

NuGOweek 2024 postgraduate course
NUTRITIONAL OMICS: from study design to integrative data analysis

Saturday 31 August 2024

Introduction on (epi-)genomics, metagenomics, metabolomics/lipidomics	
12:30 – 13:00	Registration
13:00 – 13:30	Welcome + short workshop overview: tasks and goals (Lynn Vanhaecke)
13:30 – 14:10	Introduction to (epi)genomics (Carsten Carlberg)
14:10 – 14:50	Introduction to metagenomics (Presenter to be announced)
14:50 – 15:20	Coffee break
15:20 – 16:20	Introduction to metabolomics/lipidomics (Lieselot Hemeryck, Vera Plekhova)
16:20 – 17:00	Interactive session on experimental setup/study design nutritional omics study (Presenter to be announced)

Sunday 1 September 2024

Introduction to metabotyping and machine learning, hands-on lab demo metabolomics/lipidomics	
09:00 – 10:30	Metabotyping (Carl Brunius)
10:30 – 11:00	Coffee break
11:00 – 12:30	Introduction to machine learning (Mats Jirstrand)
12:30 – 13:30	Lunch
13:30 – 15:00	Hands-on training in metabolomics and lipidomics (Tom Cools, Kimberly De Windt, Fien Verdoodt)
15:00 – 15:30	Coffee break
15:30 – 16:30	Training in single omics data processing, basic R and/or Python knowledge required (Michiel Adriaens, Matthijs Vynck, Pablo Vangeenderhuysen)

Monday 2 September 2024

Integrative/fused omics data analysis (incl. machine learning)	
09:00 – 09:30	Introduction to the dataset and approaches to be used (Carl Brunius)
09:30 – 10:00	Coffee break
10:00 – 11:30	Workshop in groups (Carl Brunius, Mats Jirstrand, Viktor Skantze, Mikael Wallman)
11:30 – 12:00	Summary and conclusions