



EVD-LabNet Newsletter Q2, June 2023

About EVD-LabNet

EVD-LabNet is a multi-disciplinary network of expert laboratories. The aim of EVD-LabNet is to strengthen Europe's laboratory capacity and capability to respond to emerging, re-emerging and vector-borne viral disease threats. The network laboratories are located in the EU/EEA, EU candidate countries, and will be expanding to the EU neighborhood countries. These laboratories have a strong basic and/or translation research competence in virology and human (reference) diagnostics and/or experience in diagnostic test development for viral pathogens. The network is a continuation of ENIVD that was founded about 30 years ago and has been known as EVD-LabNet since 2016.

EVD-LabNet 6th Annual Meeting Review

On 30-31 of May 2023, the 6th Annual Meeting of EVD-LabNet was held at the University of Padova, Italy with host Luisa Barzon. 26 experts from 18 countries gave talks on pathogens in the categories of tick-borne viruses, mosquito-borne viruses, rodent-borne viruses, sandfly-borne viruses, and a miscellaneous category covering recent emerging events like the recent Mpox outbreak. Networking was reinforced again, post-SARS-CoV-2 pandemic and the re-emergence of face-to-face meetings.



EVD-LabNet Group photo in Palazzo at University of Padova



Luisa Barzon, the host at University of Padova for the EVD-LabNet Annual Meeting, presenting on “Characterization of a new WNV lineage 1 strain”.

Scientific Advisory Board Meeting

On 29 May 2023, the Scientific Advisory Board for EVD-LabNet had a hybrid meeting at the University of Padova. Numerous points of discussion were covered, including but not limited to:

- General updates on how the program is going and deliverables for SC3-2023.
- Review and discussion on network composition and continued strengthening.
- Discussion about EVD-LabNet future, including the uncertainties raising from the new ECDC-coordinated EURL system, how does EVD-LabNet fit within HERA and with other emerging virus and pandemic preparedness consortiums.
- SAB discussed the idea of writing a policy or position paper about the importance of EVD-LabNet to advocate with higher level EU funding groups.

Alphavirus EQA Analysis Preliminary Results 2023

The preliminary results for the alphavirus EQA were nicely given by Laura Pezzi at the EVD-LabNet Annual Meeting, and a manuscript is in preparation. Summary points below.

- 24 laboratories participated (15 EU/EEA countries, 1 EU pre-accession country)
- EQA contained plasma spiked with 9 alphavirus species , provided by EVAg (CHIKV, SINV, ONNV, MAYV, BFV, RRV, EEEV, WEEV, VEEV)
- 16 laboratories used automated extraction, 8 used manual extraction
- 7 laboratories used commercial tests, 17 used in-house assays
- For laboratories using species-specific PCR assays, the correct result was provided 96.3% of the time. For laboratories using pan-alphavirus PCR assays, the correct result was provided 83.2% of the time.
- Many European laboratories don't have full diagnostic capacity for alphaviruses (notably SINV, which is circulating in Europe)
- Pan-alpha assays were more common, but less sensitive.
- Compared to the last European CHIKV molecular EQA in 2016, laboratories have significantly improved in terms of sensitivity.

Training Event #1 - 2023

On 21 and 22 of June 2023 EVD-LabNet trainers hosted an online training for epidemiologists “Introduction to virology, diagnostics and molecular epidemiology on emerging and vector-borne disease viral pathogens”. Over the course of this two half day training, epidemiologists were introduced to laboratory diagnostics concepts. Training sessions and trainers are listed below:

- Virus/host dynamics – **Jeff Connell** (NVRL Ireland)
- Serological and culture diagnostics – **Ramona Moegling** (RIVM)
- Diagnostic data reporting – issues and complexities - **Yaniv Lustig** (CVL Israel)
- Molecular diagnostics – **Richard Molenkamp** (Erasmus MC)
- Sequencing, informatics, and molecular epidemiology – **Richard Molenkamp** (Erasmus MC)
- How to use diagnostic data, and limitations of diagnostics data – **Corine Geurts van Kessel** (Erasmus MC)

Upcoming training event

For Q4-2023 or Q1-2024 a face-to-face training on viral culture, characterization and neutralization assays is planned. Some laboratories have already volunteered to host this training. However, members who would also like to host this training can contact EVD-LabNet at EVD-LabNet@rivm.nl.

2023 External Quality Assessment (EQA) of mosquito-borne viruses (molecular)

In 2023, EVD-LabNet is planning an EQA covering molecular detection of DENV, CHIKV, ZIKV, JEV, and YFV since these viruses are more frequently diagnosed in Europe (or have the potential to be imported to Europe). Registration for participation will open in the coming months.

Upcoming Meetings of Interest

3rd International Conference on Crimean-Congo Haemorrhagic Fever (September 19-21, 2023)

<https://www.3rdiccchconference.com/>

10th European Meeting on Viral Zoonoses (September 23-26, 2023)

<https://www.helsinki.fi/en/conferences/10th-european-meeting-viral-zoonoses>

Zoonoses 2023 – International Symposium on Zoonoses Research (October 09-11, 2023)

<https://zoonosenet/zoonoses-2023-international-symposium-zoonoses-research>

18th Medical Biodefense Conference (October 22-25, 2023)

[MBDC2023 – Medical Biodefense Conference \(instmikrobiobw.de\)](https://instmikrobiobw.de/MBDC2023)

Upcoming activities.

- Training 2 (Q3): (Tentative) Sequencing, Molecular Epidemiology and Bioinformatics – Virtual
- Training 3 (Q4-2023 or Q1-2024): (Tentative) Virus Culture, Characterization, and Neutralization – Face-to-Face
- Webinar 2 (Q4): (Tentative) Week 1 or 2 of October

For more information please contact at: EVD-LabNet@RIVM.nl

