Program

Day 1 –June 16 – Introduction to molecular epidemiology

9.00–10.30 h: Registration
10.30–11.30 h: Opening lecture: Welcome, scope and structure of the course
11.30–13.00 h: Parallel Basics lectures:
1. Epidemiology: study designs, bias, confounding, interaction (Matty Weijenberg)
2. Molecular biology: from genes to metabolites (Roger Godschalk)
13.00–14.00 h: Lunch
14.00–15.00 h: Training: Introduction molecular epidemiology (Matty Weijenberg, Ilja Arts)
15.00–15.30 h: Coffee/tea break
15.30–17.30 h: Training: Introduction molecular epidemiology (Matty Weijenberg, Ilja Arts)
17.30–18.00 h: Break
18.00–19.00 h: Interactive presentation and Masterclass of training Introduction molecular epidemiology (all faculty)
19.15 h: Dinner

Day 2 – June 17 – How to integrate biomarkers in population based studies

8.30–9.30 h: Basics lecture: What are biomarkers (Ilja Arts)
9.30–10.30 h: Training: Biospecimens for biomarker measurement (Roger Godschalk)
10.30–11.00 h: Coffee/tea break
11.00–13.00 h: Keynote lecture: Validation issues in the use of biomarkers in epidemiological studies, introducing omics (Stefano Bonassi)
13.00–14.00 h: Lunch
14.00–15.00 h: Basics lecture: Introduction to statistical modeling (Tomasz Burzykowski)
15.00–15.30 h: Coffee/tea break
15.30–16.30 h: Problem–based tutorial groups on smart study design (Ilja Arts, Stefano Bonassi, Matty Weijenberg)
16.30–17.30 h: Interactive lecture: Smart study design (Ilja Arts, Stefano Bonassi, Matty Weijenberg,)
17.30–18.00 h: Break
18.00–19.00 h: Basics lecture: Introduction genome–wide association studies (Maurice Zeegers)
19.15 h: Dinner

Day 3 – June 18 – What can 'omics' technology bring us

8.30–9.30 h: Keynote lecture: Biobanking: ethical and legal issues (David Townend)
9.30–10.30 h: Basics lecture: Introduction to 'omics' markers (Theo de Kok)
10.30–11.00 h: Coffee/tea break
11.00–12.15 h: Basics lecture: How to handle complex omics data: raw data processing (Lars Eijssen)
12.15–13.00 h: Hands on session: How to handle complex omics data: raw data processing (Lars Eijssen, Rachel Cavill)
13.00–14.00 h: Lunch

14:00–15:30 h: Basics lecture: Data analysis of complex omics data: exploratory analyses (Rachel Cavill)
15.30–16.00 h: Coffee/tea break
16.00–18.30 h: Hands on session: Data analysis of complex omics data: exploratory analyses (Rachel Cavill, Lars Eijssen)
18.45 h: Dinner

Day 4 – June 19 – Understanding complex data

08.30 – 9.30 h: Keynote lecture: Genome–Wide Association Studies: past experience and future directions (Monika Stoll)
9.30–10.30 h: Hands on session: Performing pathway analysis (Lars Eijssen, Rachel Cavill)
10.30–11.00 h: Coffee/tea break
11.00–13.00 h: Keynote lecture: Genome-Wide Association Interaction (GWAI) Studies: mission impossible? (Kristel Van Steen)
13.00–14.00 h: Lunch
14.00–15.00 h: Interactive lecture: Where to find biological knowledge? (Rachel Cavill, Lars Eijssen)
15.00–15.30 h: Hands on session: Wrap-up of hands-on training sessions (Rachel Cavill, Lars Eijssen)
15.30–16.00 h: *Coffee/tea break*
16.00–17.00 h: Keynote lecture: The Envirogenomarkers Project / EXPOsOMICS (Paolo Vineis)
17.30 h: Social event including dinner

Day 5 – June 20 – Molecular epidemiology in public health perspective

9.00–10.30 h: Basics lecture: An introduction to mixed effects and finite mixture models (Valeria Limapassos)
10.30–11.00 h: Coffee/tea break
11.00–12.00 h: Keynote lecture: The future of molecular epidemiology (Paolo Vineis)
12.00–13.00 h: Keynote lecture: Public health genomics and personalized medicine (Angela Brand)
13.00–14.00 h: Lunch
14.00–15.00 h: Round table: Personalized medicine in daily practice
15.00–15.30 h: Closing discussion