



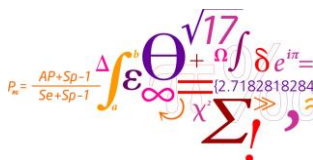
2 training courses available for september 2014



Training course 2014

Niccoló Vendramin and Susie Sommer Mikkelsen

18th Annual Workshop
of the National Reference Laboratories
for Fish Diseases



DTU Vet
National Veterinary Institute

The courses are entitled:

- **Methods for implementation of surveillance procedures for listed fish diseases week 37 from Monday the 8th to Friday the 12th of September**

- **Real time PCR for diagnostics and surveillance of fish diseases in week 38 from Monday the 15th to Wednesday 17th of September**

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...Learning from the experience...

- Courses presentation
- Information on economy
- Registration procedure



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Programme- Methods for implementation of surveillance procedures for listed fish diseases week 37 from Monday the 8th to Friday the 12th of September

Day 1	Day 2	Day 3	Day 4	Day 5
Section 1 FISH Farm inspection Participants will be introduced to the laboratory (Danish Veterinary and Food Administration, Section for Aquaculture). The participants will be introduced to the contingency plan in Denmark, practical demonstration of farm inspection will be performed and samples for surveillance will be collected by participants	Section 2 Laboratory introduction 9:00-10:00 Participants will be introduced to the laboratory <u>Coffee Break 10:00-10:30</u> 10:30-12:00 Theoretical introduction to the use of cell culture and qPCR for surveillance programs for non-exotic listed disease in Europe. <u>Lunch 12-13:30</u> 13:30 - 14:30 Samples processing collected following different diagnostic procedure (Cell culture and PCR) <u>Coffee Break 14:30-15:00</u>	Section 3 Cell culture facility 8:30-10:00 Cell culture preparation for diagnostic purpose, titration and IFAT <u>Coffee Break 10:00-10:30</u> 10:30-12:00 Titration procedure <u>Lunch 12-13:30</u> 13:30-14:30 Cell observation <u>Coffee Break 14:30-15:00</u> 15:00-16:30 Viral titre calculation	Section 4 qPCR analysis 8:30 - 12:00 Nucleic acid purification and master mix preparation <u>Coffee Break 10-10:30</u> 10:30-12:00 Course Evaluation and feedback from participants <u>Lunch 12-13:30</u> 13:30-14:30 qPCR analysis <u>Coffee Break 14:30-15:00</u> 15:00-16:30 PCR results to be collected and discussed	Section 5 Discussion and evaluation 9:00-10:00 Scientific discussion and recommendations. Final results obtained, conclusion <u>Coffee Break 10-10:30</u> 10:30-12:00 Course Evaluation and feedback from participants <u>Lunch 12-13:30</u> 13:30-15:00 Last minutes questions and Good Byes Wrapping up of the course and questionnaire fill out (coffee at the tables).

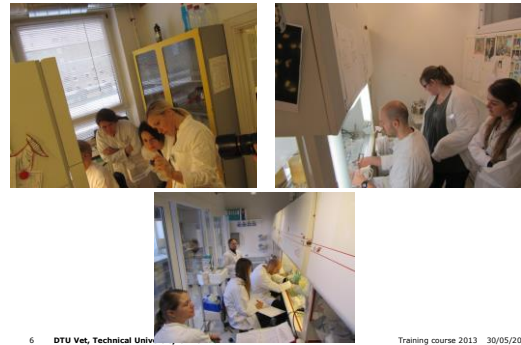
Fish Farm inspection



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Working in the lab cells and PCR



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Learning objectives



Maintain, cultivate, inoculate and read most used cell lines (BF-2, EPC, CCB and ASK) for fish disease diagnostic purposes.

Prepare cell cultures for different purposes, e.g. diagnosis, IFAT and virus titration.

Inoculate and sub-cultivate diagnostic samples.

Read diagnostic trays.

Titrate virus.

Apply Real-Time PCR for surveillance purposes.

Assess pitfalls and errors in test performances and designs.

The major focus will be on the viral fish diseases using VHS as model.

The course will provide a **forum where pre-knowledge, experience and examples can be discussed between participants and teachers, and hereby raise the awareness of pitfalls when using the various techniques.**

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Program - Real time PCR for diagnostics and surveillance of fish diseases week 38 from Monday the 15th to Wednesday 17th of September



Day 1	Day 2	Day 3
Section 1 Basic PCR 8:00-9:30 Registration and presentation of course 9:30-10:00 Presentation of participants 10:00-10:45 History of PCR 10:45-11:15 Coffee 11:15-12:00 Practical recommendations (lab setup, instruments, plasticware, handling of samples) 12:00-13:00 Lunch Section 1 Sample prep and validation 13:00-13:45 Sample preparation Extraction RNA/DNA 13:45-14:15 Preventing contamination (UNG-)	Section 2 primers and probes 9:00-10:00 Chemistry (SYBR green, Taqman, FRET, others) 10:00-10:30 coffee 10:30-11:00 Controls and standards (melting curves, standard curves, internal controls, reference genes) 11:00-11:30 Coffee 11:30-12:00 Theoretical exercises Primer design in silico 12:00-13:00 Lunch Section 2 13:00-14:00 Primer/probe design in silico 14:00-14:30 Coffee 14:30-15:00 Theoretical exercises Primer design in silico 15:00-15:30 Theoretical exercises RNA/DNA extraction Validation	Section 3 9:00-9:45 Analysis and thresholds 9:45-10:30 Cut-off 10:30-11:00 coffee 11:00-12:00 Interpretation and presentation of results 12:00-13:00 Lunch Section 4 13:00-14:30 Theoretical exercises Analysis of results 14:30-15:00 General discussion and course evaluation 15:00 Cakes and Goodbyes

Guest teachers



Marc Engelsma
Dr.ir. CVI, Netherlands



Learning objectives

The participants that will have fully followed all the course's objectives should be able to:

Validate new real-time PCR techniques for the lab.

Design and evaluate new primer/probe sets.

Understand the basic chemistry behind PCR.

Understand how to analyse and interpret the results. Knowledge of the MIQE guidelines.

Troubleshooting.

The major focus will be on assays for listed fish diseases.

The course will provide a **forum where pre-knowledge, experience and examples can be discussed between participants and teachers, and hereby raise the awareness of pitfalls when using the technique**

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Presentation name 17/04/2008

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Information on economy



This year the **EU commission has allocated a specific budget** for organizing and holding these training courses meaning that we can offer up to 15 participants from NRLs of EU Member States the following package:

Package for up to 15 NRL representatives of EU Member states includes:

- No course fee
- Travel expenses up to 500 € will be refunded (economy fares)
- Up to 5 nights at hotel incl. breakfast will be paid and booked by the EURL
- Lunches and coffee breaks will be included
- 1 social dinner

For other members of governmental institutions such as Universities, Veterinary institutes etc. the package includes:

- No course fee
- Travel expenses and accommodation must be covered by the participants themselves
- Fee for lunch and coffee of around 25 € per day plus fee for social dinner

Finally members of private companies are welcome to apply for participation. The package offered to these participants includes:

- Course fee (700 € for course in week 37 and 600 € for course in week 38)
- Travel expenses, hotel and daily allowances to be covered by the participants themselves
- Fee for lunch and coffee of around 25 € per day plus fee for social dinner

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Application process roadmap

- **From May 19th to July 1st** REGISTRATION OPEN visit http://www.eurl-fish.eu/Activities/training/Training_courses_2014



Registration Form for Training Courses 2014

And

motivational letter

to be delivered to niven@vet.dtu.dk

- **July 10th** PARTICIPATION CONFIRMED TO APPLICANTS

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**Thanks for your attention
we look forward to welcome you here in
September!**