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MONDAY 25, JUNE

REFRESHER ON METHODS AND PROJECTS DEFINITION:

9.15-09:30 WELCOME AND REGISTRATION
9.30-10:30 LECTURE: *Refresher on OMICs Profiling and Integration*
Speaker: M Chadeau-Hyam
10:30-11:00 *Datasets overview – projects allocation*
Speaker: J Vlaanderen
11:30-13:00 TUTORIAL: *Reproducible results using RStudio-RMarkdown and GitHub*
Speaker: B Liquet
14:00-18:00 GROUP WORK: *Data exploration – Repository set up – Analytical Plan*

TUESDAY 26, JUNE

EXPLORATORY ANALYSES - VISUALISATION

9:00-10:00 GROUP PRESENTATION: *Projects overview and Analytical plan*
10:00-11:00 TUTORIAL: *Big Data Visualisation and Exploration*
Speaker: G Miller
11:00-13:00 GROUP WORK: *Exploratory analyses – Association Studies*
14:00 -15:00 SEMINAR: *Resampling techniques: Calibration/Validation/Stability*
Speaker: L Portengen
15:00-18:00 GROUP WORK: *Visualise and interpret profiling results*

WEDNESDAY 27, JUNE

SENSITIVITY/STABILITY ANALYSES – RESULTS INTERPRETATION

09:30-10:30 GROUP PRESENTATION: *Preliminary results – planned refined analyses*
10:30-12:00 TUTORIAL: *Pathway Exploration – Bioinformatics tools*
Speaker: G Miller
13:00-14:00 SEMINAR: *Introduction to Cytoscape and Sub-Network Models*
Speaker: B Schwikowski
14:15-17:30 GROUP work: *Implementation of stability analyses, Results generation and interpretation*

THURSDAY 28, JUNE

OMICs Integration:

09:30-10:30 GROUP PRESENTATION: *Finalised results & plans for OMICs integration*

10:45-12:15 LECTURE: *Introduction to Network Inference in practice*
Speaker: J Chiquet

12:15-13:00 SEMINAR: *The role of advanced statistics in Exposome Sciences*
Speaker: R Vermeulen

14:00-15:00 LUNCH SEMINAR: *Variational inference in the Poisson-lognormal model: applications to multivariate analysis of count data*
Speaker: J Chiquet

15:00-18:00 GROUP WORK: *Implementing network models for (multi)-OMIC data*

FRIDAY 29, JUNE

NETWORK MODELS IN PRACTICE

09:30-10:30 LECTURE: *Epidemiological approaches to results interpretation: confounding, mediation, temporality and causation*
Speaker: C Delpierre

10:30-13:30 GROUP WORK: *finalising analyses & presentation*

13:45 -14:30 LUNCH SEMINAR: *Mechanistic investigation*
Speaker: M Chadeau-Hyam

14:30-17:00 FINAL GROUP PRESENTATION

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