

Genome-Wide Association Studies: Why, How and then What?

4 days (28.03.2022 – 31.03.2022)

Zoom: <https://uio.zoom.us/j/63041125475?pwd=VzF4R1I5UDc2MkRHsk8xTGxaUk1ZQT09>

Day 1 [28.03]. Genome-wide association studies background and clinical implications.

- 09:30 – 09:45 General introduction and overview of projects in NORMENT. [[Ole Andreassen](#)]
- 09:45 – 10:45 Genes, genomes and genetic variation. [[Timothy Hughes](#)]
- 10:45 – 10:50 Break.
- 10:50 – 11:35 GWAS. Clinical implications. [[Ole Kristian Drange](#)]
- 11:35 – 12:05 Lunch Break.
- 12:05 – 13:30 Preparing for workshops. [[Alexey Shadrin](#)]

Day 2 [29.03]. Pre-GWAS: quality control and imputation.

- 10:00 – 10:45 Pre-imputation QC, imputation and post-imputation QC + *workshop* (part 1). [Elizabeth Corfield]
- 10:45 – 10:50 Break.
- 10:50 – 11:35 Pre-imputation QC, imputation and post-imputation QC + *workshop* (part 2). [Elizabeth Corfield]
- 11:35 – 12:05 Lunch Break.
- 12:05 – 13:00 Brain imaging and genetics. [[Dennis van der Meer](#)]

Day 3 [30.03]. GWAS essentials: association testing, annotation of the results and available resources.

- 09:30 – 10:30 Testing for association, meta-analysis and interpretation of the results + *workshop*. [[Kevin O'Connell](#)]
- 10:30 – 10:35 Break.
- 10:35 – 11:35 Survey of available GWAS data. [[Oleksandr Frei](#)]
- 11:35 – 12:05 Lunch Break.
- 12:05 – 12:50 FUMA, pathway and network analysis + *workshop*. [[Shahram Bahrami](#)]
- 12:50 – 13:35 Heritability concept and misconceptions. Genetic architecture beyond heritability. [[Guy Hindley](#)]

Day 4 [31.03]. Post-GWAS analyses.

- 09:30 – 10:30 LD-score regression and genetic correlation + *workshop*. [[Alexey Shadrin](#)]
- 10:30 – 10:35 Break.
- 10:35 – 11:35 Polygenic risk scores + *workshop*. [[Alexey Shadrin](#)]
- 11:35 – 12:05 Lunch break.
- 12:05 – 12:50 Mendelian randomization. [[Nadine Parker](#)]
- 12:50 – 13:35 Concluding remarks, discussion and distribution of examination tasks.