



26.03.2024, Berlin, Copenhagen/Lyngby, and Umeå

Invitation to UNSGM Dry Lab EQAE 2024 on Arenaviruses

The Robert Koch Institute (RKI) in Germany, the Technical University of Denmark (DTU), and the Swedish Defence Research Agency (FOI), in coordination with the United States Department of State and Germany's RefBio project, **invite you to participate in 4th External Quality Assurance Exercise (EQAE) focusing on the bioinformatics analysis of Arenaviruses.**

This EQAE is meant to assist the UN Office for Disarmament Affairs (UNODA), which serves as the custodian of the United Nations Secretary-General's Mechanism (UNSGM) for such investigations. UNSGM is a unique tool for investigating alleged use of chemical, biological and toxin weapons. In the event of a request by a United Nations Member State, the Secretary-General has the authority to launch an investigation, to be conducted by rostered experts with the aid of laboratories designated by Member States. The RefBio project is Germany's contribution to strengthen the bio-analytical reference laboratories in the UNSGM and is currently providing ongoing Wet Lab EQAEs. It is funded by the German Federal Foreign Office with the aim to strengthen bio-analytical reference laboratories designated for the UNSGM.

Efforts to investigate a case of alleged use of biological weapons may face substantial practical, technical and policy challenges and thus the EQAE aims to strengthen the level of preparedness for laboratory participation in possible future United Nations (UN) investigations, and to improve the methods for data analysis and virus identification and characterization with sequencing.

Complementary to the ongoing RefBio Wet Lab EQAEs, this exercise will evaluate the capability of a laboratory to identify and characterize viral pathogens from datasets generated by modern sequencing techniques. Such methods can provide high discriminatory power that is needed for determining close relationships, deviating sequence patterns, genetic manipulations, and other information needed in an investigation of alleged use of biological weapons.

This EQAE will include the analysis of sequencing datasets of ten virus samples, as well the interpretation and reporting of the results from the data analyses, in the context of a fictive investigation process.

The benefits of participating in the EQAEs include:

- Learn from other experts and broaden your network of laboratories.
- Possible recognition as a laboratory resource by the UN for future investigations of alleged use of biological weapons.
- Receive a certificate with final scores.

GOAL

The EQAE goal is to increase the level of preparedness for laboratory participation in possible future UN investigations of alleged use of biological weapons, improving methods for data analysis and virus identification and characterization with sequencing.



Exercise information

The EQAE 2024 will be on Arenaviruses from 15 April 2024 to 27 May 2024.

In 2024, Arenaviruses virus will be the target of the EQAE. Each participant will receive ten datasets, which have been sequenced by a fictive analytical laboratory to support the UNSGM investigation. It is expected that you will apply your routine bioinformatic tools and/or workflow in the analysis. The exercise will consist of general tasks (e.g., assembly) to facilitate your participation, as well as more advanced tasks (e.g., identification of irregularities). A virtual workshop for the participants will be organized after the EQA to discuss the results and learnings.

The participants are requested to perform the following tasks:

1. **Identification** of Arenaviruses in the datasets (species and strain).
2. **Metagenomic analysis** of samples.
3. **Identification of irregularities**: e.g. mutations and genetic engineering.

Who can participate?

All laboratories performing sequence analysis of infectious disease pathogens are invited to participate. **Participation is free of charge.**

Registration and Schedule

We would greatly appreciate if you could respond to this invitation not later than **12 April 2024** by following the link below:

https://ec.europa.eu/eusurvey/runner/RKI_Virus_EQAE4

The EQAE will be performed from **15 April 2024 to 27 May 2024**.

EQAE coordination team

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Funding

The EQAEs are funded by the Bureau of Arms Control, Verification and Compliance in the United States Department of State. Participation in the 2024 EQAE is free of charge.