



Dottorato in Genetica, Biologia Molecolare e Cellulare  
Scuola di Dottorato in Scienze della Vita "Camillo Golgi" - Università degli Studi di Pavia

## Evolution: from phenotype to molecular approaches

### "Human Evolutionary Genetics"

January 11-15 , 2016

### Prof. Cristian Capelli

Associate Professor of Human Evolution, University of Oxford, UK

[http://www.zoo.ox.ac.uk/people/view/capelli\\_c.htm](http://www.zoo.ox.ac.uk/people/view/capelli_c.htm)

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The aim of this course is to provide an overview of the genetic variation present in human populations, with a focus on the evolutionary processes that have shaped such diversity.

#### 1) Humans: evolution in an ape clade (January 11, 14:30-17:30)

Primates and apes: habitat, distribution, morphology and genetic diversity

The human lineage: hominin evolution

For and against the third chimpanzee

#### 2) African origins and peopling of the world (January 12, 14:30-17:30)

The emergence of modern humans in the African continent: molecular, archaeological and fossil evidences

The migration out of Africa and the colonisation of the world: spatial distribution of genetic variation and dispersal processes

The colonisation of Europe and the Americas

#### 3) Meeting the relatives: Neanderthals, Denisovans and others (January 13, 14:30-17:30)

Homo diversity in time and space

Replacement or gene-flow?

Species, subspecies and populations

#### 4) Cultural variation and genetic diversity (January 14, 14:30-17:30)

The Neolithic revolution: food, metabolism and diseases

Mating choices: geography, norms and taboos

Residential norms and spatial differentiation

#### 5) Identity and identification (January 15, 14:30-17:30)

Forensic Genetics: what can I learn from your DNA?

Genetic Ancestry: Tell me who I am

**Organizers:** Anna Olivieri, Ludvik Gomulski, Elena Raimondi, Ornella Semino, Antonio Torroni, (Dip. di Biologia e Biotecnologie, Univ. di Pavia) and Federico Focher (Istituto di Genetica Molecolare, CNR, Pavia)

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