

Sanni-Leea Aalto

Year of birth: 1982

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Degrees

PhD, Aquatic sciences, University of Jyväskylä (JYU), Jyväskylä, Finland (21.8.2013)

MSc, Animal Physiology, University of Helsinki, Helsinki, Finland (14.12.2006)

Positions**Current position**

SENIOR RESEARCHER, Section of Aquaculture, DTU AQUA, Technical University of Denmark (since 04.2022)

Previous positions

RESEARCHER, Section of Aquaculture, DTU AQUA, Technical University of Denmark (09.2019-03.2022)

POST-DOCTORAL RESEARCHER, University of Eastern Finland (UEF) (09.2017-08.2019)

POST-DOCTORAL RESEARCHER, JYU (11.2013-08.2017)

REGIONAL COORDINATOR, LIFE12 ENV/FI/597 N-SINK-project (11.2013-04.2017)

MATERNITY LEAVE (07.2008-05.2009/12.2011-10.2012)

POST-GRADUATE RESEARCHER, JYU (01.2007-07.2008/05.2009-12.2011/10.2012-8.2013)

RESEARCH ASSISTANT, Finnish Game and Fisheries Research Institute (04-08.2006)

TEACHING ASSISTANT, Division of Animal Physiology, University of Helsinki (01-03.2006)

RESEARCH ASSISTANT, University of Helsinki (UH) (04-12.2003/06-08.2005)

Research area

ENVIRONMENTAL MICROBIOLOGY IN NATURAL AND CONSTRUCTED ENVIRONMENTS

- H₂S producing microbes
- Biofilters and system microbiology in recirculation aquaculture systems
- Fish gut microbiomes
- Microbial-driven nutrient transformation processes (e.g. nitrification, denitrification, DNRA)
- Greenhouse gases

Grants (competitive), ongoing or finished in 2016 or later

RESEARCH COUNCIL OF NORWAY, co-PI, 48 mo (1.2025-), 12.000.000 NOK

CARLSBERG RESEARCH INFRASTRUCTURE GRANT, PI, (2023), 244.010 DKK

SAPERE AUDE RESEARCH LEADER FROM DFF, PI, 48 mo (1.2022-12.2025), 6.188.102 DKK

POST-DOCTORAL FUNDING FROM THE ACADEMY OF FINLAND, PI, 36 mo (9.2017-8.2020), 1.959.075 DKK

EUROPEAN MARITIME AND FISHERIES FUND (EMFF) part of Aquaculture innovation-program, PI, 30 mo (6.2017-12.2019), 738.409 DKK

Web of Science publications: 51. **Citations:** 1007. **h-index:** 20.

Selected publications

1. Nguyen-tiêt A.M., Letelier-Gordo C.O. & Aalto, S.L., 2025. Rapid H₂S production in layers of freshwater and marine fish organic waste from recirculating aquaculture systems. *Aquacultural Engineering* 111:102578.
2. Nguyen-tiêt A., Puente-Sánchez F., Bertilsson S. & Aalto S.L., 2025. Identifying Bacteria Responsible for Non-Sulphate-Based Hydrogen Sulphide Production in Aquaculture. *Environmental Microbiology* 27(1): e70024.
3. Aalto S.L., Madsen L. & Pedersen L.F., 2024. Peracetic acid mode-of-action on aquaculture microbes evaluated by dual-staining flow cytometry. *Aquaculture* 578:740129.

4. Aalto S.L., Syropoulou, E., de Jesus Gregersen K.J., Tiirola M., Pedersen P.B. & Pedersen L.F. 2022. Microbiome response to foam fractionation and ozonation in RAS. *Aquaculture* 550: 737846.
5. Aalto, S. L., Suurnäkki, S., von Ahnen, M., Siljanen, H. M., Pedersen, P. B., & Tiirola, M. (2020). Nitrate removal microbiology in woodchip bioreactors: A case-study with full-scale bioreactors treating aquaculture effluents. *Science of the Total Environment*, 138093.

International conferences, 2016-present: Contributions as first author: 8. Invited: 0. Organizing role: 0.

Evaluation tasks, 2016-present

Reviewer for Estonian Research Council (2019), French National research agency (2022, 2023), and UK Research and Innovation (2024)

External evaluator for Associate professorship position at Norwegian University of Science and Technology (NTNU; 2021, 2022) and internal evaluator (DTU) for researcher position and senior researcher position (2024)

PhD thesis pre-examiner: JYU (2023)

PhD thesis opponent: NTNU (2 x 2021)

Reviewer for 20+ journals, including high-impact factor journals e.g., *Water Research*, *Science of Total Environment*, *Environmental Microbiology*, and *Environmental Science and Technology*

Supervision

Post doctoral researchers: David Hopkins 2019, Suvi Suurnäkki 2017-2019, JYU

PhD students: Nhat Ton Nguyen (co-supervisor, 2024-, SLU), Alexandre Nguyen-tiet (main supervisor, 2022-, DTU AQUA), Xiaoyu Huang (co-supervisor, 2020-2023, DTU AQUA), Antti Laihonen (co-supervisor, 2017-, JYU), Jani Pulkkinen (co-supervisor, 2017-2020, JYU), Sari Uusheimo (co-supervisor, 2013-2019, University of Helsinki)

MSc students: Ingrid Salomonsen (2025, NMBU), Malthe Lindeberg Kristensen (2024, DTU), Olivia Kanaskie (2023, DTU), Sarah Perche (2021, DTU AQUA), Elisavet Syropoulou (2020, DTU AQUA), Antti Laihonen (2017, JYU), Nathan Foore (2016, JYU), Outi Kaski (2010, JYU)

Educational tasks at academical level, 2016-present

Member of DTU AQUA PhD committee (2023-)

BSc: Fisheries and Aquaculture (DTU AQUA, contributor),

Pre-requirements of life on Earth (JYU, contributor), Bioprocesses in removal of environmental pollutants (UEF, contributor), Ecology and ecosystems (UEF, contributor)

MSc: Water quality in aquaculture (DTU AQUA, responsible), Recirculating aquaculture

Systems, Exercises in recirculating aquaculture systems, "Advanced course in recirculating aquaculture systems: Design and application, and Introduction to modelling observations of natural resources (DTU AQUA, contributor), Environmental Microbiology (JYU, contributor), Stable isotopes in Environmental Research (UEF, contributor), Molecular microbiology (JYU, responsible)

PhD: Journal Club (DTU AQUA, responsible), Bioinformatics for Microbial Ecologists (JYU, responsible)

Positions in professional associations

Board member in Danish Fiskeafgiftsfonden (2023-)

Board member in Aquacultural engineering society (2020-2022)