Workshop: Validation of diagnostic tests for infectious diseases of aquatic animals - tips and traps

Date and location: Sunday September 8, 2019 in the Faculty of Sciences, University of Porto, Department of Biology, Building FC4 (Rua do Campo Alegre 1021/1055, 4169-007 Porto).

Registration: 80 Euros (early); 90 Euros (standard; 100 Euros (late); lunch and coffee breaks included

Overview: Diagnostic validation (including estimation of sensitivity and specificity) is an important prerequisite for evaluation of a test's fitness for purpose (e.g. surveillance, confirmatory diagnosis). Workshop participants will get the latest information on validation strategies for tests such as multiplex PCR, including how best to design and report test accuracy studies in peer-reviewed publications. In the hands-on computer session, participants will have the opportunity to analyze results of test accuracy studies in aquatic animals and get guidance on the evaluation of sensitivity and specificity when the reference test is imperfect. The workshop leader is Dr. Ian Gardner (left panel) from the Atlantic Veterinary College, University of Prince Edward Island, Canada. Ian has 25 years working in the area of test validation and interpretation of test results in both individual animals and populations of animals. Dr. Peter Mohr (right panel), Leader of the Aquatic Diagnostic Capability Team at the AAHL Fish Diseases Lab at the CSIRO, Australian Animal Health Laboratory in Geelong, will co-lead the workshop providing vital insights on PCR validation from a lab perspective.



Workshop topics (9:30h - 18:00h) - participants should bring a personal computer

- Background including the World Organisation for Animal Health (OIE) pathway for test validation in the context of fitness for purpose; role of OIE reference labs, reasons for failure of validation studies,
- Laboratory experiments for validation of assays including singleplex and multiplex PCR and new technologies
- Design of studies for field validation using naturally-occurring disease, and how to get the most from experimental challenge trials, and use of reference samples of known infection status
- Statistical guidance for test validation studies, and hands-on session for analysis of data including strategies when the reference test is imperfect
- Reporting test validation studies following the STRADAS-aquatic guidelines
- Accuracy of pooled vs. individual animal testing: what experiments are needed to validate pooled tests?
- Question and answer session including discussion of participant data and other diagnostic issues

Note: conference registration and check-in will only be available for workshop participants on Monday September 9

For additional information, please contact Ian Gardner iagardner@upei.ca

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