

Aquaculture Europe 2013 – Invited Plenary Speakers

“What is driving innovation? Theory & Practice”

Prof. Arild Aspelund, Professor in International Marketing, IØT NTNU, Norway.
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Arild Aspelund is Professor at the Department for Industrial Economics and Technology Management (IØT) at NTNU. He is currently Vice Program Director of the Norwegian Research School in Innovation (NORSI) and heads a research group in Global Production and Communication under NTNU's Globalization Programme. He is also coordinator for NTNU's executive education on Strategy and Business Development.

His primary academic interests lie in the intersection between innovation, entrepreneurship and international business. His academic contributions seek to address how innovations and entrepreneurial activities make new industries emerge, grow, internationalize and ultimately create international economic growth and prosperity.

Key points of his presentation:

Pretty much all models for economic development agree that innovation and entrepreneurship are *the* drivers for economic growth and prosperity in societies, but what is driving innovation and entrepreneurship? In this presentation Arild Aspelund will address this issue by providing examples from different industries where new innovations and new entry have created substantial value for the society. We seek to understand where these initiatives come from and what characterizes industries and organizations that consistently are able to deliver high quality innovations.



“Understanding the genotype-phenotype map and its practical implications”

Prof. Stig Omholt, Research Professor at the Norwegian University of Science and Technology (NTNU) in Trondheim and at the Norwegian University of Life Sciences (UMB) at Aas, Norway.
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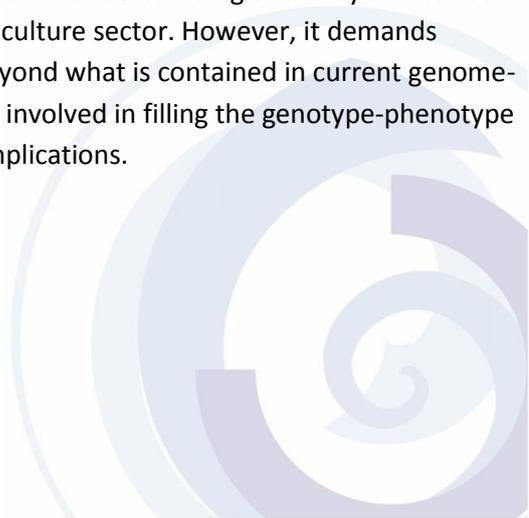
He was until recently Director of the Centre for Integrative Genetics (CIGRENE) at UMB and Kristine Bonnevie professor at the COE Centre for Ecological and Evolutionary Synthesis at the University of Oslo. He is now Director of a newly established cross-campus biotechnology programme at NTNU, named NTNU Biotechnology - the Confluence of Life Sciences, Mathematical Sciences and Engineering.

Stig Omholt has over the years worked on a wide range of research themes, including sociobiology, biogerontology, mathematical modelling of brain physiology, the mathematics of tanning, linking genetics theory with systems dynamics to establish a real quantitative genetics theory, experimental evolution of single-celled eukaryotes, linking genetics to cardiovascular modelling, the etiology of hypertension, and the ultimate reasons for why the salmon possesses a pink flesh. Omholt played a key role in the establishment as well as the funding of the Atlantic Salmon Genome Sequencing Project. He was also involved in the sequencing of the Atlantic cod genome.



Key points of his presentation:

The relation between genotype and phenotype can be conceptualized as a *genotype-phenotype map* (GP map), assigning a phenotype to each possible genotype. The GP map concept applies to any time point in the ontogeny of a living system and it is an abstraction of a relation that is the outcome of very complex dynamics that include environmental effects. An understanding of this dynamics has the potential to become transformative also for the aquaculture sector. However, it demands introduction of methodology and concepts that go far beyond what is contained in current genome-mapping paradigms. The talk will focus on the challenges involved in filling the genotype-phenotype gap with causal content and point to possible practical implications.



“Can we achieve Value Creation from Research?”

Dr. Reid Hole, Dean of Faculty of Bioscience and Aquaculture, University of Nordland (Norway), Chairman of AquaTT. reid.hole@uin.no



In a career spanning over 35 years, Dr. Reid Hole has considerable aquaculture, industry, research and academic experience. Reid's early research interests and skill set led to his appointment to manage a task force to establish a permanent animal research centre, including a laboratory, in the north of Norway (Bodø). Following his doctoral research, Reid was approached by Skretting AS and invited to become R&D manager for its agriculture and aquaculture businesses. Reid subsequently became Nutreco's International Aquaculture R&D manager and established Nutreco ARC AS, an R&D organisation known today as Skretting ARC AS. In 2000, Reid was appointed as Director of Technology and Development at Nutreco. Later, he became Nutreco's Director of Food Safety.

Reid left Nutreco in 2005 to establish his own consulting organisation - RH Consulting. Through his work with RH Consulting, Reid has joined taskforces for large biotech companies as well as overseeing the floatation of companies to the stock market. He has also been involved in the foundation of biotech companies, including GenderGuide AS. Reid has served as a board member for many organisations and companies. He is a current board member of the following: Pharmaq AS; the Bionær programme (the Research Council of Norway); the Norwegian Board of Technology (an advisory body to the Norwegian government); and AquaTT. He has previously served as a board member of e.g. Nofima AS; AKVAFORSK AS; Nutreco subsidiaries; and the Fishery Industries Advisory Board (FAO subsidiary). Though Reid is still involved with RH Consulting, it is through his current academic post as Dean of the Faculty of Bioscience and Aquaculture at the University of Nordland that he continues to promote his long-held interest in innovation and value creation from scientific research.

Key points of his presentation:

At a time of significant public research budget constraint and intensive global competition, it is crucial for the EU to safeguard its sources of future growth and jobs. Europe must create an environment conducive to innovation and where there is a measurable return on research investment. Returns can include environmental, economic or societal benefits. Europe is consistently falling short of turning R&D results into commercial opportunities, innovations and jobs. The presentation will include aspects of the following;

- Definition of value creation Role of science and research in an applied sector like aquaculture...
- Who is responsible for value creation? And how do we incentivise them?
- How do we prioritise research agendas and how can the current research funding cycle be improved to drive innovation and ultimately value creation?
- Learning from past initiatives (MarineTT and Aquainnova)