Human Evolutionary Genetics

The objective of this course is to provide students with fundamental theoretical and empirical knowledge on the present and past genetic diversity and evolutionary history of our species, within the framework of the synthetic, neutralist and neo-Darwinian, theory of evolution.

Effectives: 25
Language: English
Prerequisites: Students must have a Master 1 degree in Biology or the equivalent in Medicine

Where?
Musée de l'Homme, 17 place du Trocadéro, 75016 Paris.

Evalutation:
Written exam

Questions:
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UMR7206 Eco-anthropology
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Number ECTS: 3

Total numbers of hours:
31h

Teaching format:
conferences + discussion/ debates

Teaching objectives

> Understand the influence of evolutionary forces on the extant and past genetic diversity of our species.
> Understand the methods used in paleogenomics and human population genetics, their principles and their limits.
> Understand how scientific proof is deployed in human evolutionary genetics.

Teaching Outline

> Introduction to the study of human evolution and the theory of evolution, from paleoanthropology to population genomics through paleogenomics: The Humanity of humanity – The evolution of Evolution.
> Evolutionary forces and their influence on present and past human genetic diversity: Mutation, Demography and Migration, Selection, Culture.
> Human genetics, identity, health, ethics, deontology, politics and social challenges.

Targeted skills and knowledge

> critical thinking in evolutionary biology, paleogenetics and human population genetics
> fundamental knowledge on hypothesis building and testing in evolutionary genetics
> fundamental knowledge about descriptive statistical methods in population genetics
> fundamental knowledge about methods for human evolutionary history reconstruction (inference) based on genetic and genomic data