



COST Action FA1408

European Network for Foodborne Parasites in Europe (EURO-FBP)

## TRAINING SCHOOL

### Molecular Methods used for Foodborne Parasite Diagnostics in Different Matrices

**Training school date:** 17<sup>th</sup> – 20<sup>th</sup> September, 2018

**Training school venue:**

Faculty of Biology, University of Latvia  
Jelgavas street 1,  
Riga, Latvia

**Local hosts:** Gunita Dekсне (gunita.deksne@bior.lv)

**Training objectives:**

The training school is aimed at teaching optimization and troubleshooting of methods used to extract, amplify, and sequence nucleic acids from contaminated matrices and isolated foodborne parasites.

**Techniques/ topics included in the training school:**

The course will include lectures, wet labs and discussions on relevant methods used for different parasites (protozoa and helminths) and from different matrixes (fecal samples, environmental samples (including food), and isolated individual worms. The Training school will be mainly focused on *Toxoplasma gondii*, *Cryptosporidium* spp. and *Anisakis* spp. molecular detection from different sample matrices.

A preliminary outline program is provided here – but further information will become available on the Euro-FBP homepage: <http://www.euro-fbp.org/>

**Trainers:**

Karin Troell (SVA, Sweden), Kristin Elwin (NHS Wales, UK), Marco Lalle (ISS, Italy), and Gereon Schares (FLI, Germany)



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#### Preliminary Program:

	17 <sup>th</sup> of September	18 <sup>th</sup> of September	19 <sup>th</sup> of September	20 <sup>th</sup> of September
	Monday	Tuesday	Wednesday	Thursday
<b>8.30-10</b>	Welcome, introduction When do we use molecular methods? Why? (Marco)	PCR and other amplification technique, how to set up a reaction, how to optimize, primer design etc (Karin)	Sanger sequencing and fragment analysis (Karin)	Lecture: How to analyze sequences. BLAST
<b>10-10.30</b>	coffee	coffee	coffee	coffee
<b>10.30-12.00</b>	Extraction methods. (Gereon)	Lecture on qPCR. (Kristin)	Species determination, typing, variant calling	Computer lab analysis of sequencing results
<b>12-13</b>	Lunch	Lunch	Lunch	Lunch
<b>14-15</b>	<b>Wet lab</b> introduction. Extraction methods	<b>Wet lab.</b> Extraction methods continued	<b>Wet lab.</b> Set up PCR and qPCR,	<b>Wet lab.</b> Optimize PCR, run gels from optimization
<b>15-15.30</b>	coffee	coffee	coffee	coffee
<b>15.30-17</b>	<b>Wet lab.</b> Extraction methods continued and nt concentrations	<b>Wet lab.</b> Run gel, discuss results, purify products	<b>Wet lab.</b> Run gel, discuss results, purify products	<b>Wet lab.</b> Run gel, discuss results, purify products
<b>evening</b>	Mixer and presentations by participants	Course dinner	Optional discussion: Crypto typing and nomenclature Or DNA fishing	



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## **TRAINING SCHOOL**

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#### **How to apply?**

Fill in the application form and send it by e-mail ([gunita.deksne@bior.lv](mailto:gunita.deksne@bior.lv) and [euro.fbp@nmbu.no](mailto:euro.fbp@nmbu.no)) the latest by **16<sup>th</sup> of July**.

If you have any questions about the course, mail either these addresses and your mail will be forwarded to the correct person to help you.

Please be aware that last year's training school was over-subscribed, so application to the school does not guarantee selection to participate.

#### **Deadline:**

16<sup>th</sup> July

#### **Eligibility criteria:**

Trainees eligible to receive fix grant:

- 1) Trainees from all COST countries that have signed the MoU<sup>1</sup>;
- 2) Trainees from approved NNC institutions<sup>2</sup>;

#### **COST contribution to Trainee expenses (fixed Trainee Grant):**

Each eligible trainee can apply for a fixed grant (probable amount: 700 Euro). This is Trainee Grant is a contribution to the overall travel, accommodation and meal expenses of the Grantee. Currently, the Grant amount is set at 800 Euros. It is intended that costs will be minimized by local organizers arranging student or low cost accommodation. Trainees must register in eCOST in order to receive the grant.

#### **Maximum number of participants:**

20

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<sup>1</sup>**COST countries:** Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, France, fYR Macedonia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom.

<sup>2</sup>**Approved NNC institutions:** Israel, Tunisia, the Palestinian Authority



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## TRAINING SCHOOL

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### APPLICATION FORM

1. Name / Surname

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2. Gender

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3. Degree (MSc/PhD, if the latter, when obtained)

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4. Country

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5. Institution

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6. Position at the institution

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7. Member of EURO-FBP

Yes/ No

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8. In which groups of parasites are you interested:

- Protozoans
- Trematodes
- Platyhelminthes
- Nematodes
- Others \_\_\_\_\_

9. Do you have an access to molecular diagnostic laboratory on routinely base?

- Yes
- No

9. With which laboratory diagnostic methods do you have previous experience?

- Basic biological methods (fresh smear microscopy, flotation methods etc.)
- Immunodiagnostic methods (serology)
- Molecular diagnostic methods (please specify) \_\_\_\_\_

10. How would you describe your level of experience with the methods on this course:

- Complete beginner – never done this previously
- Some experience, but limited, and woolly about optimization or trouble-shooting
- Relatively experienced but in need of a refresher course
- Have good experience.



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**Molecular Methods used for Foodborne Parasite**  
**Diagnostics in Different Matrices**

**11. Please provide a couple of sentences on how you will use the knowledge back in your laboratory.**

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**12. Please provide a couple of sentences on how your current studies are related to the scope of the training school.**

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Data\_\_\_\_\_

Signature\_\_\_\_\_