

Name: Reitan, Kjell Inge  
 Date of birth: 09.07.1959  
 Sex: Male  
 Nationality: Norwegian  
 Affiliation: NTNU Department of Biology N-7491 Trondheim, Norway  
 Researcher ID: Cristin-person-ID: 423552  
 ROLE IN THE PROJECT: Project partner X



## EDUCATION

1994: PhD (24.02.1994): "Nutritional effects of algae in first-feeding of marine fish larvae"  
 Faculty of Natural Science, University of Trondheim (later NTNU) Norway  
 1988: Cand Scient (April 1988): "Chemical composition and nutritional value of *Skeletonema costatum* and *Tetraselmis* sp. cultivated at different growth conditions" Faculty of Natural Science, University of Trondheim (later NTNU) Norway

## CURRENT AND PREVIOUS POSITIONS (after 2005)

2014 -> Professor in Aquaculture Ecology at NTNU, Dep. Biology, Trondheim, Norway.  
 2014 -> Senior advisor at SINTEF Ocean, Trondheim, Norway.  
 2013-2014: Research Manager at SINTEF Fisheries & aquaculture, Trondheim, Norway  
 2012 - 2013 Associated Professor in Aquaculture at NTNU, Dep. Biology, Trondheim, Norway.  
 2007- 2012: Senior Scientists/Research Manager at SINTEF Fisheries and Aquaculture, Trondheim  
 1999-2007: Research Director at SINTEF Fisheries and Aquaculture Trondheim, Norway.

## MOBILITY (research stays abroad lasting more than three months)

1996-1997: Post doc at University of Las Palmas, Spain

## SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS

2016-2018 1 Post.doc (Xinxin Wang): Faculty of Natural Science, Dep. Biology/Chemistry, NTNU, Trondheim, Norway  
 2006 -> 8 PhD students (Trond R. Størseth, Aleksander Handå, Xinxin Wang, Haiqing Wang, Lone S. Jevne, Peter S. Schmedes, Siv A. Etter, Inka Seekamp): Faculty of Natural Science, Dep. Biology/Chemistry, NTNU, Trondheim  
 2009-> 26 MSc students. Faculty of Natural Science, Dep. Biology, NTNU, Trondheim, Norway  
 2006-2007 1 Dipl student. University Oldenburg, Germany

## Examination of students (2000):

NTNU Dep. Biology & Biotechnology, Trondheim, Norway:	Sensor for 29 Master theses
NMBU Dep. Plant and Environmental Sciences, Ås, Norway:	Sensor for 5 Master theses
	Opponent for 1 PhD thesis
University of Bergen, Bergen, Norway:	Sensor for 1 Master thesis
	Opponent for 2 PhD theses
University of Fisheries, Nha Trang, Vietnam:	Sensor of MSc course 2006

## TEACHING ACTIVITIES

2014 -> Professor in Aquaculture Ecology at NTNU, Dep. Biology, Trondheim, Norway.  
 2012-2013 Associated Professor in Aquaculture at NTNU, Dep. Biology, Trondheim, Norway.  
 2012-> Course responsible for BSc-course "BI2065 Aquaculture", MSc-course "BI3067 Aquaculture ecology" and regular lectures in MSc-courses (BI3064, BI3066, TMR4137) at NTNU, Trondheim Norway  
 1998, 1999 & 2006: MSc-course in Marine aquaculture, University of Fisheries, NhaTrang, Vietnam.  
 NUFU cooperation program Norway – Vietnam

## ORGANISATION OF SCIENTIFIC MEETINGS

2018: Program Chair for Aquaculture Europe 2018 (EAS and WAS conference), Montpellier France  
 2014 ->: Board member of the NTNU Oceans and chair for annual NTNU Ocean Week conferences, Trondheim, Norway  
 2013: Chairman for Local Organizing committee Aquaculture Europe 2013, Trondheim, Norway

- 2010: Chairman for “International Workshop on Integrated Multitrophic Aquaculture for Norwegian Aquaculture”, August 24, Trondheim, Norway
- 2009: Program chair for Aquaculture Europe 2009, August 14-17, Trondheim, Norway.
- 2009: Chairman for the Third International Workshop on Carrying Capacity and Aquaculture: Integrated Multitrophic Aquaculture as a strategy for management of high productive aquaculture areas, June 23. Puerto Montt, Chile
- 2007: Chairman for EAS Aqua Nor Forum 2007, August 15-16, 2007, Trondheim, Norway.
- 2005: Program committee member of Int. Conf. “Larvi 2005” Gent, Belgium September 1-9, 2005
- 2005- 2006: Program committee for national cod network meeting, Bergen, Norway

### **INSTITUTIONAL RESPONSIBILITIES**

- 2018 Administrator of PhD committee for Alice Mühlroth, NTNU Dep. Biology, Trondheim, Norway (23.05.2018)
- 2017 Member of evaluation committee for Associated Professor in Aquaculture at University of Tromsø, Norway
- 2017 Member of evaluation committee for Research Scientist (Seaweed) at Danish technical University, Denmark
2016. Member of evaluation committee for Ass. Professor (Biomarine Processing) at NTNU, Norway
- 2015 Administrator of PhD committee for Keshuai Li, NTNU Dep. Biology, Trondheim, Norway (01.10.2015).
- 2015 Administrator of PhD committee for Leila Alipanah NTNU Dep. Biology, Trondheim, Norway (09.09.2015).
2012. Member of evaluation committee for Ass. Professor (Marine Ecology) at NTNU, Norway

### **PROJECT MANAGEMENT EXPERIENCE (after 2009)**

- 2018-2021: Project partner of the project "POLYCHAETE - Cultivation of Polychaeta as raw material for feed". Funded by the Research Council of Norway (280836)
- 2017-2020: Project partner of the project "Mind-P - Nutrients in a Circular Bioeconomy: Barriers and Opportunities for Mineral Phosphorus Independence in Norway". Funded by the Research Council of Norway (268338/E50)
- 2015-2020: Program coordinator of the NTNU Pilot PhD program “Environmental interactions of seabased aquaculture”. Funded by NTNU, and Aquaculture industry
- 2015-2018: Project coordinator and manager of the project "Micro-Feed - Microbial raw materials as source for protein and EPA and DHA for use in aquafeed”. Funded by the ERANET COFASP (248355/E40)
- 2014-2017: Project manager of the project "SUSAQUA-BRAZIL - Marine aquaculture as a sustainable green industry in Brazil". Funded by the Research Council of Norway (237049/H30)
- 2014-2015: Project manager of the project “New technology for juvenile production of Atlantic halibut at Sogn Aqua AS» at SINTEF Fisheries and aquaculture, cooperation with Sogn Aqua AS, IMR and NTNU, Norway. Funded by Sogn Aqua AS and the Research Council of Norway. (ES521366 / 235718)
- 2013-2014: Project manager of the project “Copepods in first feeding of Atlantic halibut -KveiteCop» at SINTEF Fisheries and aquaculture, cooperation with Sterling White Halibut and IMR, Norway. Funded by Sterling White Halibut and the Research Council of Norway. (ES505140 / 227410)
- 2012- 2015: Project manager, later project assistant of the project “Exploitation of nutrients form Salmon aquaculture – EXPLOIT” at SINTEF Fisheries and Aquaculture. Funded by the Research Council of Norway (173527)
- 2012-2013: Project manager of the project “Industry production of marine microalgae as resource for EPA and DHA for use in fish feed – research and industry basis and opportunities - ProAlge” at SINTEF Fisheries and aquaculture. Cooperation project with Uni Research AS, Begen, funded by FHF Norway
- 2011-2014: Project coordinator of the strategic project “Industrial marine biotechnology at SINTEF Fisheries and aquaculture”. Funded by SINTEF Fisheries and aquaculture
- 2011- 2013: Project manager of the BIP project “Industrial seedling production of seaweed – SEABREED” at SINTEF Fisheries and Aquaculture. Funded by Seaweed Energy Solutions and the Research Council of Norway (208060)

- 2010-2012: Project manager of the industry project “Cultivation of microalgae for SUPRABIO” at SINTEF Fisheries and aquaculture. Funded by AlgaeTech AS
- 2010-2012: Project assistant of the project “A knowledge base for large scale cultivation of macroalgae biomass in Norway – MacroBiomass” at SINTEF Fisheries and aquaculture. Funded by the Research Council of Norway (199391/I10)
- 2008-2011: Program coordinator for the strategic program “Industrial Biotechnology in SINTEF”. Funded by the SINTEF Group
- 2008-2010: Project manager for the BIP project “Farming seaweed for energy – SEAWEED FARMING” at SINTEF Fisheries and Aquaculture. Funded by Seaweed Energy Solutions and the Research Council of Norway (192390/I10)
- 2008-2010: Project assistant of the industry project “TareFuel” at SINTEF Fisheries and Aquaculture. Funded by Statoil
- 2007-2010: Project assistant of the project “The effects of oil droplets of Atlantic cod larvae” at SINTEF Fisheries and aquaculture. Funded by several oil companies and the Research Council of Norway
- 2006-2011: Project manager of the strategic program “Integrated open seawater aquaculture, technology for sustainable culture of high productive areas – INTEGRATE” at SINTEF Fisheries and Aquaculture. Funded by the Research Council of Norway (173527)

#### Grant and project capture after 2010:

- 2015: The project "Micro-Feed - Microbial raw materials as source for protein and EPA and DHA for use in aquafeed". Funded by the ERANET COFASP (248355/E40). Total 1.03 Mill € (2015-2018)
- 2014: The project "SUSAQUA-BRAZIL - Marine aquaculture as a sustainable green industry in Brazil", funded by the Research Council of Norway (237049/H30). Total 5.5 Mill NOK (2014-2017), cooperation with MareLife and 4 Brazilian partners.
- 2014: The project “New technology for juvenile production of Atlantic halibut at Sogn Aqua AS», funded by, funded by Sogn Aqua AS and the Research Council of Norway (ES521366 / 235718). Total 3.6 Mill NOK (2014-2015), cooperation with Sogn Aqua AS, AINTEF, IMR and NTNU, Norway.
- 2013: The project “Copepods in first feeding of Atlantic halibut -KveiteCop» , funded by Sterling White Halibut and the Research Council of Norway (ES505140 / 227410). Total 3.3 Mill NOK (2013-2014), cooperation with Sterling White Halibut, SINTEF and IMR, Norway.
- 2012: The project “Industry production of marine microalgae as resource for EPA and DHA for use in fish feed – research and industry basis and opportunities - ProAlge” funded by FHL Norway . Total 1.83 Mill NOK (2012), cooperation between Uni Research AS, Bergen (contract partner) and SINTEF Fisheries and aquaculture
- 2011: The project “Exploitation of nutrients from Salmon aquaculture – EXPLOIT” funded by the Research Council of Norway (173527). Total 10.2 Mill NOK (2012-2015), cooperation of SINTEF Fisheries and aquaculture, NTNU and Institute of Marine Research Norway

#### **COMMISSIONS OF TRUST**

- 2012-2017 Referee for several research proposal submitted to the Research Council of Norway
- 2016: Referee evaluation of research grants for the Swedish Research Council
- 2009: Referee evaluation of research grants for the European Commission
- Review of manuscript for publication in different journals as *Aquaculture*, *Aquaculture Environment impacts*, *Journal of Fish Biology*

#### **MEMBERSHIPS OF ACADEMIES / SCIENTIFIC SOCIETIES**

- 2006 -2010: Board Director in European Aquaculture Society
- 2007-2009: Board Member of ÆGIR (Norwegian Center of Aquaculture History)
- 1995->: Member of EAS (European Aquaculture Society).

#### **MAJOR COLLABORATIONS**

- Professor Jens Kjerulf Petersen, PhD Mette Møller Nielsen, Seaweed cultivation, IMTA  
DTU Aqua, Denmark
- Professor Leila Hayashi, Seaweed cultivation, IMTA  
Universidade Federal de Santa Catarina, Florianópolis, Brazil


- PhD Manuel Yufera, Marine fish larvae, larvae nutrition  
CSIC, Instituto de Ciencias Marinas de Andalucía, Cadiz, Spain
- Professor Pavlos Makridis, Marine fish larvae, environmental impacts, microbiology  
Dep. Biology University of Patras, Patras, Greece
- Professor Marisol Izquierdo, Marine fish larvae nutrition, future feed  
Universidad de las Palmas de Gran Canaria (ULPGC), Las Palmas, Spain
- Professor Patrick Sorgeloos, Marine aquaculture  
University of Ghent, Ghent, Belgium
- PhD Hüseyin Sevgili, Fish nutrition, new feed resources  
Mediterranean Fisheries Research Production and Training Institute, MEDFRI, Antalya, Turkey
- Professor Gamze Turan, Macroalgae, microalgae, IMTA, seabased aquaculture  
Dep. Aquaculture, Fisheries Faculty, Ege University, Ege, Turkey
- PhD Michael Sandmann, Microalgae, feed resources  
Institut für Lebensmittel- und Umweltforschung e.V. (ILU), Potsdam, Germany

### Track record

*89 papers & 5 book chapters after 1993. Goodle scholar - H-index of 31 (23 after 2014) with 4212 citations*  
Ten publications from the last ten years

1. Wang, X., Fosse, H.K., Li, K., Chauton, M.S., Vadstein, O., **Reitan, K.I.** 2019. Influence of nitrogen limitation on lipid accumulation and EPA and DHA content in marine microalgae. *Front. Mar. Sci.* 6:95-105.
2. Wang, Haiqing; Seekamp, Inka; Malzahn, Arne; Hagemann, Andreas; Carvajal, Ana Karina; Slizyte, Rasa; Standal, Inger Beate; Handå, Aleksander; **Reitan, Kjell Inge**. 2019. Growth and nutritional composition of the polychaete *Hediste diversicolor* (OF Müller, 1776) cultivated on waste from land-based salmon smolt aquaculture. *Aquaculture* 2019 ;Volum 502. s. 232-241
3. Sørensen, M., Berge, G.M., Reitan, K.I., Ruyter, B. 2016. Microalga *Phaeodactylum tricornutum* in feed for Atlantic salmon (*Salmo salar*) —Effect on nutrient digestibility, growth and utilization of feed. *Aquaculture*. 460, 116–123. Cited by: 34
4. Førde, H., Forbord, S., Handå, A.H., Fosberg, J., Arff, J., Johnsen, G., Reitan, K.I. 2016. Development of bryozoan fouling on cultivated kelp (*Saccharina latissima*) in Norway. *J. Applied Phycology*, 28: 1225-1234. Cited by: 24
5. Chauton, M.S., Reitan, K.I., Norsker, N.H., Tveterås, R., Kleivdal, H.T. 2015. A techno-economic analysis of industrial production of marine microalgae as a source of EPA and DHA-rich raw material for aquafeed: Research challenges and possibilities. *Aquaculture* 436: 95–103. Cited by: 96
6. Wang, X., Brock, O.J., Forbord, S., Handå, A., Skjermo, J., **Reitan, K.I.**, Vadstein, O., Olsen, Y. 2014. Assimilation of inorganic nutrients from salmon (*Salmo salar*) farming by the macroalgae (*Saccharina latissima*) in an exposed coastal environment: Implications for integrated multi-trophic aquaculture. *J. Applied Phycology*, 26: 1869-1878. Cited by: 28
7. Handå, A., Forbord, S., Wang, X., Broch, O.J., Dahle, S.W., Størseth, T.R., **Reitan, K.I.**, Olsen, Y., Skjermo, J. 2013. Seasonal- and depth-dependent growth of cultivated kelp (*Saccharina latissima*) in close proximity to salmon (*Salmo salar*) aquaculture: Implications for macroalgae cultivation in Norwegian coastal waters. *Aquaculture* 414-415: 191-201. Cited by: 88.
8. Wang, X., Andresen, K., Handå, A., Jensen, B., **Reitan, K.I.**, Olsen, Y. 2013. Chemical composition and release rate of waste discharge from an Atlantic salmon (*Salmo salar* L.) farm with an evaluation feasibility of IMTA. *Aquaculture Environment Interactions* 4: 147-162. Cited by: 113
9. Handå, A., Min, H., Wang, X., Broch, O.J., **Reitan, K.I.**, Reinertsen, H., Olsen, Y., 2012. Incorporation of fish feed and growth of blue mussels (*Mytilus edulis*) in close proximity to salmon (*Salmo salar*) aquaculture: Implications for integrated multi-trophic aquaculture in Norwegian coastal waters. *Aquaculture* 356–357:328–341. Cited by: 57
10. McClimans, T.A., Handå, A., Fredheim, A., Lien, E., **Reitan, K.I.**, 2010. Controlled artificial upwelling in a fjord to stimulate non-toxic algae. *Aquaculture Engineering*, 42, 140-147. Cited by: 26

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Kjell Inge Reitan