

M1 – S04 - Genomes and Phenotypes

ENS 46 rue d'Ulm, 75005. Room 324. Bring your laptop for the practicals.

Date	V. Courtier	H. Roest Crollius
Monday 2/10/2023	<ul style="list-style-type: none"> • Genetics and the Genotype-Phenotype Relationship • Mapping the genes underlying phenotypic variation • Gephebase (Course and Practical) • Leaf butterflies (Practical) 	
Wednesday 4/10/2023 9h-12h	<ul style="list-style-type: none"> • Manipulating DNA, CRISPR, gene drive 	
Wednesday 4/10/2023 14h-17h (see Moodle)		<ul style="list-style-type: none"> • Sequencing the human genome, a historical perspective (Personal project, see Moodle)
Monday 9/10/2023 9h-12h	<ul style="list-style-type: none"> • Genetics Exercices • Interactions between several loci, Epistasis, Super Genes, Pleiotropy 	
Monday 9/10/2023 14h-17h		<ul style="list-style-type: none"> • Sequencing strategies and experimental approaches
Wednesday 11/10/2023		<ul style="list-style-type: none"> • The human genome sequence, what quality, what accuracy? • Counting and identifying human genes
Monday 16/10/2023	<ul style="list-style-type: none"> • Biotechnologies - Student Presentations and Discussion • Genetic screens, Noise, Cryptic Variation, Robustness, Quantitative Genetics • Phylogenetic trees and their interpretations (Practical) 	
Wednesday 18/10/2023		<ul style="list-style-type: none"> • Repeated sequences: millions everywhere! • Functional annotation of human sequences • The 3D genome
Monday 23/10/2023	<ul style="list-style-type: none"> • Phenotypic Plasticity • Coat Color in Snowshoe hares (Practical) 	
Thursday 26/10/2023		<ul style="list-style-type: none"> • Mutations and genetic variability • Population structure, geography, history • Personalised genomics