sweden
- 16³⁰-16⁴⁵** **Bio economical optimization of a marine RAS cultivating giant grouper (*Epinephelus lanceolatus*) in Europe**
Jaime Orellana, Erwin Sander Elektroapparatebau GmbH, Germany
- 16⁴⁵-17⁰⁰** **Growing healthy food in a regenerative farming model at Superior Fresh**
Steven Summerfelt, Superior Fresh LLC, USA

Break

- 20⁰⁰-23⁰⁰** **Workshop dinner (optional)**
Restaurant Podium, AKKC, Europa Plads 4, 9000 Aalborg, Denmark
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Day 2: Thursday, 9 October 2025

Session VI: Microbial water quality

Chair: Lars-Flemming Pedersen, DTU Aqua, Denmark

Co-chair: Ingrid Bakke, NTNU, Norway

08³⁰-08⁴⁵ Rapid H₂S production in layers of freshwater and marine fish organic waste in RAS

Sanni L. Aalto, DTU Aqua, Denmark

08⁴⁵-09⁰⁰ Microbial community dynamics under elevated organic matter conditions in RAS

Nhat Ton Nguyen, SLU, Sweden

Session VII: Diseases & Biosecurity

09⁰⁰-09¹⁵ Experimental IPNV infection in Atlantic salmon RAS

Carlo C. Lazado, Nofima, Norway

09¹⁵-09³⁰ Disinfection and the parasite *Spironucleus salmonicida* in Atlantic salmon RAS

Lill-Heidi Johansen, Nofima, Norway

09³⁰-09⁴⁵ Effect of biosecurity measures on pathogen persistence in RAS facilities: experimental trials and on-farm surveillance

Sonal Patel, Norwegian Veterinary Institute, Norway

09⁴⁵-10⁰⁰ The role of biosecurity strategies on biofilter performance and microbial dynamics after a challenge with infectious Salmon Anemia Virus (ISAV)

Paulo Mira Fernandes, NIVA, Norway

10⁰⁰-10³⁰ Coffee break

Session VIII: Waste treatment and valorization

Chair: Jouni Vielma, LUKE, Finland

Co-chair: Paulo Mira Fernandes, NIVA, Norway

10³⁰-10⁴⁵ From waste to worth: Unlocking the potential of fish sludge

Gro Bjerga, NORCE Research, Norway

10⁴⁵-11⁰⁰ Redox-driven valorisation of marine RAS sludge and effluents for nutrient recovery and *Ulva* sp. cultivation

Sarah Perché, University of Murcia, Spain

11⁰⁰-11¹⁵ From RAS effluent to livestock methane reduction - closing nutrient loops with red seaweed

Damien Balkin, Maripure, Denmark

11¹⁵-11³⁰ Life cycle assessment (LCA) of three wastewater denitrification scenarios (none, woodchip, activated sludge) for the treatment of RAS effluent

Natalie Rizzo, DTU Sustain, Denmark

Day 2: Thursday, 9 October 2025 - continued

Session IX: Off-flavors

- 11³⁰-11⁴⁵** **Removal of geosmin and 2-methylisoborneol from aquaculture water by hydrophobic carriers**
Jaap van Rijn, the Hebrew University of Jerusalem, Israel
- 11⁴⁵-12⁰⁰** **Capture of off-flavors in recirculating aquaculture systems**
Petra C Lindholm-Lehto, LUKE, Finland
- 12⁰⁰-12¹⁵** **Comparison of electrochemical and traditional purging for geosmin removal in grow-out Atlantic salmon RAS**
Thanh Nguyen Duc, University of Gothenburg, Sweden
- 12¹⁵-13¹⁵** **Lunch**

Session X: Welfare

Chair: Carlo Lazado, Nofima, Norway

Co-chair: Paula Rojas-Tirado, Gaia Salmon Holding AS, Norway

- 13¹⁵-13³⁰** **Recirculating aquaculture systems and fish welfare: A critical overview of constraints and opportunities**
Manuel Gesto, DTU Aqua, Denmark
- 13³⁰-13⁴⁵** **Dietary stress mitigation in Atlantic salmon reared in Recirculating Aquaculture Systems**
Jonas Mueller, Kiel University, Germany

Session XI: Innovations in RAS

- 13⁴⁵-14⁰⁰** **Innovations in salmon breeding: Shaping the future of land-based farming**
Andrew Preston, Benchmark Genetics, Norway
- 14⁰⁰-14¹⁵** **Application of membrane aerated biofilm reactor technology for high-efficiency nitrogen removal from RAS wastewater**
Anastasia Stavrinou, DTU Aqua, Denmark
- 14¹⁵-14³⁰** **Geothermal brine-based artificial seawater for shrimp and salmonid RAS**
Nerijus Nika, Klaipeda University, Lithuania
- 14³⁰-14⁴⁵** **Hybrid flow-through in Finland: A new current**
Kalle Sinisalo, Paras Aqua Oy, Finland
- 14⁴⁵-15⁰⁰** **LAXEY and farming salmon on land in Iceland: Challenges, lessons learned and the road ahead**
Rustan Lindqvist, LAXEY, Iceland
- 15⁰⁰** **Goodbye and see you next time**
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