



## **EURGen-RefLabCap** **Best practice workshop focused on Nanopore sequencing**

**30 November, 6-7 December and 15 December**

The EURGen-RefLabCap team are pleased to invite you to a best practice EURGen-RefLabCap workshop focused on Nanopore sequencing.

The course is divided in three parts:

- 30 November 2023: Online session for introduction of Nanopore sequencing
- 6-7 December 2023: Laboratory training for Nanopore sequencing **at the Technical University of Denmark (DTU)**, Kgs Lyngby, Denmark
- 15 December 2023: Online session for bioinformatics analysis of Nanopore data

### **AGENDA**

#### **30 November (virtual sessions)**

9:00 – 9:05: Introduction and agenda of the workshop (Ana Rita Rebelo, DTU)

9:05 – 9:20: Biochemical principles of Oxford Nanopore Technologies (Natasia Rebekka Thornval, DTU)

9:20 – 9:50: Comparison between ONT and Illumina sequencing (Ana Rita Rebelo, DTU)

9:50 – 10:00: *Coffee break*

10:00 – 10:30: *State-of-the-art* – literature on ONT sequencing applied to microbiology research and public health surveillance (Jette Sejer Kjeldgaard, DTU)

10:30 – 11:00: DNA extraction and library preparation for ONT sequencing (Ana Rita Rebelo, DTU)

11:00 – 11:20: Troubleshooting ONT runs (Niamh Lacy-Roberts, DTU)

11:20 – 11:30: *Coffee break*

11:30 – 12:00: Introduction of bioinformatics analyses of ONT data (Niamh Lacy-Roberts, DTU)

12:00 – 12:20: Explanation regarding purchase of Nanopore sequencer and reagents (Ana Rita Rebelo, DTU)

12:20 – 12:30: Q&A, wrap-up (Ana Rita Rebelo, DTU)

## 6 December (physical sessions at DTU)

*[8:00: Bus transportation provided from the hotel to DTU]*

9:00 – 9:10: Introduction and agenda for the day (Ana Rita Rebelo, DTU)

9:10 – 10:00: Overview of the DNA extraction protocol and preparation for lab work (Ana Rita Rebelo, DTU)

10:00 – 14:00: Laboratory work – DNA extraction (including *ad hoc* lunch)

14:00 – 15:30: Laboratory work – DNA quality control with Qubit

*15:30 – 16:00: Coffee break*

16:00 – 16:30: Other options for DNA quality control (Niamh Lacy-Roberts and Jette Sejer Kjeldgaard, DTU)

16:30 – 17:00: Q&A, wrap-up (Ana Rita Rebelo, DTU)

*[17:00: Bus transportation provided from DTU to the restaurant]*

*17:45 : Project dinner at Restaurant Cofoco (Abel Cathrines Gade 7, 1654 København V)*

## 7 December (physical sessions at DTU)

*[8:00: Bus transportation provided from the hotel to DTU]*

9:00 – 9:10: Re-cap and agenda for the day (Ana Rita Rebelo, DTU)

9:10 – 9:30: Overview of the library preparation protocol (Ana Rita Rebelo, DTU)

9:30 – 12:30: Laboratory work – Library preparation

*12:30 – 13:30: Lunch break*

13:30 – 15:30: Laboratory work – Loading flowcells and starting the sequencing run

15:30 – 16:00: Q&A, wrap-up (Ana Rita Rebelo, DTU)

*[16:00: Bus transportation provided from DTU to the hotel]*

## 15 December (virtual sessions)

9:00 – 9:10: Introduction and agenda for the day (Ana Rita Rebelo, DTU)

9:10 – 9:30: What happened at DTU after the workshop (Ana Rita Rebelo, DTU)

9:30 – 9:50: Quality control of ONT sequence data (Niamh Lacy-Roberts, DTU)

*9:50 – 10:00: Coffee break*

10:00 – 10:20: Assembly of ONT sequence data and quality control (Niamh Lacy-Roberts, DTU)

10:20 – 10:50: Bioinformatics analyses of ONT data using an internal pipeline (Astrid Rasmussen, SSI)

10:50 – 11:20: Cluster analysis with ONT data (Astrid Rasmussen, SSI)

*11:20 – 11:30: Coffee break*

11:30 – 12:00: Updates to the harmonized EURGen-RefLabCap WGS protocols (Ana Rita Rebelo and Jette Sejer Kjeldgaard, DTU)

12:00 – 12:30: Q&A, wrap-up (Ana Rita Rebelo, DTU)

Kind regards,  
The EURGen-RefLabCap team