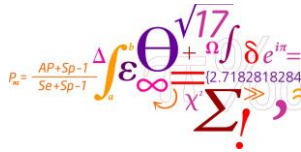


## 2 training courses available for October 2015

### Training course 2015

Niccoló Vendramin

19<sup>th</sup> 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 41 from Monday 5th to Friday 9th October 2015

**Introduction to Histopathology in fish diseases Copenhagen**  
week 42 from Monday 12th to Thursday 15th October 2015

### ...Learning from the experience...

- Courses presentation
- Information on economy
- Registration procedure



Training course 2013 30/05/2013



### Programme- Methods for implementation of surveillance procedures for listed fish diseases week 41 from Monday 5th to Friday 9th October 2015

| Day 1  | Day 2   | Day 3  | Day 4  | Day 5   |
|--|---|--|--|---|
| <b>Section 1</b><br><b>FISH FARM inspection</b><br>FISH FARM VISIT in collaboration with FVST (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<br>9:00-10:00<br>Coffee Break 10:00-10:30<br>10:30-12:00<br>Theoretical introduction to the use of cell culture and qPCR for surveillance programs for non-exotic listed disease in Europe.<br>12:30-14:30 Samples processing collected following different diagnostics procedure (Cell culture and PCR)<br>Coffee Break 14:30-15:00<br>15:00-16:30<br>Viral titre calculation | <b>Section 2</b><br><b>Laboratory introduction</b><br>Participants will be introduced to the laboratory<br>Coffee Break 10:00-10:30<br>10:30-12:00<br>Theoretical introduction to the use of cell culture and qPCR for surveillance programs for non-exotic listed disease in Europe.<br>12:30-14:30 Cell observation<br>Coffee Break 14:30-15:00<br>15:00-16:30<br>PCR results to be collected and discussed | <b>Section 3</b><br><b>Cell culture facility</b><br>Cell culture preparation for diagnostic purpose, titration and IFAT<br>Coffee Break 10:00-10:30<br>10:30-12:00<br>Titration procedure<br>12:30-14:30<br>Cell observation<br>Coffee Break 14:30-15:00<br>15:00-16:30<br>PCR results to be collected and discussed | <b>Section 4</b><br><b>qPCR analysis</b><br>8:30-12:00<br>Nucleic acid purification and master mix preparation<br>12:30-14:30<br>qPCR analysis<br>15:00-16:30<br>PCR results to be collected and discussed | <b>Section 5</b><br><b>Discussion and evaluation</b><br>9:00-10:00<br>Scientific discussion and recommendations. Final results obtained, conclusion<br>Coffee Break 10:30<br>10:30-12:00<br>Course Evaluation and feedback from participants<br>12:30-15:00<br>Last minutes questions and Good Bites<br>Wrapping up of the course and questionnaire fill out (coffee at the tables) |

### Fish Farm inspection



### Working in the lab cells and PCR



## 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.**

## Program – Introduction to fish histopathology 42 from 12th -15th October 2015

| Day 1  | Day 2  | Day 3   | Day 4  |
|--|--|---|--|
| Section 1  | Section 2  | Section 3   | Section 4  |
| 9:00-10:00<br>Course introduction<br>Participants will present themselves...<br><b>Coffee Break 10:00-10:30</b>            | 9:00-10:00<br>General pathology principles<br>Theoretical<br><b>Coffee Break 10:00-10:30</b>   | 8:30-10:00<br>Use of IHC Theoretical<br><b>Coffee Break 10:00-10:30</b>     | 8:30 - 12:00<br>Microscopy Room<br><b>Course assessment</b><br>Participants will be given slides with lesion and will have to describe them in an <b>exam</b> way.<br>General discussion of the slides provided will follow. |
| 10:30-12:00<br>Theoretical introduction and practical exercise on sampling tissues and organs from different fish sizes... | 10:30-12:00<br>Microscopy room slide observation.  | 10:30-12:00<br>Microscopy room IHC slides observation                       |  |
| <b>Lunch 12-12:30</b>  | <b>Lunch 12-12:30</b>  | <b>Lunch 12-12:30</b>   | <b>Lunch 12-12:30</b>  |
| 12:30 – 14:30 Normal histology and artifacts.  | 12:30 – 14:00<br>General pathology part II<br>Definition and description of lesions.<br>Focus on systemic infection<br><b>Coffee Break 14:00-14:30</b> | 12:30- 14:00<br>Use of ISH Theoretical I<br><b>Coffee Break 14:00-14:30</b> | 12:30-14:30<br>General discussion on cases brought by participants<br>Course evaluation<br><b>Coffee, cakes and goodbye 14:30-15:00</b>  |
| 15:00-16:30<br>Microscopy room II  | 15:00-16:30<br>Microscopy room II  | 15:00-16:30<br>Microscopy room II   |  |

## Guest teachers

### Course supervisors

Ole Benedik Dahle (DVM Phd) tutor responsible for Histopathology

Torsten Snogdal Boutrup (DVM Phd) tutor responsible on IHC

Tim Kåre Jensen (DVM Phd) tutor responsible on ISH

### Learning objectives

This course aims to introduce the students to normal histology of fish and to histopathological processes, with main focus on the systemic infection in farmed fish.

The participants that will have fully followed all the course's objectives will be able to:  
Samples organs and tissue for histo-pathological examination and submit them in a correct way

Gain knowledge to discriminate between normal histology, artefact occurred during fixation and processing,

Gain knowledge in spotting and describing in an harmonised lesions occurring during diseases process

Gain knowledge in the technology for preparing IHC and ISH, Assess pitfalls and errors in test performances and designs.

Overall the course will allow participants to understand the underlying principles of the different tests and to critically review them in order to assess pitfalls and to correctly interpret them

The major focus will be on systemic infection with major focus on listed viral 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 various techniques.

## 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 NRIs 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

## Application process roadmap

- **From June 8th to July 31st** REGISTRATION OPEN visit [http://www.eurl-fish.eu/Activities/training/Training\\_courses\\_2014](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](mailto:niven@vet.dtu.dk)

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



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