



UNIVERSITÉ  
DE GENÈVE

FACULTÉ DES SCIENCES

Département  
d'anthropologie et d'écologie

# Conférence

## Human DNA diversity and the concept of races

par le professeur Guido Barbujani

vendredi 23 octobre 2009 à 12h15

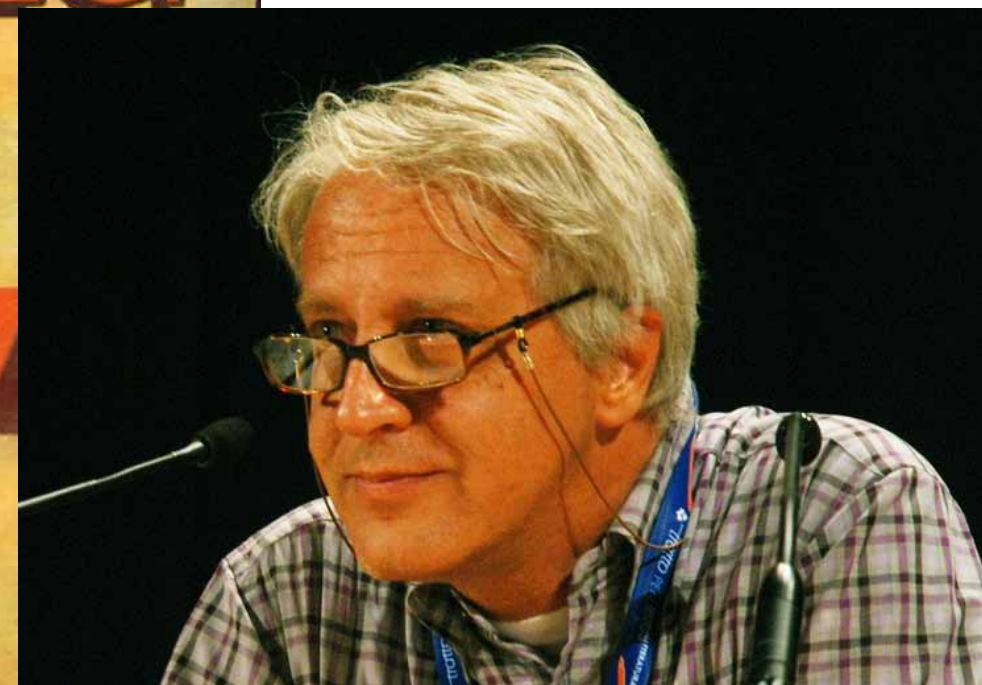
au

Département d'anthropologie  
12, rue Gustave-Revilliod - 1227 Les Acacias  
salle 109

host: Alicia Sanchez-Mazas

Tél. 022 379 6967

([alicia.sanchez-mazas@unige.ch](mailto:alicia.sanchez-mazas@unige.ch))



Guido Barbujani est Professeur à l'Université de Ferrare et est un grand spécialiste de l'évolution génétique humaine.

Humans differ in their physical aspect, and for centuries scientists have tried to summarize these differences by compiling catalogs of human races. However, there was no agreement in such catalogs as for the number (from 2 to 200) and identity of such races. In 1962 Frank Livingstone proposed that human biodiversity cannot be understood in racial terms, because variation is continuous in space and traits do not vary in a concordant manner. Studies of protein variation, and later of allele frequencies, demonstrated that variation is also continuous and discordant at the genetic level. Just 15% or less of human genetic variances are accounted for by differences between populations and continents, whereas the bulk of human biodiversity correspond to differences between members of the same population. Recent studies at the genome level show that most alleles, and most combinations of alleles in haplotype blocks, occur, at different frequencies, over all continents; of the small fraction thereof specific to a single continent, the vast majority is found in Africa. Other observations confirm the crucial role of Africa in the origins of human DNA diversity; allelic variants out of Africa are often a subset of Africa alleles; genetic distances correlate exceptionally well with geographic distances from Africa, and genetic diversity decreases as one moves away from Africa. Recent estimates place around 50 to 60,000 years ago the moment at which a small population of anatomically modern humans left Africa and expanded over the whole planet, while other human species occupying Eurasia went extinct.