

Dr. Paul J. Midtlyng - Curriculum Vitae

Introduction

Paul is a veterinarian by education. He is the founder of Aquamedic AS and has more than 30 years of experience in applied fish health research, fish welfare, and infectious disease management & control in aquaculture.

Expertise

Paul has a Ph.D. in fish vaccinology, and postgraduate training in epidemiology and biostatistics, fish pathology and clinical trials. He is currently lecturing bacterial diseases of fish, disease control in aquaculture, and fish welfare at the School of Veterinary Medicine, Norwegian University of Life Sciences.

Work experience:

Disease control experience as Superintending Officer in fish diseases (1985 - 1991), Norwegian Ministry of Agriculture

Research experience at the National Veterinary Institute, Oslo (1991 - 1995)

Head of contract research and Head of R&D, VESO (1995 - 2009)

Head, of the Laboratory Animal Unit, Norwegian School of Veterinary Science (2009 - 2011)

Senior Regulatory Affairs Manager, Novartis Animal Health Norway (2011 - 2014)

Education

Degree of Doctor scientiarum, Norwegian College of Veterinary Medicine, May 1998. Title of the thesis: "Evaluation of furunculosis vaccines in Atlantic salmon. Experimental and field studies for assessment of protection and side-effects."

Paul graduated in December 1977 from Hannover Veterinary College, Federal Republic of Germany.

Extra curricular

- ▶ Member of the Program Committee for fish health, Norwegian Research Council 1987- 1989,
- ▶ Council member, the European Association of Fish Pathologists 1997-2001 and General Secretary of the same organisation 2003-2007.
- ▶ Paul has co-ordinated or been partner in five EU research projects.

Scientific publications

Paul is author or co-author of more than 50 papers in various fish disease related journals. Among the most recent are:

- ▶ Andrews M, Stormoen M, Schmidt-Posthaus H, Wahli T and Midtlyng PJ (2015). Rapid temperature-dependent wound closure following adipose fin clipping of Atlantic salmon *Salmo salar* L. *Journal of Fish Diseases* 38, 523-531.
- ▶ Karlsen C, Thorarinsson R, Wallace C, and Midtlyng PJ (2015). Beskyttelse mot vintersår forårsaket av *Moritella viscosa* etter vaksinerings av atlantisk laks med 6-komponentvaksiner. *Norsk Veterinærtidsskrift* 127 (6); 371-379.
- ▶ Romstad AB, Reitan LJ, Midtlyng P, Gravningen K, Emilsen V and Evensen Ø (2014). Comparison of a serological potency assay for furunculosis vaccines (*Aeromonas salmonicida* subsp. *salmonicida*) to intraperitoneal challenge in Atlantic salmon (*Salmo salar* L.). *Biologicals* 42, 86-90.
- ▶ Midtlyng PJ (2014). Vaccination against furunculosis. Chapter 16 in: Gudding R, Lillehaug A, Evensen Ø, (eds): *Fish vaccination*, pp 185-199. Wiley-Blackwell, ISBN: 978-0-470-67455-0
- ▶ Andrews M, Stormoen M, Schmidt-Posthaus H, Wahli T and Midtlyng PJ (2015). Rapid temperature-dependent wound closure following adipose fin clipping of Atlantic salmon *Salmo salar* L. *Journal of Fish Diseases* 38 (6); 523-531. DOI: 10.1111/jfd.12261.
- ▶ Romstad AB, Reitan LJ, Midtlyng P, Gravningen K and Evensen Ø (2013). Antibody responses correlate with antigen dose and in vivo protection for oil-adjuvanted, experimental furunculosis (*Aeromonas salmonicida* subsp. *salmonicida*) vaccines in Atlantic salmon (*Salmo salar* L.) and can be used for batch potency testing of vaccines *Vaccine* 31, 791-796.
- ▶ Aunsmo A, Skjerve E and Midtlyng PJ (2013). Accuracy and precision of harvest stock estimation in Atlantic salmon farming. *Aquaculture* 396-399; 113-118.
- ▶ Stien LH, Bracke MBM, Folkedal O, Nilsson J, Oppedal F, Torgersen T, Kittilsen S, Midtlyng PJ, Vindas MA, Øverli Ø and Kristiansen TS. (2013) Salmon Welfare Index Model (SWIM-1.0): a semantic model for overall welfare assessment of caged Atlantic salmon - review of selected welfare indicators and model presentation. *Reviews in Aquaculture* 5, 33-57.
- ▶ Pettersen JM, Bracke MBM, Midtlyng, PJ, Folkedal O, Stien LH, Steffenak H and Kristiansen TS (2013). Salmon welfare index model 2.0: an extended model for overall welfare assessment of caged Atlantic salmon, based on a review of selected welfare indicators and intended for fish health professionals. *Reviews in Aquaculture* 5, 1-18.
- ▶ Romstad AB, Reitan LJ, Midtlyng P, Gravningen K and Evensen Ø (2012). Development of an antibody ELISA for potency testing of furunculosis (*Aeromonas salmonicida* subsp. *salmonicida*) vaccines in Atlantic salmon (*Salmo salar* L.). *Biologicals* 40, 67-71.

Edited books

- ▶ Bernoth E-M, Ellis AE, Midtlyng PJ, Olivier G. and Smith, PR (eds). Furunculosis - multidisciplinary fish disease research. Academic Press, London, 1997. 529 pp.
- ▶ Gudding R, Lillehaug A, Midtlyng PJ and Brown F (eds) Fish Vaccinology. S. Karger, Basel, 1997. 484 pp.
- ▶ Midtlyng PJ (ed). Progress in Fish Vaccinology. S. Karger, Basel 2005. 340 pp.