

# From Pore to Profile: A Workshop on Nanopore Microbiome Sequencing

15<sup>th</sup> – 17<sup>th</sup> October 2025, University of Parma, Italy



## Programme

| Day/Time                                   | Activity                                                                                      | Speaker                    |
|--------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------|
| <b>Day 1: 15<sup>th</sup> October 2025</b> |                                                                                               |                            |
| 8:30-9:00                                  | Registration                                                                                  |                            |
| 9:00-9:15                                  | Opening                                                                                       | Prof. Dr. Chiara Dall'Asta |
| 9:15-10:30                                 | Lecture: Introduction to Oxford Nanopore technology & its applications in microbiome research | Worarat Kruasuwan          |
| 10:30-10:45                                | Coffee break & Networking                                                                     |                            |
| 10:45-11:30                                | Lecture: DNA extraction process                                                               | Alessia Levante            |
| 11:30-12:00                                | Hands on: DNA quality check                                                                   | Alessia and teams          |
| 12:00-13:00                                | Lunch                                                                                         |                            |
| 13:00-14:00                                | Lecture: ONT library preparation                                                              | Worarat and teams          |
| 14:00-15:30                                | Hands on: Flow cell loading practicing                                                        | Worarat and teams          |
| <b>Day 2: 16<sup>th</sup> October 2025</b> |                                                                                               |                            |
| 8:30-9:00                                  | Registration                                                                                  |                            |
| 9:00-10:30                                 | Hands on: 16S rRNA gene amplification (PCR)                                                   | Worarat and teams          |
| 10:30-12:00                                | Lecture: Introduction of EPI2ME                                                               | Emanuele Della Monica      |
| 12:00-13:00                                | Lunch                                                                                         |                            |
| 13:00-14:30                                | Hands on: PCR quality check                                                                   | Alessia and teams          |
| 14:30-15:00                                | Hands on: ONT Library preparation and loading                                                 | Participants               |
| 15:00-15:30                                | Lecture: Real-time monitoring of ONT Sequencing                                               | Worarat Kruasuwan          |
| <b>Day 3: 17<sup>th</sup> October 2025</b> |                                                                                               |                            |
| 8:30-9:00                                  | Registration                                                                                  |                            |
| 9:00-10:30                                 | Hands on: EPI2ME installation                                                                 | Emanuele and team          |
| 10:30-12:00                                | Hands on: Microbiome data analysis and visualization                                          | Emanuele and team          |
| 12:00-13:00                                | Lunch                                                                                         |                            |
| 13:00-15:30                                | Group presentation                                                                            | Participants               |
| 15:30-16:00                                | Wrap-up                                                                                       | Prof. Dr. Chiara Dall'Asta |