

Short Course: **Molecular Epidemiology of Chronic disease and the Exposome**

Utrecht, 8-12 July 2018

Course Co-Coordinator Roel Vermeulen & Jelle Vlaanderen (IRAS, Utrecht University)

Preliminary Schedule

(L) lecture

(P) practical

(CT) course text

Day			Topic	Speaker
Monday 8 July Morning	L	10:00	Design of molecular epidemiology studies Introduction to molecular epidemiology and the exposome	Vermeulen
	L	11:30	Molecular markers to assess the Exposome, early disease, and clinical disease (1/2).	Vlaanderen
Monday 8 July Afternoon	L	14:00	Markers on the exposure disease continuum Molecular markers to assess the Exposome, early disease, and clinical disease (2/2).	Vlaanderen
	P	15:00	OMICS practical work I <ul style="list-style-type: none"> • <i>Introduction to R and OMICS dataset</i> 	Vlaanderen
	P	16:00	Mixer (drinks and meet the lecturers)	Vermeulen, Vlaanderen, Walker
Tuesday 9 July Morning	L	10:00	From platform to application Metabolomics	Doug Walker (Emory U)
	L	11:00	Epigenetics, Transcriptomics	Vlaanderen
Tuesday 9 July Afternoon	L	14:00	Preprocessing of OMICS data.	Vlaanderen
	L	15:00	Large scale genomics data to unravel ALS as "simplex" disease	Jan Veldink (UMCU)
Day			Topic	Speaker

Wednesday 10 July Morning	L	09:30	Biostatistics EWAS analysis: Multiple comparisons & variable selection OMICS practical work II • <i>Pre-processing and multiple comparisons</i>	Marc Chadeau-Hyam (ICL) Vlaanderen
Wednesday 10 July Afternoon	P	13:30 17:00	OMICS practical work II Official opening ceremony of the Utrecht Summer School, at the Janskerk, Janskerkhof,	Vlaanderen
Thursday 11 July Morning	L L P	09:30 10:30 11:30	From OMICS profiling to OMICS integration: 'cross-omic' Discussion OMICS practical II OMICS practical work III • <i>Variable selection methods (LASSO, E-NET)</i>	Chadeau-Hyam (ICL) Portengen Vlaanderen
Thursday 11 July Afternoon	P L L	13:00 15:00 16:00	OMICS practical work III • <i>Dimension reduction methods (PLS, SPLS)</i> Discussion OMICS practical work III Microbiome	Vlaanderen Portengen Lidwien Smit (UU)
Friday 12 July Morning	L P	09:30 10:30	Application of OMICS technologies; examples Bioinformatics OMICS practical work IV • <i>Bioinformatics</i>	Vlaanderen Vlaanderen
Friday 12 July Afternoon	L E	13:00 14:00 15:00 16:00	Discussion OMICS practical work IV Wrap-up Meet the expert session Exam	Vlaanderen Vermeulen Vermeulen, Vlaanderen, Walker, Smit