



Education and Culture DG

Lifelong Learning Programme



aqua.tnet

**Promoting innovation and a
European dimension through
Lifelong learning
in the field of Aquaculture,
Fisheries and Aquatic Resources
Management – Thematic Network**



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WP2: PhD curriculum development

Presented by *Peter Bossier*

Rationale: to develop cutting edge PhD courses in the AquaTNET domain

Main objectives:

Designing, building and running dedicated PhD courses contributing to the European Higher Education area by international EU mobility at doctoral level

Workpackage 2: courses in the PhD portal

Category	Number
AQUACULTURE	5
BIOLOGY	12
CHEMISTRY	2
ENGINEERING	9
ENVIRONMENT	3
FISHERIES	2
FOOD PROCESSING	1
GENERIC	1
IMMUNOLOGY	1
MATHS, STATISTICS and BIOINFORMATICS	5
MICROBIOLOGY	2
MOLECULAR AND OMICS	1
Total	42




Need for novel phd courses



Supply of novel phd courses


D2.3

Aug 2012




PROMICROBE PhD COURSE & TRAINING SCHOOL MICROBIAL COMMUNITY MANAGEMENT IN AQUACULTURE

August 20-22, 2012
Ghent University, Belgium



AIM

In this course young researchers will learn about recent developments in microbial management in larviculture and how to generate and process microbial community data. Next to the research oriented approach, experts from the industry will give their point of view on the course topic and illustrate the demand coming from the aquaculture sector.

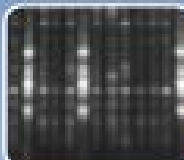


CONCEPT

This three-day course consists of lectures and tutorials on current microbial community management research, host responses to bacterial interactions, hands-on data processing sessions using Biomerics software and interactive sessions on poster subjects.

Each participant is requested to bring a poster of his/her PhD subject related to Microbial Community Management. The posters will be discussed in a dedicated session. There will be a possibility to process own experimental data during the hands-on session.

This course will lead to a 3 ECTS attendance certificate.



TOPICS

- Role of microbial communities in aquaculture
- Immunological host responses
- Generating microbial community and host response data
- Biomerics: data processing
- Visualization and statistical analysis of multivariate data
- Quantum sensing
- r/K selection
- Impact of feed components
- Microbiology of RAS
- Industrial application of pre- and probiotics
- Participant poster discussion session

Registration fee: 1000€. The fee includes course material, accommodation and meals.
Scholarships: 12 scholarships (fee waivers) will be assigned to registered participants based on the submitted poster abstract.


Location: Laboratory of Aquaculture & Artemia Reference Center
Roper 44, 9000 Ghent, Belgium


Language: English


Registration: via www.promicrobe.org/ta < Agenda < Workshop


Registration deadline: April 15, 2012
Selection deadline: April 30, 2012
Maximum number of participants: 30


Further information: contact promicrobe@UGent.be or dial +32 (0)9 264 37 54

hosted by:  Ghent University

financed by:  European Union

supported by:  Flanders Research Institute

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PhD course on Microbial community management (MCM)

PhD course. Microbial Community Management in
Aquaculture: 20-22 August 2012 (2 ECTS)

Day 1 Morning: Introduction and host responses

8.00-8.30: Registration at Lab of Aquaculture & Artemia
Reference Center (Roosier 44)

8.30-9.15: Breakfast at university restaurant 'De Brug'.

9.15-10.00: Role of microbial communities in aquaculture: Olav
Vadstein

10.00-10.45: General host responses: Peter Bossier

10.45-11.15: Coffee Break + Poster viewing

11.15-12.00: Immunological host responses: Stefanie Lagae
and Daisy van Rompay

12.00-12.45: Gnotobiotic models: Peter De Schryver

12.45-14.00: Lunch Break at university restaurant 'De Brug'.

XXX: Dinner at university restaurant 'De Brug'



PhD course on MCM

Day 1 Afternoon: Data generation and processing: generation

Generating Microbial community data: methods

14.00-14.45: DCGE, T-RFLP, clone libraries: Nico Boon

14.45-15.30 Pyrosequencing: Filip Van Nieuwerburgh (NXTGNT)

15.30-16.00: Coffee Break + Poster viewing

Generating host response data:

16.00-16.45: cDNA-RFLP microarray: Frank Van Breusegem

student session:

16.45-17.45: 3 presentations of 15 min. + 5 min. interaction

Description of Microbial Communities

Use of gnotobiotic models

Studies on innate immunity

PhD course on MCM

Day 2: Data generation and processing: processing

9.00-11.00: Bionumerics: data processing (how much of statistical analysis and visualization: ask Applied Maths)

11.00-11.30: Coffee Break + Poster viewing

11.30-12.30: Bionumerics: data processing (continued)

12.30-14.00: Lunch Break at student restaurant

14.00-15.30: Bionumerics: data processing: Practical exercise in computer room

15.30-16.00: Coffee Break + Poster viewing

16.00-17.30: Bionumerics: data processing: Practical exercise in computer room

19.30: Meeting at the entrance of the university (Plateaustraat)

20.00: Group dinner: Restaurant: De Gekroonde Hoofden (Choice of spare ribs, beef steak or salads)

PhD course on MCM

Day 3 Afternoon: application of microbial community management in the field

13.30-14.00: XX : Alain Lebreton

14.00-14.30: Fish feed additives: practical applications: Rocio Robles

14.30-15.00: Industrial application of probiotics and compounds: Patrick Lavens

15.00-15.30: Biological nitrogen removal in aquaculture systems: Kim Windey

15.30-16.00: Coffee Break + Poster viewing

16.00-17.00: Phd student session (3 presentations of 15 min. + 5 min. interaction)

Studies on nutritional aspects

Micro-organism interaction with effects towards the host

Studies on Microbial Community reduction

17.00: Closing reception + removal of posters

XXX: Dinner in university restaurant 'De Brug'



PhD course on Microbial communities

Course elements

- Classical courses
- Micro-teaching: peer to peer
- Pre-course ppt preparation in small student groups
- ICT tools: theory and hands on
- Industrial perspective
- European perspective: students (30) and teachers (12)

Workpackage 2: Erasmus mundus programs

- MACOMA - Erasmus Mundus PhD in Marine and Coastal Management
- MARES - Doctoral Programme in Marine Ecosystem Health and Conservation
- SMART – Science for Management of Rivers and their Tidal Systems <http://www.riverscience.eu>
- Campus do MAR: Vigo is coordinator
- European Graduate School in Animal Breeding and Genetics



Workpackage 2: Way forward?

- Continue needs analysis in function of scientific insight
- Couple EU funded research projects to PhD course development.
- Monitor EM+ for opportunities
 - Academic/industry interactions
 - Teacher mobility
- Use internet tools to run phd courses (meeting supply and demand, e.g. Webinars) to make participation cheaper



Workpackage 2: Way forward?

Marie Skłodowska-Curie actions

Research networks (ITN): support for Innovative Training Networks
ITNs support competitively selected
joint research training and/or doctoral programmes,

implemented by European partnerships of universities, research institutions, and non-academic organisations.

The research training programmes provide experience outside academia, hence developing innovation and employability skills. ITNs will include industrial doctorates, in which non-academic organisations have an equal role to universities in respect of the researcher's time and supervision, and joint doctoral degrees delivered by several universities. Furthermore, non-European organisations can participate as additional partners in ITNs, enabling doctoral-level candidates to gain experience outside Europe during their training.



Contact us

Thank you for your attention

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