Minutes from EURO-FBP WG2 meeting Riga 2017, January 23-24th

Action Title: A European Network for Foodborne Parasites (Euro-FBP)

Venue: Institute of Food Safety, Animal health and Environment “BIOR”, Lejupes street Riga

Subject: Meeting to arrange WG2 activities in Year 3 (and Y4) (Training Schools, Lab mapping, Guidelines)

Day 1

9.00-10.00

1. Welcome by LO Gunita Deksne
2. Round of presentation by participants
3. Introduction by Action Chair Lucy Robertson. LR also gave an update on work to submit WBP for Y3 and the 24 month report.
   a. Need 5 suggestions for reviewers: FAO risk ranking people
   b. If other participants know of deliverables (publications, inventions, success stories etc.) not mentioned please send to Lucy.
4. Presentation on WG2 goals/tasks by WG leader Christian Klotz

10.15-12.00

PCR (‘Molecular methods’) TS discussion

5. Introduction with suggestion to TS outline by Karin Troell
6. Plenary discussion on NGS TS topics, mostly regarding what level the TS should be at. It was agreed to ask the Action members what potential participants would like the TS to address.
7. Suggestion by LR that some sort of document (e.g. review) on prospects on use of NGS in FBP research
8. Plenary discussion on PCR TS topics
   a. Topics regarding TS molecular methods that we thought should be discussed/included during the TS (not already in the schedule provided by Karin Troell)): Concentration, purification, discuss different matrices and different parasites
   b. Alternative methods? Issue was raised that maybe we should teach RFLP. After discussion, we decided to mention alternative methods but focus on extraction, PCR (conventional and qPCR) and Sanger sequencing, including first step sequence analysis
9. Discussion how to spread knowledge outside the trainee-group. Decision to include a section in the application form on how the participant planned to disseminate acquired knowledge after the TS. Could be, for example: presentation, e.g. National parasitology association, translation of TS summary. Should be specified in the application.
10. TS Application: online. Karin, Silvia and Ricardo make a suggestion
12. (potential) Trainers? Karin Troell, Silvia, Kristin Elwin, Marco Lalle, Relja Beck, Jeroen Roelfsema, Ricardo Santos, Michal Slany?

NGS TS

13. Target group?---> questionnaire.
14. Critical points in pipeline
15. Discussion on what to cover (theoretical or more practical, methods or analysis). Group decided to continue the discussion after a questionnaire has been sent to MC members to check interest and level (basic or advanced). Karin, Simone and Rachel will create a survey through survey monkey. Further discussion in May in Rome.

12.30-14.15
Analytical and Diagnostic Methods: Validation and QC

16. It was agreed that the greatest need was to focus on food methods because diagnostic methods are promulgated through clinical networks and veterinary methods are described in the OIE manual. Nevertheless, documenting the existing methods was considered useful in helping identify the gaps:

Action: Rachel and Marco to list the relevant standard methods (specific tests and validation schemes) in ISO, Codex Alimentarius and OIE. To be completed by the end of April.

17. However, it could be argued there was perhaps some need to signpost clinicians to the relevant methods, perhaps through the ESCMID Parasitology Group.

Action: Ask Titia to take this forward (Jeroen will ask her by the end of January).

18. To address which food methods are needed, priorities should arise from the parasite ranking exercise which provides good cross reference to WG1 outputs. Aim to submit a manuscript during Y3.

Action: Rachel to create a template for completion by named volunteers, e.g.: (example in italics, replace!). Table to be completed by end of April so that it can be presented on the meeting in Rome.

<table>
<thead>
<tr>
<th>Foodborne parasite*</th>
<th>Volunteer</th>
<th>Food stuffs/groups likely to be present in</th>
<th>Standard methods</th>
<th>Food stuffs with evidence of Reliability of that evidence (method used;</th>
<th>Refs</th>
<th>Current control measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foodborne parasite</td>
<td>(expert opinion?)</td>
<td>presence (literature review)</td>
<td>how good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------</td>
<td>-----------------------------</td>
<td>----------</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Echinococcus multilocularis</td>
<td>Kristoffer</td>
<td>Fresh produce</td>
<td>none</td>
<td>Blueberries</td>
<td>Molecular</td>
<td>Don’t eat the berries</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cloud berries</td>
<td>Molecular</td>
<td></td>
</tr>
<tr>
<td>Toxoplasma gondii</td>
<td>Frank Marco Stephanie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trichinella spiralis</td>
<td>Anne</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Echinococcus granulosus</td>
<td>Gunita</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryptosporidium spp.</td>
<td>Rachel Stephanie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Trichinella spp.</td>
<td>Brian (Age Karssin)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anisakis</td>
<td>Relja</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taenia saginata</td>
<td>Joke</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*ranked by EU-FBP WG1 in the top 5 in Europe as a whole or in the top 5 in a specific region in Europe. *Trypanosoma cruzi* was identified as important in South West Europe but is not included here as it is unlikely to be foodborne in Europe.

19. It was agreed that it would be useful to document available and required QC and reference materials, but that this should be done following completion of the table above as this would clarify the tests being used. The same people should take care of each parasite. Aim to publish a paper.

Action: Rachel will create a template to be completed by the volunteers after completion of the first table, e.g.: (example in italics, replace!). This table will be discussed further in Rome.
<table>
<thead>
<tr>
<th>Organism</th>
<th>material(s) needed</th>
<th>(commercial; non-commercial)</th>
<th>material validated?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echinococcus multilocularis</td>
<td>Molecular DNA – named locus gDNA</td>
<td>Commercial (NCTC)</td>
<td>no None</td>
</tr>
<tr>
<td>Toxoplasma gondii</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trichinella spiralis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Echinococcus granulosus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryptosporidium spp.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Trichinella spp.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anisakis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taenia saginata</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trypanosoma cruzi</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. It was agreed that a generic guideline template for method validation would be useful, and should consider the purpose of testing. Ricardo and Silvia will review the ISO methods for validation of microbial methods for food, and the one by PCR. To be completed by the end of April.

21. The need for translation of documents from English was identified for countries where English is not widely spoken. What is the COST policy on this?

22. It was agreed that there was a need to define “verification” and “validation” for our purposes, to document the criteria that tests should meet: analytical sensitivity and
specificity, repeatability and reproducibility, and to define the validation steps needed to enable robust and reliable detection of parasites at a level presenting a risk (sensitivity of single infectious parasites in a portion). The core group for this was agreed:

Christian Klotz WG Leader
Rachel Chalmers Leader
Marco Lalle Deputy
Stéphanie La Carbona Food
Lucy Robertson Food
Roy Betts Food and industry
Gereon Schares Veterinary
Frank Katzer Veterinary
Anne Mayer-Scholl Veterinary and food
Joke van der Giessen Veterinary, and ranking info
Philip Voysey Food
DAY 2
09.00-10.30

Lab Mapping/Methods

23. Christian presented preliminary results from survey. 26 countries (of 30) has responded so far. Low response rate regarding methods used is this necessary? Will require a lot of work to acquire this information.
   Action: The core group will close the gaps in the excel sheet by contacting the labs to provide missing or misleading information (by the end of April). The four ‘missing’ countries will be given a last chance to provide the data (CK will contact respective MCM). Plan to provide preliminary data on euro-fbp.org (members section).

24. Questions were raised regarding
   a. Who is this for? -- researchers, industry, governmental institutions...
   b. What is the purpose? -- collaboration, highlight gaps, harmonize methods

25. Discussion regarding publication of results need for approval? Who should have access?

26. Discussion regarding what further information the consortium think will be useful to have.
   Suggestion to focus on the top 5 parasites from the risk ranking and the NRL to provide further info on specific methods, and highlight potential gaps.

27. Consensus to upload excel sheet with full information from the survey on the euro-fbp members section and to make a simplified report, with a static map but without specific info about labs (no need for approval), on the public pages. Christian will plot the data in a static map and send to Kristoffer for publication on euro-fbp.org.

28. Suggestion from Joke (WG1) that the EURO-FBP sub-groups assess whether there is need for further information on specific pathogens and methods, and will then assist Christian with creating a questionnaire.

11.00-12.00

29. Short update on planning of Rome meeting in May 2017 by Simone Caccio.
   a. Call for presentations on day 2 to be sent out by Simone.

30. Plenary revision of the table (see above) that will form the basis for a review on validated methods for FBP.

31. Lucy brought up the discussion from day 1 about the definition about validation. There are different definitions, which may be a source for confusion.

32. Further discussion on what the questionnaire on wishes for NGS TS should include.

   a. Rachel will be in charge of this
   b. Publication through JOVE was suggested (Lucy will inquire).

Other topics discussed:

1. Suggestions by Brian
a. Updating information about FPB available on Wikipedia and also to try get it translated to different languages (may require money).

b. Create a EURO-FBP LinkedIn profile. Work in progress.