

Introduction to experimental planification and data analysis of Omics

Reims July 9 to 11 2024

Program

1. Introduction to Omics
2. Bioinformatics, Gene Ontology and data analysis
3. Transcriptomics and Proteomics
4. Metabolomics
5. Systems Biology and Integrative Omics

The objectives are to provide participants with a solid foundation in omics data analysis and their underlying principles from experimental plan to interpretation of results. Theory and practical training sessions where participants can learn how to perform omics experiments, analyze omics data using bioinformatics tools, and interpret results. At the end of the training, participants will be able to know which statistical method to use to answer data integration questions, to implement these methods with the R software and to interpret the results in numerical and graphical form.

Registration

Send a motivation letter to claudia.cosio@univ-reims.fr; travelling grants may be available.

We require a user knowledge of R (level 3 of Self-Assessment Questionnaire; participant knows how to run a script and adapt it to their needs)

Participants are expected to bring their own computer with last version of R and mixOmics package

- Level in R-Self-Assessment Questionnaire (an answer at a certain level assumes that the lower levels (except 0) are also acquired).

0 I don't know what R is

1 I know how to open RStudio but no more

2 I generally understand what an R code does even if I wouldn't have been able to write it on my own

3 I know how to retrieve an existing code and adapt it to my needs

4 I know how to write R code from an empty page

5 I can help my colleagues solve their R problem

