

CLIMADE AFRICA WORKING GROUP MEETING MINUTES – WEEK 4

Host: Centre for Epidemic Response and Innovation (CERI)

Date: February 28, 2023

Time: 12:00 – 13:00 p.m. (SAST)

Facilitators: Dr Eduan Wilkinson, Dr Monika Moir and Dr Houriiyah Tegally

Attendance/ No. of Participants: 119

Start time: 12:01 p.m. (SAST)

Purpose of the meeting

- To discuss the genomic surveillance framework, toolkit, and an introduction the best sampling and sequencing strategies for the real-time monitoring of emerging and re-emerging viral pathogens.
- Sharing and discussing arbovirus sequencing protocols

Agenda Items

1. Welcome
2. Presentation: Genomic monitoring of arboviruses in South America presented by Dr. Marta Giovanetti and Prof. Luiz Alcantara
3. Questions and Discussion

Discussion points/ questions

1. Welcome and agenda briefing - Houriiyah Tegally
2. Acknowledgments and request for participants to complete project questionnaire – Monika Moir
3. Introductions and presentation by Dr. Marta Giovanetti and Prof. Luiz Alcantara
4. Discussing and addressing low viral load (High CT score) cut off values, possible sequencing protocol and enrichment strategies for samples with low viral loads.
 - Ct scores cut off value 36 -37 (maximum) – depends on sample
 - Samples should have a Ct value of < 30/32

- Adjusting cycles during PCR amplification and sample starting material
 - Not necessary to measure RNA concentration after extraction especially for outbreak response.
5. The use of PRNT and multiplex PCR for upstream virus identification and isolation before ONT sequencing from cell culture samples and/or clinical samples.
 6. Sharing of phylogenetic analysis protocols.
 7. Sample storage and sample integrity:
 - Sample should be stored correctly as samples that belong to RNA viruses (viral RNA) are fragile especially historical samples should be stored at the correct temperature to maintain the integrity of the starting material (huge challenge so during our response)
 8. The use of cell culture and clinical samples for sequencing.
 9. Shipping of samples
 - Recommended: shipping of cDNA to sequencing laboratories.
 10. Funding recourses and African capacity building.
 11. The use of the COVID-Seq Kit for Arbovirus research – Protocols to be shared
 12. Primer schemes for the sequencing of different DENV serotype.
 13. Training opportunities for Portuguese African countries.
 14. VEME Workshop and Training (briefly discussed) – Houriiyah Tegally

Adjournment and Closing points

1. Request for laboratories and research institutes to share their research on Arboviruses.
2. Local laboratories should perform cDNA synthesis once a positive QPCR/ diagnostic result has been confirmed to maintain the samples integrity.

End time: 13:09 p.m. (SAST)

Next Meeting

Tuesday, March 7, 2023, at 12:00 – 13:00 p.m. (SAST)

Submitted by: Yajna Ramphal

Approved By: