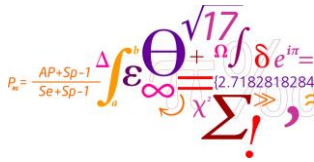


## Training course 2013

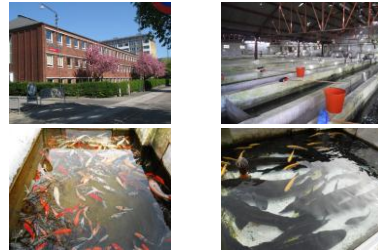
Susie Sommer Mikkelsen, PhD

17<sup>th</sup> Annual Workshop  
of the National Reference Laboratories  
for Fish Diseases



DTU Vet  
National Veterinary Institute

## "Sampling and diagnostic procedures for surveillance of listed fish diseases"



European Union Reference Laboratory for Fish Diseases  
21-25 January 2013  
Aarhus, Denmark

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## Programme

### Day 1

- Fish Farm visit

### Day 2

- Processing of collected samples
- Opening of ampoules
- Homogenation, centrifugation and antibiotics treatment
- Cell culture work
- Mycoplasma testing
- Microscopy of cells
- Freezing and thawing

### Day 3

- ELISA

### Day 4

- Real-time PCR
- IFAT

### Day 5

- Inspection of inoculated cells
- Titer calculation
- Discussion and evaluation

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## Fish Farm near Vejle



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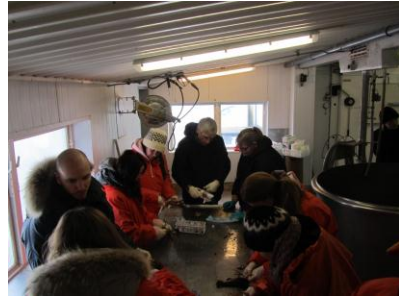
### Collection of fish



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### Dissection of fish



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### ERM and BKD



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### Working with cells



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## ELISA and real-time PCR



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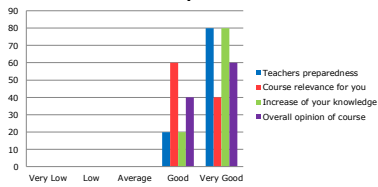
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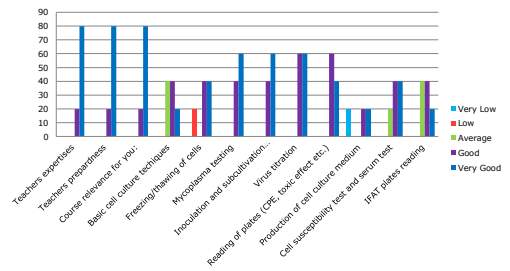
## Fish Farm inspection section



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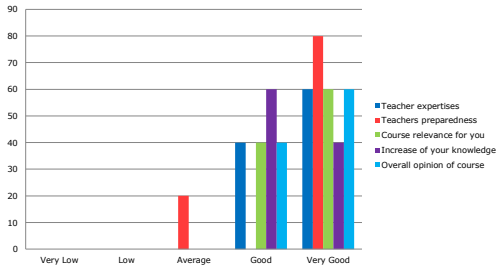
## Cell culture section



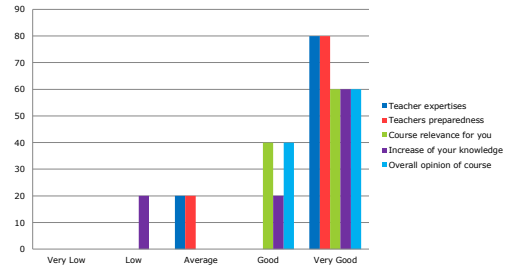
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### ELISA section



### Real Time PCR section



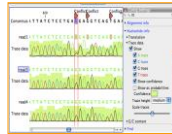
### What did you find good about the course?

- Very nice to see the whole process
- Learned a lot in a short time
- Hands on in the lab
- Well prepared in the lab

### Suggestions for improvements?

- Papers in advance of the course should have right dates

## "Advanced Molecular techniques and bio-informatics"



28-31 January 2013

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Training course 2013 30/05/2013

## Guest teachers



Heike Schütze  
Dr. rer. nat. FLI, Germany



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Marc Engelsma  
Dr.ir. CVI, Netherlands



Presentation name 17/04/2008

## Programme



### Day 1

- PCR Basics and Advanced PCR

### Day 2

- Sequencing and next-generation sequencing

### Day 3

- Phylogeny

### Day 4

- Real case stories
- Discussion and evaluation

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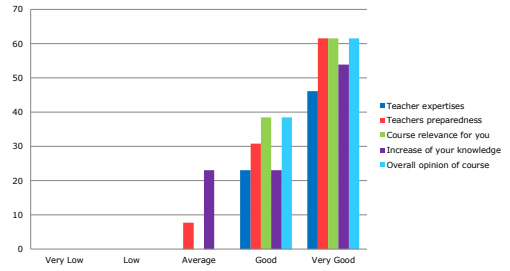
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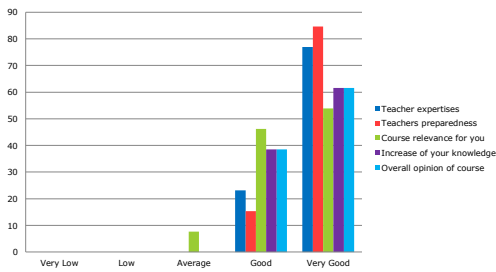
PCR section



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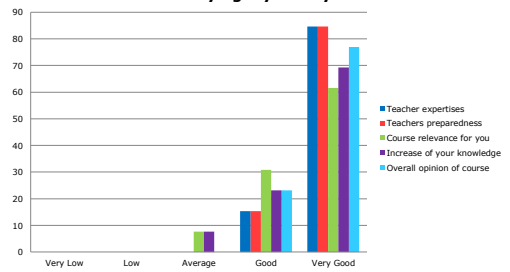
NGS section



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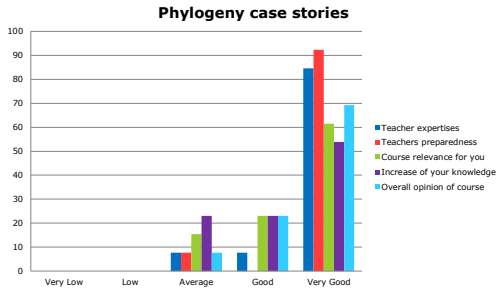
Phylogeny theory



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## What did you find good about the course?



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- Well-planned lectures (Not too short, not too long, but very informative)
- Reasonably structured days (easy to obtain knowledge)
- Extremely friendly collective (teachers, students, lab workers)
- Much useful information
- Very well organized, very good expertise and preparedness of teachers and as usually very friendly colleagues
- Practical orientation and giving us excess and suggestions on usefull programs to work with
- I think the course was scientifically very good, and it really increased my understanding and knowledge about sequencing and phylogeny of viruses
- The courses are useful for our jobs
- The teachers expertises, well preparedness, their patience give us deep impression. The course is well organised.
- That it was not too "compact". (plenty of time for each presentation, not overambitious).
- NGS: Good for me, but some thought it became very fast very technical, esp. If you were not too familiar with the methods in detail.
- Well prepared and very nice teachers. The programs demonstrated fitted perfectly with what I had used before/learned. Good space/breaks in between, Excellent timing.

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## Suggestions for improvement?

- More practical work (better to confirm knowledge)
- Might be good to perform more advanced course as well where you can go into topic more deeper
- Very interesting course as theoretical, just minor improvements as mentioned
- More practice
- Keep it continuing please
- Non. Very nice course indeed.
- The information about practicalities should really be improved; there was a lot of confusion about the dates, and the coordinator did not send consistent and corrected information
- More practical laboratory work or demonstration of experiment if possible
- Better information of times and dates! It was not good to have to buy expensive plane tickets because we were not sure when the course was, exactly.
- Agree on which software to use before, so we could download.
- Information ahead of course was confusing, e.g. dates. Difficult to order airplane tickets and hotel, etc.
- Bio edit demo a bit confusing but managed in the end.
- A bit more time to practice with the programs. My impression with CLC was very superficial. Should have had more practice. Maybe too superficial knowledge given on some subjects.

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## Suggestions for topics next year?

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